INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & 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., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar,

The American Economic Association's electronic bibliography, EconLit, U.S.A.,

Index Copernicus Publishers Panel, Poland with IC Value of 5.09 & number of libraries all around the world. Circulated all over the world & Google has verified that scholars of more than 5555 Cities in 190 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.	Sr. Io. TITLE & NAME OF THE AUTHOR (S)					
No.						
1.	BOARD COMPOSITION AND GENDER DIVERSITY: A COMPARATIVE BETWEEN AFRICAN, ASIAN AND	1				
	OCEANIAN STOCK EXCHANGE FEDERATION BOARDROOMS					
	LEE-ANNE JOHENNESSE & TE-KUANG CHOU					
2 .	EFFECT OF MODIFIED MONTMORILLONITE ON HEAVY METAL POLLUTION IN WATER	6				
	NING MAD, YOU-LI FENG, CONG WANG & MENG-TAO WANG	40				
3.	IMPACT OF GDP ON FDI INFLOWS IN INDIA: AN ANALYSIS OF LONG TERM EQUILIBRIUM ASSOCIATION	10				
4	FINANCIAL INCLUSION: IT'S IMPACT ON INDIAN BANKING INDUSTRY	15				
	DR. MAMTA JAIN, SYEDA SHAZIYA NAZ & DR. T.N. MATHUR	10				
5.	A SOCIO-ECONOMIC ANALYSIS OF MINING Vs. NON-MINING VILLAGES WITHIN SAME TALUKAS IN	20				
	GOA					
	SHEETAL D. ARONDEKAR & DR. I BHANU MURTHY					
6.	MARKETING OF HANDICRAFTS BY POOMPUHAR SALES SHOWROOM, THANJAVUR	26				
	A. MERLIN BENANSHIYA & B. KAYATHRI BAI DEEXAMINING THE LINK DETWEEN SATISEACTION AND LOVALTY, A STUDY IN THE DYNAMIC	20				
1.	REEXAMINING THE LINK BETWEEN SATISFACTION AND LOTALITY: A STUDY IN THE DYNAMIC	29				
	AJAY JOSE & DR. SARASWATHIAMMA K P					
8.	REGIONAL DIFFERENCES IN GROWTH OF ENTREPRENEURSHIP AMONG SC/STs IN MSMEs: A STUDY	35				
	WITH REFERENCE TO NORTHERN AND SOUTHERN REGIONS OF KERALA					
	SHACHEENDRAN.V & DR. TOMY MATHEW					
9.	EVALUATION OF HRD PRACTICES OF NBA ACCREDITED COLLEGES IN HYDERABAD DISTRICT	39				
	RAKHEE MAIRAL RENAPURKAR & DR. SUDHAKAR B INGLE					
10.	ASSESSMENT OF THE IMPACT OF DEMONETIZATION ON THE INDIAN ECONOMY	44				
11	CONSUMER ETHNOCENTRISM: IT'S ANTECEDENTS AND CONSEQUENCES WITH REFERENCE TO	40				
11.	"MILLENNIALS IN INDIA"	40				
	NATASHA TAGEJA					
12.	PAYMENTS BANKS IN INDIA: A STIMULUS TO FINANCIAL INCLUSION	53				
	VINEY NARANG					
13 .	A THEORETICAL FRAMEWORK ON EFFICIENT MARKET THEORY	57				
14.	A STUDY ON MANAGEMENT OF NON PERFORMING ASSETS IN CO-OPERATIVE BANKS SPECIFICALLY IN	60				
	SINI M					
15	COMMUNICATION IMPACT ON JOB SATISFACTION AMONG AUTOMOBILE INDUSTRY IN CHENNAL	64				
-0.	REGION	01				
	R. SUBASHREE & DR. A. SENTHILRAJAN					
16 .	A STUDY ON CONSUMERS AWARENESS AND BEHAVIOUR TOWARDS DURABLE GOODS IN ERODE	69				
4-	K.NACHIMUTHU & DR. G. SAKTHIVEL					
17.	A STUDT ON CUSTOWER PREFERENCE OF HEALTH DRINKS WITH SPECIAL REFERENCE TO "BOOST" IN	74				
	I ANNAMMAI & S KARTHIGA					
18	WEAK FORM EFFICIENCY OF INDIAN STOCK MARKET: AN EMPIRICAL ANALYSIS	80				
10.	DR. BABU JOSE & SURESH T.S					
19 .	FACTORS INFLUENCING THE CAPITAL STRUCTURE DECISIONS: A STUDY OF PHARMACEUTICAL	86				
	INDUSTRY, INDIA					
	SHIVA T & GIRISH S					
20 .	CONTRIBUTION OF NATIONALISED BANK IN THE ECONOMICAL DEVELOPMENT OF FARMER	89				
		01				
		91				
	INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT					

<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, Govern-

ment 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

<u>ADVISOR</u>

Prof. S. L. MAHANDRU Principal (Retd.), Maharaja Agrasen College, Jagadhri

<u>EDITOR</u>

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, Woodland Park NJ 07424, USA

Dr. JOSÉ G. VARGAS-HERNÁNDEZ

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

dalajara, Mexico

Dr. M. N. SHARMA

Chairman, M.B.A., Haryana College of Technology & Management, Kaithal

Dr. TEGUH WIDODO

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

Buah Batu, Kabupaten Bandung, Indonesia

Dr. M. S. SENAM RAJU

Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi

Dr. KAUP MOHAMED

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

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

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

http://ijrcm.org.in/

Dr. ANIL K. SAINI

Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi

Dr. ARAMIDE OLUFEMI KUNLE

Dean, Department of General Studies, The Polytechnic, Ibadan, Nigeria

Dr. S. TABASSUM SULTANA

Principal, Matrusri Institute of P.G. Studies, Hyderabad

Dr. MIKE AMUHAYA IRAVO

Principal, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Westlands Campus, Nairobi-

Kenya

Dr. NEPOMUCENO TIU

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

Dr. ANA ŠTAMBUK

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

Dr. FERIT ÖLCER

Head of Division of Management & Organization, Department of Business Administration, Faculty of Economics & Business Administration Sciences, Mustafa Kemal University, Tayfur Sökmen Campus, Antakya,

Turkey

Dr. SANJIV MITTAL

Professor, University School of Management Studies, Guru Gobind Singh I. P. University, Delhi **Dr. SHIB SHANKAR ROY**

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

Dr. NAWAB ALI KHAN

Professor, Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

Dr. SRINIVAS MADISHETTI

Professor, School of Business, Mzumbe University, Tanzania

Dr. ABHAY BANSAL

Head, Department of I.T., Amity School of Engineering & Technology, Amity University, Noida

Dr. KEVIN LOW LOCK TENG

Associate Professor, Deputy Dean, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia

Dr. OKAN VELI ŞAFAKLI

Associate Professor, European University of Lefke, Lefke, Cyprus

Dr. V. SELVAM

Associate Professor, SSL, VIT University, Vellore

Dr. BORIS MILOVIC

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

Dr. N. SUNDARAM

Associate Professor, VIT University, Vellore

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

RODRECK CHIRAU

Associate Professor, Botho University, Francistown, Botswana

Dr. PARDEEP AHLAWAT

Associate Professor, Institute of Management Studies & Research, Maharshi Dayanand University, Rohtak **Dr. DEEPANJANA VARSHNEY**

Associate Professor, Department of Business Administration, King Abdulaziz University, Ministry of Higher Education, Jeddah, Saudi Arabia

BIEMBA MALITI

Associate Professor, The Copperbelt University, Main Campus, Jambo Drive, Riverside, Kitwe, Zambia

Dr. KIARASH JAHANPOUR

Research Adviser, Farabi Institute of Higher Education, Mehrshahr, Karaj, Alborz Province, Iran

Dr. SAMBHAVNA

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

YU-BING WANG

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

Dr. MELAKE TEWOLDE TECLEGHIORGIS

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

Dr. SHIVAKUMAR DEENE

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

Dr. THAMPOE MANAGALESWARAN

Faculty, Vavuniya Campus, University of Jaffna, Sri Lanka

Dr. JASVEEN KAUR

Faculty, University Business School, Guru Nanak Dev University, Amritsar

SURAJ GAUDEL

BBA Program Coordinator, LA GRANDEE International College, Simalchaur - 8, Pokhara, Nepal Dr. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

FORMER TECHNICAL ADVISOR

AMITA

FINANCIAL ADVISORS

DICKIN 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

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 (*FOR ONLINE SUBMISSION, CLICK HERE*).

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
REVIEW OF LITERATURE
NEED/IMPORTANCE OF THE STUDY
STATEMENT OF THE PROBLEM
OBJECTIVES
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

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

- 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

IMPACT OF GDP ON FDI INFLOWS IN INDIA: AN ANALYSIS OF LONG TERM EQUILIBRIUM ASSOCIATION

NEENA BRAR RESEARCH SCHOLAR SRI GURU GRANTH SAHIB WORLD UNIVERSITY FATEHGARH SAHIB

DR. B. S. BHATIA DEAN (RESEARCH) SRI GURU GRANTH SAHIB WORLD UNIVERSITY FATEHGARH SAHIB

DR. RUBEENA BAJWA ASST. PROFESSOR SRI GURU GRANTH SAHIB WORLD UNIVERSITY FATEHGARH SAHIB

ABSTRACT

Foreign Direct Investment (FDI) was considered to be the lifeblood of economic development especially for the developing and underdeveloped countries. FDI is imperative for the economy as it is a momentum of growth, strengthens domestic capital, generates employment, augments productivity, and fosters exports through up gradation of technology and many more. Thus, there are innumerable determinants which lead to increase or decrease in the flows of FDI in any economy. In the light of this background, the current study aimed to determine long term equilibrium association between GDP and FDI inflows in India for the period of 1991 to 2014. GDP was taken as an exogenous variable while FDI was considered as an endogenous variable. To examine whether long term equilibrium association between the two variables existed or not, Engel-Granger Approach (or Bi-variate Approach) of Co-Integration test was used and further, Co-Integration vecaled that there existed a long-run equilibrium association between FDI Inflows and GDP followed by Error Correction Mechanism.

KEYWORDS

FDI, GDP, co integration, equilibrium, economic growth.

JEL CLASSIFICATION

C22, F43, F21.

1. INTRODUCTION

DI gained huge amount of significance globally as an instrument of international economic integration. Foreign direct investment (FDI) was of immense importance to developing countries in their efforts to catch up and develop their economies (Hooda, 2011). Foreign direct investment (FDI) refers to the net inflows of investment to acquire a lasting management interest (10% or more) in an enterprise operating in an economy apart from that of the investors (Laura, 2014). Foreign direct investment was the sum of equity capital, reinvestment of earnings and other long or short term capital as shown within the balance of payments. It usually involved participation in management, joint venture, transfer of technology and expertise (Malankar, 2013). FDI was distinguished from portfolio investment as the former provided an opportunity to the investor to have an effective voice in management and was more stable form of investment whereas the latter was concerned with maximising short term returns and a passive investment in the securities of another country such as stocks and bonds (Thuhid, N et.al.2016).

There were two main strategies of investing in a foreign country (Lahiri, 2009):-Greenfield Investment (an investment made to set up new facilities in the host Country), Mergers and Acquisitions (a foreign investor takes over an existing Company). A foreign company could as well choose a form of International Joint Venture (Gentvilaite, 2010).

There was plethora of factors that stimulate FDI inflows in a particular country. FDI usually proved conducive to the host country. Various benefits which India could avail through FDI Inflows were use of advanced technology, expertise, better infrastructural developments, widened product basket, raising standard of living, uplifting the brand quality, fostering competitiveness, improved foreign relations, boosting exports, and providing India with a global platform (Rahul S, 2011).

2.1 REVIEW OF LITERATURE

The section briefly discusses some of the important studies of relationship of macro-economic variables with FDI inflows in India.

Kamath, G.B. (2009) showed that exchange rate and economic growth seemed to show least impact on FDI inflows in Indian economy and human capital and openness of the economy played a significant role in attracting inflows. The study made use of linear regression analysis using Ordinary Least Square equation. Gentvilaite, R. (2010) using Panel Regression discovered that among various determinants chosen for the study, significant determinants were private sector, openness (share of trade in GDP), R&D expenditures and infrastructure.

Ranjan, V. & Agrawal, G. (2011) using Random Effect Model in the study revealed that market size, trade openness, labor cost, infrastructure facilities and macroeconomic stability and growth prospects were potential determinants of FDI inflow in BRIC whereas gross capital formation and labor force were insignificant, although macroeconomic stability and growth prospects had very little impact.

Meerza, S.I.A. (2012) investigated empirically the causal relationship between trade, foreign direct investment (FDI) and economic growth of Bangladesh for the period of 1973 to 2008. To analyze the same, Johansen Co integration test and Granger causality test was used. The co-integration analysis suggested that there was a long run equilibrium relationship among the variables. The results of Granger causality test identified that there was a causal relationship among the variables. The results of Bangladesh led both FDI and export growth and it was observed in the study there was a unidirectional causal relationship between FDI and export with direction from export to FDI.

Gaikwad, P.S. (2013) analyzed the effects flow of foreign direct investment (FDI) arising from the implementation of liberalization polices on the gross domestic production (GDP) growth in Indian economy using a Cobb–Douglas production function and ARDL method during the period 1990-2008. The empirical results of the study showed that in the long run there was a long-run relationship among the growth of gross domestic production and its major determinants of the labor

VOLUME NO. 8 (2017), ISSUE NO. 05 (MAY)

force, the real capital and the real foreign direct investment. The findings of the study indicated that foreign direct investment had positive effect but small significant on Gross Domestic Production, while the labor force and capital had the most effect on gross domestic production.

Nosheen, M. (2013) investigated the impact of foreign direct investment on Growth (GDP) for Pakistan. It studied a long run relationship between the foreign direct investment and gross domestic investment in Pakistan. By using co integration analysis, the study demonstrated that long run relationship was observed between the two variables. The GDP was taken as dependent variable while FDI was considered as an independent variable. The data used for the study purpose was from 1980 to 2010. The results of the study showed that there was a long term relationship between GDP and FDI.

Khan, G.S.& Mitra, P. (2014) endeavored to explore the short run and long run causal relationship between selected macroeconomic variables (GDP, Exchange Rate & Inflation Rate) and FDI inflows in Indian context by applying Co integration test followed by Vector autoregression (restricted/unrestricted) model and Granger causality test. Further, with the help of simple regression model, the exponential growth rate of FDI inflows in India was calculated. Eventually, Chow test was employed to detect the presence of significant structural break in the data series of FDI inflows. The results of the study revealed that long run equilibrium was there among the concerned variables. The Granger-causality test results concluded that exchange rate and GDP statistically significantly influenced FDI, whereas, inflation rate was insignificant variable to predict FDI inflows. Further, the growth analysis result claimed that the total FDI inflows grew exponentially at a rate of 23% per annum. However, the results of Chow test exhibited that 1991-92 was a statistically significant structural break year in the context of FDI inflows in India.

Olatunji, L. and Shahid, M.S. (2015) established an empirical relationship between foreign direct investment (FDI) and economic growth in Nigeria under the framework of co integration analysis over the period 1970-2010. The econometric evidence from the Engle Granger co integration tests suggested that there was no long-run relationship between FDI and economic growth in Nigeria. However, there was a short-run dynamic relationship between FDI and economic growth. And finally the study concluded that for the achievement of a long-run relationship between FDI and economic growth in Nigeria under the business environment, with the provision of necessary infrastructure and political stability in the country.

RESEARCH GAPS: In the previous study (Gaikwad, 2013) GDP was considered as a dependent variable and FDI as an Independent variable, and study made an attempt to examine the impact of FDI on GDP in the context of an Indian Economy. However, the current study considered FDI as a dependent variable and GDP as an Independent variable in order to analyse the long run equilibrium association between them.

3. OBJECTIVE OF THE STUDY

The objective of the study was to ascertain long-term equilibrium association between GDP and FDI inflows for the period 1991-2014 in the context of Indian Economy.

4. HYPOTHESIS

To achieve the objective of the study, following hypothesis was incorporated.

 H_{o} : There was no long-term equilibrium association between GDP and FDI Inflows during the post-liberalized period.

5. RESEARCH METHODOLOGY

In order to accomplish the objective of the study, following research methodology was incorporated.

5.1 SCOPE OF THE STUDY: The variables considered for the study were FDI Inflows and GDP for the period 1991 to 2014. FDI was taken as a dependent variable and GDP was taken as an independent variable. Relative figures of both the variables were taken in the study.

5.2 VARIABLES FOR THE PURPOSE OF THE STUDY

Macroeconomic variables of an economy were considered as the driving factors of FDI inflows to a country.

Foreign Direct Investment: FDI is considered as a long term commitment to host country and significantly contributes to gross fixed capital formation in developing countries. FDI has numerous advantages over other types of capital flows, for instance, its' greater stability and the fact that it does not create obligations for the host country. It not only provides financial resources for investment in a host country but also augments domestic saving efforts. FDI serves as an engine of economic growth, assists technological development, enhances foreign exchange reserves, and improves management and organizational competencies.

GDP: Gross domestic product is a monetary measure of the value of all final goods and services produced within a country's borders during a specific time period either quarterly or yearly. GDP includes all private and public consumption, government outlays, investments and exports minus imports that occur within a defined territory. In simple words, GDP is a broad measurement of a nation's overall economic activity.

5.2 PERIOD OF THE STUDY: The empirical analysis employed annual data on GDP and FDI for India for the period of 1991-2014. For the purposes of the study, secondary data was used. The secondary sources included World Development Indicators published by World Bank, FDI Fact Sheet published by Department of Industrial Policy & Promotion, Ministry of Finance, Handbook of Statistics on Indian Economy, Reserve Bank of India Bulletin, Economic Survey, International Financial statistics yearbook etc.

5.3 ANALYTICAL TOOLS: Before applying Co-Integration test on time series data, the properties of the time series data regarding stationarity of the data were checked using Augmented Dickey-Fuller (ADF) Unit root test and to apply Co-Integration test, it was seen whether the data was integrated at same order or not. The variables considered in the model were exhibited in natural Logarithms. Thereafter, in order to examine the impact of GDP on FDI Inflows in the context of Indian Economy, the below mentioned linear regression equation for the model was used: $FDI_t = \alpha_t + \beta_t GDP_t + U_t$

Where; FDI and GDP represented Foreign Direct Investment and Gross Domestic Product at a particular time respectively while U_t represented the "noise" or error term; α_t and β_t represented the slope and coefficient of regression. The coefficient of regression, β_t indicated elasticities, i.e., how a unit change in the independent variable (GDP) affected the dependent variable (FDI). The error term was incorporated in the equation to cater for numerous other factors that may influence FDI (Egbo, 2011)

Further, to examine Co-integration between GDP and FDI inflows, Engel-Granger Approach of Co-Integration was used. If both the variables were co integrated, there existed a long-run relationship between them. On the other hand, if the variables were not co integrated, there was no long-run relationship between the selected variables. It was only after Co-Integration between the two variables that Error Correction Mechanism was built.

6. DATA ANALYSIS & INTERPRETATION

The application of Augmented Dickey Fuller Unit root test on the current data revealed that data was Stationary at order of Integration one due to the existence of Difference Stationary Process and thus, facilitated the application of Co-Integration Test. With the help of Graph, it was observed that the data had a Difference Stationary process (Phillips, et al 1988).

VOLUME NO. 8 (2017), ISSUE NO. 05 (MAY)

GRAPH 1: SHOWING NON-DETERMINISTIC TREND OF FDI INFLOWS [EViews - [Graph: UNTITLED Workfile: RECORDED DATA::Untitled.] ٥ × File Edit Object View Proc Quick Options Add-ins Window Help View Proc Object Print Name Freeze Options Update AddText Line/Shade Remove Template Zoom FDI 5E+10 4E+10 3E+10 2E+10 1E+10 0E+00 2007-08 2008-09 2009-10 2011-12 2012-13 2013-14 2014-15 1991-92 1992-93 1993-94 1994-95 1995-96 1996-97 1997-98 1998-99 1999-00 2000-01 2001-02 2002-03 2003-04 2004-05 2005-06 2006-07 2010-11 990-91 007-08 | 4.81e+10 DB = none WF = re Ŧ е H) w ^ 🖭 🌈 🕼 📮 (D)

GRAPH 2: SHOWING NON-DETERMINISTIC TREND OF GDP

EViews - [Graph: UNTITLED Workfile: RECORDED DATA::Untitled\] n × File Edit Object View Proc Quick Options Add-ins Wi Help View Proc Object Print Name Freeze Options Update AddText Line/Shade Remove Template Zoom GDP 2,400,000 2,000,000 1.600.000 1,200,000 800,000 400,000 0 2007-08 2008-09 2009-10 2010-11 2011-12 2012-13 2013-14 2014-15 992-93 993-94 994-95 96-366 26-966 997-98 998-99 00-666 2001-02 2002-03 2003-04 2004-05 2005-06 2006-07 -92 1990-91 2000-01 991 DB = n WF = へ 🗐 🌈 🖓 📮 🏪 Search the web and Windows 🗆 🧲 🧮 🏛 🥵

The plots indicated in Graph 1 and Graph 2 showed an upward trend, indicating that the mean, variance and covariance of the series was changing and was not static over a period of time. Thus, it suggested that the series had a unit-root and was non-stationary in nature. (Shumway, at el, 2011) Ho: - There was a Unit Root in the series. (Data was Non-Stationary)

Ha:-There was no Unit Root in the series. (Data was Stationary)

Thus, for applying Co-Integration test, the basic assumption was that data ought to be stationary at same order of Integration. Thus, the first step was that through Augmented Dickey Fuller Unit Root test, the stationarity of the data was checked and both the variables came out to be stationary at order of Integration 1 with Drift model.

FDI~I (1)

GDP~I (1)

TABLE 1: RESULTS OF ADF TEST WITH INTERCEPT/DRIFT ONLY

Variables	Level	I st Difference	Null Hypothesis	Results
FDI	-1.3471021	-6.082140	Rejected at I st Difference	Variable is stationary at 1 st difference
	(0.5905)***	(.0000)***		
GDP	951901	-5.265267	Rejected at I st Difference	Variable is stationary at 1 st difference
	(.9945)***	(.0003)***		

Source: Author's own work

Notes: denote significant at 5% using t-stat approach

Null Hypothesis (H₀): Selected variable was not stationary

Alternative Hypothesis (H₁): Selected variable was stationary

The second step before testing Co-Integration between the variables was to estimate the equation using OLS Regression which displayed the following results:

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories http://ijrcm.org.in/

TABLE 2: OLS REGRESSION

Dependent Variable: FDI							
Method: Least Squares							
Date: 02/04/17 Time	: 15:58						
Sample: 1 25							
Included observations: 25							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	-5.40E+09	2.25E+09	-2.397744	0.0250			
GDP	21406.94	2173.302	9.849961	0.0000			
R-squared 0.808368		Mean dependent var		1.29E+10			
Adjusted R-squared	0.800036	S.D. dependent var 1.43		1.43E+10			
S.E. of regression	6.39E+09	Akaike info criterion		48.06957			
Sum squared resid	9.38E+20	Schwarz criterion		48.16708			
Log likelihood -598.8696		Hannan-Quinn criter.		48.09661			
F-statistic 97.02174		Durbin-W	atson stat	1.108456			
Prob(F-statistic)	0.000000						

$$\begin{bmatrix} C & -5.40E + 09 \\ GDP & 21406.94 \end{bmatrix}$$

Thus, Co-Integration Vector was: - $\lfloor GDP \rfloor$

The third step in Engle Granger procedure was to examine the stationarity of residuals at model none through ADF Unit root test. Engle-Granger Approach of Co-Integration exhibited that residuals were stationary at none model (i.e. without drift and intercept), thereby, disclosing the existence of long run equilibrium association between GDP and FDI inflows in an Indian Economy.

 TABLE 3: RESULTS OF CO-INTEGRATION TESTS

 Variables
 Level
 Results

 Resi_fdi(-1)
 -2.941994 (.0051)**
 Stationary at none thus, co-integration exists between the variables.

**significance at.05 level

Residuals in Matrix Form was presented as

 $I_t = FDI_t - \dot{\alpha} - \beta GDP_t$

= $[1 - \dot{\alpha} - \beta]$ [FDI t 1 GDP t]

Thus, Co-Integration existed between GDP and FDI inflows during the post-liberalized period. As per Engel Granger Approach (1987), if the variables were co integrated, then there must prevail vector error correction mechanism (VECM) (Egbo, 2011). Thus, Error Correction Term was calculated as:

TABLE 4						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	9.82E+08	1.54E+09	0.638525	0.5300		
D(GDP)	7331.330	13525.02	0.542057	0.5935		
RESI_FDI(-1)	-0.483837	0.205248	-2.357327	0.0282		

The above table made it clear that Growth in GDP would positively contribute growth in FDI. Furthermore, 1% increase in the growth of GDP would accelerate FDI by 7331 percent. It was an instantaneous impact. In addition to, the result further revealed that GDP was found to be complementary with FDI. As residual was negative and statistically significant (as p value was less than.05), thus the model was considered to be stable. Thus, the error correction term was -0.483837 rapid speed of convergence to equilibrium (Gaikwad, 2013).

7. CONCLUSIONS

The study used annual time series data of GDP and FDI Inflows in India from 1991 to 2014 in order to identify long run equilibrium association between them. Before applying any statistical test on the data series, it was important to find out the order of integration of the variables by applying ADF test of stationarity. However, it was found that GDP and FDI were integrated of order one [I (1)]. The stationarity of the data was checked using Augmented Dickey Fuller test. The empirical analysis suggested that the variables had a difference stationary process. The study employed Engel Granger Approach of Co-Integration to determine long run equilibrium association between the variables which proved that there existed Co-integration between the variables. Further, error correction term was built which stated that growth in GDP was found to be complementary with growth in FDI. The error correction coefficient, estimated at -0.48 was statistically significant and suggested a rapid speed of convergence to equilibrium (Gaikwad, 2013).

8. SCOPE FOR FURTHER RESEARCH

As the present study considers only two variables i.e. FDI Inflows and GDP in the context of an Indian Economy, a developing economy, however, in future, research could be done by considering the same variables of other developed or developing countries and thus, Panel Co-Integration test could be applied. Furthermore, by selecting more variables in the study of various countries for longer time period, Auto Regressive Distributed Lag Model could also be applied in order to determine Long run equilibrium between the considered variables.

REFERENCES

- 1. Amaya G, C.A. and Rowland, P. (2004), "Determinants of Investment Flows into Emerging Markets," Working Paper, Banco de la Republica, Number 131. www.banrep.gov.co/docum/ftp/borra313.pdf.
- 2. Egbo, O.P. (2011), "Bivariate Casuality Analysis on the Impact of FDI Inflows and Economic Growth in Nigeria," Journal of Internet Banking and Commerce, ISSN: 1204-5357.
- 3. Gaikwad, P.S. (2013), "The Impact of Foreign Direct Investment (FDI) On Gross Domestic Product (GDP) in Indian Economy," Information Management and Business Review, Vol. 5, No. 8, pp. 411-416.
- 4. Gentvilaitė, R. (2010), "Determinants of FDI and its Motives in Central and Eastern European Countries," Research Paper, Lund University.
- 5. Gudaro, A.M., Chhapra, I.U. and Sheikh, S.A. (2012), "Impact of Foreign Direct Investment on Economic Growth: A Case Study of Pakistan," Journal of management and Social Sciences, Vol. 8, No.2, pp. 22-30.
- 6. Hooda, S. (2011), "A Study of Fdi and Indian Economy," Thesis, Department Of Humanities and Social Sciences, National Institute of Technology, Kurukshetra.
- 7. Hussain, F. and Kimuli, C.K. (2012), "Determinants of Foreign Direct Investment Flows to Developing Countries," SBP Research Bulletin, Volume 8, Number 1.
- 8. Kamath, G. B. (2009), "Macroeconomic Determinants of Foreign Direct Investment in India," Bauddhik, Vol. 1, No. 2.

VOLUME NO. 8 (2017), ISSUE NO. 05 (MAY)

- Khan, G.S. and Mitra, P. (2014), "A Casual Linkage between FDI Inflows with select Macroeconomic Variables in India- An Econometric Analysis," IOSR Journal of Economics and Finance, Volume. 5, Issue 5, pp.124-133.
- 10. Laura A. (2014), "Foreign Direct Investment: Effects, Complementarities, and Promotion," Harvard Business School Working Paper, No. 15-006.
- 11. Malankar, S. (2013), "Indian Economy and Foreign Direct Investment," International Monthly Refereed Journal of Research in Management & Technology, Volume.2, pp.28-32.
- 12. Md. Thuhid Noor, Shahjahan Ali, Khandaker Jahangir Alam, Md. Shafiul Islam (2016), "Significance of Foreign Direct Investment on Economic Growth in Bangladesh," International Journal of Scientific & Engineering Research, Vol. 7, No. 9, pp.495-503.
- 13. Meerza, S.I.A. (2012), "Casual Links between trade, foreign direct investment and economic growth for Bangladesh," Working paper, Department of Economics, South Dakota State University.
- 14. Nayak, D. and Choudhury, R.N. (2014), "A selective review of foreign direct investment theories," ARTNeT Working Paper Series No. 143, Bangkok, ESCAP. Available at www. artnetontrade. org.
- 15. Nosheen, M. (2013), "Impact of Foreign Direct Investment on Gross Domestic Product," World Applied Sciences Journal, Vol.24, No. 10, pp. 1358-1361.
- 16. Olatunji, L. and Shahid, M.S. (2015), "FDI and Economic Growth in Nigeria: A Co-Integration Analysis," Business and Economic Research, Vol.5, No. 1.
- 17. Phillips, C.B.P. and Perron, P. (1988), "Testing for a unit root in time series regression," Biometrika, Vol.75, No.2, pp.335-346
- 18. Ranjan, V. (2011), "FDI Inflow Determinants in BRIC countries: A Panel Data Analysis," International Business Research Vol. 4, No. 4.
- Sahgal R. (2011), "Foreign Direct Investment Decision-Making Processes: The Case of Swiss Companies in India", Dissertation, University of St. Gallen.
 Sahni, P. (2012), "Trends and Determinants of Foreign Direct Investment in India: An Empirical Investigation," IJMT Volume 2, Issue 8.

WEBSITES

- 21. http://Business.Mapsofindia.Com/Fdi-India/States/Haryana-Economy.Html
- 22. http://Commerce.Nic.In/Eidb/Default.Asp
- 23. http://data.worldbank.org/indicator/FI.RES.TOTL.CD?page=5
- 24. http://Fdiindia.In/Guidelines-For-Consideration-Of-Fdi-Proposals-By-Fipb.Php
- 25. http://Finmin.Nic.In/Reports/Ind_Ext_Debt.Asp
- 26. http://Theindiaeconomyreview.org/...ticle.aspx?aid=106&mid=5
- 27. http://www.Economywatch.Com/Database/Foreigninvestment2.Html
- 28. http://www.tradingeconomics.Com/India/Industrial-Production
- 29. Press Release, Government of India Department of Industrial Policy and Promotion, Ministry Of Commerce And Industry Consolidated FDI Policy (April 5, 2013).
- 30. www.finance.duke.edu
- 31. www.indexmundi.com
- 32. www.Planningcommission.Nic.In/Aboutus/Committee/Strgrp/Stgp_Fdi.Pdf
- 33. www.Rbidocs.Rbi.Org.In/Rdocs/Notification/Pdfs/15mcnfdi270613.Pdf
- 34. www.theglobaleconomy.com

BOOKS

35. Shumway, Robert H. and Stoffer, David S., (2011), "Time Series Analysis and its applications." Springer, New York.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce & 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 <u>infoijrcm@gmail.com</u> 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.

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





