

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

IJR
CM



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,

Open J-Gate, India [link of the same is duly available at Infibnet of University Grants Commission (U.G.C.)],

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. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	AN ANALYSIS OF CONSUMER BUYING BEHAVIOUR TOWARDS PURCHASE OF MID-SEGMENT PASSENGER CARS WITH SPECIAL REFERENCE TO BHOPAL AND JABALPUR CITY <i>MANISHA KINKAR & DR. N. K. SHUKLA</i>	1
2.	DEPOSITORY SYSTEM IN INDIAN CAPITAL MARKET: AN OVERVIEW <i>DR. DEVINDER SHARMA & BHUSHAN AZAD</i>	11
3.	DISTRIBUTION PATTERN OF HOUSEHOLD ASSETS AMONG LANDLESS HOUSEHOLDS IN RURAL PUNJAB <i>SARBJEET SINGH, BALWINDER SINGH & SARBJIT KAUR</i>	15
4.	A COMPARATIVE STUDY ON ICICI PRUDENTIAL LIFE INSURANCE AND SBI LIFE INSURANCE COMPANIES IN CHICKBALLAPUR DISTRICT <i>LOKESH G R & DR. N SANDHYA</i>	21
5.	PRICING DYNAMICS OF GOLD IN INDIAN COMMODITY MARKET <i>PRERNA, POOJA & DR. KAMAL AGARWAL</i>	24
6.	SELF-HEALING USING BACKBONE <i>ROSY PAWAR & DR. ASHOK KUMAR</i>	29
7.	DAWN OF IND AS <i>ARUNA BHASKAR & LAVANYA K N</i>	32
8.	ANALYSING THE BALANCE OF PAYMENT POSITION OF INDIA <i>SAYANTANI BANERJEE</i>	36
9.	A STANDARD EVACUATION PROCESS OF MOBILE AGENTS USING PRE-PROCESSING TECHNIQUES <i>L. KATHIRVELKUMARAN & R. MURALIDHARAN</i>	40
10.	GLOBALIZATION OF MARKETS AND STRATEGIES ADOPTED BY DEVELOPING NATIONS <i>DR. GURJEET KAUR & ABHIMANYU VERMA</i>	44
11.	A FIRM'S PERSPECTIVE OF NON-FINANCIAL REPORTING <i>PRAKHAR WADHWA</i>	47
12.	A REVIEW ON NETWORK SECURITY AND CRYPTOGRAPHY <i>KIRAN SAHU</i>	51
13.	THE IMPACT OF EMPLOYER BRANDING ON EMPLOYEE BEHAVIOR AND MOTIVATION <i>HANSIKA KHURANA</i>	56
14.	A STUDY OF AVAILABLE BENEFITS TO PROVIDE EASE OF DOING BUSINESS <i>MOHD SAZID</i>	63
15.	COOPERATIVE AS AN ALTERNATIVE WAY TO FINANCIAL INCLUSION AND HUMAN DEVELOPMENT: A STUDY IN PURBA MEDINIPUR DISTRICT <i>DR. SIDDHARTHA CHATTERJEE</i>	67
16.	IMPACT OF INDIAN MACRO ECONOMIC DRIVERS OF EMPLOYMENT GROWTH AND PATTERN <i>PRERNA, POOJA & DR. UPENDRA SINGH</i>	73
17.	AN ACCURATE HEALTHCARE COST PREDICTION USING VOTE BASED CLASSIFICATION TECHNIQUE <i>RADHESHYAM ACHOLIYA & AMIT VAJPAYEE</i>	77
18.	ASSESSING ROLE OF DIGITALIZATION IN IT BUSINESS PROCESS MANAGEMENT <i>RANJITH GOPALAN</i>	83
19.	FINANCING OF INFRASTRUCTURE COMPANIES IN INDIA: A COMPARATIVE STUDY OF IIFCL AND IDFC <i>MANJULA SHUKLA</i>	89
20.	CRYPTOCURRENCY: DAWN OF A NEW ECONOMY <i>SAPNA</i>	93
	REQUEST FOR FEEDBACK & DISCLAIMER	97

CHIEF PATRON**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 EHIOBUCHÉ**

Professor of Global Business/Management, Larry L. Luong 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. 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. KAUP MOHAMED

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

SUNIL KUMAR KARWASRA

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

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

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 VELİ ŞAFAKLI

Associate Professor, European University of Lefke, Lefke, Cyprus

Dr. MOHINDER CHAND

Associate Professor, Kurukshetra University, Kurukshetra

Dr. BORIS MILOVIC

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

Dr. IQBAL THONSE HAWALDAR

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

Dr. MOHENDER KUMAR GUPTA

Associate Professor, Government College, Hodal

Dr. ALEXANDER MOSESOV

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

Dr. MOHAMMAD TALHA

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

Dr. ASHOK KUMAR CHAUHAN

Reader, Department of Economics, Kurukshetra University, Kurukshetra

Dr. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

WILLIAM NKOMO

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

YU-BING WANG

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

Dr. SHIVAKUMAR DEENE

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

Dr. 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

FORMER TECHNICAL ADVISOR**AMITA****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**

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

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

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. **The qualification of author is not acceptable for the purpose.**

NOTES:

- a) The whole manuscript has to be in **ONE MS WORD FILE** only, which will start from the covering letter, inside the manuscript. **pdf. version 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 **BRITISH ENGLISH** prepared on a standard A4 size **PORTRAIT SETTING PAPER**. **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>

CRYPTOCURRENCY: DAWN OF A NEW ECONOMY

**SAPNA
ALUMNA
D. A. V. COLLEGE
CHANDIGARH**

ABSTRACT

People started using the Internet because it gave borderless, permission-less, fast and cheap access to the world's information and communication. Similarly, Bitcoin enables borderless, permission less, fast and cheap access to the world of finance. After the 2008 financial crisis and the current global financial crisis, the world is increasingly realizing the weaknesses of our current financial system. A majority of central banks in the world now have 0 interest rates. Countries like Russia, Latin America have seen record breaking currency devaluations. Bitcoin provides the vision of a new era in the financial world. By purchasing bitcoins, it allows ordinary people to protect themselves from the possibility of a sudden drop in the purchasing power of their money because of a debt ridden government. The current western financial infrastructure based on banks, credit card companies and a mishmash of different payment networks is at a very early stage in India. 60% of our population is unbanked and credit and debit card penetration is in single digit percentages. Our PM and the RBI both have financial inclusion as a top priority. Just like mobile phones helped India skip the landline generation in connecting a billion Indians, embracing Bitcoins can help India skip the current generation of financial infrastructure and move India directly to the future of finance. The current paper is an attempt to study the future growth perspectives of cryptocurrency like Bitcoin's in India and how people of India can take advantage from these digital currencies. The research was done on the basis of secondary data taken from books, journals, newspaper articles and magazines. The research findings show that cryptocurrencies have extensive growth prospect in India. India is perfect as a society to be at the forefront of developing a vibrant crypto-currency economy.

KEYWORDS

Cryptocurrency, Bitcoins, Miners, Ethereum, Litecoin, Ripple, Namecoin, PPCoin.

INTRODUCTION

In a world when everything seems to be going the virtual way, why not virtual currencies? As it happens, cryptocurrencies have been in existence for quite some time and many believe they are the future of currency. The market value is proof of this.

A cryptocurrency is a digital or virtual currency that uses cryptography for security. A cryptocurrency is difficult to counterfeit because of this security feature. A defining feature of a cryptocurrency, and arguably its most endearing allure, is its organic nature; it is not issued by any central authority, rendering it theoretically immune to government interference or manipulation.

The first cryptocurrency to capture the public imagination was Bitcoin, which was launched in 2009 by an individual or group known under the pseudonym Satoshi Nakamoto. As of September 2015, there were over 14.6 million bitcoins in circulation with a total market value of \$3.4 billion. Bitcoin's success has spawned a number of competing cryptocurrencies, such as Litecoin, Namecoin and PPCoin.

BITCOIN IS THE INTERNET OF MONEY

A financial infrastructure based on Bitcoin and its underlying technology Blockchain will herald a revolution just like the Internet. Very similar to the Internet, Bitcoin is a free to join, open source, decentralized network. Bitcoin is a sound currency which has all the best characteristics of sound money. And the Bitcoin network is the fastest, cheapest and easiest way to send money from one person to the other. Already progressive governments like the UK and Singapore are pro Bitcoins and trying to attract Bitcoin companies to operate in their jurisdiction by providing them favourable working conditions.

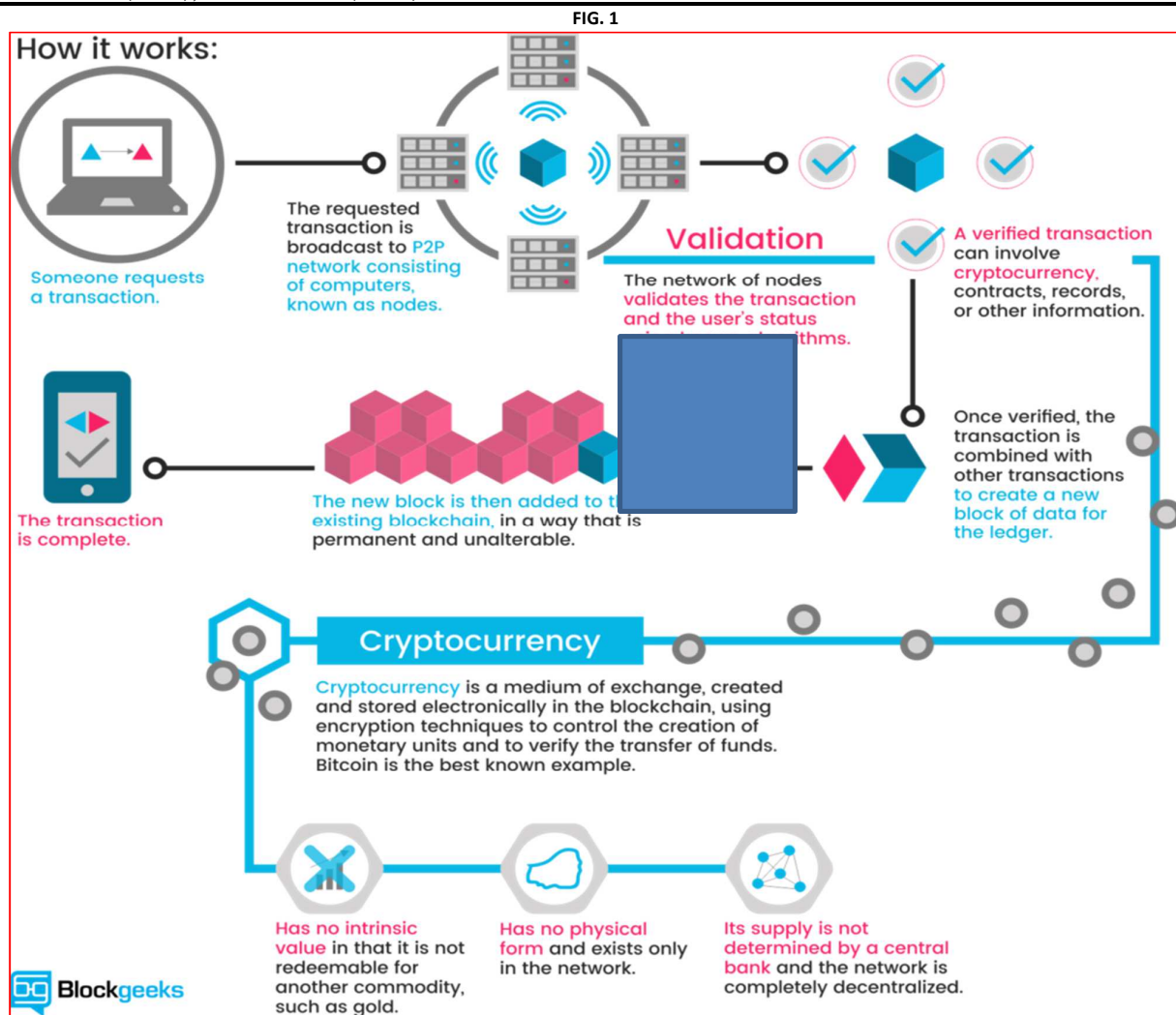
WHAT ARE CRYPTOCURRENCIES REALLY?

If you take away all the noise around cryptocurrencies and reduce it to a simple definition, you find it to be just limited entries in a database no one can change without fulfilling specific conditions. This may seem ordinary, but, believe it or not: this is exactly how we can define a currency.

Take the money on your bank account: What is it more than entries in a database that can only be changed under specific conditions? You can even take physical coins and notes: What are they else than limited entries in a public physical database that can only be changed if you match the condition than you physically own the coins and notes? Money is all about a verified entry in some kind of database of accounts, balances, and transactions.

HOW MINERS CREATE COINS AND CONFIRM TRANSACTIONS?

Let's have a look at the mechanism ruling the databases of cryptocurrencies. A cryptocurrency like Bitcoin consists of a network of peers. Every peer has a record of the complete history of all transactions and thus of the balance of every account. A transaction is a file that says, "Bob gives X Bitcoin to Alice" and is signed by Bob's private key. It's basic public key cryptography, nothing special at all. After signed, a transaction is broadcasted in the network, sent from one peer to every other peer. This is basic p2p-technology. Nothing special at all, again.



The transaction is known almost immediately by the whole network. But only after a specific amount of time it gets confirmed. Confirmation is a critical concept in cryptocurrencies. You could say that cryptocurrencies are all about confirmation. As long as a transaction is unconfirmed, it is pending and can be forged. When a transaction is confirmed, it is set in stone. It is no longer forgeable, it can't be reversed, it is part of an immutable record of historical transactions: of the so-called blockchain. Only miners can confirm transactions. This is their job in a cryptocurrency-network. They take transactions, stamp them as legit and spread them in the network. After a transaction is confirmed by a miner, every node has to add it to its database. It has become part of the blockchain. For this job, the miners get rewarded with a token of the cryptocurrency, for example with Bitcoins.

WHAT ARE MINERS DOING?

Principally everybody can be a miner. Since a decentralized network has no authority to delegate this task, a cryptocurrency needs some kind of mechanism to prevent one ruling party from abusing it. Imagine someone creates thousands of peers and spreads forged transactions. The system would break immediately. So, Satoshi set the rule that the miners need to invest some work of their computers to qualify for this task. In fact, they have to find a hash – a product of a cryptographic function – that connects the new block with its predecessor. This is called the Proof-of-Work. In Bitcoin, it is based on the **SHA 256 Hash algorithm**.

REVOLUTIONARY PROPERTIES

Basically, cryptocurrencies are entries about token in decentralized consensus-databases. They are called **CRYPTO currencies** because the consensus-keeping process is secured by strong cryptography. Cryptocurrencies are built on cryptography. They are not secured by people or by trust, but by math. It is more probable that an asteroid falls on your house than that a bitcoin address is compromised. Describing the properties of cryptocurrencies we need to separate between transactional and monetary properties. While most cryptocurrencies share a common set of properties, they are not carved in stone.

TRANSACTIONAL PROPERTIES

- 1.) **Irreversible:** After confirmation, a transaction can't be reversed. By nobody. And nobody means nobody. Not you, not your bank, not the president of the United States, not Satoshi, not your miner. Nobody. If you send money, you send it. No one can help you, if you sent your funds to a scammer or if a hacker stole them from your computer. There is no safety net.
- 2.) **Pseudonymous:** Neither transactions nor accounts are connected to real world identities. You receive Bitcoins on so-called addresses, which are randomly seeming chains of around 30 characters. While it is usually possible to analyse the transaction flow, it is not necessarily possible to connect the real world identity of users with those addresses.
- 3.) **Fast and global:** Transaction is propagated nearly instantly in the network and is confirmed in a couple of minutes. Since they happen in a global network of computers they are completely indifferent of your physical location. It doesn't matter if I send Bitcoin to my neighbour or to someone on the other side of the world.
- 4.) **Secure:** Cryptocurrency funds are locked in a public key cryptography system. Only the owner of the private key can send cryptocurrency. Strong cryptography and the magic of big numbers make it impossible to break this scheme. A Bitcoin address is more secure than Fort Knox.

5.) **Permission less:** You don't have to ask anybody to use cryptocurrency. It's just a software that everybody can download for free. After you installed it, you can receive and send Bitcoins or other cryptocurrencies. No one can prevent you. There is no gatekeeper.

MONETARY PROPERTIES

1.) **Controlled supply:** Most cryptocurrencies limit the supply of the tokens. In Bitcoin, the supply decreases in time and will reach its final number somewhere in around 2140. All cryptocurrencies control the supply of the token by a schedule written in the code. This means the monetary supply of a cryptocurrency in every given moment in the future can roughly be calculated today. There is no surprise.

2.) **No debt but bearer:** The Fiat-money on your bank account is created by debt, and the numbers, you see on your ledger represent nothing but debts. It's a system of IOU. Cryptocurrencies don't represent debts. They just represent themselves. They are money as hard as coins of gold.

To understand the revolutionary impact of cryptocurrencies you need to consider both properties. Bitcoin as a permissionless, irreversible and pseudonymous means of payment is an attack on the control of banks and governments over the monetary transactions of their citizens. You can't hinder someone to use Bitcoin, you can't prohibit someone to accept a payment, you can't undo a transaction.

As money with a limited, controlled supply that is not changeable by a government, a bank or any other central institution, cryptocurrencies attack the scope of the monetary policy. They take away the control central banks take on inflation or deflation by manipulating the monetary supply.

DIFFERENT TYPES OF CRYPTOCURRENCIES

While Bitcoin remains by far the most famous cryptocurrency and most other cryptocurrencies have zero non-speculative impact, investors and users should keep an eye on several cryptocurrencies. Here we present the most popular cryptocurrencies of today.

BITCOIN - The one and only, the first and most famous cryptocurrency. Bitcoin serves as a digital gold standard in the whole cryptocurrency-industry, is used as a global means of payment and is the de-facto currency of cyber-crime like dark net markets or ransomware. After seven years in existence, Bitcoin's price has increased from zero to more than 650 Dollar, and its transaction volume reached more than 200.000 daily transactions.

ETHEREUM - The brainchild of young crypto-genius Vitalik Buterin has ascended to the second place in the hierarchy of cryptocurrencies. Other than Bitcoin its blockchain does not only validate a set of accounts and balances but of so-called states. This means that Ethereum can not only process transactions but complex contracts and programs. This flexibility makes Ethereum the perfect instrument for "blockchain"-application. But it comes at a cost. After the Hack of the DAO – an Ethereum based smart contract – the developers decided to do a hard fork without consensus, which resulted in the emerge of Ethereum Classic. Beside this, there are several clones of Ethereum, and Ethereum itself is a host of several Token like DigixDAO and Augur. This makes Ethereum more a family of cryptocurrencies than a single currency.





















RIPPLE - Maybe the less popular – or most hated – project in the cryptocurrency community is Ripple. While Ripple has a native cryptocurrency – XRP – it is more about a network to process IOUs than the cryptocurrency itself. XRP, the currency, doesn't serve as a medium to store and exchange value, but more as a token to protect the network against spam. Ripple Labs created every XRP-token, the company running the Ripple network, and is distributed by them on will. For this reason, Ripple is often called pre-mined in the community and dissed as no real cryptocurrency, and XRP is not considered as a good store of value. Banks, however, seem to like Ripple. At least they adopt the system with an increasing pace.

LITECOIN - Litecoin was one of the first cryptocurrencies after Bitcoin and tagged as the silver to the digital gold bitcoin. Faster than bitcoin, with a larger amount of token and a new mining algorithm, Litecoin was a real innovation, perfectly tailored to be the smaller brother of bitcoin. "It facilitated the emerge of several other cryptocurrencies which used its codebase but made it, even more, lighter". Examples are Dogecoin or Feathercoin. While Litecoin failed to find a real use case and lost its second place after bitcoin, it is still actively developed and traded and is hoarded as a backup if Bitcoin fails.

MONERO - Monero is the most prominent example of the cryptonite algorithm. This algorithm was invented to add the privacy features Bitcoin is missing. If you use Bitcoin, every transaction is documented in the blockchain and the trail of transactions can be followed. With the introduction of a concept called ring-signatures, the cryptonite algorithm was able to cut through that trail. The first implementation of cryptonite, Bytecoin, was heavily premined and thus rejected by the community. Monero was the first non-premined clone of bytecoin and raised a lot of awareness. Monero's popularity peaked in summer 2016 when some darknetmarkets decided to accept it as a currency. This resulted in a steady increase in the price, while the actual usage of Monero seems to remain disappointingly small.

Besides those, there are hundreds of cryptocurrencies of several families. Most of them are nothing more than attempts to reach investors and quickly make money, but a lot of them promise playgrounds to test innovations in cryptocurrency-technology.

FIG. 2

#	Name	Market Cap	Price	Available Supply	Volume (24h)	% Change (24h)	Price Graph (7d)
1	 Bitcoin	\$11,382,240,050	\$712.76	15,969,336 BTC	\$67,288,200	-1.60%	
2	 Ethereum	\$904,848,975	\$10.54	85,831,133 ETH	\$4,069,260	-1.21%	
3	 Ripple	\$290,446,848	\$0.008121	35,765,131,899 XRP *	\$2,386,420	0.26%	
4	 Litecoin	\$184,904,214	\$3.82	48,378,029 LTC	\$2,258,970	-1.05%	
5	 Monero	\$83,466,495	\$6.27	13,311,446 XMR	\$3,134,490	5.38%	
6	 Ethereum Classic	\$80,817,441	\$0.942637	85,735,486 ETC	\$603,573	2.21%	
7	 Dash	\$66,519,213	\$9.68	6,874,532 DASH	\$596,632	-0.77%	
8	 Augur	\$52,038,360	\$4.73	11,000,000 REP *	\$396,072	6.38%	
9	 NEM	\$37,322,550	\$0.004147	8,999,999,999 XEM *	\$86,817	4.40%	
10	 Waves	\$35,727,500	\$0.357275	100,000,000 WAVES *	\$133,650	-3.94%	

CRYPTOCURRENCY BENEFITS AND DRAWBACKS

Cryptocurrencies make it easier to transfer funds between two parties in a transaction; these transfers are facilitated through the use of public and private keys for security purposes. These fund transfers are done with minimal processing fees, allowing users to avoid the steep fees charged by most banks and financial institutions for wire transfers.

Central to the genius of Bitcoin is the block chain it uses to store an online ledger of all the transactions that have ever been conducted using bitcoins, providing a data structure for this ledger that is exposed to a limited threat from hackers and can be copied across all computers running Bitcoin software. Many experts see this block chain as having important uses in technologies, such as online voting and crowdfunding, and major financial institutions such as JP Morgan Chase see potential in cryptocurrencies to lower transaction costs by making payment processing more efficient.

However, because cryptocurrencies are virtual and do not have a central repository, a digital cryptocurrency balance can be wiped out by a computer crash if a backup copy of the holdings does not exist. Since prices are based on supply and demand, the rate at which a cryptocurrency can be exchanged for another currency can fluctuate widely.

Cryptocurrencies are not immune to the threat of hacking. In Bitcoin's short history, the company has been subject to over 40 thefts, including a few that exceeded \$1 million in value. Still, many observers look at cryptocurrencies as hope that a currency can exist that preserves value, facilitates exchange, is more transportable than hard metals, and is outside the influence of central banks and governments.

STATE OF BITCOINS IN 2016

Since the beginning of the year, global economic landscape witnessed a disastrous start with all major stock exchanges around the world taking a nosedive. Some respected financial services firms like UK's RBS have even suggested their investors to sell everything. They have predicted a global recession, worse than 2008 comparing the current scenario with that before the Lehman Brothers crises. The world is in an unprecedented economic crisis with the value of commodities and currencies nose diving. In such gloomy situations, investors will prefer to diversify their portfolio, especially where the future lies. Since the supply of Bitcoins is fixed, its increasing demand has pushed the price of Bitcoin from a few Rs in 2010 to more than Rs 25,000 currently. In the next 5 years as the supply reduces further and more and more people adopt Bitcoins, the price is expected to scale new highs. Generally, when market is going to witness some sort of scarcity or controlled supply in a promising concept – like Bitcoin, the demand starts rising with positive sentiments. That said, markets start making speculative moves and this pushes its price upwards thus building pressure to grab the opportunity and get share in the revolutionary future.

Global Bitcoin trade is skyrocketing touching 35 billion USD per month in December 2015. Billion dollar companies like Dell, Expedia, Overstock, Rakuten (Japan's Flipkart) have started accepting Bitcoins on their websites.

Bitcoin companies raised almost 1 billion USD in VC funding in 2015. All the major banks and credit card companies have got involved with Bitcoins last year. So in just 6 years of its existence, Bitcoin has achieved spectacular success.

In India, Bitcoin adoption has had a slow start but awareness is growing rapidly. Bitcoin trade in India grew exponentially and is at an estimated Rs 500 crores per year. There are around 50,000 Bitcoin wallets in India and around 700-800 Bitcoins are traded every day. RBI, in its recent report on financial stability, has appreciated the strengths of the underlying 'blockchain' technology. India's leading law firm Nishith Desai Associates and the Center for Internet and Society, both have published white papers stating that Bitcoins is legal in India under all existing laws. After early adopters, Bitcoins is attracting a new class of users like professionals, HNIs and all institutions. As the Bitcoin community matures, we shall see an increase in the quality of analysis of Bitcoins price. Users are now using bitcoin for eCommerce, airtime top up, paying bills, buying gift vouchers from popular online retail sites. Bitcoin transactions in India are about Rs 500 crores a year. We believe India will see an explosion in bitcoins over next 2 years. China does a volume of more than Rs 10,000 crores per 'day' (no typos here) India is where U.S and China were in 2013. About 40% of the population across the country does not have bank accounts. Bitcoin wallets could be used in remote areas without the need for brick and mortar banks.

CONCLUSION

The market of cryptocurrencies is fast and wild. Nearly every day new cryptocurrencies emerge, old die, early adopters get wealthy and investors lose money. Every cryptocurrency comes with a promise, mostly a big story to turn the world around. Few survive the first months, and most are pumped and dumped by speculators and live on as zombie coins until the last bag holder loses hope ever to see a return on his investment.

INDIA, A POTENTIAL HOTSPOT

India is a potential hotspot for growth of cryptocurrencies and the community. It seems the cryptocurrencies user community in India has quite a strong base, exceeding 50K in number. But the regulatory body such as RBI seems far from regulating or accepting it. However, this has given an opportunity for the cryptocurrency community in India to expand, develop cryptocurrencies-related businesses in the space, and educate people on the opportunities for economic growth associated with cryptocurrencies.

India is the world's biggest remittance market at more than \$70 billion. The majority of the remittance is small amounts of around \$200. For small amounts especially, users end up paying up to 15% in fees to companies like PayPal, Western Union or to banks through transfer and exchange rate fees. Bitcoin makes it extremely easy to send a small remittance back home. This could save India up to \$7 billion in fees paid to third party and add to country's wealth.

The revolution is already happening. Institutional investors start to buy cryptocurrencies. Banks and governments realize that this invention has the potential to draw their control away. Cryptocurrencies change the world, step by step. You can either stand beside and observe – or you can become part of history in the making.

REFERENCES

1. <http://trak.in/tags/business/2016/05/05/bitcoins-india-present-future/>
2. <http://www.investopedia.com/terms/c/cryptocurrency.asp#ixzz4gK7xwXqb>.
3. <http://www.thehindu.com/news/national/karnataka/are-cryptocurrencies-the-way-of-the-future/article5314739.ece>.
4. <https://blockgeeks.com/guides/what-is-cryptocurrency/>

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.

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 co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals

