

Transactional Efficacy of Internet in Rural India



Seema R Laddha¹

The Internet is developed as a source of information for enhancing knowledge for better productivity & increase efficiency. But over time, with developments in social media, internet is considered an effective medium for entertainment and social networking. Although internet penetration in rural India is also growing at a fast speed but the major use of the internet is only for social media for increasing communication. Transactional use like enhancing knowledge, business opportunity, and eCommerce it was very less. Therefore, this paper aims to identify the factors influencing the expected use of internet in rural India and the impact of demographic factors on Internet adoption and usage in rural areas. Finally the results of the study lead us to conclude that demographic factors like age, occupation is not the deciding factor for the use of internet but the income, education and digital literacy are the major reason for the effective use i.e for business or knowledge building activities on the internet.

Key words: Internet, Rural, demographics, social media, expected use

Introduction

An article in Livemint, “Internet usage picks up in rural India” Bharat is getting online faster than India. By 2020, share of rural India will jump to 48%, creating a huge opportunity for brands and marketers in places where establishing a physical presence is still a challenge, Indian government has bought several policy initiatives, including the provision of subsidized Personal Computers and affordable internet connectivity to support Internet access in rural areas. Access to the internet over mobiles due to the availability of low cost smartphones, data package and increasing awareness of popular apps such as Whatsapp, Facebook etc. are growth drivers of rural users.

The internet is primarily considered as a source of information for knowledge enhancement, but with developments in social media and eCommerce, Internet is considered an effective medium for social networking and enhancing economic benefits. According to the report, Mobile Internet in India 2015, 52% of people said their primary reason for accessing the internet was entertainment followed by Communication and social networking at 37% and 39% respectively.

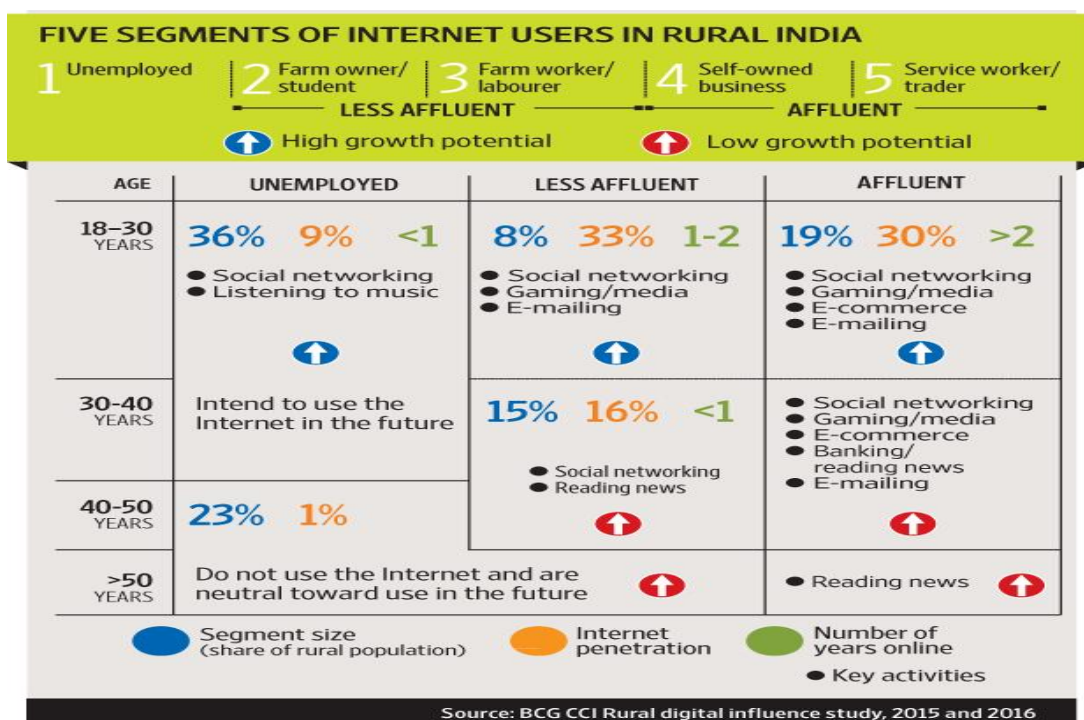
The Internet forms the basic tool of governance, especially in rural areas, where people’s access to institutions is limited, due to poor physical and institutional availability besides access to knowledge and economic opportunities. This gap leads to both inefficiencies in service provision and excluded from knowledge, economic opportunities and governance.

¹ Assistant Professor, SIES College of Management Studies, Mumbai University, India, seemaladdah8@gmail.com

Major problem is the availability of infrastructure for access to the Internet. Low penetration of Internet in rural is also due to unaffordability of smart phone & computers, lower education profile and digital literacy in villages. Thus, it is important to study drivers of Internet use in rural India not only to plan the strategies, but also theoretical and empirical perspective for business and government. For this primary research is to understand factors influencing the expected use of the internet and the further, studies have indicated that age, occupation, income, education and gender are factors that could lead to differential use of the Internet.

Literature Review

According to the study by Boston consultancy group titled, “The rising connected consumer in Rural India” almost 70% of the rural Indian use internet to access social networks followed by the gaming media, emailing.



Use of Internet for governance

Electronic government (e-Government) is one of the most important ways to bridge the digital divide in developing countries. Viswanath Venkatesh¹, Tracy Ann Sykes² and Srinivasan Venkatraman³ (2013) conducted a field study in a village in India of e-Government portal use and observed that demographic variables and personality traits are being significant and explaining 40% of the variance in e-Government portal use.

Factors for adoption of Internet Usage

Prof Rekha Jain (October 1, 2016), ‘Factors Influencing Perceived Impact of Internet Use on Individuals in Rural India’ TPRC44, Research Conference on Communications, Information and Internet Policy, Arlington, VA, examine internet adoption and usage in rural India from a socioeconomic perspective while considering factors like social capital, economic and knowledge enhancement and exchange in assessing the perceived impact

Dhyan Singh (Nov 2014, Volume-IV), Online International Interdisciplinary Research Journal, ‘A Systematic Review of Literature on effect of Internet Use on Students in India’ study

concludes that internet users still face many problems while surfing the internet in which low speed, downloading problems, availability of reliable information, location and other handling problems are primary. It is also found that both faculty members and students are not updated about their internet knowledge. VivekPai ,(November 18, 2015) in his Report titled, ‘25% of India’s population uses the Internet: IAMAI-IMRB’ compare the purpose of usage of internet in urban and rural area’ he has interviewed 5000 respondents of various age group. 71% of the urban respondents mentioned that they used the internet for communication, followed by 67% for social networking and 59% for entertainment. 24% of urban users used the internet to purchase products while 23% used it to book tickets.

In rural areas on the other hand, 44% of the users used the internet for entertainment, 37% of communication, 33% of social media, 14% for online ticketing and 5% of online shopping, indicating that online shopping hasn’t yet really taken off in rural areas.

Digital Literacy

Government to launch Digital literacy mission for 60 million rural Indians IANS Jun 26, 2016, India will soon launch a Rs 1,800 crore (\$265 million) Digital Literacy Mission for 60 million people in rural areas.

Research Problem

Various studies and reports shows that there is an increase in the usage of the internet in rural India. Studies in this area have focused on individuals and understanding what drives Internet use. As discussed primary use of the internet by the rural people is entertainment which is followed by communication and social media. The difference in the use of urban and rural is may be due to poor physical infrastructure. But in rural areas the need of internet connectivity for receiving social and market related information in the absence of proper roads and transportation may be greater. Reach for bigger market and understanding of market dynamism is more. But Internet penetration for this business and knowledge purpose is less. Internet adoption and usage may be very different in rural areas depending on the education and income profile. Therefore, it has become important to study the factors influencing Internet adoption and their usage in an increasing number of internet users and mobile Internet penetration in rural areas.

Objective of Research

- To identify the factors influencing the expected use of internet (Market, economic knowledge and governance) in rural India.
- To analyze the impact of demographic factors (age, occupation, education, digital literacy and income) on Internet adoption and usage in rural areas

Research Methods

The study is based on a survey in two rural areas of Vidharbha in Buldhana district. Intention of the survey is to understand the Internet adoption and usage profile of rural India.

The questionnaire used with a Likert Scale is made to understand the usage of internet for social networking, business and knowledge related activities. The scale had five categories ranging from Strongly Disagree (1), Disagree (2), Neither Agree or Disagree (3), Agree (4) to Strongly Agree (5). The number of survey respondents was 100.

Internet users were asked to rate how the outcomes of Internet use helped them in developing their social relations, creating economic opportunities and exchanging knowledge.

Three components that are used for analysis are:

Increase in efficiency of Work: Use of Internet helps in increasing the number of customer, increase in reach of the wider geographical area, reducing costs by developing efficiency in transaction and also by reducing time for travel, searching information, less time for processing transactions, the increase in new and existing job opportunities etc.

Empowerment: Due to availability of current information on the Internet, developing a social network, getting help in an emergency, and help in knowledge creation to understand different topic without the help of others.

Efficiency in Transaction: Performing transactions related to banking, online shopping

ANNOVA is used as a statistical tool for analysis

Sample size: 100 samples collected from two districts of Vidharbha, (Akola ,Buldhana)

Reliability test for the sample is attached in Appendix 2 and

Descriptive analysis is in Appendix 1 for understanding the sample

The profile of users in the survey is provided in Table 1

Table 1: Demographic Profile of Users

District	Akola	47
	Bhuldhana	53
Age	Up to 25 years	48
	Above 25 years	52
Occupation	Business	41
	Others	59
Digital Literacy	Digitally Less Literate	55
	Digitally More Literate	45
Income	Up to Rs 15,000	47
	Above Rs 15,000	53
Education	Undergraduate	69
	Graduation/Post Graduation	31

Findings

Impact of age on Expected Use of Internet:

Ho:- There is no significant difference between the different age groups and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha1:- There is significant difference between the different age groups and Efficiency of Work, Empowerment, Efficiency in Transaction

According to Table 2, One way ANOVA result for 'Age' up to 25 years and above 25 years on three components Increase in Efficiency of Work, Empowerment, Efficiency in Transaction at 5 % level of significance shows that no statistically significant differences in responses with respect to 'Age'. Hence the null hypothesis is accepted.

Table 2: Impact of age on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1. Adoption of internet increases the competition	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
2. Internet helped me to find new ways of doing work	Between Groups	10.002	1	10.002	5.085	.026
	Within Groups	192.748	98	1.967		
	Total	202.750	99			
3. Helped me to increase my existing business/work (deal with more people in the same amount of time)/	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
4. Internet help me to identify new business opportunity or job opportunity	Between Groups	9.403	1	9.403	4.774	.031
	Within Groups	193.037	98	1.970		
	Total	202.440	99			
5. Internet helped me to increase my customer base and professional network	Between Groups	3.480	1	3.480	1.680	.198
	Within Groups	202.960	98	2.071		
	Total	206.440	99			
6. Due to use of internet I reduce my travelling effort and expenses	Between Groups	10.002	1	10.002	5.085	.026
	Within Groups	192.748	98	1.967		
	Total	202.750	99			
7. It helped me in searching for new information related to business/work	Between Groups	.263	1	.263	.153	.097
	Within Groups	168.647	98	1.721		
	Total	168.910	99			
8. Helped searching information on topics related to Business/work	Between Groups	3.362	1	3.362	1.725	.192
	Within Groups	190.998	98	1.949		
	Total	194.360	99			
9. Helped me collaborating with others for business/work	Between Groups	3.754	1	3.754	1.932	.168
	Within Groups	190.436	98	1.943		
	Total	194.190	99			
10. Due to knowledge of competitive rates from different vendors help me to reduce cost as I get accurate information from the Internet	Between Groups	.021	1	.021	.011	.015
	Within Groups	179.769	98	1.834		
	Total	179.790	99			
11. Helped viewing videos for learning and understanding in a better way	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
12. Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	8.262	1	8.262	4.058	.047
	Within Groups	199.498	98	2.036		
	Total	207.760	99			
13. Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	9.403	1	9.403	4.677	.033
	Within Groups	197.037	98	2.011		
	Total	206.440	99			

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups	9.403	1	9.403	4.677	.033
	Within Groups	197.037	98	2.011		
	Total	206.440	99			
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
16.Helped in exchanging ideas about work with other people	Between Groups	9.403	1	9.403	4.677	.033
	Within Groups	197.037	98	2.011		
	Total	206.440	99			
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
18.Helped in getting accurate information	Between Groups	10.002	1	10.002	5.085	.026
	Within Groups	192.748	98	1.967		
	Total	202.750	99			
19.Helped to do some part of my work without being at the place of work, physically	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
20.Internet provide me an opportunity to take help in case of emergency	Between Groups	9.403	1	9.403	4.774	.031
	Within Groups	193.037	98	1.970		
	Total	202.440	99			
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	3.480	1	9.403	4.774	.031
	Within Groups	202.960	98	1.970		
	Total	206.440	99			
22.Helped in Getting feedback on business/work related issues	Between Groups	10.002	1	10.002	5.085	.026
	Within Groups	192.748	98	1.967		
	Total	202.750	99			

Impact of Occupation on Expected Use of Internet:

Ho2:- There is no significant difference between the occupation and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha2:- There is a significant difference between the occupation and Efficiency of Work, Empowerment, Efficiency in Transaction

One way ANOVA result of occupation in Table 3, on three components Increase in Efficiency of Work, Empowerment, Efficiency in Transaction at 5 % level of significance shows that there is no statistically significant differences in responses. Hence the null hypothesis is accepted.

Table 3: Impact of Occupation on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1. Adoption of internet increases the competition	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
2. Internet helped me to find new ways of doing work	Between Groups	46.810	1	46.810	29.417	.000
	Within Groups	155.940	98	1.591		
	Total	202.750	99			
3. Helped me to increase my existing business/work (deal with more people in the same amount of time)/	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
4. Internet help me to identify new business opportunity or job opportunity	Between Groups	47.957	1	47.957	30.423	.000
	Within Groups	154.483	98	1.576		
	Total	202.440	99			
5. Internet helped me to increase my customer base and professional network	Between Groups	45.182	1	45.182	27.458	.000
	Within Groups	161.258	98	1.645		
	Total	206.440	99			
6. Due to use of internet I reduce my travelling effort and expenses	Between Groups	46.810	1	46.810	29.417	.000
	Within Groups	155.940	98	1.591		
	Total	202.750	99			
7. It helped me in searching for new information related to business/work	Between Groups	29.537	1	29.537	20.769	.000
	Within Groups	139.373	98	1.422		
	Total	168.910	99			
8. Helped searching information on topics related to Business/work	Between Groups	41.751	1	41.751	26.811	.000
	Within Groups	152.609	98	1.557		
	Total	194.360	99			
9. Helped me collaborating with others for business/work	Between Groups	48.324	1	48.324	32.466	.000
	Within Groups	145.866	98	1.488		
	Total	194.190	99			
10. Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	37.181	1	37.181	25.550	.000
	Within Groups	142.609	98	1.455		
	Total	179.790	99			
11. Helped viewing videos for learning and understanding in a better way	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			

12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	50.294	1	50.294	31.301	.000
	Within Groups	157.466	98	1.607		
	Total	207.760	99			
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	47.957	1	47.957	29.655	.000
	Within Groups	158.483	98	1.617		
	Total	206.440	99			
14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups	47.957	1	47.957	29.655	.000
	Within Groups	158.483	98	1.617		
	Total	206.440	99			
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
16.Helped in exchanging ideas about work with other people	Between Groups	47.957	1	47.957	29.655	.000
	Within Groups	158.483	98	1.617		
	Total	206.440	99			
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
18.Helped in getting accurate information	Between Groups	46.810	1	46.810	29.417	.000
	Within Groups	155.940	98	1.591		
	Total	202.750	99			
19.Helped to do some part of my work without being at the place of work, physically	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
20.Internet provide me an opportunity to take help in case of emergency	Between Groups	47.957	1	47.957	30.423	.000
	Within Groups	154.483	98	1.576		
	Total	202.440	99			
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	45.182	1	45.182	27.458	.000
	Within Groups	161.258	98	1.645		
	Total	206.440	99			

22.Helped in Getting feedback on business/work related issues	Between Groups	46.810	1	46.810	29.417	.000
	Within Groups	155.940	98	1.591		
	Total	202.750	99			

Impact of income on Expected Use of Internet:

Ho3:- There is no significant difference between income and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha3:- There is a significant difference between income and Efficiency of Work, Empowerment, Efficiency in Transaction

One way ANOVA result of occupation in Table 4, on three components Increase in Efficiency of Work, Empowerment, and Efficiency in Transaction at the 5 % level of significance shows that all values are above 0.05. This shows that there are statistically significant differences in responses Hence the null hypothesis is rejected.

Table 4: Impact of income on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1. Adoption of internet increases the competition	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
2. Internet helped me to find new ways of doing work	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			
3. Helped me to increased my existing business/work (deal with more people in the same amount of time)/	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
4. Internet help me to identify new business opportunity or job opportunity	Between Groups	2.556	1	2.556	1.253	.266
	Within Groups	199.884	98	2.040		
	Total	202.440	99			
5. Internet helped me to increase my customer base and professional network	Between Groups	9.008	1	9.008	4.472	.037
	Within Groups	197.432	98	2.015		
	Total	206.440	99			
6. Due to use of internet I reduce my travelling effort and expenses	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			
7. It helped me in searching for new information related to business/work	Between Groups	2.018	1	2.018	1.185	.279
	Within Groups	166.892	98	1.703		
	Total	168.910	99			
8. Helped searching information on topics related to Business/work	Between Groups	1.323	1	1.323	.671	.415
	Within Groups	193.037	98	1.970		
	Total	194.360	99			
9. Helped me collaborating with others for business/ work	Between Groups	1.578	1	1.578	.803	.372
	Within Groups	192.612	98	1.965		
	Total	194.190	99			

10. Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups Within Groups Total	.112 179.678 179.790	1 98 99	.112 1.833 1.833	.061	.805
11. Helped viewing videos for learning and understanding in a better way	Between Groups Within Groups Total	2.264 201.846 204.110	1 98 99	2.264 2.060 2.060	1.099	.297
12. Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups Within Groups Total	1.990 205.770 207.760	1 98 99	1.990 2.100 2.100	.948	.333
13. Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups Within Groups Total	1.956 204.484 206.440	1 98 99	1.956 2.087 2.087	.937	.335
14. Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups Within Groups Total	1.956 204.484 206.440	1 98 99	1.956 2.087 2.087	.937	.335
15. Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups Within Groups Total	2.264 201.846 204.110	1 98 99	2.264 2.060 2.060	1.099	.297
16. Helped in exchanging ideas about work with other people	Between Groups Within Groups Total	1.956 204.484 206.440	1 98 99	1.956 2.087 2.087	.937	.335
17. Helped in being more confident in expectation of my work requirement/job role	Between Groups Within Groups Total	2.264 201.846 204.110	1 98 99	2.264 2.060 2.060	1.099	.297
18. Helped in getting accurate information	Between Groups Within Groups Total	2.866 199.884 202.750	1 98 99	2.866 2.040 2.040	1.405	.239
19. Helped to do some part of my work without being at the place of work, physically	Between Groups Within Groups Total	2.264 201.846 201.846	1 98 98	2.264 2.060 2.060	1.099	.297

	Total	204.110	99			
20. Internet provide me an opportunity to take help in case of emergency	Between Groups	2.556	1	2.556	1.253	.266
	Within Groups	199.884	98	2.040		
	Total	202.440	99			
21. Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	9.008	1	9.008	4.472	.037
	Within Groups	197.432	98	2.015		
	Total	206.440	99			
22. Helped in Getting feedback on business/work related issues	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			

Impact of Education on Expected Use of Internet:

Ho4:- There is no significant difference between the education and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha4:- There is a significant difference between the education and Efficiency of Work, Empowerment, Efficiency in Transaction

For Education Table 5, on three components Increase in Efficiency of Work, Empowerment, and Efficiency in Transaction at the 5 % level of significance shows that there are mixed responses. But more number of values are above 0.05 conceded that the null hypothesis is neither rejected nor accepted.

Table 5: Impact of Education on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1. Adoption of internet increases the competition	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
2. Internet helped me to find new ways of doing work	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			
3. Helped me to increase my existing business/work (deal with more people in the same amount of time)/	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
4. Internet help me to identify new business opportunity or job opportunity	Between Groups	7.352	1	7.352	3.693	.058
	Within Groups	195.088	98	1.991		
	Total	202.440	99			
5. Internet helped me to increase my customer base and professional network	Between Groups	16.070	1	16.070	8.272	.055
	Within Groups	190.370	98	1.943		
	Total	206.440	99			
6. Due to use of internet I reduce my travelling effort and expenses	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			
7. It helped me in searching for new information related to business/work	Between Groups	7.387	1	7.387	4.482	.037
	Within Groups	161.523	98	1.648		
	Total	168.910	99			
8. Helped searching information on topics related to Business/work	Between Groups	10.547	1	10.547	5.623	.020
	Within Groups	183.813	98	1.876		
	Total	194.360	99			
9. Helped me collaborating with others for business/ work	Between Groups	11.538	1	11.538	6.191	.015
	Within Groups	182.652	98	1.864		
	Total	194.190	99			
10. Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	18.532	1	18.532	11.263	.001
	Within Groups	161.258	98	1.645		
	Total	179.790	99			
11. Helped viewing videos for learning and understanding in a better way	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
12. Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	9.059	1	9.059	4.468	.037
	Within Groups	198.701	98	2.028		
	Total	207.760	99			
13. Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	8.571	1	8.571	4.245	.042
	Within Groups	197.869	98	2.019		
	Total	206.440	99			
	Between Groups	8.571	1	8.571	4.245	.042

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Within Groups	197.869	98	2.019		
	Total	206.440	99			
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
16.Helped in exchanging ideas about work with other people	Between Groups	8.571	1	8.571	4.245	.042
	Within Groups	197.869	98	2.019		
	Total	206.440	99			
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
18.Helped in getting accurate information	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			
19.Helped to do some part of my work without being at the place of work, physically	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
20.Internet provide me an opportunity to take help in case of emergency	Between Groups	7.352	1	7.352	3.693	.058
	Within Groups	195.088	98	1.991		
	Total	202.440	99			
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	16.070	1	16.070	8.272	.005
	Within Groups	190.370	98	1.943		
	Total	206.440	99			
22.Helped in Getting feedback on business/work related issues	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			

6.5. Impact of Digital Literacy on Expected Use of Internet:

Ho5:- There is no significant difference between the digital literacy and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha5:- There is significant difference between the digital literacy and Efficiency of Work, Empowerment, Efficiency in Transaction

By using Table 6 for Digital Literacy we reject the null hypothesis. This shows that there is a significant statistical difference in the values at 5 % level of significance.

Table 6: Impact of Digital Literacy on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1. Adoption of internet increases the competition	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
2. Internet helped me to find new ways of doing work	Between Groups	5.578	1	5.578	2.773	.099
	Within Groups	197.172	98	2.012		
	Total	202.750	99			
3. Helped me to increase my existing business/work (deal with more people in the same amount of time)/	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
4. Internet help me to identify new business opportunity or job opportunity	Between Groups	6.113	1	6.113	3.051	.084
	Within Groups	196.327	98	2.003		
	Total	202.440	99			
5. Internet helped me to increase my customer base and professional network	Between Groups	5.159	1	5.159	2.512	.116
	Within Groups	201.281	98	2.054		
	Total	206.440	99			
6. Due to use of internet I reduce my travelling effort and expenses	Between Groups	5.578	1	5.578	2.773	.099
	Within Groups	197.172	98	2.012		
	Total	202.750	99			
7. It helped me in searching for new information related to business/work	Between Groups	5.023	1	5.023	3.004	.086
	Within Groups	163.887	98	1.672		
	Total	168.910	99			
8. Helped searching information on topics related to Business/work	Between Groups	6.724	1	6.724	3.512	.064
	Within Groups	187.636	98	1.915		
	Total	194.360	99			
9. Helped me collaborating with others for business/ work	Between Groups	8.436	1	8.436	4.451	.037
	Within Groups	185.754	98	1.895		
	Total	194.190	99			
10. Due to knowledge of competitive rates from different vendors help me to reduce cost as I get accurate information from the Internet	Between Groups	3.608	1	3.608	2.007	.160
	Within Groups	176.182	98	1.798		
	Total	179.790	99			
11. Helped viewing videos for learning and understanding in a better way	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
12. Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	7.255	1	7.255	3.546	.063
	Within Groups	200.505	98	2.046		
	Total	207.760	99			
13. Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	6.113	1	6.113	2.990	.087
	Within Groups	200.327	98	2.044		
	Total	206.440	99			
	Between Groups	6.113	1	6.113	2.990	.087

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Within Groups	200.327	98	2.044		
	Total	206.440	99			
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
16.Helped in exchanging ideas about work with other people	Between Groups	6.113	1	6.113	2.990	.087
	Within Groups	200.327	98	2.044		
	Total	206.440	99			
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
18.Helped in getting accurate information	Between Groups	5.578	1	5.578	2.773	.099
	Within Groups	197.172	98	2.012		
	Total	202.750	99			
19.Helped to do some part of my work without being at the place of work, physically	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
20.Internet provide me an opportunity to take help in case of emergency	Between Groups	6.113	1	6.113	3.051	.084
	Within Groups	196.327	98	2.003		
	Total	202.440	99			
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	5.159	1	5.159	2.512	.116
	Within Groups	201.281	98	2.054		
	Total	206.440	99			
22.Helped in Getting feedback on business/work related issues	Between Groups	5.578	1	5.578	2.773	.099
	Within Groups	197.172	98	2.012		
	Total	202.750	99			

Findings

Age, occupation and education at a certain level is not the deciding factor, but the income, and digital literacy are the major reason for the effective use i.e for business or knowledge building activities of the internet. The above statistics indicates that possibly the individuals who used the Internet had high expectation on the enhancement of the scope of work by using the Internet. But actually people in rural areas are not using it in the proper direction. Effectiveness and efficiency of internet usage in rural area are very less which leads to less awareness, information and knowledge of the world leads to inefficiency in the market as compared to urban areas.

Major hindrances in the understanding and effective use of internet are found to be educated and digital literacy. The gap between the usage of internet for entertainment and effective usage could also be due to the individuals not getting enough support for enhancing their scope of the

profession. Individuals in rural areas may be encountered problem in finding enough or relevant content for their profession.lack of content in local language, Internet connectivity problem may be other reasons for effective usage.

Studies of Internet adoption indicate that users initially begin with the usage of Internet for social purposes. Only when they feel comfortable with various uses of Internet and see the benefits of online transactions, they may use for it.

On-line transactions, use payment wallet for e-commerce and other services are a relatively newer phenomena and many individuals in rural areas may not be able to participate due to not having Internet banking, delivery of services to rural area, lack of trust in on-line transactions. Basic education is playing an important role in understanding the effective and efficient use of the internet which lacks in rural individuals.

Future Scope of Work

Internet adoption generally starts from social media for networking and all and then once the trust is generated and they are looking for the benefit of the online transaction will go for other usages. For this, it is an early stage of the study.

This study was done in limited rural areas so it could be possible, different areas have a different result from adoption and usage.

The government is also bringing various initiatives and awareness campaigns sometimes force for making the habit of online usage, which definitely results in increase in effective usage of internet.

Thus, further study after lowering prices of data usage because of disruption in the telecom industry, increase in accessibility by improvement in services and infrastructure, a government awareness campaign of online usage and improving quality of services may provide greater opportunity for various online services and promotions of business. Also, this study focused only on Internet users. Further work needs to be done to make it applicable to a general population.

References

- Live Mint Fri, Aug 12 2016, “Internet usage picks up in rural India” revealed from <http://www.livemint.com/Consumer/QgM23BLpCo4ovHxA0jpOGM/Rural-India-getting-online-faster-BCG-report.html>
- Boston consultancy group study by Nimisha Jain and KanikaSanghi , AUGUST 10, 2016 titled, “The rising connected consumer in Rural India” <https://www.bcgperspectives.com/content/articles/globalization-customer-insight-rising-connected-consumer-rural-india/#chapter1>
- Viswanath Venkatesh¹, Tracy Ann Sykes² andSrinivasan Venkatraman³ May 2014, “Understanding e-Government portal use in rural India: role of demographic and personality characteristics” Issue Information Systems Journal , Volume 24, Issue 3, pp. 249–269
- Prof Rekha Jain, October 1, 2016, “Factors Influencing Perceived Impact of Internet Use on Individuals in Rural India” TPRC44, Research Conference on Communications, Information and Internet Policy,
- Dhyansingh , Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN2249-9598, Volume-IV, Nov 2014 ,”A Systematic Review of Literature on effect of Internet Use on Students in India”

- VivekPai , November 18, 2015 in his Report titled, “ 25% of India’s population uses the Internet: IAMAI-IMRB”
- Viswanath Venkatesh¹, Tracy Ann Sykes² and Srinivasan Venkatraman³ (2013) conducted a field study in a village in India of e-Government portal use and observed that demographic variables and personality traits
- www.InternetLiveStats.com

Appendix 1: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
1.Adoption of internet increases the competition	100	1	5	3.33	1.436
2.Internet helped me to find new ways of doing work	100	1	5	3.35	1.431
3.Helped me to increased my existing business/work (deal with more people in the same amount of time)/	100	1	5	3.33	1.436
4.Internet help me to identify new business opportunity or job opportunity	100	1	5	3.34	1.430
5.Internet helped me to increase my customer base and professional network	100	1	5	3.34	1.444
6.Due to use of internet I reduce my travelling effort and expenses	100	1	5	3.35	1.431
7.It helped me in searching for new information related to business/work	100	1	5	3.47	1.306
8.Helped searching information on topics related to Business/work	100	1	5	3.42	1.401
9.Helped me collaborating with others for business/ work	100	1	5	3.41	1.401
10.Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	100	1	5	3.61	1.348
11.Helped viewing videos for learning and understanding in a better way	100	1	5	3.33	1.436
12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	100	1	5	3.32	1.449
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	100	1	5	3.34	1.444
14.Enabled me to be in touch with my friends' friends which has increased my social interactions	100	1	5	3.34	1.444
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	100	1	5	3.33	1.436

16.Helped in exchanging ideas about work with other people	100	1	5	3.34	1.444
17.Helped in being more confident in expectation of my work requirement/job role	100	1	5	3.33	1.436
18.Helped in getting accurate information	100	1	5	3.35	1.431
19.Helped to do some part of my work without being at the place of work, physically	100	1	5	3.33	1.436
20.Internet provide me an opportunity to take help in case of emergency	100	1	5	3.34	1.430
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	100	1	5	3.34	1.444
22.Helped in Getting feedback on business/work related issues	100	1	5	3.35	1.431
Valid N (listwise)	100				

Appendix 2: Reliability Test

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded ^a	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.986	27