# **INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT**



Indexed & Listed at: Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar, Indian Citation Index (ICI), Open J-Gage, India (link of the same is duly available at Inflibrer of University Grants Commission (U.G.C.)), 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 5656 Cities in 191 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

http://ijrcm.org.in/

# **CONTENTS**

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.			
1.	PERFORMANCE MANAGEMENT SYSTEM IN A POWER PSU: A STUDY OF T.H.D.C. INDIA LIMITED SHANTANU KUMAR BISWAS, ADITYA GAUTAM & ASHUTOSH KUMAR ANAND	1			
<b>2</b> .	PEDAGOGICAL INNOVATIONS IN THE TEACHING LEARNING PROCESS DR. AMARDEEP KAUR	9			
3.	CRITICAL SUCCESS FACTORS IN ERP IMPLEMENTATION: A REVIEW SANGRAM SINGH, VIRAT REHANI & DR. J. K. DHAMI				
4.	EFFECT OF INTERNAL BRANDING FACTORS IN DEVELOPING ORGANIZATIONAL COMMITMENT WITH SPECIAL REFERENCE TO HOTEL INDUSTRY IN INDORE CITY VARUN KUMAR, DR.SANJAY SHARMA & DR. A K SINGH				
5.	PROFITABILITY ANALYSIS OF HINDUSTAN PETROLEUM CORPORATION LIMITED DR. C. K. BUTTAN & RAANA SHAHWAL	21			
6.	E-COMMERCE AND CONSUMER RIGHTS: A STUDY ON CONSUMER PERCEPTION WITH SPECIAL REFERENCE TO AHMEDABAD NITA SOLANKI, DR. PARAMJEET SINGH & DR. MEHUL SHAH	30			
7.	RELATIONSHIP BETWEEN OBJECT ORIENTED DESIGN CONSTRUCTS AND DESIGN DEFECTS PAWAN KUMAR CHAURASIA & R A KHAN	35			
8.	IMPORTANCE OF STUDENT SUPPORT SYSTEM IN PROFESSIONAL INSTITUTES: TRENDS AND CHALLENGES ANURAG DILRAJ & DR. ASHOK JHAWAR	39			
9.	LIQUIDITY STRUCTURE OF WORKING CAPITAL – TESTING OF THE HYPOTHESIS DEVELOPED BY VAN HORNE DR. PRADIP KUMAR DAS	42			
<b>10</b> .	RURAL CONSUMER SATISFACTION TOWARDS ONLINE SHOPPING DR. N. BAGYALAKSHMI	46			
11.	TELEMEDICINE: RECENT ADVANCES IN INNOVATIVE HEALTHCARE DR. PANKAJ KUMAR VARSHNEY & DR. MOHD FAISAL KHAN	52			
<b>12</b> .	IMPACT OF GLOBALIZATION ON INDIA PAWAN SHARMA & DR. SHISH PAL HARDU	56			
13.	DEMONETIZATION IMPACT ON TEXTILE INDUSTRIES IN BHIWANDI, THANE DR. RASHMI SONI & SHEBAZBANO	58			
14.	A STUDY ON STRESS MANAGEMENT AMONGST FEMALE BANK EMPLOYEES IN TAMIL NADU DURING DEMONETIZATION DR. J. RAMOLA PREMALATHA & PRIYADARSHINI.SR				
15.	THE CONTENTS OF WOMEN EMPOWERMENT IN SOLAPITH CRAFT PRODUCT: A CASE STUDY OF DHUBRI DISTRICT JAHIDUL ISLAM	66			
<b>16</b> .	CONSUMERS PERSPECTIVE TOWARDS SOLAR PANEL PRODUCTS S. DEVI PRIYA & DR. N. RAJA	68			
17.	DETERMINANTS OF ENTREPRENEURIAL DECISION-MAKING AMONGST FINAL YEAR STUDENTS IN TERTIARY INSTITUTIONS: A QUALITATIVE STUDY MARIJKE A. ADOBEA OKYIREH & REXFORD OWUSU OKYIREH	74			
18.	A STUDY OF BENEFITS OF GST OVER INDIRECT TAX SYSTEM USING KNOWLEDGE DISCOVERY PROCESS OF DATA MINING SAVITA MOHURLE	78			
<b>19</b> .	FOREIGN DIRECT INVESTMENT POLICIES IN THE LIBERALIZED TELECOM SECTOR OF INDIA - A REVIEW SAKSHI SHARMA	81			
20.	APPLYING A COMPREHENSIVE CREDIT RATING FRAMEWORK TO THE TRANSPORTATION AND LOGISTICS INDUSTRY IN INDIA T. SAI HARISH KUMAR	84			
	REQUEST FOR FEEDBACK & DISCLAIMER	92			

## <u>CHIEF PATRON</u>

Prof. (Dr.) K. K. AGGARWAL

Chairman, Malaviya National Institute of Technology, Jaipur (An institute of National Importance & fully funded by Ministry of Human Resource Development, Government of India) Chancellor, K. R. Mangalam University, Gurgaon Chancellor, Lingaya's University, Faridabad Founder Vice-Chancellor (1998-2008), Guru Gobind Singh Indraprastha University, Delhi Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

## 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

#### FORMER CO-ORDINATOR

Dr. S. GARG Faculty, Shree Ram Institute of Business & Management, Urjani

#### ADVISOR.

#### Prof. S. L. MAHANDRU

Principal (Retd.), Maharaja Agrasen College, Jagadhri

#### EDITOR

#### Dr. R. K. SHARMA

Professor & Dean, Bharti Vidyapeeth University Institute of Management & Research, New Delhi

#### CO-EDITOR

#### Dr. BHAVET

Faculty, Shree Ram Institute of Engineering & Technology, Urjani

#### EDITORIAL ADVISORY BOARD

#### **Dr. CHRISTIAN EHIOBUCHE**

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

#### **Dr. SIKANDER KUMAR**

Chairman, Department of Economics, 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**

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

#### SUNIL KUMAR KARWASRA

Principal, Aakash College of Education, ChanderKalan, Tohana, Fatehabad

iv

#### 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. PARVEEN KUMAR

Professor, Department of Computer Science, NIMS University, Jaipur

#### Dr. ANA ŠTAMBUK

Head of Department of Statistics, Faculty of Economics, University of Rijeka, Rijeka, Croatia

#### 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. ANIL K. SAINI

Professor, Guru Gobind Singh Indraprastha University, Delhi

#### Dr. R. K. CHOUDHARY

Director, Asia Pacific Institute of Information Technology, Panipat

#### Dr. VIJAYPAL SINGH DHAKA

Dean (Academics), Rajasthan Institute of Engineering & Technology, 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

Assistant 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

Associate Professor, European University of Lefke, Lefke, Cyprus

#### Dr. MOHINDER CHAND

Associate Professor, Kurukshetra University, Kurukshetra

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 http://ijrcm.org.in/

v

#### 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. MELAKE TEWOLDE TECLEGHIORGIS

Faculty, College of Business & Economics, Department of Economics, Asmara, Eritrea

#### 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

Faculty, Haryana Institute of Public Administration, Gurugram

## FORMER TECHNICAL ADVISOR

ΑΜΙΤΑ

### FINANCIAL ADVISORS

#### DICKEN GOYAL

Advocate & Tax Adviser, Panchkula

#### 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

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 http://ijrcm.org.in/

## 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; Demography: Development 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 <u>M.S. Word format</u> after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. <u>infoijrcm@gmail.com</u> or online by clicking the link **online submission** as given on our website (<u>FOR ONLINE SUBMISSION</u>, <u>CLICK HERE</u>).

## **GUIDELINES FOR SUBMISSION OF MANUSCRIPT**

#### 1. COVERING LETTER FOR SUBMISSION:

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, please specify)

#### DEAR SIR/MADAM

Please find my submission of manuscript titled '\_\_\_\_\_' for likely publication in one of your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, 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 version of the manuscript and have agreed to inclusion of their names as co-authors.

Also, if my/our manuscript is accepted, I agree to comply with the formalities 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	:
E-mail Address	:
Alternate E-mail Address	:
Nationality	:

\* 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> <u>author is not acceptable for the purpose</u>.

#### 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

#### FOREIGN DIRECT INVESTMENT POLICIES IN THE LIBERALIZED TELECOM SECTOR OF INDIA - A REVIEW

#### SAKSHI SHARMA RESEARCH SCHOLAR DEPARTMENT OF ABST UNIVERSITY OF RAJASTHAN JAIPUR

#### ABSTRACT

The Indian telecom network is the second largest in the world after China. In the year 1991, the Government of India put forward liberalization policies. This affected the telecom sector also with a hike in competition rate-especially in the case of cellular services, which can capture the attention of various foreign investors. When compared to the initial years there is huge hike in the case of FDI inflows in 2009-10. Mauritius has the highest FDI in Indian telecom sector. When compared to Mauritius Singapore's investment is very low. In Telecom sector there is no steady improvement in Foreign Direct Investment (FDI).

#### **KEYWORDS**

FDI, foreign investors, liberalized policies, telecom sector.

#### INTRODUCTION

The Indian telecom network is the second largest in the world after China. With the adoption of liberalization policy in telecom sector, it could attract more FDI in this sector, and increase private sector participation in total telephone connections of the nation. In the year 1999, the share of private operators was 5 percent. In the year 2011 December, it was reached to 86 percent. A competitive stimulus brought forward through the liberalization and subsequent FDI policies could make a hike on telecom penetration together with a significant reduction in tariffs. Indian telecom industry has undergone an innovatory phase over the past few years. FDI is usually portrayed as an economic blessing that countries should strive to increase. FDI in some sectors can weaken governments vis-a-vis foreign corporations, which can exercise considerable influence over public policy through control of information and management decisions. FDI in sectors like essential services can actually undermine the balance of payments. In India, like in most other countries, telecom was originally the exclusive preserve of the Government. With the initial opening up of the sector to private capital, a large number of international telecom majors were interested in entering the Indian market.

#### FDI IN TELECOM SECTOR

In the year 1991, the Government of India put forward liberalization policies. This affected the telecom sector also with a hike in competition rate-especially in the case of cellular services, which can capture the attention of various foreign investors. Foreign ownership in telecom in India came in with the 1994 tender for basic and cellular services through which the private parties were to be given licenses for various telecom circles. The tender conditions specified that only companies registered in India could quote. However, it allowed companies to be joint ventures with a cap of 49% for foreign ownership. It might be noted that the license condition also specifies this cap and it is not a cap on direct foreign equity but on total foreign equity, therefore is a cap on both direct and indirect foreign equity. During the period April 2000-November 2012, the government took many policy initiatives to liberalize the FDI policy for the services sector. These include liberalizing the policy on foreign investment for companies operating in the broadcasting sector, like increasing the foreign investment limit from 49 percent to 74 percent in teleports (setting up up-linking HUBs/teleports) and direct to home (DTH) and cable networks, and permitting foreign investment (FI) up to 74 percent in mobile TV; permitting foreign airlines to make foreign investment and up to 49 percent in scheduled and nonscheduled air transport services. Hutchison, Idea, Bharti, BPL and Spice have emerged winners from the government's decision to increase the FDI limit in telecom Service providers. The investors, who are the beneficiaries of increasing FDI limit, are of the view that attracting foreign investment will help to increase the growth and telecom penetration in the country, and increased FDI limit can remove a large hurdle in the expansion of the Indian Telecom companies. International agencies such as IMF and the World Bank had also advocated the removal of such restrictions. The other voices in favour of lifting the foreign ownership cap had been the cellular, operators and also various foreign financial institutions. However, in spite of repeated attempts, the Indian Government had resisted such moves, mainly on security considerations till the year 2013. On 1st August, 2013 in a major reform push, government approved 100 percent FDI in the telecom sector. It has been decided to increase FDI cap in telecom to 100 percent from 74, up to 49 through automatic route and beyond that FIPB. The idea behind increasing the FDI limit in the telecom sector is to help the industry get fresh funds to lower financial burden. The decision of the government to increase the FDI limit in this sector would result in large -scale funds coming into the Indian telecom market. Indian Telecom sector has shown high growth rates and the funds that will come in will facilitate the process of network expansion.

#### **REVIEW OF LITERATURE**

The following study papers and articles were reviewed in this study:

Preetha (2011), in the study paper on FDI in Telecom Sector presented an overview of FDI in Indian Telecom sector. This paper examined the current status of FDI in the Indian telecommunication sector and the issues facing foreign companies, seeking to invest in the Indian telecommunication sector. The paper concluded with a brief economic examination of the factors influencing the level of FDI.

Chennappa.D (2005), in his research paper discussed the FDI in Telecom sector in Indian. Through this paper the author opined that among the listed countries, most of them allowed FDI after the Tele-density and the per-capita incomes had gone up to certain levels, when compared to them, India lagged behind on both tele-density and per- capita income levels. India, therefore, needed to strengthen the domestic manufacturing units and niche market first of all and increasing FDI cap is not sufficient for increasing higher rural Tele-density.

Chennappa.D (2005), in his article on FDI opined that the higher FDI had led to the increase of urban Tele-density. He suggested that liberal entry policy of FDI could go long way in encouraging foreign investment in infrastructure but not hacking the FDI cap from 74 percent to 100 percent. He was also of the opinion that the liberalization with foreign equity had led to the reduction of tariff significantly in mobile and long distance services.

#### SIGNIFICANCE OF THE STUDY

The argument for lifting FDI caps has been that India requires very large amounts of capital to rapidly expand its telecom infrastructure. According to some foreign investment consultants, without FDI flows, India would have shortage of capital and not be able to increase its Tele-density. Estimates showed that an investment of about Rs. 50,000 crores was required in the sector in the years 2005 to 2007 for keeping pace with the growing demand. Since such funds were not available in the domestic market, telecom operators had demanded the FDI limit be raised beyond 49 percent. The government was of the view that raising money from domestic market was more expensive than internationally. In the liberalized era, a study focused on FDI in telecom sector possesses more importance as the services of telecom sector are essential services of one nation.

#### OBJECTIVES

- 1. To analyze the FDI policies in Telecom sector of India.
- 2. To study the growth of FDI in telecom sector after liberalization.
- 3. To analyze the sector wise FDI in Indian Telecom Sector.

#### METHODOLOGY

The study is based on secondary data collected from various sources like research journals, records of Department of Telecommunication, Annual reports, etc. The period of study covers from the years from 2000-2013. Through this study, India's FDI policy in telecom sector, FDI inflows in telecom sector from various countries and in various telecom sectors were also analyzed.

#### **RESEARCH RESULTS**

#### (1) FDI POLICY

India has lived up to its image of being one of the most attractive foreign direct investments (FDI) destinations. FDI has been one of the main drivers of continuous growth in the Indian telecom sector. In 2005, the government decided to increase the limit in the telecom sector to 74% from 49%. Additionally, the government has permitted 100% FDI in the areas of telecom equipment manufacturing and provision of IT enabled services. In the telecom sector, FDI up to 49% was allowed under automatic route and beyond that up to 74% was permitted through the Foreign Investment Promotion Board (FIPB), a government body. Telecom Commission, the highest decision-making body of the department of telecom (DoT), approved 100% foreign direct investment in the telecom sector in the year 2013.

#### TABLE NO. 1: REVISED FDI POLICY OF TELECOM SECTOR IN INDIA

	FDI	Entry Route		
	Сар			
Telecom Services (including Telecom Infrastructure Providers Category-1) All telecom services (including Telecom Infrastructure	100%	Automatic up to		
Providers Category-1) Basic and cellular, United Access Services, Unified License (Access Services), National/International Long		49% Beyond 49%		
Distance, Commercial V-SAT, Public Mobile Radio Trunked Services (PMRTS), Global Mobile Personal Communications Services		Government		
(GMPCS) All types of ISP licenses, Voice Mail/Audio tex /UMS, Resale of IPLC, Mobile Number Portability services, Infrastructure		(FIPB)		
Provider providing dark fiber, right of way, duct space, tower (Category- I) except other service providers.				
Other conditions: FDI up to 100% with 49% under automatic route and beyond 49% through FIPB route subject to observance of licensing and security condi-				

tions by licensee as well as investors as notified by the Department of Telecommunications(DOT) from time to time Source: http://www.dot.gov.in

#### (2) YEAR-WISE FDI INFLOWS

#### TABLE NO. 2: FINANCIAL YEAR WISE FDI EQUITY INFLOWS IN TELECOM SECTOR FROM APRIL 2000 TO OCTOBER 2013

Sr No:	Year (Apr-Mar)	In Rs. Crore	% change
1	2000-01	784.16	-
2	2001-02	3938.46	402.25
3	2002-03	907.73	-76.95
4	2003-04	397.84	-56.17
5	2004-05	541.10	36.01
6	2005-06	2751.45	408.49
7	2006-07	2149.58	-21.87
8	2007-08	5099.56	137.24
9	2008-09	11684.81	129.13
10	2009-10	12269.66	5.01
11	2010-11	7542.04	-38.53
12	2011-12	9011.53	19.48
13	2012-13	1654.30	-81.64
14	2013-14 (Apr-Oct)	197.16	-
Grand Total		58929.38	

Note: Amount includes the Inflows received through SIA/FIPB route, acquisition of existing shares and RBI's automatic route only.

Source: http:// www.dot.gov.in

In FY 2009-10, telecom attracted USD 2.5bn FDI (10% of total FDI). The table indicates that the financial year 2012-13 faced the lowest FDI inflow (Rs 1654.30 crore) in this sector after 2004-2005. The financial years 2002-03, 2003-04, 2006-07, 2010-11 also have negative inflows of FDI in Telecom Sector. The industry has excellent future prospects, but can re-attract investors only if it can create stable long-term policies and a conducive atmosphere for Government and industry to work as partners.

#### (3) SECTOR-WISE FDI INFLOWS

#### TABLE NO. 3: SECTORS ATTRACTING HIGHEST FDI EQUITY INFLOWS

S.	Sector	Year		Cumulative inflows	%age to	
no		2011-12	2012-13	2013-14	(Apr 2000 to July	total FDI
		(Apr-Mar)	(Apr-Mar)	(Apr-july, 13)	2013)	inflows
1	Services sector (includes Financial, Banking, Insurance, Non- Finan- cial/ Business outsourcing, R&D, Courier, Tech. Testing and analysis)	24656	26306	5770	178045.57	19.10
2	Construction Development (Townships, Housing, Builtup infrastruc- ture and Construction development projects)	15236	7248	2092	103140.99	11.20
3	Telecommunications (Radio paging, Cellular, Mobile, Basic tele- phone services)	9012	1654	66	58797.85	6.42
4	Computer Software & Hardware	3804	2656	1244	54018.53	5.94
5	Drugs and Pharmaceuticals	14605	6011	5453	54332.65	5.65

Source: RBI Bulletin

Table No. 3 shows that Telecom Sector possesses the 3<sup>rd</sup> position in attracting FDI. As per the accounts up to July, 2013 Telecom sector could attract FDI of Rs. 58,797.85 crore that is the 6.42 percent of the total FDI inflow of the country. When compared to other two sectors this amount is very low. With 858 million wireless connections, the Indian telecom system has become the second largest wireless network in the world.

#### VOLUME NO. 7 (2017), ISSUE NO. 09 (SEPTEMBER)

	TA	BLE NO. 4: SECTOR-WISE FDI EQUI	TY INFLOWS			
S. no	Sector	Amount of FDI Inflows			%age of Total Inflows	
		(In Rs. crore)	(In Rs. Crore)	2000-10	2000-13	
		From April 2000 to August 2010.	From April 2000 to October 2013.			
1	Telecommunication	15,354.29	19,365.26	2.88	2.07	
2	Radio paging	26.25	27.30	0.0	0.0	
3	Cellular mobile/ Basic telephone services	28,097.08	29,785.91	5.13	3.15	
4	Other (Telecom)	2,017.32	9,750.91	.36	1.03	
Sector Total		45,494.95	58,929.38	8.38	6.26	
		Source: http://www.dot.cov	in			

Source: http://www.dot.gov.in

The Table No. 4 shows that cellular mobile and basic telephone services have attained Rs. 28,097.08 and 29785.91 crores up to August 2010 and October 2013 respectively, which is the highest percentage of FDI in total Telecom Sector (5.13 percent and 3.15 percent in 2000-10 and 2000-13 respectively). The FDI inflows in Radio paging are Rs. 26.25 crores and 27.30 crores up to August 2010 and October 2013 respectively.

#### FINDINGS

The following major findings are emerged from the study.

- 1. In Telecom sector there is no steady improvement in Foreign Direct Investment (FDI).
- 2. More liberalization in policies could not bring huge hike in FDI in Telecom sector.
- 3. When compared to the other financial years there is huge hike in the case of FDI inflows in 2009-10
- 4. The highest FDI inflows in Telecom Sector of India go to cellular mobile and basic telephone services. In the case of radio, paging FDI is very low.

#### CONCLUSION

The growth opportunities are able to attract significant FDI in the telecom sector. Instead, it can be seen in Telecom sector that the confidence of investors in this industry is now at an all-time low (in 2012-13 and in 2013-14). This is evident from the decreasing FDI. Telecom sector in India has been facing ups and downs in FDI. Hiking FDI limit from 74 percent to 100 percent in the telecom sector will not make much of a difference, as foreign investors would continue to exercise control in more or less the same attitude as they did when the cap was 74 per cent. FDI is expected to provide a much-needed boost to the sector and is likely to attract huge investments in the near to long-term.

#### REFERENCES

- 1. Chennappa.D 2005, Role of FDI in Indian Telecom Industry, Southern Economist, Jun 15, 2005.
- 2. Chennappa.D. 2005, FDI in Telecom in India: A study, Southern Economist, September 15, 2005.
- 3. Government of India, Ministry of Communications, Department of Telecommunication, Annual Report 1991-2001.
- 4. Preetha.G (2012) Foreign Direct Investment in the Indian Telecommunication Sector. International Journal of Multi-Disciplinary Research Vol. 1, Issues 8
- 5. Vishal Sethi, 2006, Telecom Sector in India- Law Policy of Procedure, Noida, JBA Publishers.

#### WEBSITES

- 6. http://telecomlead.com
- 7. http://twocircles.net
- 8. http://www.businessmapsofindia.com
- 9. http://www.dot.gov.in
- 10. http://www.rncos.com
- 11. http://www.siliconindia.com

## **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, indirect, 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.

84

## **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.

Our Other Fournals

RNAL OF RESEARCH

ERCE & MAN





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 http://ijrcm.org.in/