INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION AND MANAGEMENT

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      INTRODUCTION

      REVIEW OF LITERATURE

      NEED/IMPORTANCE OF THE STUDY

      STATEMENT OF THE PROBLEM

      OBJECTIVES

      HYPOTHESES

      RESEARCH METHODOLOGY

      RESULTS & DISCUSSION

      FINDINGS

      RECOMMENDATIONS/SUGGESTIONS

      CONCLUSIONS

      SCOPE FOR FURTHER RESEARCH

      ACKNOWLEDGMENTS

      REFERENCES

      APPENDIX/ANNEXURE

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- 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.

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, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- 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.

WEBSITE

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on December 17, 2011 http://epw.in/user/viewabstract.jsp

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DIGITAL OPPORTUNITIES IN NORTH INDIA: A STUDY ON DIGITAL OPPORTUNITY PARAMETERS AMONG NORTH INDIAN STATES

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ABSTRACT

This study is based on an empirical analysis of Information and Communications Technology (ICT) archival data. Some previous studies consider the impact of ICT on socio- economic development in the region. Using a set of regression analyses, this paper shows that ICT expansion in the North India has not only resulted in the reduction of the Digital Divide between this region but it has also had a positive impact on promoting democracy and freedom of expression in a region that suffers most from political, social and global conflicts. In recent years, several case studies have appeared on how mobile telephones, SMS and the Internet had an impact on political activities. It has been widely argued that information and communication technology (ICT) is influencing democracy all over the world. However, few studies provide any analysis of how ICT expansion correlates with measures of democracy.

KEYWORDS

Information, Communication, Population, Digital, Percentage.

INTRODUCTION

The Information and Communication Technology is one of the important driving forces for modern civilization. ICT enables interactive communication unhindered by distance, volume, medium or time. It also reduces the cost of co-ordination, communication and information processing. The role of Information Communication Technology (ICT) in creating digital opportunities contributing to the construction of the Digital information environment in the society has a greater role of the economic development. In India ICT contributes to change at social, political and economic levels of the economy. India has emerged as one of the fastest growing economics in the world. India's Technological capabilities and raising exports in information technology has been one of the major drivers of the growth. [1][2]

HISTORY OF DIGITALIZATION

The origin of Digitalization was on May 24, 1844 when the first electronic telegraph route was opened between Washington D.C and Baltimore, and when Samuel Morse sent the historic first message" What hath God Wrought?" As the telephone invented by the Bellin 1876, began to supersede the electronic telegraph, the telecommunications industry started upon a century long detour during which the majority of communications was transmitted via analogue rather than digital circuits. But the digitization of public telecommunication networks began in the 1980s. [3]

OBJECTIVE

Following are the objectives of the Study
- To identify the percentage of population covered by the mobile technology in North India
- To Identify the percentage of the wire-lines covered in North India
- To know the Internet access tariff as a percentage of per-capita income in North India
- To know the mobile access tariff as a percentage of per-capita income in North India

ANALYSIS AND DISCUSSION

PERCENTAGE OF POPULATION COVERED BY MOBILE TECHNOLOGY [4][5]

Table1 shows the percentage of population covered by mobile Technology in North Indian States. Based on number of mobile phone subscribers base Rajasthan tops the order 44,473,945 followed by Delhi, Haryana, Punjab and J&K. But while going by the percentage of population covered by the mobile technology the results are different. Here, Delhi tops the order with 245.7% followed by Punjab, Haryana, Rajasthan and J&K.

TABLE 1: PERCENTAGE OF POPULATION COVERED BY MOBILE TECHNOLOGY

STATE	POPULATION	MOBILE PHONE SUBSCRIBER BASE	% OF POPULATION COVERED BY MOBILE TECHNOLOGY
DELHI	16,753,235	41,171,114	245.7
HARYANA	25,353,081	20,389,507	80.4
J&K	12,612,782	5,754,286	45.6
RAJASTHAN	68,621,012	44,473,945	64.8
PUNJAB	27,704,236	30,147,893	108.8

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FIGURE 1: POPULATION AND MOBILE PHONE SUBSCRIBERS
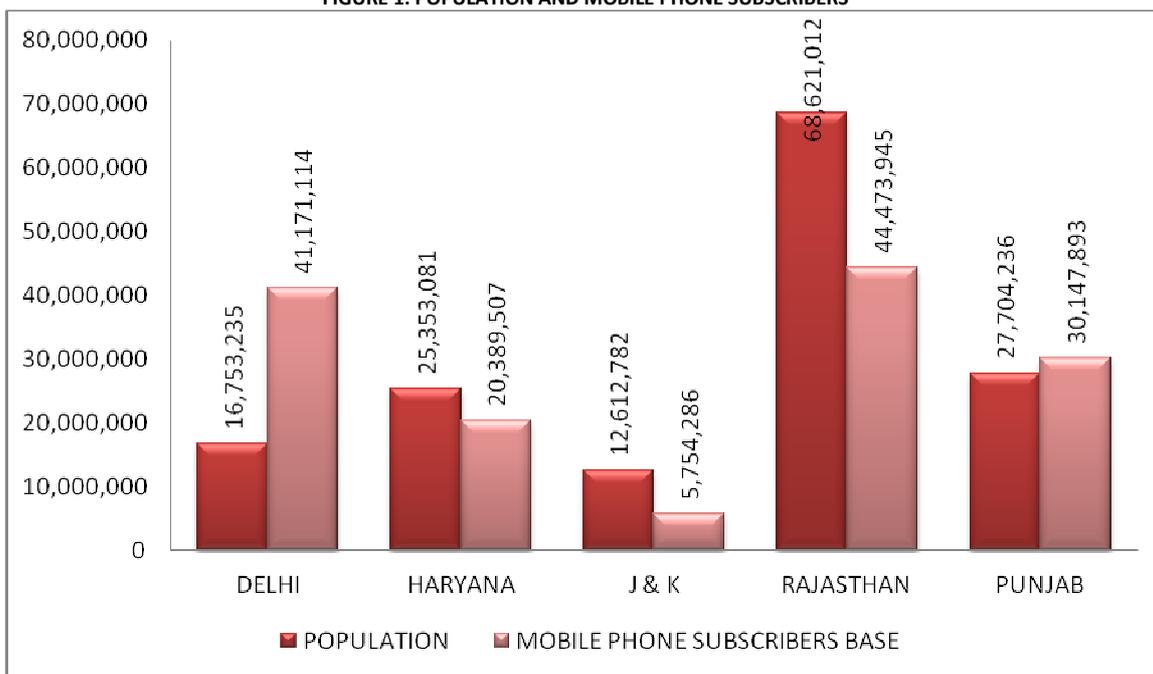
FIGURE 2: PERCENTAGE OF POPLULATION COVERED BY MOBILE TECHNOLOGY
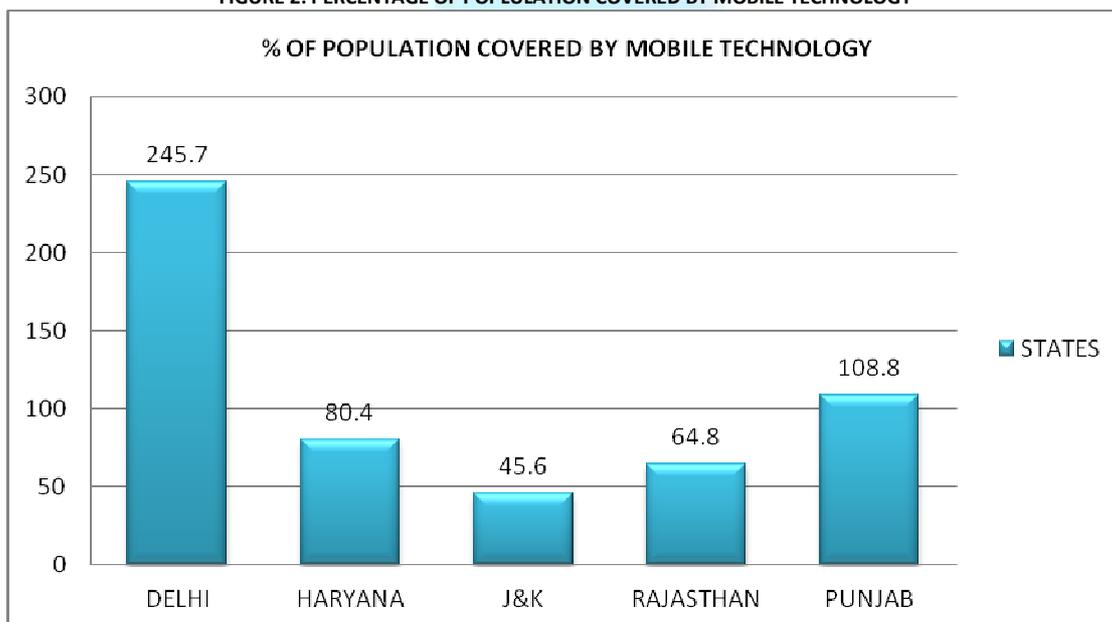
PERCENTAGE OF WIRELINE CONNECTIONS AND TOTAL WIRELINE SUBSCRIBERS [4][5]

In case of wire line connections Subscribers Punjab and Delhi in top list followed by Haryana, Rajasthan and J&K. in Wire line connection Delhi 8.3%, Haryana 1.9%,J&K 0.6%, Rajasthan 3.6%and Punjab 4.5%. The total wire line subscribers in Delhi 2843027, Haryana 640109, J&K 215517, Rajasthan 1239658, Punjab 1561107 as on May 2011.

TABLE 2: LANDLINE SUBSCRIBERS BASE BY MAY, 2011

STATE	TOTAL WIRELINE SUBSCRIBERS	% OF WIRELINE CONNECTIONS
DELHI	2,843,027	8.3%
HARYANA	6,401,09	1.9%
J&K	2,155,17	0.6%
RAJASTHAN	12,396,58	3.6%
PUNJAB	15,611,07	4.5%

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FIGURE 3: TOTAL WIRELINE SUBSCRIBERS
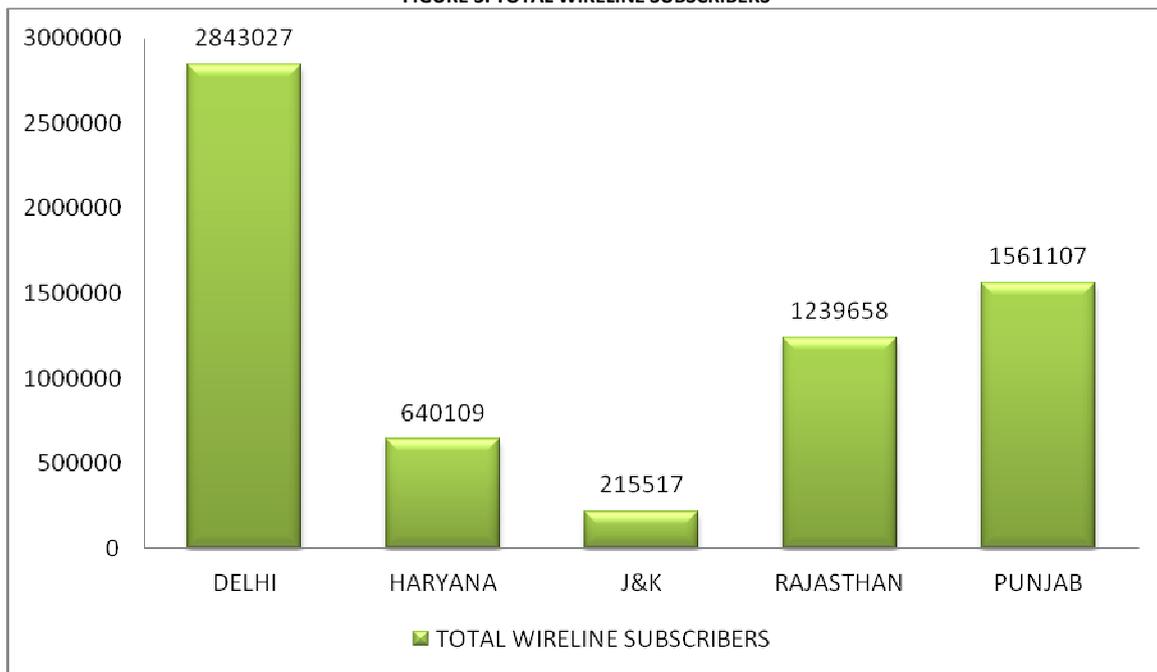
FIGURE 4: PERCENTAGE OF WIRELINE CONNECTIONS
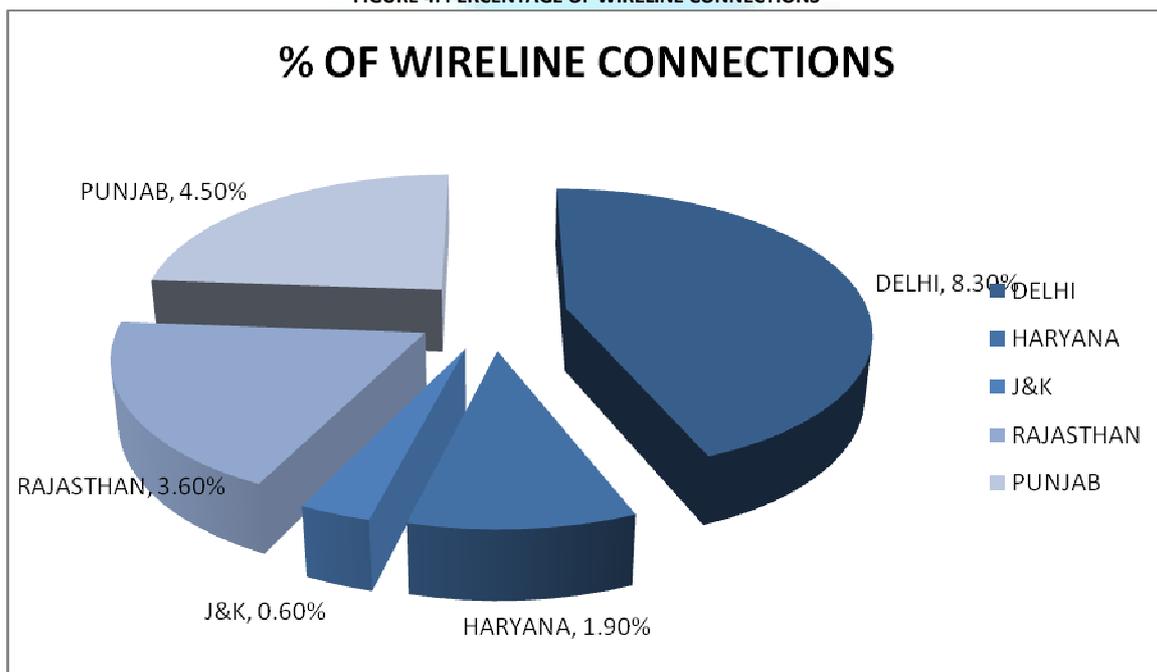
PERCENTAGE OF INTERNET ACCESS TARIFFS PER-CAPITA INCOME [6][7]

The minimum amount required for the broadband access per month is Rs 250. The percentage of Internet access Tariffs Per capita of Delhi is 3.12%, Haryana 3.80%, J & K 9.80%, Rajasthan 8.77% and Punjab 4.82%. According to Per-capita income Delhi ranked first followed by Haryana, Punjab, Rajasthan and J &K. Delhi has highest Per-capita income 95943 followed by Haryana 78781, Punjab 62153, and Rajasthan 34189 and J&K 30582.

TABLE 3: PER-CAPITA INCOME AND INTERNET ACCESS TARIFFS OF STATES

STATE	PER-CAPITA INCOME	INTERNET ACCESS TARIFFS	% INTERNET ACCESS TARIFFS PER-CAPITA
DELHI	95,943	3000	3.12
HARYANA	78,781	3000	3.80
J&K	30,582	3000	9.80
RAJASTHAN	34,189	3000	8.77
PUNJAB	62,153	3000	4.82

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FIGURE 5: PER-CAPITA INCOME AND INTERNET ACCESS TARIFFS
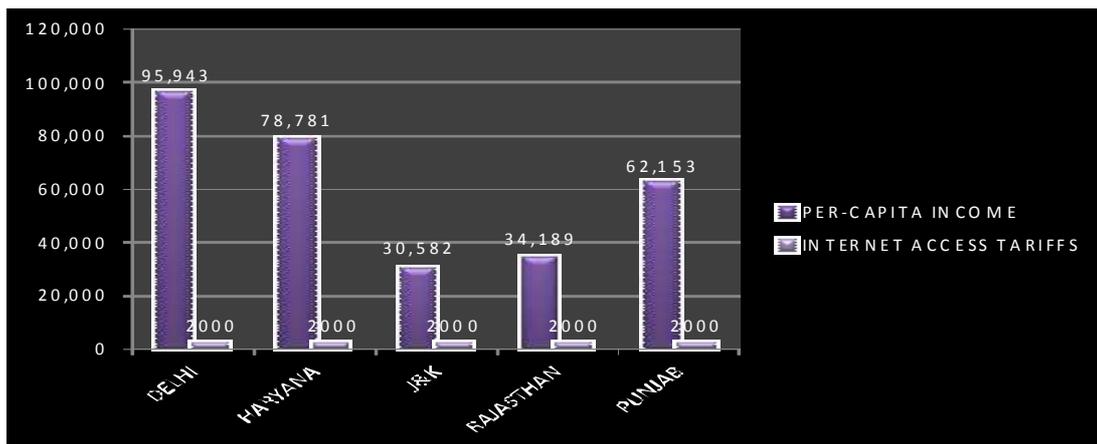
FIGURE 6: PERCENTAGE OF INTERNET ACCESS TARIFFS PER-CAPITA
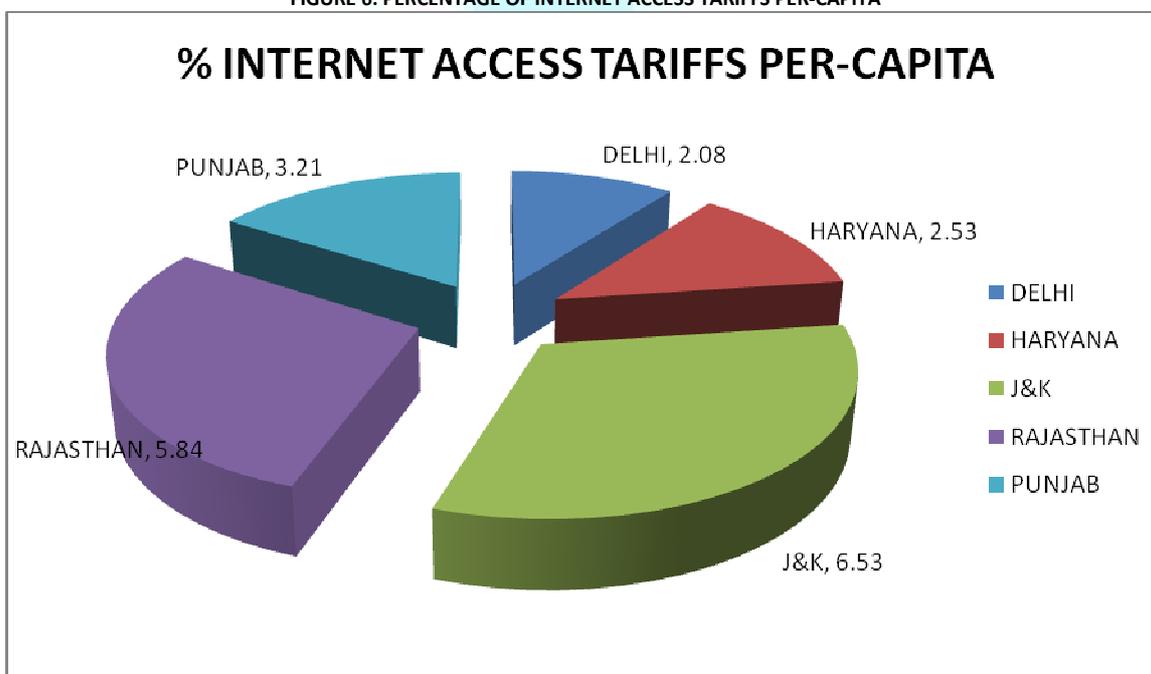
PERCENTAGE OF MOBILE PHONE TARIFFS PER-CAPITA INCOME [4][7]

Minimum amount required for the mobile phone activation per month is Rs 99/- which makes an annual minimum mobile tariff of Rs 1188/-. The percentage of mobile tariff per capita of Delhi is 1.23%, Haryana 1.50%, J&K 3.88%, Rajasthan 3.47% and Punjab 1.91%.

TABLE 4: MOBILE PHONE TARIFFS AND ITS PERCENTAGE STATE WISE

STATE	STATE PER-CAPITA INCOME	MOBILE TARIFFS	% MOBILE TARIFFS PER-CAPITA
DELHI	95,943	1188	1.23
HARYANA	78,781	1188	1.50
J&K	30,582	1188	3.88
RAJASTHAN	34,189	1188	3.47
PUNJAB	62,153	1188	1.91

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FIGURE 7: PER-CAPITA INCOME AND MOBILE TARIFFS
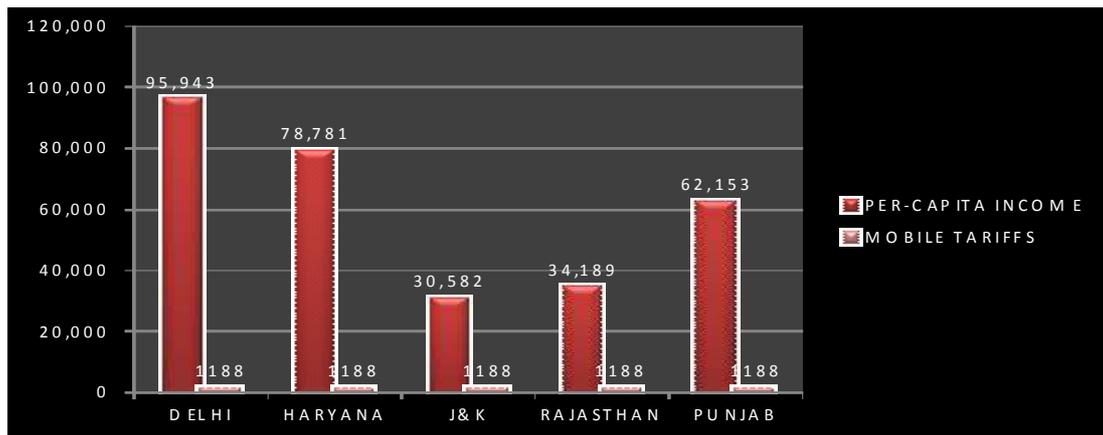
FIGURE 8: PERCENTAGE OF MOBILE TARIFFS PER-CAPITA
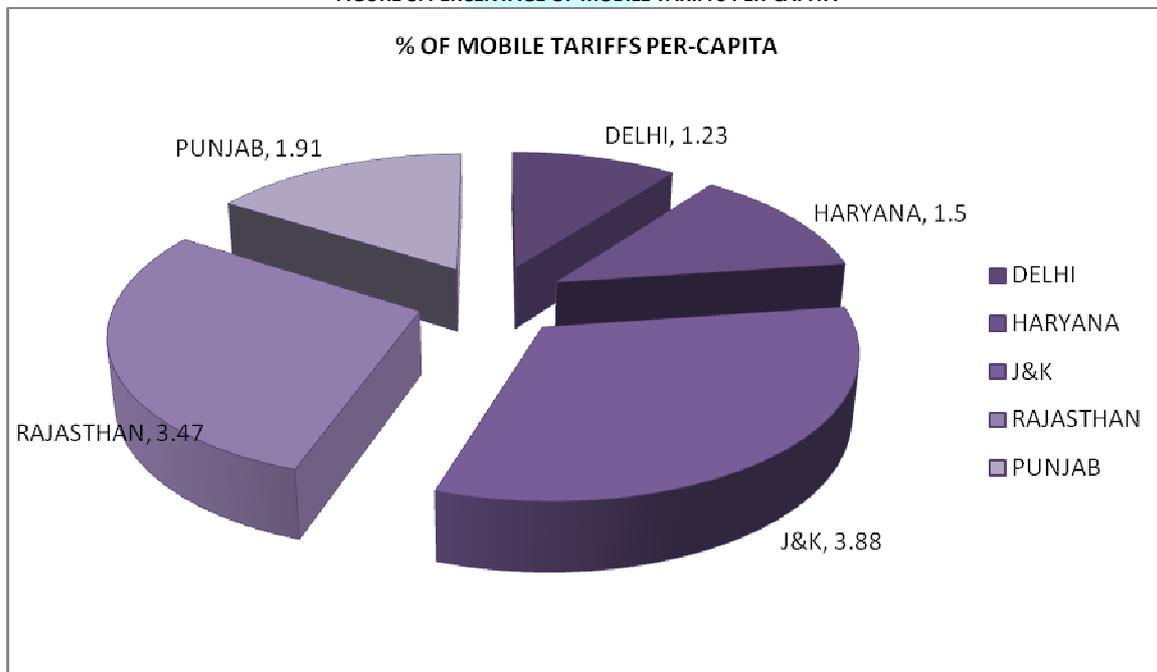
CONCLUSION

The unequal access to information and communication technologies has led to the digital divide not only in developing countries but globally as well. Although India has made encouraging efforts to bridge the gap by initiating a number of projects and programs for rural and remote locations. So, a lot more needs to be done to bring the people into the information society. All that is required is strong determination among people, good policy–makers and political support to bridge the digital divide. Libraries and information centers have a special role in providing information to all in order to reduce the gap between those who have the facilities to access digital information and those who do not. The country needs to improve the infrastructure of public libraries and link them with community information centers.

REFERENCES

1)   Balimoune - Lutz, M, "*An Analysis of the Determinants and Effects of ICT Diffusion in Developing Countries*", 2003.
2)   Farid Shirazi, "*The Contribution of ICT to freedom and Democracy an Empirical Analysis of Archival Data on the Middle East*" 2005.
3)   International Telecommunications Union, (ITU/UNCTAD/KADO), "*Digital Opportunity Platform*", 2006.
4)   Annual Report, Telecom Regulatory Authority of India, March 2011.
5)   www.bonelessresearch.com
6)   http://2.bp.blogspot.com/
7)   www.google.com

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