



## **Pluralism in use of Internet Radio: Identifying Digital G**

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### **ABSTRACT**

Transition from the traditional over-the-air radio broadcast to internet radio sheds light to identify the digital gap, which is the disparity in access to internet-enabled services between communities based on social, economic, and educational inequalities. The diffusion and adoption of messages varies in terms of socio-economic development condition of the area. It is essential to comprehend how new scientific, technological, and other developments diffuse throughout cultures before they are widely used, defined in the diffusion of innovation of theory. How innovations are spread among various groups of society and the perceptions attached to them have a significant impact on how rapidly diffusion or spreading occurs. Identifying criteria and strategies to reduce regional inequality in communication is essential considering the stark disparity in development of urban and rural areas. Communication must be examined to achieve the objective of equitable growth for vulnerable sections of the population and to strike a balance between urban and rural living conditions. Radio as the omnipresent medium of communication in a largely rural inhibited state- Nagaland has been chosen for the study. This research examines the variance in listenership of internet radio in urban- Kohima and rural-Mon. An empirical study was conducted to determine the difference in listening pattern of internet radio considering variables such as age, education and occupation. Though internet radio is significantly diversifying the radio broadcasting industry, the study finds significant difference in relation to urban and rural population.

**Keywords:** Internet, Diffusion of Innovation, Radio, Development, Communication

## **Pluralism in use of Internet Radio: Identifying Digital Gap**

### **Introduction**

Owing to the interconnectivity between rural and urban areas, both should evolve independently in the social and economic spheres. Through the bilateral flow of information, people, technology, commodities and services, these linkages are essential to the development of a region. The development of the surrounding rural areas seems to have a significant influence on the development of urban areas. The best course of action is to recognize the importance of urban-rural linkages as a tool for the long-term goal of fair and comprehensive development. This effort calls for a balanced strategy that takes into account the various economic, social, and environmental needs of the two areas. Rural-urban relation contribution to livelihoods differ according to household, individual income and status, as a byproduct to their gender, age, ethnicity, and in many cases, religious or political affiliation (Tacoli, 2003).

Communication based innovation strategy can help people change their perspectives by providing them with new information and skills as well as by identifying their underlying attitudes and received wisdom. It can also spread social messages to a wider audience (Fraser, 1994). In the communication process, the ability for people to analyze, form, and express their own ideas on regional and global concerns is a key component of broader empowerment strategies. Effective communication enables people to express themselves and aid in the formation of individual or collective identities for greater community participation. This collectivism can improve and encourage in building better environment (Oyero, 2003). Project designs all too frequently express communication strategies in an overly generalized manner whereby communication is not used enough. Giving communication only implicit and common sensual roles rather than assigning it specific mandates on contents, channels, forms, actors, timing, and other factors. Based on sound theoretical foundations is a common practice in international assistance programmes that are constantly constrained by a lack of funding and staff (Inagaki, 2007).

The use of communication channels to disseminate information percolating different strata can be understood through the Diffusion of Innovation theory which relies crucially on social capital. Everett Rogers claims that the diffusion process is how an invention spreads over time among the individuals within a social system. He expounded that the innovation itself, adopters, communication channels, time, and a social system are the five primary factors that affect how

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quickly a new concept spreads. In the investigation of the Diffusion of Innovation Theory, peer networks are crucial. The critical mass reached through the influence of early adopters and innovators who serve as opinion leaders is what drives the initial uptake in the adoption and implementation of innovations. Through communication, peer-to-peer interaction, and role modelling, these influential individuals have an impact on one's peers. They are crucial change agents. Within a company or a society, this strategy works well (Kaminski, 2011). When promoting an innovation, various strategies are used to endear to the different adopter segments. The traits of the adopters are divided into innovators, who are those who would like to try the invention first, early adopters, who represent opinion leaders and enjoy taking on leadership roles in addition to embracing change; Although they don't always take the initiative, these people frequently do so prior to the a large percentage; laggards are very traditional and are the hardest to convince to accept change. Late Majority: Those certain people are opposed to innovation and won't accept an innovative idea until the large percentage has tried it. The procedures by which a person adopts an advancement whereby dissemination is accomplished include awareness of the need for the advancement, choosing to adopt (or reject) the advancement, using the innovation at first to test it, and ongoing use. To help or hinder the recognition of the invention while promoting to a diverse population, it is essential to understand the features of the intended demographic.

### **Internet Radio**

As digital trends continue to progress, the radio industry is being compelled to reinvent itself in order to remain relevant in a multimedia web-based sphere (Cordeiro, 2012). Radio with its diverse programs in different languages is a prominent mass media that reaches even the remotest corner. It is used by government, NGOs, and individuals to inform and educate the masses. Radio contents are development centric keeping in view the different segments of listeners. Local broadcasting could benefit from more consistent long-term funding and a sensible spending plan that aligns with regional, sectoral, and spatial priorities for cross-sectoral development (Chapman et al, 2003). However, with the ability to simultaneously broadcast live transmissions over the Internet, radio stations can now reach international audiences without the limitations imposed by shortwave radio. Internet radio is inherently multimedia, and streaming media began in the mid-1990s with radio. Through massive growth in internet adoption, broadcasters are drawn to Internet radio broadcasting because of its broad coverage. As a result, many FM radio broadcasters have

established a parallel Internet radio presence. Traditional broadcasters could use this new channel to stream their content, and new broadcasters could reach online audiences. Rather than obliterating radio as a medium, the convergence of radio and the internet has created new opportunities for radio while also instilling certain radio logics in the internet (Bottomley, 2016). Local appropriation should be at the core of any development communication tool, even though technology investment could result in more efficient utilization of Information Communication Technologies (ICTs). Rural, underprivileged, and illiterate women are given meaningful access to new technologies through technological blending, which combines radio and ICTs. They are also drawn into the development agenda as active agents of social change (Asiedu, 2012). Keeping in mind that the Internet radio broadcasting industry is still in its infancy, smaller, niche broadcasters may not always be able to continue offering this variety due to industry and economic forces. It is therefore necessary and likely that additional research be conducted to track this industry over time (Compaine, 2001).

### Finding and analysis

In Nagaland, an empirical research study was carried out, situated in the northeast region of India. Questionnaire method was applied on 200 respondents across two districts Kohima- representing urban and Mon-representing rural. The study was undertaken to determine the difference in listening pattern of internet radio, to assess the goodness of fit, the Chi-Square test was used to compare categorical variables from a sample of two different populations.

			Internet radio is effective in poverty reduction by providing access to information and knowledge				Total
			Disagree	No Opinion	Agree	Strongly Agree	
Distts	Mon	Count	8	18	55	19	100
		% within Distts	8.0%	18.0%	55.0%	19.0%	100.0%
		Count	1	5	57	37	100

	Kohima	% within Distts	1.0%	5.0%	57.0%	37.0%	100.0%
Total		Count	9	23	112	56	200
		% within Distts	4.5%	11.5%	56.0%	28.0%	100.0%

### Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	<b>18.614<sup>a</sup></b>	<b>3</b>	<b>.000</b>
Likelihood Ratio	19.923	3	.000
N of Valid Cases	200		

The critical value for the table at the significance level of 0.05 is 7.815.

Ho: Regarding the effectiveness of internet radio in reducing poverty by facilitating knowledge and information exchange, Kohima and Mon do not differ considerably from one another.

Ha: Regarding the effectiveness of internet radio in reducing poverty by facilitating knowledge and information exchange, Kohima and Mon vary considerably from one another.

To determine the difference in with regard to internet radio being effective in poverty reduction by providing access to information and knowledge in two districts, the computed value of 18.614 exceeds the table critical value. As a result, the null hypothesis is disproved. This suggests that the perception and use of internet radio are related to residency, an independent variable.

			Internet radio is effective in ensuring inclusion of marginalized sections				Total
			Disagree	No Opinion	Agree	Strongly Agree	
	Mon	Count	7	25	50	18	100

Distts	Kohima	% within Distts	7.0%	25.0%	50.0%	18.0%	100.0%
		Count	1	4	59	36	100
		% within Distts	1.0%	4.0%	59.0%	36.0%	100.0%
Total		Count	8	29	109	54	200
		% within Distts	4.0%	14.5%	54.5%	27.0%	100.0%

### Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	<b>26.450<sup>a</sup></b>	<b>3</b>	<b>.000</b>
Likelihood Ratio	28.856	3	.000
N of Valid Cases	200		

The critical value for the table at the significance level of 0.05 is 7.815.

Ho: Regarding internet radio's ability to effectively ensure the inclusion of marginalised groups, there is no discernible distinction between Kohima and Mon.

Ha: Regarding internet radio's ability to effectively ensure the inclusion of marginalised groups, there is discernible distinction between Kohima and Mon.

To determine the distinction with regard to internet radio being effective in ensuring inclusion of marginalized sections the computed value of 26.450 exceeds the table critical value. As a result, the null hypothesis is disproved. This suggests that the perception and use of internet radio are related to residency, an independent variable.

	Internet radio is effective in ensuring even distribution of messages	Total
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			Disagree	No Opinion	Agree	Strongly Agree	
Distts	Mon	Count	7	21	52	20	100
		% within Distts	7.0%	21.0%	52.0%	20.0%	100.0%
	Kohima	Count	0	4	54	42	100
		% within Distts	0.0%	4.0%	54.0%	42.0%	100.0%
Total		Count	7	25	106	62	200
		% within Distts	3.5%	12.5%	53.0%	31.0%	100.0%

### Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	<b>26.404<sup>a</sup></b>	<b>3</b>	<b>.000</b>
Likelihood Ratio	30.395	3	.000
N of Valid Cases	200		

The critical value for the table at the significance level of 0.05 is 7.815.

Ho: Regarding the effectiveness of internet radio in ensuring a fair distribution of messages, there is no discernible distinction between Kohima and Mon.

Ha: Regarding the effectiveness of internet radio in ensuring a fair distribution of messages, there is discernible distinction between Kohima and Mon.

To determine the distinction in internet radio being effective in ensuring even distribution of messages in Kohima and Mon, the computed value of 26.404 exceeds the table critical value. As

a result, the null hypothesis is disproved. This suggests that the perception and use of internet radio are related to residency, an independent variable.

			Do you think Internet radio programmes are effective in dissemination of development related content?				Total
			Strongly Agree	Agree	Disagree	Strongly disagree	
Distts	Mon	Count	28	51	18	3	100
		% within Distts	28.0%	51.0%	18.0%	3.0%	100.0%
	Kohima	Count	63	36	1	0	100
		% within Distts	63.0%	36.0%	1.0%	0.0%	100.0%
Total		Count	91	87	19	3	200
		% within Distts	45.5%	43.5%	9.5%	1.5%	100.0%

### Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	<b>34.258<sup>a</sup></b>	<b>3</b>	<b>.000</b>
Likelihood Ratio	39.077	3	.000
N of Valid Cases	200		

The critical value for the table at the significance level of 0.05 is 7.815.

Ho: Regarding the effectiveness of internet radio in disseminating content related to development, there is no distinction between Kohima and Mon.



Ha: Regarding the effectiveness of internet radio in disseminating content related to development, there is distinction between Kohima and Mon.

To determine the distinction in internet radio being effective in ensuring even distribution of messages in the two districts of Kohima and Mon, the computed value of 34.258 exceeds the table critical value. As a result, the null hypothesis is disproved. This suggests that the perception and use of internet radio are related to residency, an independent variable.

## **Conclusion**

Internet radio has fundamentally altered the definition and nature of the radio landscape. However, according to the report 'India Inequality Report 2022: Digital Divide' by NGO Oxfam India pointed out the rural-urban digital gap. Despite a notable (digital) growth rate of 13% annually, just 31% of the rural population and 67% of their urban counterparts use the Internet, respectively. According to India census 2011 figures, the average number of households with internet, 1.9% in North East Region, is lower than the overall India average of 3.1%, while Assam, which has the most people living in the North-East (68% of the population of North East), has one of the lowest percentages of households with internet.

In order to assess the goodness of fit, the Chi-Square test was used to compare categorical variables from samples of two different populations. The results indicate that there are substantial differences in both the use and diffusion of internet radio. The responses indicate there are significant difference in Internet radio being effective in poverty reduction by providing access to information and knowledge. There considerable distinction between Kohima and Mon with regard to internet radio being effective in poverty reduction by providing access to information and knowledge, as well as Internet radio being effective in ensuring even distribution of messages. The study also finds that there is considerable distinction between the two districts with regard to internet radio being effective in dissemination of development related content. The considerable distinction is due to inter-district disparity in terms of development. Mon district in Nagaland had the lowest overall scores for the Human Development Index, Gender Development Index, and Human Poverty Index.

Though the Government of India, in collaboration with National Informatics Centre, Department of Information Technology and Bharat Sanchar Nigam Limited, took step under the Bharat Net

National Optical Fibre Connectivity Scheme to extend optical fibre cable connectivity to the Gram Panchayat level. Even so, only a select few areas have been more successful in using and implementing ICTs effectively, while the large percentage are still making progress. In particular, adoption rates are quite low in remote areas due to a lack of resources and knowledge, in addition to other obvious and unnoticed limitations (Malik et al, 2020). However, such an initiative was fraught with policy and managerial impediments, resulting in delays and overspending.

In Nagaland All India Radio was set up in 1962 as the 36<sup>th</sup> station in the country, broadcasting in 14 local dialects covering all the districts. It transmits through the traditional transmitters as well as has its online presence through the internet in various online radio websites. Though All India Radio has converged with the internet, the study shows that there are significant difference in the use of internet radio within the urban and rural population with more users in urban area. According to census 2011 of the total population of Nagaland state, around 71.14% live in the villages of rural areas. Therefore competent penetration of ICTs could yield better use of internet radio. Unreliable power supplies, poor network connectivity, a lack of knowledge of the advantages of ICTs, a lack of skill in using ICTs, a lack of IT literacy, a dearth of repair facilities, attitudes towards ICTs, a lack of funding, a lack of training, and a lack of real-world experience are all potential factors that could hinder the use of ICTs.

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