

GROWTH OF E- SERVICES IN RURAL INDIA

MADHU SUDAN SHUKLA

Research Scholar, Department of Commerce, Nehru Gram Bharti Vishwavidyalaya, Allahabad

The revolution about information and communication technology in the era of globalization and economic liberalization inspired changes in the administrative, economic and social spheres around the world. These technologies have brought a change in the administration around the world. Governments around the world are converting into electronic governance. The last decade has looked at India on a wide range of experiments led by visionary administrators in e-governance, in their quest to use information and communication technologies to transform government and governance in India. In view of the widespread global changes, many developed and developing countries adopted new approaches in public administration and governance in the 1980s and 1990s. There has been remarkable growth in e- services in India with the development of infrastructure and public investment in creation and promotion of ICT applications in rural development . The present paper purports to highlight the growth trends in e-services in rural India.

INTRODUCTION

The last decade has witnessed a boom in the e-commerce business in India. This increase is due to a number of contributing factors, including rapid adoption of technology by Indian consumers, large growth in the number of Internet users, new enabling technologies, innovative business models and alternative payment options offered by e-commerce companies. In addition, high growth in e-commerce continues unabated. The region is expected to witness a huge increase in revenue in the coming years. In the last decade there has been a remarkable development in e-commerce creating unprecedented opportunities for cross-border trade. The Internet is enabling micro, small and medium-enterprises to reach global markets. MSMEs using e-commerce platforms export about five times more than the traditional economy. Trade and commerce traditionally done with other countries involves significant costs, limiting the capacity of MSMEs and businesses in developing economies. In an Internet-enabled environment, these costs can now be reduced with speed and efficiency. But the nature and pace of global trade of e-commerce is exacerbating some other policy frictions. Today's trade regulations in many countries largely reflect the pattern of 20th century trade and are not well suited to support the development of e-commerce.

E-commerce sectors are facing many challenges in their business operations such as taxation issues, fraud incidents, and cyber security, intense competition and preference for cash payments by customers, with inadequate infrastructure and low digital literacy. Different states do not have a uniform tax structure and there is ambiguity regarding

the classification of offerings into 'goods' or 'services'. Guidelines on the taxation of certain transactions such as e-wallet, cash on delivery, gift vouchers etc. are not clearly defined. Some of these challenges are expected to be resolved after the Goods and Services Tax is implemented. The incidence of distribution of counterfeit goods through e-commerce platforms is also increasing which has increased the crisis for both consumers as well as e-commerce companies. This is mainly due to the absence of a reliable mechanism that can allow consumers to authenticate vendors or their products. Data / cyber security is another major challenge faced by players as they deal with large amounts of customer information, many of which are shared with third parties such as logistics providers being exploited by external entities. Receiving payments in cash makes the process laborious, risky and more expensive for companies as their need for working capital increases. The high return ratio for goods sold online is also proving to be costly and daunting challenges for companies. Incidentally, the order's return percentage is much higher than online payment.

The e-commerce industry in India has seen intense competition in the field, forcing companies to adopt aggressive pricing policies that provide high discounts to customers and other parties. This has put a lot of pressure on the profits of companies. Recently India's leading e-commerce companies such as Flipkart, Amazon and Snapdeal spent huge amounts to lure price-conscious Indian consumers, in their bids, to dominate the Indian online retail market. The e-commerce business is expected to become the largest segment of the Indian economy by 2020 with a value of around \$ 100 billion. The growth of B2B e-commerce segment is relatively slow as compared to the B2C e-commerce segment. This is because the entry barriers to B2B e-commerce are higher in the B2C e-commerce industry. In 2014, the number of Internet users in India was around 280 million and it was estimated that by 2019 the number will be around 640 million.

The growth of about 70 million Internet users in a year is very significant. E-commerce companies in India have also seen consolidation in the last 2-3 years. Larger e-commerce companies are acquiring smaller companies to diversify their product range or to enhance business operations. Such mergers and acquisitions mainly focus on companies in the logistics, payment solutions and digital advertising sectors. The government has taken several initiatives to promote the e-commerce sector in India. It is also leveraging e-commerce digital platforms to traditionally streamline offline markets for agricultural produce. It has launched an e-market platform to connect farmers with mandis from various states to sell agri-commodities online. Digital India, Start-up India, Make in India, and Skill India are major initiatives of the government besides demonetization of the economy has been taken seriously to increase the use of e-services. The Indian government is going to undertake a major taxation reform through the implementation of the Goods and Services Tax (GST), which is expected to spur the growth of e-commerce. GST will introduce a single comprehensive indirect tax regime that will be applicable to the supply of goods and services in all.

REVIEW OF LITERATURE

In the rural context, development involves the use of physical, financial and human resources for the economic development and social development of rural economies (Burkey, 1993). According to Chambers (1983), "rural development is to enable a specific

group of people, poor rural women and men, to achieve more than what they want and need for themselves and their children.” Singh (1999) defined rural development as “a process leading to sustainable improvement in the quality of life of rural people, especially the poor”. To promote development, various studies have proposed governance in the relevant realities of each country, including citizens’ true involvement in governmental decision-making processes (Grindle, 2004; Evans and David, 2006).

Many institutions and experts accept governance as a reversible process, with policies, institutions, outcomes, and analysis to maximize the process of participatory development (UNDP, 1997, Ludden, 2005; Mehta, 2006). ICT is an integral part of the development strategies of both developing and developed countries. It has considerable potential for bringing about desired social changes by increasing access to people, services, information and other technologies (Dutton et al., 2004). ICT applications can increase opportunities for poor people by improving their access to markets, health and education. In addition, ICT can empower the poor by expanding the use of government services, and mitigate risks by reducing access to micro finance (Cecchini and Scott, 2003). The use of ICT for economic development, employment generation, rural development and poverty alleviation is actively promoted. Information and communication technology (ICT) has the potential for economic development and social empowerment (Nandi, 2002). Direct or indirect application of ICT in rural development sector is also known as “rural informatics”.

Rural economies can be benefited from ICT by focusing on social production, social consumption and social services in rural areas (Malhotra, 2001). 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, Malhotra et al., 2006). ICT can improve living standards in remote and rural areas by providing significant commercial, social and educational benefits (Share, 1993; Madden et al., 1997). Electronic service centers have an important role, especially in reaching out to the marginalized sections living in remote areas (Singh, 2000). The goal of e-government is to focus on four main groups’ viz. citizens, businesses, governments and employees. Electronic transactions and interactions between the government and each group constitute the e-government web of relationships.

Ritu and Khurana (2018) stated that the main benefit of Digital India is to save valuable time as people do not have to stand in queues. Digital Locker, Bharat Net, e-Sign, e-Health, e-Education, e-Kranti, National Scholarship Portal, Swachh Bharat Mission, Wi-Fi hotspot is the main service launched through Digital India. India’s expectation from the Digital India program is to improve the information technology interface to achieve maximum coverage with the help of e-governance and e-service in the world. A digital interface is convenient for the government as well as the public. The main agenda of this scheme is that the Government of India wants to empower every family and every human digitally. Kaur and Neena (2014) investigated the extent of ICT prevalence in India and also estimated the inter-state technology divide. Kumar et. al. (2017) in his study found the Digital India program to be very useful not only in empowering rural entrepreneurs but also in empowering women of rural India. Srivastava (2017) in his study explored the impact of various digital services on people’s lives and the major challenges facing the Digital India program. Singh (2014) highlighted that

governance is a way of describing the relationship between government and its wider environment - political, social and administrative. "E-governance is measured as an important priority agenda in India. Srivastava (2015) stated that ICT plays an important role in e-governance, and therefore it becomes necessary that ICT reach rural masses. This will promote good governance, leading to better governance, better connectivity, less corruption and greater transparency in the government. The paper deals with the challenges faced in implementing e-governance in rural areas of India, various e-governance projects taken by the government and initiatives taken by the government for successful implementation of e-governance in rural India.

DISCUSSION OF RESULTS

IT Services are undergoing a structural change from server based services. This will form the major chunk of IT services. Growth in IT services will continue to provide the biggest opportunity, while other sectors of IT software industry will also make a significant contribution. IT services, both export and domestic, will grow rapidly as new opportunities are emerging in management/consulting services, application maintenance and Internet services. The major users of IT services are the government, financial services and banking, manufacturing and retail and distribution. New areas likely to emerge are communication, healthcare and utilities, as these will increasingly be deregulated. However, IT services essentially require high-quality manpower, state of the art skills, world-class telecom and IT-knowledge based environment.

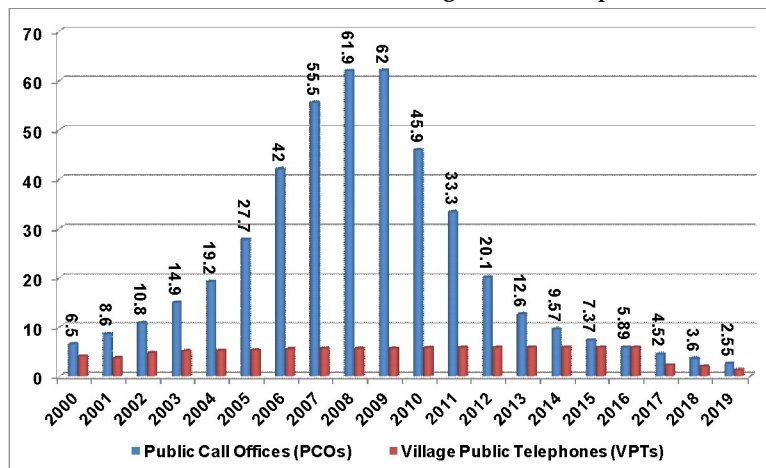
Information Technology (Siddegowda, Ilango & Devi, 2016) is radically transforming the way of business around the world and the E-commerce industry has completely transformed itself into a digital sector many years past. The E-commerce industry will set a new platform for the development of the business, as E-commerce business has proved itself as part of the new economy and a best way to do business across the world. Mallikarjun Rao (2006) while studying the "factors affecting growth of e-commerce in India" concluded that there was a close association between online purchase and availability of information about the vendors, hence, suggested that more information will increase respondents comfort level for online trade. Gnana (2006) concluded that today e-commerce as an alternative/additional mode is being accepted by many businesses, but the rate of adoption of e-commerce is varying in different industries, for instance, a traditional industry like automotive industry in India is yet to adopt e-commerce in a big way. Ming-Hsien, Chandlrees, Binshan, Hung-Yi (2009) opined that consumers will trust the website if they feel the site keeps a good e-commerce ethical performance, such as, practicing the privacy policies and stating it explicitly, describing products or services in an appropriate way. While analyzing the trends in e-commerce, Rekha (2010) stated that e-buyers need to adapt to a safe mode of on-line payment and use alternative modes of payments, such as, virtual credit cards that involve less risk in diversifying the information for payment. Rashad, Abhinav, Wan, Mahan & Shahriar, (2011) studied the "factors influencing perception of consumers in e-business found that the perception of the consumers influencing their decisions have been addressed in order to understand why the people want to use an online service for perception or discard their purchase. Mustafa (2011) studied the determinants of e-commerce customer satisfaction, trust and loyalty in Saudi Arabia and found that in B2C E-commerce customer loyalty in Saudi Arabia is strongly influenced by

customer satisfaction but weakly influenced by customer trust. Khushbu (2012) found that social media platforms do have an impact on business and marketing. Zia (2012) opined that the perception of online shoppers is independent of their age and gender. Muhammed (2013) concluded that very poor positive perceptions about Bosnian companies' web presences and their online activities. Namita and Preeti (2013) concluded that online consumer behavior using factor analysis and the reasons for using online shopping like, trust, information about the product and services, convenience, effortless shopping. You-Qinghe (2014) inferred that online marketers and retailers have to develop appropriate market strategies, make technological advancements and make the correct marketing decisions in order to retain current customers and attract new customers. Afrina (2015) concluded that companies should create innovative customer experiences and specific strategies for media to identify the best path for driving up digital marketing performance. Sumanjeet (2010) examined the state of e-commerce laws in India and expressed that there are many prominent issues which are critical for the success of e-commerce that the present IT Act is weak on several fronts and in the absence of sound legal framework of e-commerce cannot create a success story in India. Indian Government must increase the safe and secure business environment on cyberspace and must protect the interests of Indian software industries, BPO sector and other stakeholders. Rakesh and Khare (2011) examined that that Indian students' intention to buying online is influenced by utilitarian value, attitude toward online shopping, availability of information and hedonic values. Male students have a more positive attitude toward online shopping compared to female students. Gehrt, Rajan, Shainesh, Czerwinski & O'Brien, (2012) studied the "emergence of online shopping in India .Rakesh & Khare (2012) analyzed the "impact of promotions and value consciousness in online shopping behavior in India" and the study observed that online shopping continues to attract investment from retailers and offers or other promotional methods of e-retailers are not influenced by Indian consumers. Promotions may not be essentially viewed by consumers as an important attribute while purchasing products or services online. Kalia, Arora & Law, (2016) noticed that legal validity of electronic transactions, security, content regulation, intermediary liability and jurisdiction are partially addressed by IT Act, whereas, junk mail and spamming, intellectual property, payment, taxation of e-commerce transactions and consumer protection are unaddressed. This Information is useful for policy and decision makers in government and e-commerce businesses. Chatterjee, (2016) observed that E-Commerce business throughout the world has brought a remarkable change in the business landscape and it also has redefined the business scenario by radically changing contours of space and time and it has reshaped the conception of nature of business management. India having large population with internet users is expected to be one of the major players in E-Commerce environment. Rekha, (2016) examined that surveyed the twelve statements were grouped into four factors i.e., product, convenience, service and online shopping hindrances and the composite score were calculated for each grouping factor. A significant difference is observed in the perception of two groups in case of three set of factors i.e., product, convenience and service. Kalia, Kaur & Singh, (2017) inferred that India is third biggest nation in terms of internet users. India will drive e-commerce in Asia pacific region after China and Indonesia and the study concludes that there will be a prospective growth of electronic commerce in India is extremely positive. Arora & Rahul, (2018) studied that the key components of perceived risk in e-commerce and the impact of perceived risk on online shopping attitude among

online women shoppers in India and the study proved that perceived risk is not a significant factor influencing attitude of women shoppers in India. Security risk was marginally significant out of the different types of risks considered in the study.

Number of public call offices and village public telephones in India is shown in Chart 1. There has been significant decline in the number of public call offices and village public telephones in India during the period of 2000 to 2019. During 2019, there were 2.55 lakh PCOs and 2.3 lakh VPTs in India. However, such numbers were recorded 6.5 lakh and 4.1 lakh, respectively during 2000.

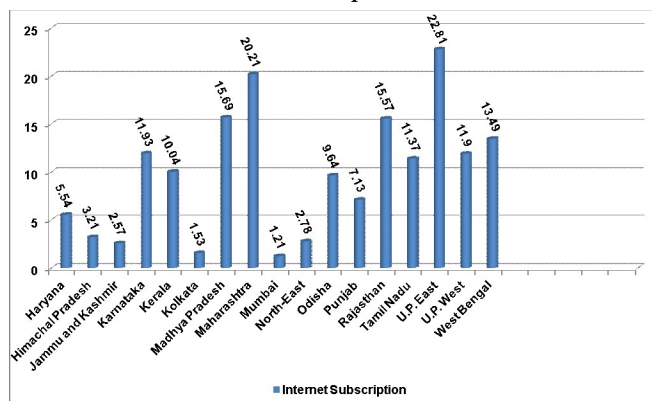
Chart 1 : Number of Public Call Offices and Village Public Telephones in India (In Lakh)



Source- Telecom Regulatory Authority of India

State-wise internet subscription in rural India is shown in Chart 2. 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.

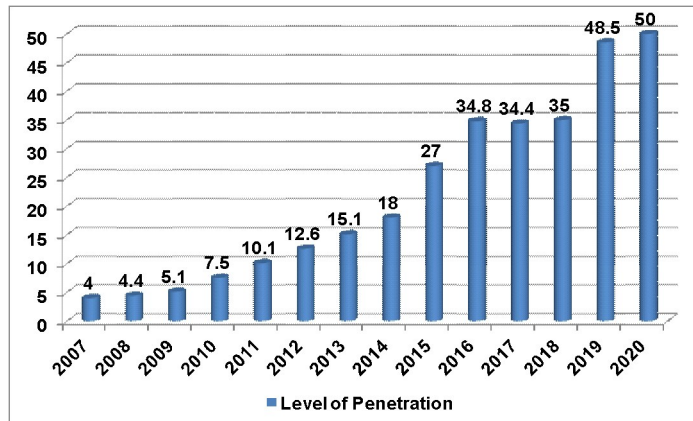
Chart 2: State-wise Internet Subscription in Rural India (In Millions)



Source: Telephone Regulatory Authority of India.

Internet penetration in India is shown in Chart 3, Internet penetration in India has increased by 12.5 times during the period of 2007 to 2020. During 2020, internet penetration has been estimated to be 50 per cent. There has been increasing trend in internet penetration however, growth in internet penetration has been recorded high in the recent past. It is estimated that there are 687.6 million active internet users while active mobile users were reported to be 629.2 million. Besides, there are 400 active social media users. There has been increasing trend in the use of smart phones as smart phones are more suitable for internet use and access to information. Smart phones are mainly imported and there has been phenomenal growth in smart phone shipment during 2011 to 2018. During 2018, there were 340 million smart phone users in India which is likely to increase by 442 million in 2022.

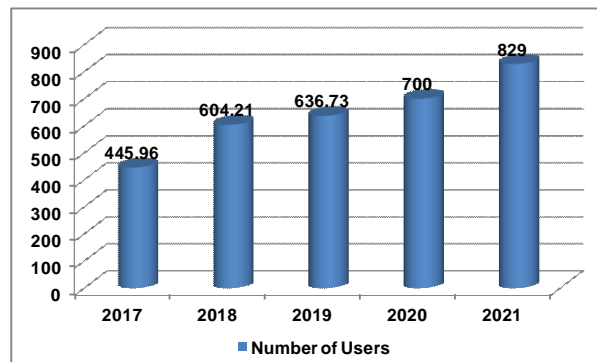
Chart 3: Internet Penetration in India



Source: India Brand Equity Foundation, 2020

Projected internet users in India are shown in Chart 4. There were 445.96 million internet users in India during 2017 which is likely to increase by 829 million in 2021. It is to be noted that government is promoting the use of internet and digital mode of education, training and the functioning of offices and business due to Covid-19 pandemic. Thus, number of internet users is likely to increase significantly.

Chart 4: Projected Internet Users in India (In Millions)

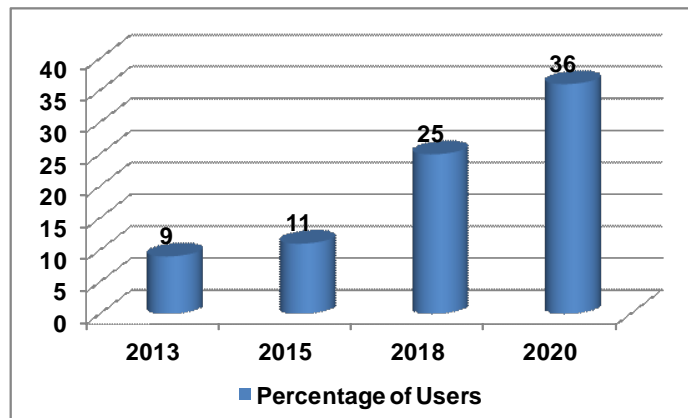


Source: India Brand Equity Foundation, 2020

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.

Online shoppers as percentage of total internet users are shown in Chart 5. Major factors for promotion of e-business and e-governance are reported to be development of IT infrastructure, access of internet facility, use of smart phones and penetration of social media besides, government incentives for promotion of digital economy. It is expected that about 2/5th users of internet are online shoppers in India. The graph of online shoppers as percentage of total internet users has massively increased during the recent past.

Chart 5: Online Shoppers As Percentage of Total Internet Users



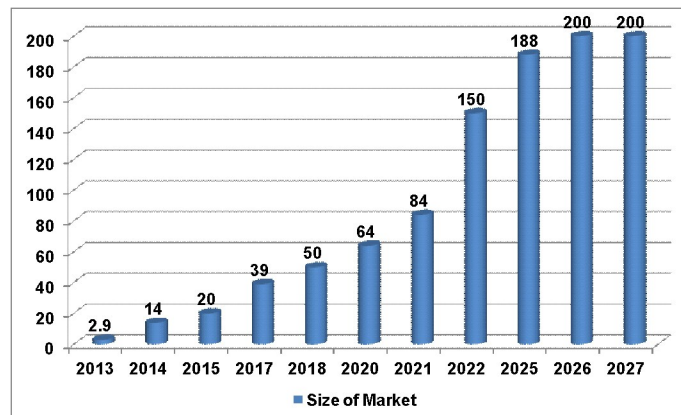
Source: India Brand Equity Foundation, 2020

The E-commerce business is expected to form the largest part of Indian economy with a value of approximately \$ 100 billion by 2020. The size of the E-commerce industry was estimated to be Rs. 2,110 billion by 2016 as per Digital Commerce Report, 2015. The industry was worth Rs. 351 billion in 2011 and grew at a CAGR of 37 percent to touch Rs. 1,257 billion in 2015 (UN ,2017). India is the fastest growing market for the e-commerce sector. Revenue from the sector is expected to increase from \$ 39 billion in 2017 to \$ 120 billion in 2020, growing at an annual rate of 51 percent, the highest in the world. Consumers benefit from e-commerce for the convenience of accessing it anytime and from anywhere with internet access. E-commerce in the goods category in India has grown at a compound annual growth rate (CAGR) of 57% in last seven years, and is expected to grow by 18.6% till 2022 . The online retail market in India is estimated to be worth \$17.8 billion in terms of gross merchandise value as of 2017. As of July, 2018, the number of transactions in e-commerce retail was 1-1.2 million per day and on e-commerce platforms was 55-60 million per month. The growth engine has been smart phones, with only or primarily online retailers or e-tailers witnessing their sales mix shifting

heavily into Smartphone and electronics, supported by direct partnerships with brands (Completion Commission of India, 2020) .

Growth of e-commerce in India is shown in Chart 6 . There has been enormous growth in e-commerce in India during the period of 2013 to 2020. The size of e-commerce market in India was estimated to be 64 US\$ billion in 2020. It is likely to increase by more than 3 times in 2027.

Chart 6:Growth of E-Commerce in India (US\$ Billions)



Source: India Brand Equity Foundation, 2020

CONCLUSION

There has been tremendous growth in e-business in India during the last decade. The increasing investment on infrastructure during the 10th and 11th Five Year Plan under Bharat Nirman Yojana has improved the rural infrastructure and widened the network of communication. Government has also improved communication network particularly internet connectivity under Digital India Programme. The increasing use of information technology, use of ICT and internet access has widened the scope of e-governance and e-business in rural India. Government has taken initiatives for promotion of e-governance through increasing use of e-services, online transactions, digital functioning of government offices and online marketing of products and services. Due to Covid-19 pandemic, the government services such as education, training, meetings and even working of offices has been converted into digital mode. Moreover, government has promoted digital mode of receipts and payments such as Paytms, Bhim App, Mobile Banking, Internet Banking, Google Pay, etc. A number of e-companies have emerged to operate in India both in rural and urban areas and these companies are doing good business in marketing of goods, products and services. Thus, there is immense potential of e-services in rural India as most of the companies are trying their best to exploit the emerging market potential in rural areas.

References

- Afrina, Y., Sadia, T. & Kaniz, F. (2015). Effectiveness of digital marketing in the challenging age: An empirical study. *International Journal of Management Science and Business Administration*, 1(5), 69-80

- Arora, N. & Rahul, M. (2018). The role of perceived risk in influencing online shopping attitude among women in India. *International Journal of*
- Burkey, Stan. (1993). *People First: A Guide to Self-reliant, Participatory Rural Development*, Stan Burkey, 29-39. London and New-Jersey: Zed Books Ltd,
- Cecchini, Simone and Christopher Scott. (2003). Can information and communications technology applications contribute to poverty reduction? Lessons from rural India, *Information Technology for Development*, Vol. 10, Issue 2 (2003): 73 – 84.
- Chambers, Robert. (1983). Rural Development: Putting The Last First, Robert Chambers, 147. London: Longman, 1983.*
Chariar, V.M. (2005), Rejuvenating Traditional Knowledge Systems of India" (unpublished).
- Chatterjee, S. (2016). E-commerce in India: A review on culture and challenges. *International Conference on Soft Computing Techniques and Implementations (ICSCTI)*, art.no.7489547.
- Completion Commission of India (2020) *Market Study on E-Commerce In India*, Competition Commission of India, New Delhi
- Dutton, William H, Sharon Eisner Gillett, Lee W McKnight and Malcolm Peltu. (2004). Bridging broadband Internet divides: reconfiguring access to enhance communicative power, *Journal of Information Technology*, 19(1) (2004) : 28-38.
- 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.
- Garai, A, Shadrach, B (2006), "Processes and Appropriation of ICT in Human Development in Rural India: Bridging the Research and Practice Gaps, In *Taking ICT To Every Village*, Atanu Garai and B. Shadrach, 1-35. New Delhi
- Gehrt, K.C., Rajan, M.N., Shainesh, G., Czerwinski, D. & O'Brien, M. (2012). Emergence of online shopping in India: Shopping orientation segments. *International Journal of Retail & Distribution Management*, 40(10), 742-758
- 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.
- Kalia, P., Arora, R. & Law, P. (2016). Information technology act in India: E-commerce value chain analysis. *NTUT Journal of Intellectual Property Law and Management*, 5(2), 55-97.
- Kalia, P., Kaur, N. & Singh, T. (2017). E-commerce in India: Evolution and revolution of online retail. *Mobile Commerce: Concepts, Methodologies, Tools and Applications*, 2, 736-758.
- Kaur, K., & Neena, (2014). Pattern of Inter-State Digital Divide in India, *Economic Affairs*, 59(3), 379-388.
- Khare, A. & Rakesh, S. (2011). Antecedents of online shopping behaviour in India: An examination. *Journal of Internet Commerce*, 10(4), 227-244
- Khushbu, P. (2012). Social media marketing in India-creating new groundwork in marketing innovation. *International Journal of Multidisciplinary Management Studies*, 2(5), 91-99
- Kumar Tukesh, S. P. & A. B., (2017) *Role of Digital India in Rural Areas*. *International Journal of Advance Engineering & Research Development*, March. pp. 1-4
- Ludden, David. (2005), *Development Regimes in South Asia: History and the Governance Conundrum*, *Economic and Political Weekly*, September 10, 2005: 4042 .
- 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.
- 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,
- 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.
- Malhotra, Charu (2000) "Raising Competence of Indian Administration: Role of IT Training. Indian Journal of Public Administration", Special Number on e-Governance No. 3, July-September
- Malhotra, Charu, (2007), "ICT for rural development: An Inclusive Framework for E-governance digital democracy in India", International conference on e-governance, Hyderabad, 28-30 Dec 2007. Proceedings in book form Adopting e-governance
- Mehta, Dinesh. (2006). Urban Governance: Lessons from Best Practices in Asia" In New Public Management, edited by Shah and J. Parth, 11. New Delhi, India: Centre for Civil Society, 2006.
- Ming-Hsien, Y., Chandlrees, N., Binshan, L. & Hung-Yi, C. (2009). The effects of perceived ethical performance of shopping websites on consumer trust. *Journal of Computer Information Systems*, 50(1), 15-24.
- Muhammed, K.Ö. (2013). Consumers' perceptions about e-commerce activities of Bosnian companies. *International Journal of Academic Research in Business and Social Sciences*, 3(6), 134-145.
- Mustafa, I.E. (2011). Determinants of e-commerce customer satisfaction, trust and loyalty in Saudi Arabia. *Journal of Electronic Commerce Research*, 12(1), 78-93.
- Namita, B. & Preeti, K. (2013). Online consumer behaviour: An exploratory study. *Global Journal of Commerce and Management Perspective*, 2(4), 98-107.
- Nandi, B. (2002). Role of Telecommunications in Developing Countries in the 21st century, 14th Biennial Conference Seoul: International Telecommunications Society (ITS),
- Rakesh, S. & Khare, A. (2012). Impact of promotions and value consciousness in online shopping behaviour in India. *Journal of Database Marketing and Customer Strategy Management*, 19(4), 311-320.
- Rashad, Y., Abhinav, G.J., Wan, F.Y., Mahan, P. & Shahriar, M. (2011). Factors influencing perception of consumers in e-business: Gaining trust in e-commerce. *International Conference on Advancements in Information Technology*, International Proceedings of Computer Science and Information Technology.
- Rekha, I.S. (2016). A study on customer perception towards online precious metal jewellery shopping in India. *International Journal of Applied Business and Economic Research*, 14(14), 251-257.
- Rekha, P. (2010). Trends in e-commerce-An empirical study. Thesis submitted to department commerce, Osmania University Hyderabad.
- Ritu and Anil Khurana (2018) Digital India – Empowering Indian Citizen Through Technology, *Global Journal of Commerce and Management Perspective*, Volume 7, Issue 2
- Share, P. (1993). Telecommunication and rural remote development, *Rural Society* 3: 16.
- Siddegowda, C.J., Ilango, V. & Devi, J. (2016). Analysis of e-commerce challenges in India by using weka tool. *International Journal of Control Theory and Applications*, 9(36), 363-371.
- Singh V. (2011) Chander S, Kumar A., "E-governance in Development of Rural Economy", *IJCST* Vol. 2, Issue 4, Oct -Dec.
- Singh, Aarti (2014) E-governance – Initiatives in Uttar Pradesh, *Asian Journal of Technology & Management Research* , Vol. 04 – Issue: 01
- Singh, Katar. (1999). *Rural Development: Principles, Policies and Management*, Katar Singh (Second Edition), 21. New-Delhi, India: Sage Publications.
- Singh, N. (2004), "Information Technology and Rural Development in India", Paper 563, Department of Economics, University of California, Santa Cruz: 34.
- Singh, Nirvikar. (2004). *Information Technology and Rural Development in India*, Paper 563, Department of Economics, University of California, Santa Cruz: 34.
- Singh, S.H. (2000), "Ways and Means of Bridging the Gap between Developed and Developing Countries", [Online Available: <http://www.mit.gov.in>]
- Singh, S.H. (2000). *Ways and Means of Bridging the Gap between Developed and Developing Countries*

(accessed in October, 2004 from <http://www.mit.gov.in>) . \

- Singh, Vikram, Subhash Chander and Amit Kumar (2011) E-Governance in Development of Rural Economy, *International Journal of Computer Science And Technology*, Vol. 2, Issue 4, Oct . Dec.
- Singla, K and H.Aggarwal (2011) “Combating corruption through E-governance in Public Service Delivery system” *Journal of Global Research in Computer Science*. Volume 2, No. 7, July
- Srivastav, S. (2017) Digital India- major Initiatives and Their Impact: A Critical Analysis. *ELK Asia pacific Journal of Marketing and Retail Management*, 8(3).
- Srivastava, Nidhi (2015) E-Governance in Rural India, *International Journal of Computer Science and Information Technologies*, Vol. 6 (1) , 2015, 741-744
- Sumanjeet. (2010). The state of e-commerce laws in India: A review of information technology act. *International Journal of Law and Management*, 52(4), 265-282
- UN (2017) National Report on E-commerce Development In India, United Nations, Vienna
- UNDP. (1997). UNDP Policy Document on Governance for Sustainable Human Development
- You-Qinghe, C.W. & Liu, K. (2014). The online shopping change the retail business model: A survey of the people use online shopping in China. *IOSR Journal of Business and Management*, 15(5), 77-110.



This document was created with the Win2PDF "print to PDF" printer available at <http://www.win2pdf.com>

This version of Win2PDF 10 is for evaluation and non-commercial use only.

This page will not be added after purchasing Win2PDF.

<http://www.win2pdf.com/purchase/>