

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

I
J
R
C
M



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

Indexed & Listed at:

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

Indian Citation Index (ICI), J-Gate, India [link of the same is duly available at Inlibnet of University Grants Commission (U.G.C.)],

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

Circulated all over the world & Google has verified that scholars of more than 6408 Cities in 196 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.	BANKING ON ARTIFICIAL INTELLIGENCE: OPPORTUNITIES & CHALLENGES FOR BANKS IN INDIA <i>SRIHARI SUBUDHI</i>	1
2.	INFRASTRUCTURE AND SOCIO-ECONOMIC DEVELOPMENT: AN EMPIRICAL ANALYSIS OF UTTAR PRADESH <i>HARSHIT KUMAR SRIVASTAVA & RACHNA MUJOO</i>	6
3.	SYSTEMATIC INVESTMENT PLAN (SIP): AN INSTRUMENT FOR ECONOMIC GROWTH <i>Dr. PRAGYA PRASHANT GUPTA</i>	16
4.	ECONOMIC BENEFITS OF EMERGING DEMOCRATIC RULE IN AFGHANISTAN <i>Dr. ASHOK KUMAR, BAHRAM RAMESH & WAHEED RAMESH</i>	21
5.	ECONOMIC IMPACT OF CRIME ON DEVELOPING ECONOMIES: NIGERIA AS CASE STUDY <i>OLUWAJEMILUA MATHEW TOPE & Dr. S. KAREEMULLA BASHA</i>	28
	REQUEST FOR FEEDBACK & DISCLAIMER	35

FOUNDER PATRON**Late Sh. RAM BHAJAN AGGARWAL**

Former State Minister for Home & Tourism, Government of Haryana

Former Vice-President, Dadri Education Society, Charkhi Dadri

Former President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

CO-ORDINATOR**Dr. BHAVET**

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

ADVISOR**Prof. S. L. MAHANDRU**

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR**Dr. NAWAB ALI KHAN**

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

CO-EDITOR**Dr. G. BRINDHA**

Professor & Head, Dr.M.G.R. Educational & Research Institute (Deemed to be University), Chennai

EDITORIAL ADVISORY BOARD**Dr. TEGUH WIDODO**

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

Dr. M. S. SENAM RAJU

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

Dr. JOSÉ G. VARGAS-HERNÁNDEZ

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

Dr. CHRISTIAN EHIOBUCHÉ

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

Dr. SIKANDER KUMAR

Vice Chancellor, Himachal Pradesh University, Shimla, Himachal Pradesh

Dr. BOYINA RUPINI

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

Dr. MIKE AMUHAYA IRAVO

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

Dr. SANJIV MITTAL

Professor & Dean, University School of Management Studies, GGS Indraprastha University, Delhi

Dr. D. S. CHAUBEY

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

Dr. A SAJEEVAN RAO

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

Dr. NEPOMUCENO TIU

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

Dr. RAJENDER GUPTA

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

Dr. KAUP MOHAMED

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

Dr. DHANANJOY RAKSHIT

Dean, Faculty Council of PG Studies in Commerce and Professor & Head, Department of Commerce, Sidho-Kanho-Birsha University, Purulia

Dr. SHIB SHANKAR ROY

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

Dr. S. P. TIWARI

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

Dr. SRINIVAS MADISHETTI

Professor, School of Business, Mzumbe University, Tanzania

Dr. ABHAY BANSAL

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

Dr. ARAMIDE OLUFEMI KUNLE

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

Dr. ANIL CHANDHOK

Professor, University School of Business, Chandigarh University, Gharuan

RODRECK CHIRAU

Associate Professor, Botho University, Francistown, Botswana

Dr. OKAN VELI ŞAFAKLI

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

PARVEEN KHURANA

Associate Professor, Mukand Lal National College, Yamuna Nagar

Dr. KEVIN LOW LOCK TENG

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

Dr. BORIS MILOVIC

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

SHASHI KHURANA

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

Dr. IQBAL THONSE HAWALDAR

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

Dr. DEEPANJANA VARSHNEY

Associate Professor, Department of Business Administration, King Abdulaziz University, Saudi Arabia

Dr. MOHENDER KUMAR GUPTA

Associate Professor, Government College, Hodal

Dr. BIEMBA MALITI

Associate Professor, School of Business, The Copperbelt University, Main Campus, Zambia

Dr. ALEXANDER MOSESOV

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

Dr. VIVEK CHAWLA

Associate Professor, Kurukshetra University, Kurukshetra

Dr. FERIT ÖLÇER

Professor & Head of Division of Management & Organization, Department of Business Administration, Faculty of Economics & Business Administration Sciences, Mustafa Kemal University, Turkey

Dr. ASHOK KUMAR CHAUHAN

Reader, Department of Economics, Kurukshetra University, Kurukshetra

Dr. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

YU-BING WANG

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

Dr. SAMBHAVNA

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

Dr. KIARASH JAHANPOUR

Dean of Technology Management Faculty, Farabi Institute of Higher Education, Karaj, Alborz, I.R. Iran

Dr. TITUS AMODU UMORU

Professor, Kwara State University, Kwara State, Nigeria

Dr. SHIVAKUMAR DEENE

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

Dr. BHAVET

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

Dr. THAMPOE MANAGALESWARAN

Faculty, Vavuniya Campus, University of Jaffna, Sri Lanka

Dr. VIKAS CHOUDHARY

Faculty, N.I.T. (University), Kurukshetra

SURAJ GAUDEL

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

Dr. DILIP KUMAR JHA

Faculty, Department of Economics, Guru Ghasidas Vishwavidyalaya, Bilaspur

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>

HARSHIT KUMAR SRIVASTAVA
RESEARCH SCHOLAR
DEPARTMENT OF APPLIED ECONOMICS
UNIVERSITY OF LUCKNOW
LUCKNOW

RACHNA MUJOO
PROFESSOR
DEPARTMENT OF APPLIED ECONOMICS
UNIVERSITY OF LUCKNOW
LUCKNOW

ABSTRACT

Economic development refers to the economic transformation of a country or a region that leads to improvement in wellbeing and economic capabilities of its residents. The development of various sectors in an economy depends on large extent on the infrastructure availability. Infrastructure is basic physical and organisational structure needed for the operation of the real enterprise. Infrastructure plays a significant role in economic development and its inadequacy can slow down or hamper the development of any country. Due to its significance, infrastructure has been accorded high priority in various five year plans in India. Overtime significant improvement is witnessed in infrastructure availability in the country, but much more remains to be done. This paper tries to analyse the contribution of infrastructure in development of the Uttar Pradesh's economy which happens to be the most populous and one of the most backward state of India.

KEYWORDS

economic development, economic infrastructure, social infrastructure.

JEL CODES

O10, O18.

1. INTRODUCTION

The basic physical and organisational structure needed for the operation of society or an enterprise is known as 'infrastructure'. The adequacy of infrastructure helps to determine the country's success by diversifying production, expanding trade, coping with population growth, reducing poverty, or improving environmental conditions. Providing infrastructure services to meet the demands of businesses, households, and other users is one of the major challenges of economic development. The availability of infrastructure has increased significantly in developing countries over the past several decades. In many cases, however, the full benefits of past investments are not being realized, resulting in a serious waste of resources and lost economic opportunities. The infrastructure plays significant role in the development of directly productive activities like agriculture, industries etc. Infrastructure can be divided on different basis as economic and social, hard and soft etc. Economic infrastructure includes transport and communication, power, roads, banking etc. On the other hand, social infrastructure includes education, health etc. which can be regarded as the 'wheels of development'.

Economic development is the process by which a nation improves the economic, political, and social well-being of its people. It refers to economic transformation of a country or a region that leads to improvement in economic and social wellbeing of its people. Development is a qualitative phenomenon and is used more often for underdeveloped countries. There is no set parameter to measure the development of a country but international bodies like UNDP are using are some parameters such as life expectancy, expected and mean year of schooling per capita income etc. Apart from these poverty ratio, literacy rate, health indicators (IMR, MMR etc.) are often used to measure the level of development.

The development of various sectors in any country depends on large extent on infrastructure of the country. It is therefore considered one of the key indicators for economic development. Various development economists in their theories advocated significant investment for the development of infrastructure if the DPAs have to flourish. Rosenstein- Rodan in his 'Big Push Theory' argued that the big push or high minimum amount of investment is required to overcome the obstacles to development in underdeveloped economies. Hirschman in his famous unbalanced growth theory advocated two sequences of development, namely, development via excess capacity of Social Overhead Capital (SOC) and development via shortage of SOC. Leibenstein in his theory advocated that underdeveloped countries require 'critical minimum effort' to raise their per capita income and to overcome vicious circle of poverty.

Inadequacy of infrastructure can have detrimental impact on overall growth of an economy – agriculture, industry and services. Social infrastructure is also important in that more skilled and healthy manpower can enhance productivity and production manifold. It becomes more important for a country like India where the more than 50% of the population is below age 25 years. If proper social infrastructure is not provided to them the demographic dividend of India may frittered away.

Since infrastructure is of utmost significance and requires lumpy investment with long gestation lag and concomitant uncertainties of future, private entrepreneurs would not generally be inclined to make such investments. As a result, it has always been considered the responsibility of state to provide basic infrastructure. However, in recent years' private investment in infrastructure has increased significantly. For a developing country like India, the arrangement of this huge amount of investment is challenging although in recent years' provision of infrastructure is being made on public- private partnership (PPP) basis.

The present paper aims at analysing the relationship between socio-economic development and infrastructure on the basis of some selected indicators in the context of Uttar Pradesh.

2. PROFILE OF UTTAR PRADESH

Uttar Pradesh is bounded by Nepal and Uttarakhand in the North, Haryana and Rajasthan in the West, Madhya Pradesh in the south and Bihar in the East. Uttar Pradesh is the most populous state of India. If compared with the population of world it is 5th most populous country after China, India, USA and Indonesia. The population of the state as per Census of India 2011 is approximately 19.98 crores as against 17 crores in 2011. The decadal population growth from 2001 to 2011 is 20.2%. Total area of the state is 2.41 lakh sq km. UP is situated in the fertile Indo- gangetic plain. Uttar Pradesh is among the poorest state of country and is one of the BIMARU states (now Empowered action group). With the availability of fertile land, agriculture is the largest source of livelihood. More than 60% of the total the total population of state is dependent on agriculture. However, in recent years the share of service sector and manufacturing sector has increased significantly. The population density of UP is 829 per square km which is significantly higher than India's population density of 382 per sq. km. Literacy rate of UP is 67.7% which is less than India's literacy rate of 73%. Out of the total population, 22.3% of the population lives in urban areas. Lucknow is the administrative and legislative capital of UP and Kanpur is industrial hub of UP.

Uttar Pradesh presently comprises 75 districts. Further Uttar Pradesh is divided in 4 economic regions-

- **Western Region** comprising 30 districts
- **Central Region** comprising 10 districts
- **Bundelkhand Region** comprising 7 districts
- **Eastern Region** comprising 28 districts

Among these regions, the Western region is the most prosperous region and the Eastern region is most backward. While the central and the western regions are fertile Bundelkhand region is not fit for intensive cultivation. In terms of history and topography regions differ from each other.

3. OBJECTIVES OF THE STUDY

Present study aims:

1. To study district wise and region wise disparities in availability of both economic and social infrastructure in the state.
2. To analyse district wise and region wise disparities in socio-economic development of the state.
3. To assess and analyse the district and region wise differentials in infrastructure and development in Uttar Pradesh.
4. To analyse inter-regional causal relationship between infrastructure and development in Uttar Pradesh through multiple regression analysis.

4. DEVELOPMENT INDICATORS

4.1 INFANT MORTALITY RATE (IMR)

Infant mortality refers to deaths of young children, typically those less than one year of age. It is measured by the infant mortality rate (IMR), which is the number of deaths of children under one year of age per 1000 live births. With the improvement of health infrastructure there has been significant reduction in IMR over last few decades. IMR was 191.26 in 1951 which reduced to 87.4 in 1990 and further 37 in 2015. IMR of the world on an average is 43 per thousand which is more than IMR of India. This shows improvement in health sector. Inverse of IMR has been taken as a proxy of improvement in health and therefore of socio-economic development.

4.2 PER CAPITA NET STATE DOMESTIC PRODUCT

Net State Domestic Product is defined as a measure, in monetary terms, of the volume of all goods and services produced within boundaries of the state during a given period of time after deducting wear and tear or depreciation, accounted without duplication. Per capita NSDP refers to average NSDP per person in a given area in a specified year. According to State statistics of NITI Aayog for 2013-14, Goa has highest per capita NSDP (₹ 2,24,138) followed by Sikkim (₹1,76,491) and Haryana (₹1,33,427). Bihar has lowest per capita NSDP (₹31,199) followed by Uttar Pradesh (₹36,250) and Manipur (₹41,573). In Uttar Pradesh Gautam Buddha Nagar (₹3,76,781) has highest per capita NSDP followed by Agra (₹85,496) and Meerut (₹85,421). Sant Kabir Nagar (₹21,269) followed by Balrampur (₹21,415) and Pratapgarh (₹22,124).

4.3 NUMBER OF LITERATES PER '000 POPULATION

Literacy is traditionally understood as the ability to read, write, and to use simple arithmetic. Literate in India means any person who is able to write his name in any language. However, in modern days literacy is concerned with the ability to use language, numbers, images, computers, and other basic means to understand, communicate, gain useful knowledge and use the dominant symbol systems of a culture i.e. functional literacy. Number of literates per '000 population of world is 863 which is more than India's literacy rate. Number of literates in most of the developed countries and some developing countries like China is almost equal to unity. Education is also taken as a dimension for calculation of HDI. In India number of literates per '000 population is highest in Kerala (940) followed by Mizoram (913), Goa (887) and Himachal Pradesh (828). Bihar has lowest number of literates per '000 population (618) followed by Arunachal Pradesh (654), Rajasthan (661) and Jharkhand (664). In Uttar Pradesh

Gautam Buddha Nagar (801) has highest number of literates per '000 population followed by Kanpur Nagar (796) and Auraiya (790). Shravasti (467) has lowest number of literates per '000 population followed by Bahraich (494) and Balrampur (495).

4.4 NUMBER OF PERSON LIVING IN URBAN AREAS PER '000 POPULATION

For the Census of India 2011, the definition of urban area is as follows;

1. All places with a municipality, corporation, cantonment board or notified town area committee, etc.
2. All other places which satisfied the following criteria:

(i) A minimum population of 5,000; (ii) At least 75 per cent of the male main working population engaged in non-agricultural pursuits; and (iii) A density of population of at least 400 persons per sq. km.

According to the Census of India 2011, total number of persons living in urban areas counted to be 37.71 crores which has increased 9.1 % from 28.61 crores in 2001. The total number of persons living in urban areas per '000 population in India is 312. In India, Goa (622) has highest number of persons living in urban areas per '000 population followed by Mizoram (521) and Tamil Nadu (485). Himachal Pradesh (100) has lowest number of persons living in urban areas per '000 population followed by Bihar (113) and Assam (140). In Uttar Pradesh Ghaziabad (675) has highest number of persons living in urban areas per '000 population followed by Lucknow (662) and Kanpur Nagar (658). Shravasti (35) has lowest number of persons living in urban areas per '000 population followed by Kushinagar (47) and Maharajganj (50).

4.5 PER CAPITA ELECTRICITY CONSUMPTION

Non availability of energy can act as constraint in economic growth of country. India is world's seventh largest energy producer and fifth largest energy consumer. It is often said that there is direct relation in economic growth and per capita energy consumption. Electric power is form of energy essential for economic development as it is required in commercial and non-commercial uses. Per capita electricity consumption in India has increased from 532.9 KWh in 2004-05 to 901.3 in 2015-16. In India Goa (3,511.6) has highest per capita electricity consumption of followed by Haryana (1871.1) and Punjab (1,793.2). Bihar has lowest per capita electricity consumption of (228.8) KWh followed by Jharkhand (229.5) and Assam (265.4). In Uttar Pradesh Gautam Buddha Nagar (1893.68) has highest per capita electricity consumption followed by Ghaziabad (1086.66) and Agra (832.06). Balrampur (52.71) has lowest per capita electricity consumption followed by Shravasti (54.18) and Kushinagar (55.36).

5. SOCIAL INFRASTRUCTURE INDICATORS

5.1 NUMBER OF JUNIOR BASIC SCHOOLS PER LAKH POPULATION

Total number schools in the country were 14,45,807 in 2015. Uttar Pradesh has highest number of schools i.e 2,43,014 followed by Madhya Pradesh and Maharashtra. Total number of schools per lakh population of India was 94.4 schools in 2000 which increased to 125.35 in 2015 showing significant increase. A junior school is a type of school which provides primary education to children, often in the age range from 5 to 13 in India. In UP, Etawah (122.63) has highest number of JBS per lakh population followed by Amethi (118.69) and Ramabai Nagar (114.52). Hapur (37.85) has lowest number of JBS per lakh population followed by Ghaziabad (40.01) and Sambhal (46.61).

5.2 NUMBER OF HIGHER SECONDARY SCHOOLS PER LAKH POPULATION

Higher secondary schools are called by different names across India. These include those schools involved in providing education upto intermediate level. In UP, Etah (18.10) has highest number of HSS per lakh population followed by Auraiya (11.87) and Lucknow (11.25). Badaun (2.62) has lowest number of HSS per lakh population followed by Balrampur (2.71) and Bahraich (2.72).

5.3 NUMBER OF PRIMARY HEALTH CENTRES (PHCs) PER LAKH POPULATION

Primary health centres sometimes referred as Public health centres are state owned rural health care facilities in India. They are essentially single physician clinic for minor surgeries. They are part of government funded public health system in India and are most basic units of this system. Total numbers of PHCs were 23,236

in 2005 which increased to 25,308 in 2015. The total number of PHCs per '000 population was 2.09 in 2015. Himachal Pradesh has highest number PHCs per lakh population i.e 7.35 followed by Karnataka and Rajasthan. West Bengal and Jharkhand have lowest number of PHCs per lakh population i.e 0.99 followed by Punjab and Bihar. In UP hamirpur (4.4) has highest highest number PHCs per lakh population followed by Amethi (3.69) and Chitrakoot (3.55). Lucknow (0.88) has lowest number PHCs per lakh population followed by Varanasi (0.98) and Kanpur Nagar (1.13).

5.4 NUMBER OF MATERNAL AND CHILD HEALTHCARE CENTRES (MCH) PER LAKH POPULATION

Maternal and Child Health Centre (MCH Centres) are the identified centres where deliveries are being conducted – in accordance with the standards laid down in the Maternal and Newborn Health Operational Guidelines and in the Indian Public Health Standards. These are very important for the country like India which have high Infant and Maternal mortality rate. In UP Hamirpur (24.22) has highest number of MCH per lakh population followed by Jhansi (19.38) and Lalitpur (18.93). Ghaziabad (5.13) has lowest number of MCH per lakh population followed by Lucknow (9.17) and Moradabad (9.84).

6. ECONOMIC INFRASTRUCTURE INDICATORS

6.1 TOTAL LENGTH OF PUGCA ROAD PER '000 SQUARE KM AREA

Road network provides the arterial network to facilitate trade, transport, social integration and economic development. It facilitates specialization, extension of markets and exploitation of economies of scale. Total length of roads in India increased 11 times from 3.99 lakh km to 46.90 lakh km in 2011. In UP, Ghaziabad (5264.63) has highest road length density per '000 square km followed by Moradabad (3201.22) and Sultanpur (3009). Hamirpur (474.03) has lowest road length density per '000 square km followed by Mahoba (503.5) and Chitrakoot (537.31).

6.2 PERCENTAGE OF ELECTRIFIED VILLAGES TO TOTAL INHABITED VILLAGES

Today power is essential for the development of a country. Growth of manufacturing and tertiary sector on large depend on availability of power. Non availability or irregular supply of power can cause obstruct or delay the economic development of any nation. Though in most of districts of India 100% electrification is achieved still some areas are left. In UP only few districts are left to achieve the target of 100% electrification (According to data of 2015-16).

6.3 NUMBER OF SCHEDULED COMMERCIAL BANKS PER LAKH POPULATION

Scheduled commercial banks are those banks which are included in second schedule of Reserve Bank of India Act, 1934. RBI in turn includes only those banks in schedule which satisfy the criteria laid down by 42(6)(a). Number of scheduled commercial bank increased from 60,515 in 1990 to 1,30,482 in 2015 which show significant increase in number of scheduled commercial banks but number of scheduled commercial banks per lakh population has increased from 6.52 banks in 2000 to 10.78 banks in 2015. In India, Punjab with 21.74 banks per lakh of population occupies the highest place followed by Himachal Pradesh (21.56) and Uttarakhand (19.03). Bihar with 5.97 banks per lakh population occupies lowest position. In UP, Gautam Buddha Nagar (24.13) has highest number of scheduled commercial banks per lakh population followed by Lucknow (17.8) and Kanpur Nagar (12.43). Badaun (4.03) has lowest number of scheduled commercial banks followed by Bahraich (4.58) and Kushinagar (4.74).

6.4 PERCENTAGE OF GROSS IRRIGATED AREA TO GROSS SOWN AREA

Gross sown area or Gross Cropped Area (GCA) refers to the total area sown once as well as more than once in an agricultural year. When crop is sown on a piece of land for twice, the area is counted twice in GCA. The states of plain regions like Punjab and Haryana have more percentage of net sown area. Percentage of gross irrigated area to gross sown area shows the availability of irrigation to the agricultural land. It is significant as it affects the productivity. In UP, district of Western region such as Meerut, Hapur, Bulandshahr etc. have 100% gross irrigated area to gross sown area. On the other hand, percentage of gross irrigated area to gross sown are is lowest in Balrampur (33.55) followed by Mahoba (38.41) and Hamirpur (40.69).

7. DATA SOURCES AND METHODOLOGY

Uttar Pradesh as a whole and its 75 district has been taken as operational area of the present study. The study is based on cross sectional analysis with the use of secondary data. Data for this study is collected from various Government of India publications such as Statistical abstract of India, National Family Health Survey (NFHS) and State government publication of Uttar Pradesh from Department of Planning, Economics and Statistics division. Selected variables are composite index of development (CID), composite index of economic infrastructure (CIEI) and composite index of social infrastructure (CISI). CID has been taken as the dependent variable & CISI and CIEI are taken as independent variable. CID is based on vector of 5 indicators comprising (i) Inverse of IMR, (ii) per capita NSDP, (iii) No. of persons living in urban areas per '000 population, (iv) Number of literates per '000 population, (v) Per capita electricity consumption in kWh. CIEI is based on vector of 4 indicators comprising (i) length of pucca road per '000 sq.km of area, (ii) number of scheduled commercial banks per lakh of population, (iii) percentage of electrified villages to total inhabited villages, (iv) percentage of net irrigated area to net sown area. CISI is based on vector of 4 indicators comprising (i) number of Primary health centers' (PHCs) per lakh of population, (ii) number of maternal and child healthcare centers' (MCH) per lakh population (iii) number of junior basic schools (JBS) per lakh of population (iv) number of higher secondary schools (HSS) per lakh of population. Simple index method has been used to arrive at the composite indices. To understand the role of infrastructure in development we will be making use of multiple regression analysis. It is expected that there is direct relationship between the two i.e. better infrastructure availability lead to greater development.

8. REGION WISE SOCIO-ECONOMIC DEVELOPMENT AND INFRASTRUCTURE AVAILABILITY IN UP: COMPOSITE INDEX APPROACH

District wise and region wise index values of composite index of social infrastructure, composite index of economic infrastructure and composite index of development are as follows in Table number 1:

TABLE 1

DISTRICT	CISI	CIEI	CID
SAHARANPUR	87.29	111.81	112.45
MUZAFFARNAGAR	94.27	107.93	152.87
SHAMLI	100.17	107.31	114.42
BIJNOR	101.85	89.98	103.76
MORADABAD	81.72	149.35	110.5
SAMBHAL	77.32	82.53	94.16
RAMPUR	79.92	104.36	99.14
JYOTIBA PHULE NAGAR	121.01	106.51	104.39
MEERUT	90.89	128	173.21
BAGHPAT	119.83	104.27	119.95
GHAZIABAD	49.61	202.76	226.18
HAPUR	86.13	118.7	167.63
GAUTAM BUDDHA NAGAR	69.76	172.79	422.21
BULANDSHAHR	99.69	103.3	107.5
ALIGARH	94.04	101.93	115.02
MAHAMAYA NAGAR	127.26	105.84	118.49
MATHURA	111.49	99.37	131.84
AGRA	93.95	116.37	157.71
FIROZABAD	106.44	101.39	161.87
ETAH	172.7	105.43	102.67

KASGANJ	107.25	92.05	97.81
MAINPURI	142.02	106.77	89.74
BADAUN	74.18	83.33	77.7
BAREILLY	84.25	113.02	101.26
PILIBHIT	81.7	97.81	88.15
SHAHJAHANPUR	105.83	101.92	76.57
FARRUKHABAD	112.44	94.42	84
KANNUAJ	120.27	103.7	77.24
ETAWAH	126.98	109.84	96.39
AURAIYA	141.52	99.22	96.95
WESTERN REGION	96.81	106.42	126.06
KHERI	84.35	86.8	69.55
SITAPUR	86.97	96.34	66
HARDOI	96.33	86.31	66.49
UNNAO	104.51	91.75	87.45
LUCKNOW	83.12	182.37	200
RAE BARELI	94.53	110.05	79.49
RAMABAI NAGAR	135.79	100.73	98.26
KANPUR NAGAR	91.39	138.22	185.56
FATEHPUR	108.75	91.51	87.9
BARABANKI	94.65	105.52	69.69
CENTRAL REGION	95.43	103.94	101.04
JALAUN	139.3	84.16	103.04
JHANSI	121.78	88.71	146.46
LALITPUR	110.95	81.9	81.38
HAMIRPUR	165.73	78.58	109.58
MAHOBA	109.2	70.82	104.55
BANDA	124.93	78.77	86.66
CHITAKOOT	138.45	72.81	78.25
BUNDELKHAND REGION	129.37	80.68	101.42
PRATAPGARH	128.05	113.23	60.19
KAUSHAMBI	110.49	97.55	65.44
ALLAHABAD	92.37	117.7	115.13
FAIZABAD	106.18	117.1	74.42
AMBEDKAR NAGAR	97.57	119.74	78.01
SULTANPUR	126.04	137.38	81.11
AMETHI	146.72	130.76	76.65
BAHRAICH	77.51	68.21	58.53
SHRAWASTI	110.74	76.69	46.29
BALRAMPUR	81.24	70.67	51.03
GONDA	90.45	95.27	60.64
SIDDHARTH NAGAR	104.24	94.94	53.76
BASTI	103.27	101.45	65.89
SANT KABIR NAGAR	82.87	89.89	64.96
MAHRAJGANJ	86.63	79.85	58.41
GORAKHPUR	91.53	110.93	91.88
KUSHINAGAR	91.36	100.95	59.14
DEORIA	128.49	106.08	68.34
AZAMGARH	102.13	110.81	66.86
MAU	113.73	111.89	93.45
BALIA	116.5	95.67	69.09
JAUNPUR	107	111.47	67.93
GHAZIPUR	130.51	113.17	71.01
CHANDAULI	92.45	107.7	79.64
VARANASI	72.04	141.14	129.84
SANT RAVIDAS NAGAR	88.19	115.18	73.72
MIRZAPUR	100.93	94.29	80.16
SONBHADRA	97.2	80.82	88.18
EASTERN REGION	101.61	103.14	73.20
UTTAR PRADESH	100	100	100

Source: Author's calculation

In Western region Etah, Mainpuri and Auraiya are some districts having high CISI due to better per capita availability of social infrastructure and surprisingly Ghaziabad, Gautam Buddha Nagar and Badaun are districts having low CISI. On the other hand, CIEI is highest in Ghaziabad followed by Gautam Buddha Nagar and Moradabad and lowest in Sambhal followed by Badaun and Bijnor. CID is highest in Gautam Buddha Nagar followed by Agra and Meerut and lowest in Shahjahanpur followed by Kannauj and Badaun. From the above table it can be observed that districts having high CID have high CIEI. But districts having high CID are having low CISI such as Gautam Buddha Nagar. This is because these districts fall in NCR zone which is the center of economic activities and provide better opportunities. So these districts attract migrants across the various underdeveloped regions of the Uttar Pradesh as these districts provide them better source to earn their livelihood (pull factors of migration) which results in lesser per capita availability of social infrastructure.

In Central region CISI is highest in Rambai Nagar followed by Fatehpur and Unnao and lowest in Lucknow followed by Kheri and Sitapur. On the other hand, CIEI is highest in Lucknow followed by Kanpur Nagar and Raebareili and lowest in Hardoi followed by Kheri and Fatehpur. CID is highest in Lucknow followed by Kanpur Nagar and Ramabai Nagar and lowest in Sitapur followed by Hardoi and Raebreli. Central region also shows similar trend. Districts having high CID have high CIEI but low CISI. Lucknow and Kanpur Nagar are district having high CID and CIEI but low CISI.

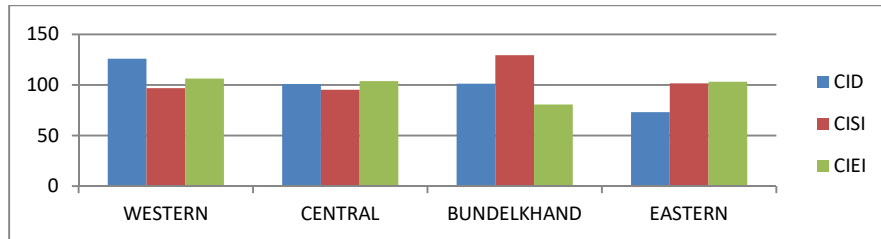
In Bundelkhand region CISI is highest in Hamirpur followed by Chitakoot and Jalaun and lowest in Lalitpur. CISI is comparatively high in all districts of Bundelkhand region. However, CIEI is comparatively low in all the districts. CID is highest in Jhansi followed by Hamirpur and Mahoba and lowest in Chitakoot followed by Lalitpur.

In Eastern region CISI is highest in Amethi followed by Ghazipur and Pratapgarh and lowest in Varanasi followed by Bahraich. CIEI is highest in Varanasi followed by Sultanpur and Amethi and lowest in Bahraich followed by Balrampur. CID is comparatively low in all districts of Eastern region. Varanasi has highest CID and Shrawasti has lowest. Varanasi has highest CID and CIEI and lowest CISI.

Overall in Uttar Pradesh Etah, Hamirpur, Amethi, Mainpuri and Aurai are some districts having high CISI while districts like Ghaziabad, Gautam Buddha Nagar, Badaun and Sambhal are having low CISI. The district having lower CISI mainly belongs to Western Uttar Pradesh which have high CID. CIEI is highest in Ghaziabad followed by Lucknow, Gautam Buddha Nagar and Moradabad. District which fall in zone of NCR and districts of Western Uttar Pradesh have higher CIEI. On the other hand, CIEI is lowest in Bahraich followed by Balrampur, Mahoba, Chitakoot and Shrawasti. The district having lower CIEI mainly belongs to Eastern Uttar Pradesh region. CID is highest in Gautam Buddha Nagar followed by Lucknow, Agra, Kanpur Nagar and Meerut. CID is higher in the district which falls in zone of NCR and Western Uttar Pradesh. Lucknow is capital and an important centre of administrative machinery and IT hub of Uttar Pradesh so is having high CID and Kanpur is industrial area. CID is lowest in Shrawasti followed by Balrampur, Siddharth Nagra, Basti and Maharajganj. CID is lowest in districts of Eastern Uttar Pradesh. The above table shows that CIEI and CID are relatively higher in district falling in zone of NCR, western UP, Lucknow and Kanpur and lower in districts of Eastern Uttar Pradesh. Overall the districts having CID and CIEI have low CISI.

REGION WISE INDEX

TABLE 1



Region wise observation on the basis of selected variables for the study shows that CISI is highest in Bundelkhand region (129.37) followed by Eastern region (101.61). However, CISI is lowest in Central region (95.43) followed by Western region (96.81). On the other hand, Western region (106.42) has highest CIEI followed by Central (103.94) and Eastern region (103.14). Bundelkhand region (80.68) has lowest CIEI. Western region (126.06) has highest CID followed by Bundelkhand region (101.42) and Eastern region (73.2) has lowest CID followed by Central region (101.04). From the above table and diagram, it can be observed that regions having high CID have high CIEI and low CISI.

INFRASTRUCTURE AND DEVELOPMENT: A MULTIPLE REGRESSION ANALYSIS

Dependent variable- CID

TABLE 2

INDEPENDENT VARIABLES		REGION				
		WESTERN	CENTRAL	BUNDELKHAND	EASTERN	UTTAR PRADESH
CONSTANT		-48.95	-113.05	-75.401	38.238	-23.254
CISI	COEFFICIENT	-.251	.422	.041	-.445	-.178
	SIGNIFICANCE	.514	.422	.936	.005	.422
CIEI	COEFFICIENT	1.812	1.585	2.16	.776	1.356
	SIGNIFICANCE	.000	.000	.229	.000	.000
ADJUSTED R ²		.504	.807	.004	.524	.397

Source: Author's calculation from table number 1

Notes: CID stands for composite index of development, CISI stands for composite index of social infrastructure, CIEI stands for composite index of economic infrastructure.

As can be observed from the table, the coefficient of CISI for UP is insignificant i.e. p value=.422. In case of this study social infrastructure is not making a significant contribution to the economic development. It may be concluded that the level of social infrastructure has still not reached the point where it can play a decisive role in the economic development of Uttar Pradesh commensurate to its population requirement. Further, a limitation of this study is that only some indicative indicators have been incorporated. In case of economic infrastructure its highly significant contribution (p value=0.000) to development is discernible. Region wise observation shows that social infrastructure is not making significant impact on development in all the regions except Bundelkhand region (p value =.229). On the other hand economic infrastructure is making significant impact on development of all the regions excepting Bundelkhand region where its significance is relatively lower (p value=.229). Thus economic infrastructure is resulting in significant development of Uttar Pradesh. Economic infrastructure should be further upgraded and extended, whereas social infrastructure which leads merely not to the economic development but also to social transformation seems to be inadequate and should be made available throughout the state for a far reaching and all encompassing socio-economic development.

9. CONCLUSION

On the basis of this study it can be concluded that although availability of economic and social infrastructure has increased overtime but still a lot more needs to be done. The district wise cross section data multiple regression analysis shows that economic infrastructure is making a significant contribution to economic development of the state. However, the contribution of social infrastructure seems to be meager on development of Uttar Pradesh. It was also observed that those districts having higher index of development were having lower social infrastructure index. These districts are having high per capita income, higher literacy rate and urbanization. Also these districts attract migrants across the various underdeveloped regions of the Uttar Pradesh as these districts provide them better source to earn their livelihood (pull factors of migration) for e.g. the districts which are part of NCR. This Intra state migration exerts pressure on the available resources. It was observed that all these lead to lesser per capita availability of social infrastructure which have been represented in the present study by indicators such as availability of PHCs and MHCs per lakh of population and availability of JBS and HSS per lakh of population. Also it has been observed that as the per capita income of a person increases they opt for better educational and health facilities which are generally provided by private educational institutions and hospitals in these areas. As the availability of social infrastructure indicators taken in the present study depend on government or public investment, it seems to decline as private players are involved in creating social infrastructure through private investment. This calls for improvement in availability and efficiency in government provided health centres and educational institutions for an all encompassing impact on the masses. Thus while the additional provision of economic infrastructure is also important, greater attention should be paid towards social infrastructure if the state is to move to a faster growth trajectory and catch up with more developed states.

Region wise differentials in infrastructure development also need to be taken care of and the discrepancy in growth of CID and CISI need to be further researched.

REFERENCES

1. Datta and Sundaram (2011), 'Indian Economy', S.Chand and sons, New Delhi
2. District wise indicators Uttar Pradesh (2016), Economics & statistics division, State Planning Institute, Uttar Pradesh
3. Energy statistics (2017), Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.
4. Government of India, Census of India (2011), New Delhi.
5. Handbook of statistics on Indian states (2016-17), Reserve bank of India.
6. Human development report (2016), United Nations development programme.
7. India year book (2017), Government of India
8. J.V Vaishampayan, (2011), 'Infrastructure Development of India', NRBC Lucknow.
9. Rachna Mujoo, (2011), 'Infrastructure Efficiency and Economic Development in Uttar Pradesh' J.V Vaishampayan,op.cit.
10. State statistics (2015), Niti Aayog, Government of India.
11. World bank (1994), World development report
12. www.infrastructure.gov.in

APPENDIX

1 TABLE SHOWING DEVELOPMENT INDICATORS

1.1 TABLE SHOWING DEVELOPMENT INDICATORS OF WESTERN REGION

DISTRICTS	IMR	PER CAPITA NSDP IN ₹ { At current prices (base year 2011-12)}[2014-15]	NUMBER OF LITERATES PER THOUSANDS POPULATION [2011]	NUMBER OF PERSONS LIVING IN URBAN AREAS PER THOUSAND POPULATION [2011]	PER CAPITA ELECTRICITY CONSUMPTION(IN kWh) [2015-16]
SAHARANPUR	76	46,325	705	308	316.2
MUZAFFARNAGAR	51	51,404	691	287	714.57
SHAMLI	NA	50,188	NA	NA	NA
BIJNOR	62	45,597	685	251	231.23
MORADABAD	64	41,970	568	330	300
SAMBHAL	NA	41,299	NA	NA	NA
RAMPUR	60	54,431	533	252	169.86
JYOTIBA PHULE NAGAR	72	57,142	638	249	230.33
MEERUT	50	85,421	728	511	501.3
BAGHPAT	52	50,984	720	211	383.52
GHAZIABAD	46	59,119	781	675	1086.66
HAPUR	NA	73,523	NA	NA	NA
GAUTAM BUDDHA NAGAR	57	3,76,781	801	591	1893.68
BULANDSHAHR	68	53,441	689	248	259.31
ALIGARH	70	45,368	675	331	318.66
MAHAMAYA NAGAR	57	58,803	716	213	348.52
MATHURA	44	51,964	704	297	376.49
AGRA	51	85,496	716	458	832.06
FIROZABAD	56	45,245	719	333	272.29
ETAH	67	57,837	708	151	161.19
KASGANJ	NA	64,553	610	201	113.45
MAINPURI	50	37,782	760	154	192.21
BADAUN	NA	35,283	513	175	104
BAREILLY	78	58,866	585	353	172.65
PILIBHIT	73	48,585	615	173	75.9
SHAHJAHANPUR	80	39,976	595	198	90.64
FARRUKHABAD	78	42,115	690	221	110.48
KANNUAJ	79	32,269	627	169	121.28
ETAWAH	56	40,685	784	232	220.8
AURAIYA	58	26,949	789	170	286.6
WESTERN REGION	62	59,737	675	313	357.41
UTTAR PRADESH	68	43,861	677	223	252.42

1.2 TABLE SHOWING DEVELOPMENT INDICATORS OF CENTRAL REGION

DISTRICTS	IMR	PER CAPITA NSDP IN ₹ { At current prices (base year 2011-12)}[2014-15]	NUMBER OF LITERATES PER THOUSANDS POPULATION [2011]	NUMBER OF PERSONS LIVING IN URBAN AREAS PER THOUSAND POPULATION [2011]	PER CAPITA ELECTRICITY CONSUMPTION(IN kWh) [2015-16]
KHERI	78	37,808	606	115	84.4
SITAPUR	80	34,416	611	118	59
HARDOI	81	29,349	646	132	68.88
UNNAO	58	35,233	664	171	164.57
LUCKNOW	44	65,450	773	662	722.57
RAE BARELI	53	30,251	672	90	154
RAMABAI NAGAR	65	35,030	758	97	362.53
KANPUR NAGAR	37	58,148	796	658	502.2
FATEHPUR	55	33,783	674	122	213.11
BARABANKI	68	31,514	617	101	101.4
CENTRAL REGION	62	40,676	683	260	252.52
UTTAR PRADESH	68	43,861	677	223	252.42

1.3 TABLE SHOWING DEVELOPMENT INDICATORS OF BUNDELKHAND REGION

DISTRICTS	IMR	PER CAPITA NSDP IN ₹ { At current prices (base year 2011-12)}[2014- 15]	NUMBER OF LITERATES PER THOUSANDS POPULATION [2011]	NUMBER OF PERSONS LIVING IN URBAN AREAS PER THOUSAND POPULATION [2011]	PER CAPITA ELECTRICITY CONSUMPTION{IN kWh} [2015-16]
JALAUN	65	46,607	737	248	214.03
JHANSI	41	60,007	750	417	334.24
LALITPUR	73	43,313	635	144	142.96
HAMIRPUR	45	40,073	688	190	372.58
MAHOBABANDA	46	55,472	653	211	144.25
BANDA	55	32,793	667	153	170.81
CHITRAKOOT	67	39,445	650	97	152.97
BUNDELKHAND REGION	56	45,700	693	227	225.53
UTTAR PRADESH	68	43,861	677	223	252.42

1.4 TABLE SHOWING DEVELOPMENT INDICATORS OF EASTERN REGION

DISTRICTS	IMR	PER CAPITA NSDP IN ₹ { At current prices (base year 2011-12)}[2014-15]	NUMBER OF LITERATES PER THOUSANDS POPULATION [2011]	NUMBER OF PERSONS LIVING IN URBAN AREAS PER THOUSAND POPULATION [2011]	PER CAPITA ELECTRICITY CONSUMPTION{IN kWh} [2015-16]
PRATAPGARH	84	22,124	701	55	104.63
KAUSHAMBI	82	28,724	613	78	134.31
ALLAHABAD	81	49,475	723	247	408.11
FAIZABAD	88	31,692	687	138	148.97
AMBEDKAR NAGAR	63	24,650	722	117	168.21
SULTANPUR	45	34,138	693	52	127.74
AMETHI	NA	41,126	NA	NA	150.34
BAHRAICH	66	28,825	494	81	77.97
SHRAWASTI	96	28,850	467	35	54.18
BALRAMPUR	87	21,415	495	77	52.71
GONDA	71	29,960	587	65	74.1
SIDDHARTH NAGAR	87	23,375	592	63	54.58
BASTI	81	35,410	672	56	102.67
SANT KABIR NAGAR	63	21,269	667	75	90.92
MAHRAJGANJ	78	28,407	628	50	64.78
GORAKHPUR	62	29,825	708	188	234.78
KUSHINAGAR	80	31,307	652	47	55.36
DEORIA	70	24,917	711	102	93
AZAMGARH	74	24,499	709	85	110.43
MAU	73	31,053	731	226	237.1
BALIA	69	23,833	709	94	115.1
JAUNPUR	72	24,390	715	77	124.52
GHAZIPUR	77	26,959	718	76	164.24
CHANDAULI	77	26,474	715	124	222.65
VARANASI	72	40,482	756	434	394
SANT RAVIDAS NAGAR	82	28,743	690	145	135.67
MIRZAPUR	80	34,826	685	139	183.85
SONBHADRA	69	47,866	640	169	158.58
EASTERN REGION	75	30,192	674	122	157.64
UTTAR PRADESH	68	43,861	677	223	252.42

2. TABLE SHOWING SOCIAL INFRASTRUCTURE INDICATORS**2.1 TABLE SHOWING SOCIAL INFRASTRUCTURE INDICATORS OF WESTERN REGION**

DISTRICTS	NUMBER OF PHCs PER LAKH POPULATION [2015-16]	NUMBER OF MHCs PER LAKH POPULATION [2015-16]	NUMBER OF JBS PER LAKH POPULATION [2015-16]	NUMBER OF HSS PER LAKH POPULATION [2015-16]
SAHARANPUR	1.65	11.56	78.88	4.7
MUZAFFARNAGAR	1.78	11.58	64.61	7.32
SHAMLI	2.54	12.94	77.03	4.56
BIJNOR	1.69	10.66	104.01	6.82
MORADABAD	1.23	9.84	62.62	6.94
SAMBHAL	1.77	11	46.61	4.68
RAMPUR	1.39	10.23	87.85	3.58
JYOTIBA PHULE NAGAR	1.86	10.76	109.24	10.86
MEERUT	1.52	12.38	63.58	6.93
BAGHPAT	2.52	12.89	64.24	10.97
GHAZIABAD	0.6	5.13	40.01	5
HAPUR	2.04	13.49	37.95	5.48
GAUTAM BUDDHA NAGAR	1.39	726	62.03	4.7
BULANDSHAHR	2.19	13.06	74.56	5.74
ALIGARH	1.51	11.06	75.44	7.53
MAHAMAYA NAGAR	2.36	11.6	111.45	10.21
MATHURA	1.78	11.84	89.05	9.7
AGRA	1.6	10.5	69.49	8.02
FIROZABAD	2.46	12.01	82.13	6.58
ETAH	2.81	15.72	116.6	18.1
KASGANJ	2.7	14.1	85.57	4.55
MAINPURI	3.24	13.87	122.63	9.01
BADAUN	1.7	9.93	70.85	2.62
BAREILLY	1.6	10.69	72.09	5.11
PILIBHIT	1.59	10.82	76.13	4.05
SHAHJAHANPUR	1.97	12.19	101.31	6.33
FARRUKHABAD	1.98	12.05	83.13	9.67
KANNUAJ	2.55	13.64	101.56	7.42
ETAWAH	2.5	13.4	122.49	7.74
AURAIYA	2.68	14.13	107.58	11.87
WESTERN REGION	1.83	11.27	79.06	6.78
UTTAR PRADESH	2.00	12.03	78.85	6.66

2.2 TABLE SHOWING SOCIAL INFRASTRUCTURE INDICATORS OF CENTRAL REGION

DISTRICTS	NUMBER OF PHCs PER LAKH POPULATION [2015-16]	NUMBER OF MHCs PER LAKH POPULATION [2015-16]	NUMBER OF JBS PER LAKH POPULATION [2015-16]	NUMBER OF HSS PER LAKH POPULATION [2015-16]
KHERI	1.91	10.99	81.79	3.12
SITAPUR	1.95	11.45	77.88	3.76
HARDOI	1.71	11.82	89.58	5.86
UNNAO	1.96	12.97	92.55	6.32
LUCKNOW	0.88	9.17	52.48	11.25
RAE BARELI	2	10.38	76.12	6.35
RAMABAI NAGAR	2.5	14.23	114.52	10.3
KANPUR NAGAR	1.13	10.8	69.2	8.76
FATEHPUR	2.07	13.56	98.06	6.29
BARABANKI	2.39	12.61	77.15	3.76
CENTRAL REGION	1.76	11.49	79.56	6.48
UTTAR PRADESH	2.00	12.03	78.55	6.66

2.3 TABLE SHOWING SOCIAL INFRASTRUCTURE INDICATORS OF BUNDELKHAND REGION

DISTRICTS	NUMBER OF PHCs PER LAKH POPULATION [2015-16]	NUMBER OF MHCs PER LAKH POPULATION [2015-16]	NUMBER OF JBS PER LAKH POPULATION [2015-16]	NUMBER OF HSS PER LAKH POPULATION [2015-16]
JALAUN	2.58	19.38	110.25	8.48
JHANSI	2.39	18.93	89.92	6.41
LALITPUR	2.56	17.36	100.56	2.93
HAMIRPUR	4.4	24.22	106.56	7.09
MAHOB	2.32	18.75	85.2	3.79
BANDA	3.21	18.5	93.31	4.47
CHITRAKOOT	3.55	16.58	117.96	5.92
BUNDELKHAND REGION	2.93	19.03	99.82	5.74
UTTAR PRADESH	2.00	12.03	78.55	6.66

2.4 TABLE SHOWING SOCIAL INFRASTRUCTURE INDICATORS OF EASTERN REGION

DISTRICTS	NUMBER OF PHCs PER LAKH POPULATION [2015-16]	NUMBER OF MHCs PER LAKH POPULATION [2015-16]	NUMBER OF JBS PER LAKH POPULATION [2015-16]	NUMBER OF HSS PER LAKH POPULATION [2015-16]
PRATAPGARH	2.74	13.54	81.74	10.59
KAUSHAMBI	2.48	12.45	74.9	7.96
ALLAHABAD	1.55	10.53	57.75	8.74
FAIZABAD	1.87	12.08	87.78	7.96
AMBEDKAR NAGAR	1.61	11.07	85.31	7.3
SULTANPUR	2.55	12.5	90.41	10.53
AMETHI	3.69	18.4	118.69	6.59
BAHRAICH	1.96	8.88	76.82	2.72
SHRAWASTI	2.24	17.98	100.15	3.63
BALRAMPUR	1.78	11.04	81.64	2.71
GONDA	2.2	11.42	75.77	4.05
SIDDHARTH NAGAR	3.15	13.07	86.72	2.72
BASTI	2.03	12.46	87.54	6.46
SANT KABIR NAGAR	1.74	11.91	79.92	2.94
MAHRAJGANJ	2.06	11.72	74.12	3.47
GORAKHPUR	1.98	12.17	58.19	6.14
KUSHINAGAR	2.1	11.02	82.48	4.28
DEORIA	2.87	14.31	72.38	10.64
AZAMGARH	2.3	12.5	68.91	6.81
MAU	2.17	12.04	65.2	10.9
BALIA	2.95	13.74	76.1	7.18
JAUNPUR	2.4	13.18	71.86	7.15
GHAZIPUR	2.31	12.7	83.31	13.01
CHANDAULI	1.83	13.85	63.79	5.48
VARANASI	0.98	10.06	48.68	6.25
SANT RAVIDAS NAGAR	1.62	11.05	61.49	6.79
MIRZAPUR	2.26	12.53	80.96	5.59
SONBHADRA	1.86	10.17	113.34	4.5
EASTERN REGION	2.16	12.16	75.82	6.74
UTTAR PRADESH	2.00	12.03	78.85	6.66

3. TABLE SHOWING ECONOMIC INFRASTRUCTURE INDICATORS

3.1 TABLE SHOWING ECONOMIC INFRASTRUCTURE INDICATORS OF WESTERN REGION

DISTRICTS	LENGTH OF PUCCA ROAD PER THOUSANDS SQ. KM [2015-16]	PERCENTAGE OF ELECTRIFIED VILLAGES TO TOTAL INHABITED VILLAGES [2015-16]	NUMBER OF SCHEDULED COMMERCIAL BANKS PER LAKH POPULATION [2015-16]	NET IRRIGATED AREA TO NET SOWN AREA [2014-15]
SAHARANPUR	1525.6	98.2	7.38	93.04
MUZAFFARNAGAR	1119.57	100	8.01	98.88
SHAMLI	NA	NA	6.73	99.95
BIJNOR	738.32	84.97	6.61	94.57
MORADABAD	3201.22	99.18	8.2	93.82
SAMBHAL	NA	NA	5.44	74.04
RAMPUR	1136.46	99.24	7.13	96.43
JYOTIBA PHULE NAGAR	1182.3	99.26	8.15	89.38
MEERUT	1508.4	100	11.53	100
BAGHPAT	829.49	100	8.59	99.97
GHAZIABAD	5264.63	99.76	10.93	99.96
HAPUR	NA	NA	8.43	100
GAUTAM BUDDHA NAGAR	869.49	NA	24.13	99.97
BULANDSHAHR	1238.7	96.98	6.04	100
ALIGARH	1149.04	100	7.03	88.21
MAHAMAYA NAGAR	1325.36	95.97	7.55	87.15
MATHURA	707.69	100	9.52	82.27
AGRA	1662.4	100	10.19	66.96
FIROZABAD	1568.76	98.77	5.32	74.35
ETAH	1152	100	7.65	92.6
KASGANJ	1237.34	NA	5.2	84.52
MAINPURI	1532.72	99.15	5.32	97.64
BADAUN	NA	94.11	4.01	74.68
BAREILLY	1548.97	96.46	7.67	93.79
PILIBHIT	895.55	100	6.45	97.85
SHAHJAHANPUR	1101.19	100	6.86	93.13
FARRUKHABAD	973.38	99.74	5.9	88
KANNUAJ	1329.67	98.85	6.45	89.28
ETAWAH	1713.55	100	6.73	79.75
AURAIYA	1136.08	100	5.59	85.07
WESTERN REGION	1292.84	94.09	6.59	89.37
UTTAR PRADESH	1221.95	91.14	7.48	80.18

3.2 TABLE SHOWING ECONOMIC INFRASTRUCTURE INDICATORS OF CENTRAL REGION

DISTRICTS	LENGTH OF PUCCA ROAD PER THOUSANDS SQ. KM [2015-16]	PERCENTAGE OF ELECTRIFIED VILLAGES TO TOTAL INHABITED VILLAGES [2015-16]	NUMBER OF SCHEDULED COMMERCIAL BANKS PER LAKH POPULATION [2015-16]	NET IRRIGATED AREA TO NET SOWN AREA [2014-15]
KHERI	606.6	100	5.63	90.29
SITAPUR	1103.78	99.95	5.63	88.3
HARDOI	747.04	100	5.25	83.57
UNNAO	893.81	100	6.13	81.95
LUCKNOW	3267.41	100	17.8	91.75
RAE BARELI	NA	100	8.17	89.18
RAMABAI NAGAR	962.03	100	9.56	69.52
KANPUR NAGAR	2339.14	100	12.43	68.64
FATEHPUR	907.76	100	6.62	75.01
BARABANKI	1276.3	100	6.89	92.86
CENTRAL REGION	1035.85	99.99	8.68	84.4
UTTAR PRADESH	1221.95	91.14	7.48	80.18

3.3 TABLE SHOWING ECONOMIC INFRASTRUCTURE INDICATORS OF BUNDELKHAND REGION

DISTRICTS	LENGTH OF PUCCA ROAD PER THOUSANDS SQ. KM [2015-16]	PERCENTAGE OF ELECTRIFIED VILLAGES TO TOTAL INHABITED VILLAGES [2015-16]	NUMBER OF SCHEDULED COMMERCIAL BANKS PER LAKH POPULATION [2015-16]	NET IRRIGATED AREA TO NET SOWN AREA [2014-15]
JALAU	713.53	100	7.08	59.26
JHANSI	642.24	100	9.03	57.64
LALITPUR	801.94	100	6.39	53.61
HAMIRPUR	474.03	100	8.61	40.69
MAHOBA	503.5	100	6.32	38.41
BANDA	631.96	100	7.04	47.76
CHITRAKOOT	537.31	99.59	6.47	41.32
BUNDELKHAND REGION	629.83	99.95	7.41	50.07
UTTAR PRADESH	1221.95	91.14	7.48	80.18

3.4 TABLE SHOWING ECONOMIC INFRASTRUCTURE INDICATORS OF EASTERN REGION

DISTRICTS	LENGTH OF PUCCA ROAD PER THOUSANDS SQ. KM [2015-16]	PERCENTAGE OF ELECTRIFIED VILLAGES TO TOTAL INHABITED VILLAGES [2015-16]	NUMBER OF SCHEDULED COMMERCIAL BANKS PER LAKH POPULATION [2015-16]	NET IRRIGATED AREA TO NET SOWN AREA [2014-15]
PRATAPGARH	1677.53	100	6.89	91.26
KAUSHAMBI	1177.5	100	6.69	75.93
ALLAHABAD	1844.14	100	7.96	83.21
FAIZABAD	1880.39	100	6.82	91.11
AMBEDKAR NAGAR	1922	NA	6.16	95.9
SULTANPUR	3009	100	5.52	85.34
AMETHI	NA	NA	11.28	88.78
BAHRAICH	554.64	100	4.58	45.33
SHRAWASTI	1057.51	100	6.24	48.2
BALRAMPUR	718.63	100	5.41	33.55
GONDA	1049	100	5.66	88.09
SIDDHARTH NAGAR	1158.55	100	4.76	89.51
BASTI	1257.29	100	5.81	92.64
SANT KABIR NAGAR	1207.46	100	6.31	53.48
MAHRAJGANJ	1022	100	4.85	49.1
GORAKHPUR	1729	100	7.92	69.49
KUSHINAGAR	1465	100	4.74	88.88
DEORIA	1444	100	6.2	91.05
AZAMGARH	1637	100	6.09	94.74
MAU	1669	100	6	97.07
BALIA	1144	100	5.86	81
JAUNPUR	1799.76	100	6.37	83.18
GHAZIPUR	1781	100	6.43	89.23
CHANDAULI	1391	100	7.12	89.86
VARANASI	2449	100	11.21	83.91
SANT RAVIDAS NAGAR	1948	100	6.79	80.84
MIRZAPUR	1119.14	100	6.53	71.03
SONBHADRA	1077.46	100	6.94	26.17
EASTERN REGION	1458.29	98.71	6.51	77.65
UTTAR PRADESH	1221.95	91.14	7.48	80.18

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce, Economics & 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

