

## GROWTH OF INTERNET SERVICES IN UTTAR PRADESH

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*There has been gradual change and transformation in rural areas with the wider impact of globalization, privatization and economic liberalization. The communication and media accessibility in rural areas has drastically changed the working and life style of villagers. The landline telecom services have been replaced by mobile communication with wider internet connectivity. The outreach and easy access to internet has widened the scope of e-services in rural areas. Government initiatives for e-governance and development of communication infrastructure in rural areas have led to the growth of e-services. The Common Service Centres including E-Suvidha Kendra, Jan Suvidha Kendra, Sahaj Kendra, E-Sewa Kendra and Internet Café are providing e-services pertaining to development programmes and schemes, health, education, rural development, agriculture, and other related services. Internet accessibility has also led to the growth of social media which has widely effected the personal communication, social relations and information seeking behavior. The chapter attempts to examine the impact of e-services in rural areas. Against this backdrop, present paper purports to review the growth of internet services in rural Uttar Pradesh*

### INTRODUCTION

With two-thirds of the people living in rural areas, India is essentially a rural country. The rural economy generates 46% of national income. Despite increasing urbanisation, it is anticipated that by 2050, more than half of India's population would be rural. As a result, the expansion and development of the rural economy is critical to the country's overall development and inclusive growth. Agriculture has always been the primary source of income and employment in rural areas. Changes in the structure of production and occupation in more productive non-agricultural sectors other than agriculture are seen as a major source of economic growth and changes in the rural and overall economy. The village's economy is gradually shifting. With the rise in population and the breakdown of the family, land holdings are dwindling. As a result, agriculture isn't a substantial source of income for the locals. Agricultural and non-agricultural industries, on the other hand, continue to employ a considerable portion of the population. In rural areas, the salaried class is growing, while self-employment and small business have become more important throughout this time. The exodus of people from villages has had a significant impact on society and the economy. The key to long-term development is long-term life.

The rural way of life in India has been greatly influenced by modern forces of social development. The family and society have been impacted by globalisation, privatisation, and economic liberalisation. In India, there has been a shift in development and administration. Ecology, the environment, and rural life patterns have all been influenced by development theories. Human actions have also had a negative impact

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on the environment and ecology. Rural life patterns are changing, and this tendency is continuing, as a result of changes in political and administrative systems, new economic policies, technology and communication advancements, media expansion, and a vast network of rural highways connecting villages and towns. It has stated that there is a growing demand for sustainable development for both consumer and conservation goals, as well as for good governance, sustainable agriculture, and sustainable natural resource management.

Any country with a rural population that is still impoverished and unemployed, as well as substantial rural-urban economic disparities, cannot be considered developed. In fact, the economic situation of a country's rural population provides a more accurate picture of its development quotient. Rural economic development is a major problem for developing countries with significant populations living in villages and small towns. This is the area where development efforts either fail to penetrate or bounce back without having a meaningful impact, for a variety of reasons. The infrastructural gap between rural and urban areas in terms of roads, power, transportation, and telecommunications is a major obstacle. It stifles private investment in rural regions and fails to offer the crucial components needed to modernise agriculture and, more critically, to build other economic businesses for the rural population. It's a challenge because rural development in developing countries necessitates large-scale proactive effort in order for millions of people to be pulled out of poverty and employed in productive jobs that aren't limited to the agricultural sector. Rural areas do not have to be and should not be defined exclusively by their agricultural belts and agrarian inhabitants. Rather, they should be viewed as a human resource: a pool of young people, skilled artisans, inventors, and entrepreneurs ready to be tapped to help drive local and national development. A rural youth may be the son or daughter of a farmer, but she or he does not have to be a farmer. Instead, he or she could be a software developer, a call centre employee, an e-entrepreneur, a lawyer preparing cases for foreign corporations, or a potential employee for yet-to-be-created jobs.

When we accept the new line of thinking indicated above, the focus on agriculture is correct, but restricting the focus of ICT to agriculture solely is inappropriate. Instead, ICTs in rural regions perform a number of critical roles. In government, government-aided, and private schools, as well as public and private institutes in rural areas, ICTs should be integrated into the education curriculum. As a result, emerging countries will become a repository of not only the young, but also the young and IT-trained. It is important to note that IT is not an end in itself, but it will become a skill essential, if not a pre-requisite, for most jobs in the future, including government employment, engineering, health, law, economics, management, accounting, media, and tourism. IT can also be advantageous in this case, as with a well-distributed and solid IT infrastructure and the availability of qualified human resources, it should not matter whether businesses are established in rural or metropolitan locations. In fact, rural call centres can be a more competitive choice than metropolitan call centres, which are seeing rapid expansion but are finding it difficult to hire and keep qualified personnel. Developing countries must invest significantly more in education and skill development in their rural areas. However,

this method is not being implemented, owing to existing infrastructure limitations that make this solution neither financially practical nor appealing. The point regarding enabling IT policies requires governments to expand their lit fibre and broadband network's coverage, particularly in rural areas. In rural areas, all schools, universities, institutions, and post offices should be connected to a broadband network. In the lack of other infrastructure items and employment prospects in rural regions, a broadband network and the appropriate education and training can provide a lifeline for millions of our brothers and sisters who should not be forced to rely solely on agriculture for a living. It is necessary to modify the schemes and subsidies that are provided to rural communities. New plans and projects to support rural e-Entrepreneurship must be developed. Rural e-commerce and other e-Services should be supported through bank loans and credit lines. Finally, NGOs must adapt themselves from a sterile approach to rural development to one that is more proactive, with a focus on the people they serve rather than the funders. They should adapt themselves to changing technologies and educate themselves on vast potential of IT in rural areas when applied innovatively for increasing employment opportunities and income.

## **REVIEW OF LITERATURE**

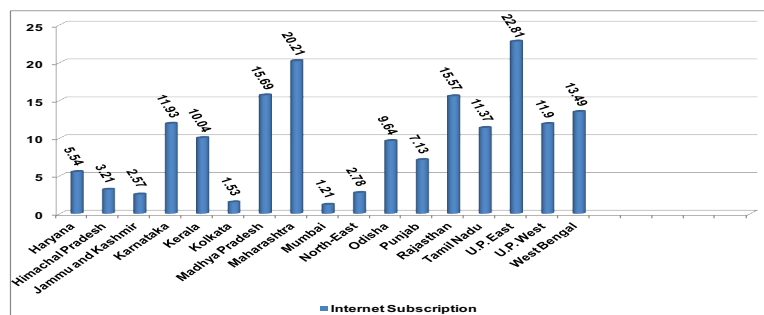
A literature study is necessary to discover gaps in academic research and research grey areas. Many studies, research, and surveys on e-governance and the role of ICT and e-commerce in development have been conducted in India. The literature on e-governance, e-commerce, and ICT throws light on a variety of dimensions, topics, and concerns. Globalization and the widespread use of the Internet are linked to recent significant changes. The extensive use of information technology has sped up the generation and transfer of data, resulting in more efficient communication than ever before. The way we interact, work, and play is being transformed by information technology. Computers and the Internet are allowing for considerable corporate reorganization, from online input purchases to decentralisation and outsourcing. Markets have become more efficient as a result of increased access to information. Competition and innovation have been heightened as a result of globalisation. Through commerce and investment, it also hastens the spread of new technology (Mamkoottam, 2003). The selection and implementation of an effective strategy are the most critical aspects of change management. Stakeholders should be informed of any changes in strategy, according to Cornell (1995). It should also be guaranteed that they understand and are competent of dealing with the consequences of change. It is critical that all stakeholders believe in the vision, strategy, and plan for change implementation. They must feel that they are capable of acquiring the abilities required to deal with and benefit from change. They should be able to come up with new ideas and methods of working. Most traditional organisations, according to Beer and Nonria (2000), have realised that they must either alter or die. One of the most challenging tasks is to start a change process. The majority of endeavours to bring new technology, alter, change, or change the company culture have failed. We must accept that change is required. After almost a decade since India's initial temporary stride toward economic liberalisation in 1991,

Sumanta Ghoshal et al. (2000) observed that Most Indian executives have weathered the industry's redundancies and restructuring, as well as the onslaught of international competition and customers. With the increasing sophistication of and technologies, it will be easy to agree that businesses are undergoing a profound transition across the country. The utilisation of physical, financial, and human resources for the economic and social development of rural economies is referred to as development in the rural setting (Burkey, 1993). "The goal of rural development is to help a specific set of people, poor rural women and men, get more than they want and need for themselves and their children." Rural development, according to Singh (1999), is "a process that leads to long-term improvements in the quality of life of rural people, particularly the poor." Various studies have recommended governance in the relevant realities of each country to enhance growth, including citizens' true participation in governmental decision-making processes (Grindle, 2004; and Evans, et. al, 2006). Using ICT to focus on social production, social consumption, and social services in rural areas can boost rural economies (Malhotra, 2001). ICT can improve living standards in remote and rural areas by providing significant commercial, social, and educational benefits (Share, 1993). and Madden, and Simpson, 1997). Rural e-governance can provide timely information to citizens and has the potential to generate innovative means of wealth creation in a rural context (Singh, 2004) and Malhotra et al, 2006). Electronic service centres have a critical role, particularly in reaching out to underprivileged groups in rural areas (Singh, , 2000), Citizens, corporations, governments, and employees are the four key groups that e-government aims to serve. The e-government web of relationships is made up of electronic transactions and exchanges between the government and each organization.

### Growth of Internet

State-wise internet subscription in rural India is shown in Chart 1. There has been significant growth of internet subscription in rural areas in almost all the states during the period of 2015 to 2019. The number of internet subscribers was recorded high in Uttar Pradesh followed by Bihar, Maharashtra, Andhra Pradesh, Madhya Pradesh, Rajasthan and West Bengal during 2019.

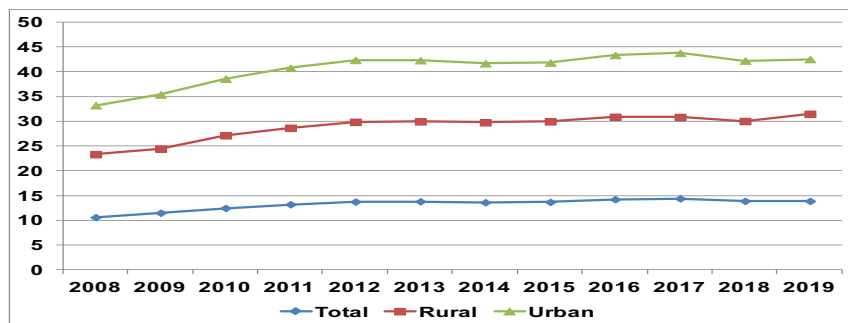
Chart 1: State-wise Internet Subscription in Rural India (In Millions)



Source: Telephone Regulatory Authority of India.

There has been significant growth in wireless internet subscription in almost all the states during the period of 2015 to 2019. Uttar Pradesh, Bihar, Maharashtra, Andhra Pradesh, Madhya Pradesh and Rajasthan recorded higher number of wireless internet subscribers in 2019. Percentage share of Uttar Pradesh to total subscribers in India is shown in Chart 2. The share of Uttar Pradesh to total subscribers in India accounted for 13.89 per cent, however, share of subscribers in rural areas recorded 17.58 per cent. There has been increasing trend in the share of rural areas as well as in the number of wireless subscribers, however, fluctuating trend has been noticed in the share of urban areas, total subscribers and wireless subscribers.

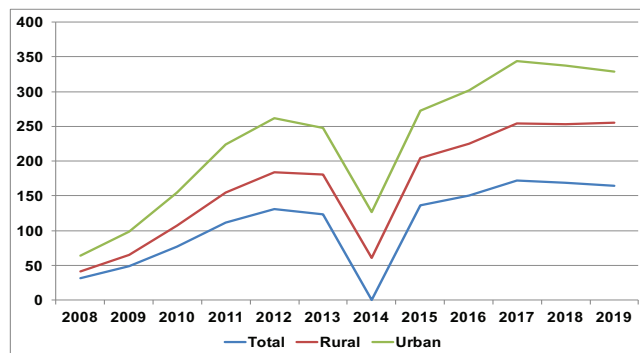
Chart 2: Percentage Share of Uttar Pradesh to Total Subscribers in India



Source: Telephone Regulatory Authority of India

Growth of telecom subscribers in Uttar Pradesh is shown in Chart 3. Telecom subscribers in the state of Uttar Pradesh grew by 415.82 per cent during 2008 to 2019 however, there has been decline in the number of wireline subscribers in the state during the corresponding period. The number of telecom subscribers in rural areas witnessed the growth of 828.34 per cent while growth of telephone subscribers in urban areas recorded 234.18 per cent. The growth of telecom subscribers in private sector has outpaced the growth of public sector during the period of 2008 to 2019.

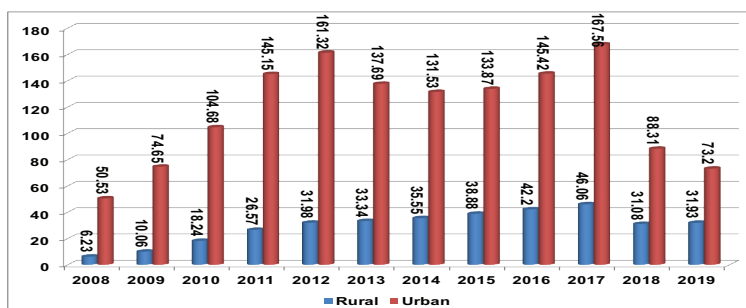
Chart 3: Growth of Telecom Subscribers in Uttar Pradesh (In Millions)



Source: Telephone Regulatory Authority of India

Tele density in Uttar Pradesh is shown in Chart 4. Tele density has increased significantly in the state of Uttar Pradesh during 2008 to 2019. Tele density in the state has shown fluctuating trend in rural areas, urban areas and private sector. During 2019, tele density was recorded 41.53 per cent in general and 31.93 per cent in rural areas. Thus, tele density has been recorded high in urban areas.

Chart 4: Tele Density In Uttar Pradesh (Per 100 Inhabitants)



Source: Telephone Regulatory Authority of India

State-wise common service centres in India is shown in Table 1. Common service centres have been setup in India in PPP mode. As on June, 30, 2017, there were 163226 functional CSCs at village panchayat level while number of functional CSCs was recorded 2.61 lakh in India. Most of the large village panchayats had many common service centres such as Jan Suvidha, E-Sewa, Sahaj Kendra and other service centres. In the state of Uttar Pradesh, there were 58876 functional common service centres while 35804 common service centres at village panchayat levels were found functional.

Table 1: State-wise Common Service Centres in India (As on June, 30, 2017)

Service Area	Number of Gram Panchayat	Number of CSCs Registered	Number of CSCs Registered at Gram Panchayat Level	Number of Gram Panchayats Covered with Registered CSCs	Total Number of Functional CSCs	Total Number of Functional CSCs at Village Panchayat Level
Andhra Pradesh	12833	5488	3475	3475	5212	3119
Assam	2196	2735	2246	1883	2213	1559
Bihar	8463	22380	17541	8413	19090	11960
Chhattisgarh	9734	11929	8410	9734	11175	7940
Gujarat	13735	18062	14845	13735	16805	13885
Haryana	6155	8724	5834	5834	7900	4923

Himachal Pradesh	3243	2624	2269	2269	2552	1952
Jammu and Kashmir	4128	2123	1039	1039	1727	900
Jharkhand	4423	9799	7445	4161	9014	5295
Karnataka	5628	6564	2665	2665	4963	2333
Kerala	979	2676	1969	979	2119	1111
Madhya Pradesh	23012	19446	13175	13175	16194	11873
Maharashtra	27920	31066	19464	19464	25324	17788
Odisha	6234	8651	6832	5564	6545	5599
Punjab	12800	6261	4282	4282	5229	3464
Rajasthan	9946	30436	15038	9946	29814	14878
Tamil Nadu	12618	11069	5773	5773	7408	4646
Telangana	8787	5564	3180	3180	5043	2855
Uttar Pradesh	51914	67054	41675	41675	58876	35804
Uttarakhand	7555	5594	4441	4441	4339	3853
West Bengal	3351	17527	13584	3230	15653	6330
<b>State Total</b>	<b>242352</b>	<b>298015</b>	<b>196741</b>	<b>166385</b>	<b>258966</b>	<b>163081</b>
<b>UT's Total</b>	<b>219</b>	<b>2759</b>	<b>181</b>	<b>152</b>	<b>2105</b>	<b>145</b>
Grand Total	242571	300774	196922	166537	261071	163226

Source: Ministry of Electronic and Information Technology, Government of India.

Common service centres in selected districts of Uttar Pradesh is shown in Table 2. There were 58876 common service centres in the state of Uttar Pradesh as on June, 30, 2017. The number of common service centres was recorded high in Varanasi followed by Kushi Nagar, Shahjahanpur, Moradabad, Pratapgarh, Lucknow and Saharanpur. These common service centres are providing e-services in rural areas. Most of the villages having population of more than 1000 have been linked with common service centres.

Table 2: Common Service Centres in Selected Districts of Uttar Pradesh As on June 2017

Districts	Number of CSCs
Lucknow	1330
Sonbhadra	735
Mirzapur	961
Varanasi	1760
Deoria	1304
Jhansi	657
Kanpur Nagar	1291
Kanpur Dehat	707
Lakhimpur Kheri	1147



Kurshi Nagar	1681
Maharajganj	1224
Meerut	1123
Moradabad	1364
Pratapgarh	1345
Saharanpur	1329
Shahajanpur	1415
<b>Uttar Pradesh</b>	

Source: Ministry of Electronic and Information Technology, Government of India.

### CONCLUSION:

During the previous decade, India's e-business sector has grown dramatically. Increasing infrastructure investment under the Bharat Nirman Yojana during the 10th and 11th Five Year Plans enhanced rural infrastructure and expanded the communication network. Under the Digital India Program, the government has also upgraded the communication network, particularly internet access. The growing usage of information technology, ICT, and internet connection in rural India has expanded the reach of e-governance and e-business. The government has taken steps to promote e-governance by boosting the use of e-services, online transactions, digital government office operations, and online product and service marketing. Government activities like as education, training, meetings, and even office operations have been moved to digital format as a result of the Covid-19 epidemic. Furthermore, the government has pushed for the use of digital receipts and payments, such as Paytms, Bhim App, Mobile Banking, Internet Banking, Google Pay, and so on. A slew of e-companies have popped up in India, both in rural and urban areas, and they're doing brisk business in terms of marketing goods, products, and services. As a result, e-services in rural India have enormous potential, as most enterprises are attempting to capitalise on the rising market potential in rural areas.

### References

- Mamkoottam, K. (2003), *Labour and Change*, Response Books, Delhi.
- Carnall, C. (1995), *Managing change in organizations*, PHI, London
- Beer M. & Norria, N., (2000), *Cracking the code of change*, Harvard Business Review, May-June
- Ghosal, S. et.al. (2000), *Managing radical change*, Viking, New Delhi
- Burkey, Stan. (1993). *People First: A Guide to Self-reliant, Participatory Rural Development*, Stan Burkey, 29-39. London and New-Jersey: Zed Books Ltd,
- Singh, Katar. (1999). *Rural Development: Principles, Policies and Management*, Katar Singh (Second Edition), 21. New-Delhi, India: Sage Publications.
- Grindle, Merilee S. (2004). *Good Enough Governance: Poverty Reduction and Reform in Developing Countries*, *Governance An International Journal of Policy, Administrators & Institutions*, Vol. 15, No. 4, (October, 2004), Blackwell Publishing, USA/UK: 525-548.



- Evans, Donna and David C. Yen. (2006). E-Government: Evolving relationship of Citizens and Government, Domestic, and International Development, *Government Information Quarterly*, Volume 23, Issue 2 (2006): 207-235.
- Malhotra, Charru. (2001). Rural Informatics and Information Technology Policies for Rural Development in India in emerging institutions, In *Proceedings of NIRD Foundation Day Seminar for Decentralised Rural Development*, edited by S.P. Jain, 223-250, Hyderabad: NIRD, Hyderabad, India, January 7-8, 2001.
- Singh, N. (2004), "Information Technology and Rural Development in India", Paper 563, Department of Economics, University of California, Santa Cruz: 34.
- Malhotra, C, Chariar V.M., Das L.K. (2006), "e as an enabler for Shubh-Labh for Local Governance in Rural India", In *National Conference on Smart Governance for Rural Development* by ITM, Gurgoan ,
- Share, P. (1993). Telecommunication and rural remote development, *Rural Society* 3: 16.
- Madden, G., Simpson, M.( 1997) "Regional information access: the use of telecentres to meet universal service obligations", *Telematics and Informatics*, Vol. 14, No.3, pp. 273- 288.
- Singh, S.H. (2000), "Ways and Means of Bridging the Gap between Developed and Developing Countries" , [Online Available: <http://www.mit.gov.in>

