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Technology and Rural Consumers

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Abstract – Out of the billion-plus population in the country, 70 per cent live in six hundred thousand villages. A large section of rural population of India is either poor or belongs to lower middle class family. However, the purchasing power of the some section of rural India is on steady rise and it has resulted in the growth of the rural markets. Rural market contributes to the 56% of the country's GDP. Despite this rural consumers are exploited by the manufacturers, traders and service providers in different ways. Although, the consumers in India have been provided with various safety measures against their exploitation, still the rural markets are full of sub-standard goods and services. Sellers and producers are frequently cheating the consumers. Generally, consumers are exploited when they are not informed adequately about the product and services. Several studies and experiences substantiate that any policies and programmes can only be effective if people have access to the relevant and time bound information. Therefore, efforts must be made to give access to knowledge and information to educate people who constitute the majority of rural dwellers.

Information technology is a great enabler. It empowers common man if he/she can use it. It can play a major role in their life if they can access it. Thus a country like India, where almost seventy percent of the population lives in the rural areas, it becomes utmost important that the benefits of information technology must reach to the grassroots. This certainly will enable people in rural areas whether literate or not, to access all kind of information about the product, services and also the policies of government which ultimately empower them socially and economically. The present paper focuses on three main issues – current status of rural consumers, the programmes and schemes of Central as well State Governments meant for the e-governance and good governance which tries to address the problems and grievances of rural consumers and lastly the relevance of technology in educating all sections of rural society on the importance of consumer protection.

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INTRODUCTION

The rural consumers in India account for about 73 percent of the total consumers. In recent years, the lifestyle of a large number of rural consumers in India has changed dramatically and the process of change is on. The buying behavior of the rural consumers is influenced by several factors such as socio-economic conditions, cultural environment, literacy level, occupation, geographical location, efforts on the part of sellers, exposure to media etc. The consumer movement in India till now has been confined to the middle class citizens in urban areas. It has yet to spread among the masses in rural areas.

Most marketers realize that India is on the cusp of momentous change. The economy is vibrant, incomes are rising & the habits, preferences & attitude are changing rapidly.

But nowhere is it more evident than in rural India. There is, thus an emerging need to build expertise in rural marketing. There are three challenges that rural marketers must overcome. The first of this is the challenges of reach-markets in the rural India that are small & scattered making them inaccessible & unreliable or both. But this problem is not new & many companies let it hamper them unduly even as others overcome it with innovation. The next challenge is to ensure that the consumers are aware of your brand and want it. It is an old saying that customer is the king because he is the person whose decision have affect on the demand of any product or service. The attitude of consumer or buyer decides how demand will emerge for a new product & service & how existing goods and services would survive in future and in which manner.

THE PRESENT SITUATION IN RURAL AREAS

1. POOR-QUALITY RETAIL OUTLETS

Due to poor quality outlet in rural area most rural consumers purchase their day-to-day goods is at a Kirana or street shop. Consumers purchase everything from Banana to razors at a kirana with over 2.5 million kiranas Indian rural town and village. In order to reach these local shop and establish a brand presence in them companies need substantial amount of working capital and large committed sales force.

2. BUYING BEHAVIOR

To understand the buying behavior of rural consumers, we must go to the factors that Influence their buying behavior. The factors include:

i. **Cultural environment**: Culture and tradition influence perception and buying behavior. For example, the preference in respect of color, size and shape is often the result of cultural factors. Rural consumers' perception of products is strongly influenced by cultural factors.

ii. **Geographic location**: Rural consumer behavior is also influenced by the geographic location of the consumers. For example, nearness to feeder towns and industrial projects influence the buying behavior of consumers in the respective clusters of villages. We are discussing this aspect in detail in the section on market segmentation in rural markets. To cite one more example of how geographic location affects buying behavior, we can point out the fact that the lack of electricity in many rural households acts as a barrier to the purchase of certain consumer durables.

Iii. **Education/literacy level**: The problem of good education and literacy of new technology to the rural consumers.

iv. **Occupation:** Jobs are the main problems for the rural consumers

v. **Exposure of urban lifestyles**: Extent of exposure of rural consumers to urban lifestyles also influences their buying behavior. An increased exposure and interaction with urban communities has been the trend in recent years.

vi. **The points of purchase of products:** Buying behavior of rural consumer also varies depending on the place of purchase. Different segments of rural buyers buy their requirements from different places/outlets. Some buy from the village shopkeepers; some from village markets/fairs; others buy from the town that serves as the feeder to the rural.

vii. **Marketers effort to reach out the rural markets**: In recent years, many corporate companies have been trying hard to develop a market for their products in the rural areas, investing substantially in these areas. This has brought about some change in the way buyers purchase different products.

All the above factors influence the buying behavior of rural consumer and hence their responses to the marketing mix variables, and the reference points they use for purchase decisions.

Possible Solutions

The possible solutions or the strategies for developing rural technologies and how best to propagate, they are shown below:

Technology to Rural Market

Technology is different from any other type of new product. For one thing, the markets respond differently to technology; customers are slow to accept a new technology with which they are not familiar. IT involves the e- processing, storage and exchange of information, where anything that can be represented in digital form is included in the term 'information'. Thus reports, amusement, personal communications, learning material, blank and filled-out forms, announcements, schedules, and so on are all information. Software programs that process data (searching, tabulating, and calculating, for example) are also information in this sense, representing a particular kind of intermediate good.

The entrepreneurs who introduce a new technology must, in order to develop sufficient momentum to push the technology into mainstream market.

I.T. AND RURAL DEVELOPMENT:

I.T. has no. of applications in it, through which the development of the rural area can be possible. Government had introduced a number of programs through which the people of rural India can come forward and use the I.T. enabled services and work more systematically. Some of the programs run by the Government are:

• **E-Mitra:**

This service is launched by the **RAJASTHAN** Government for the first time for its rural citizens, so that they can deploy the I.T. enabled benefits to its fullest. E- Mitra is State Government started projects, which soon become highly popular in the region. In year 2002, two projects came into existence namely; **Lok Mitra** and **Jan Mitra**.Where Jan Mitra is an integrated electronic platform through which the citizens of Rajasthan can avail the benefit if getting the desired information regarding any Governmental Department at kiosks which is very near to their doorstep. These Initiative program of Rajasthan government have not only helped the Government by reducing the burden of attending every call, it has reduced the waiting time for the service and has lead to provide comfort to the citizens also, as with the inception of this service they can easily get the information required at their doorstep.

Lok Mitra is an urban electronic Governance Project which was launched in Jaipur city in year 2002, which helps the citizens of Jaipur (now other cities also) to pay their bills online (land, Water, Bus Tickets and BSNL) leading the citizen to save the waiting time. This service also ensures people that their money is going directly to the Government and

provides a feeling of security related to their bills payment.

• **Community Information Centers:**

The program is designed especially for providing the internet access and I.T. Enabled services to the citizens through which the interface between the Government and the Citizens can be setup. These centers connect **seven northeast states** namely; Arunachal Pradesh, Assam, Manipur, Mehalaya, Mizoram, Nagaland and Tripura. The center helps to gain the connectivity at the time of unsuitable environmental conditions. The centers are commonly termed as CIC which are generally situated at the school, college or any governmental office. People can come for the Internet access, and for accessing the internet, a nominal amount is charged from the people through which the daily expenses of the centers are maintained.

• **Gyandoot:**

The Gyandoot project was initiated in January 2000 by a committed group of civil servants in consultation with various gram panchayats in the Dhar district of Madhya Pradesh. Gyandoot is a low cost, self-sustainable, and community-owned rural Intranet system (Soochnalaya) that caters to the specific needs of village communities in the district. Thirty-five such centres have been established since January 2000 and are managed by rural youth selected and trained from amongst the unemployed educated youth of the village. They run the Soochanalayas (organised as Kiosks) as entrepreneurs (Soochaks); user charges are levied for a wide range of services that include agricultural information, market information, health, education, women's issues, and applications for services delivered by the district administration related to land ownership, affirmative action, and poverty alleviation. Kiosks are connected to the Intranet through dial-up lines, which are soon to be replaced by wireless connections using CorDECT technology. The Soochanalayas have been equipped with Pentium multimedia colour computer along with dot matrix printers. The user interface is menu based with information presented in the local Hindi language and the features of the Gyandoot software are continuously being updated. The beneficiaries are rural people of Madhya Pradesh.

• **TAR Ahaat:**

It was developed by an **NGO** (non-government organization); with the vision to bring internet facility to the rural India. It is a franchisee based business model that attempts to generate revenues by focusing on the marketing services through the module (especial focus on the local applications). It was initiated in the region of **PUNJAB** with the introduction of different centers called as Kendra's which are connected to each other through the dial up internet connection facility. These Kendra's have power backup also; in case, the electricity supply is interrupted.

The info kiosks provide online and offline services information on education, prevailing opportunities in the market and other useful information for the villagers. TARAkendra's are very popular in between the local population as it provides the information in the local language and the portal is designed in such a pattern that semi-literate population can also understand without any difficulty. Different services that TARAkendra's provide are:

• TARA Bazar (for product information)

• TARAdak (connect to relatives at distance)

• TARAgyan (educate rural youth on various issues)

• TARAguru (helps in mentoring and consultancy)

• TARAvan (delivery of orders at remote areas) and many other services are also provided.

• **Rural E-seva:**

It was initiated by **ANDRA PRADESH** Government. It was initially implemented in West Godavari District to deliver e-governance facility. The centers are designed with the view to provide better governance facilities to the people of the Rural India. The popularity of e-seva can be estimated from the fact that in the year 2003, more than 400 million rupees was collected only from the electricity payment. With the success of the e-seva in electricity bills payment, Government is looking forward for introducing it in the areas of collection of telephone bills and local Governmental Bills. E-seva is gaining popularity with passing days as it helps the citizens to avail the benefit of getting the certificates at their doorsteps; which is both relaxing and reliable.

• **Bhoomi:**

The Karnataka Government for maintaining the records related to the land introduced it. The Department of Revenue in Karnataka has computerized 20 million records of land ownership belonging to 6.7 million farmers of the state. With the introduction of the program, the farmers are free from giving the bribe and are protected from the harassment. Framers can easily getthe Records of Rights, by depositing a minimal fee of ` 15.National Informatics Centers (NIC) developed the software of Bhoomi through which the software, online copies of the land records are available By giving an online request, farmers get an online enrollment number through which further processing can be done. In the

software, the connectivity is through the LAN through which all the clients are connected to the hubs.With the increasing popularity of the project, Government of India has decided to introduce the project in other parts of the country also, namely: Kerala, West Bengal, Sikkim, Tripura, Punjab, Haryana, Madya Pradesh, Himachal Pradesh, Uttaranchal, Gujarat, Assam, Orissa, Rajasthan and Pondicherry.

• **E-choupal:**

It is designed especially for the farmers of India. Through e-choupal, farmers who are living in the remote area of the country and cannot manage to have direct contact with the consumer can come forward to have a direct contact. It provides an e-procurement system through which the farmers can access the latest and updated information (local, national and international) related to different farming practices. It provides real time information and customized knowledge to the farmers through which the farmer can take better decisions and can have direct contact with the customer, reducing the amount wasted by moving through the distribution channel of intermediary. E-choupal has already become the largest initiative among all internet-based interventions in Rural India. E-choupal is present in 36,000 villages through nearly 6,000 kiosks across nine states. ITC (Indian Tobacco Company) is planning to expand the concept of e-choupal further in15 states of India.

• **Aksh:**

It is mostly active in Northern India, it is a fiber optic cable company with its core competence in lay down and maintenance of cable. Aksh has the license to lay down the cables in the rural areas. It initially has collaborated with Drishtee for maintenance of kiosks, but with the changing times; Drishtee and Aksh have separated in different service offerings. While Urban Area has witnessed a penetration of cable T.V., rural areas have left un-served. The fact behind the low

level of cable T.V. proportion in rural as compared to urban area is due to the fact that in rural area there are a limited number of houses which can afford cable T.V. The bandwidth delivered by Aksh supports a large variety of services (including video interactions) which will lead to increase the level information exchange in between the people living in several areas of rural India.

• **n-Logue**

N-Logue is activated in South India and due to its advantages is entering into the northern areas. The main impetus came from IIT -Chennai. It is a non-profit organization with the responsibility of providing rural IT based services (including hardware and software) through connectivity and application all around the rural area. It is functional with WLL Technology whose construction and maintenance is costly and the connectivity is also limited to a certain area, but has the facility of providing connectivity with a range of services as it provides the voice call facility and overcome the problem of dial up connection errors. N-Logue is further supported by IIT Chennai, which prepares a variety of local language software for it in short time for convenience and comfort. It has also added the facility of web-cam through which the remote diagnosis of various problems can be done. Tamil Nadu Government has supported the functions of n-Logue (especially in its Madurai and Nellikuppam district). N-Logue charges for connectivity and is relatively popular in the southern region due to its easy connectivity functioning and training of handling the applications.

• **Land Records MMP: Haryana Land Records Information System** (**HALRIS**) is a complete Integrated Workflow Automation system of Land Record components. HALRIS provides a single Window Interface for Deed Writing, Registration, Mutation, Jamabandi and copy of ROR. HALRIS received a “Silver Icon national award” at 8th national e-Gov Conf. & “Bronze Icon national Award” at 9th national e-Gov Conf. HALRIS received Quality Certification from STQC. *Haryana is one of very few states, where property registration system and Land Records System have been dynamically integrated. HALRIS has also been integrated with Spatial (Mussavies / Cadastral Maps) Data by customizing Bhu-Naksha Software.* Project declared as best practice and a national roll model under NLRMP by DoLR, Ministry of Rural Development, GOI. Web enabled Access to Records of Right: The Records-of-Rights data publishing on the website http://jamabandi.nic.in for providing access on anytime, anywhere basis. The RoR data of around 6000 villages have been published. Revenue Directory, which is a state's revenue states database has been made web enabled. HALRIS is being implemented at all 74 tehsils and 44 sub-tehsils. HALRIS provide services like Nakal of Record-of-Right (Parat Patwar), Nakal of RoR (Parat Sarkar) e-Record Room, Copy of Khasra Girdawari, Verification of Nakal of RoR, Web based RoR Query Service, Copy of Mutation Order etc. Integration of HARIS, HALRIS and Digitized Cadastral Maps (Mussavies):The Property Registration, Land Records Records-of-Rights and Sajra Aksh (Cadastral Maps / Mussavies) were integrated dynamically as a first pilot under NLRMP (National Land Records Modernization Programme). **T**hen FCR launched the Cadastral Maps Lab & Integrated Bhu-Naksha & HALRIS solutions implementation for 40 on-line villages of Ambala Tehsil, at Mini Secretariat Ambala on 20th January, 2011. **The Parliamentary Committee on Rural Development visited Ambala and appreciated the initiative, after seeing live implementation of the project.** A team of officers from Kerala govt visited Haryana to study the HARIS and HALRIS project as part of their project work for PG Diploma in E-Gov offered by IIITM Kerala. HARIS and HALRIS are being implemented at all Tehsils / Sub-tehsils across

Haryana. The digitization of Cadastral Maps / Mussavies has been out sourced for all districts through open bidding process, as per NLRMP (National Land Records Modernization Programme) guidelines. More than 70 villages of Ambala tehsil has been linked with Bhu-Naksha for issuing RoR along with digital Map of the Land Parcel. Copy of Sajra Aksh (Cadastral Map) is provided along with Nakal of RoR under this project.

- **Panchayats MMP: BPL** (Below Poverty Line) Households Census Survey computerized for all districts. MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) Scheme: Web enabled MIS of MGNREGA is implemented at 119 blocks locations, 20 districts and 1 State HQ of Haryana. Preparation of smart cards for disbursement of MGNREGA wages from ICICI bank in Mahendergarh (Narnaul) district as pilot project. Appox. 8000 cards have already been prepared and given to MGNREGA beneficiaries in the district. **Plan Plus Software for BRGF** (Backward Regions Grant Fund) Scheme**) Districts**: Web Enabled software to capture the details of District, Block and Panchayat level Perspective and Annual plans has been rolled out in Districts of Sirsa and Mahendergarh. Two days' workshop cum refresher training was organized at HIRD Nilokheri. Project implemented 14 locations (7 blocks of Sirsa and 5 blocks of Mahendergarh along with 1 district HQ of both districts). Web enabled DRDAs Schemes Monitoring System is being implemented. Regular updating of National Panchayats portal. MPLAD (MPs Local Area Development) Scheme MIS is being implemented at Kurukshetra and few other districts. Detailed Project Report for e-PRI MMP prepared and submitted to Govt. of India. PRIA Soft (Model Accounting System for PRIs): To automate accounting functions of Panchayati Raj Institutes. The website http://accountingonline.gov.in is used for implementing the system. The application is running in 21 districts panchayats, 112 Block Panchayats and 1397 village panchayats. Display of Jhanki on e-Services in Rural Haryana on Republic Day 2011 by NIC in Panchkula was awarded 2nd prize by His Excellency Governor of Haryana Sh. Jagannath Pahadia.

- **Agriculture MMP: Ag Mark Net:** All Man dies and Sub Centers of Agriculture Marketing Board facilitated to disseminate prices of agriculture commodities on daily basis. Exclusive website of HSAMB and Agriculture department launched. The SMS based interaction with Farmers, by the Directorate of Agriculture, Haryana received Microsoft Excellence Award. Mustered Procurement Management System implemented in Rohtak District received Silver Icon Awardat 11th National e-Gov Conference. A two days State Level workshop on Bee Keeping was organized by National Bee Board at Jind (Haryana) on October 24-25, 2011. NIC participated, discussed with Executive Director NBB and presented the NIC view point on development of bee portal.

- **DRISHTEE-Connecting India Village by Village:** Drishtee's software platform enables e-governance and provides information about and access to education and health services, market-related information, and private information exchanges and transactions. Drishtee offers its network platform to any service provider who wishes to market its range of services to rural India by plugging their application in with Drishtee's s/w offered directly at the village level. Thus, the Drishtee offering is wide in scope and highly scalable. It aims to be the 'window to the world' for Indian villagers. Drishtee services not only provide financial benefits in terms of reduced costs and increased incomes, but also other social benefits like access to education and health information. Drishtee kiosks provide viable employment opportunities for unemployed rural youths and help stem rural-urban migration.

Drishtee is an organizational platform for developing IT enabled services to rural and semi-urban populations through the usage of state-of-the-art software. Using a tiered franchise and partnership model, Drishtee is capable of enabling the creation of approximately 50,000 Information Kiosks all over India within a span of six years. These kiosks would potentially serve a market of 500 million people, with aggregate discretionary purchasing power of Rs. 100 billion (Rs. 10,000 crores). In less than two years, Drishtee has successfully demonstrated its concept in over 90 kiosks across five Indian states. It is a state-of-the-art software which facilitates communication and information interchange within a localized intranet between villages and a district center.

This communication backbone has been supplemented by a string of rural services for example, Avedan, Land Records, Gram Daak (mailing software), Gram Haat (virtual market place), Vaivahiki (Matrimonial), Shikayat (online grievance redressal), Mandi Information System and a host of other customized services. These services are provided through Drishtee in a village (or a group of villages) by a local villager, who owns the kiosk after having it financed through a Govt. sponsored scheme.

The employment thus generated leads to a new breed of IT literate generation (45,000 kiosk owners by 2003) that can pay for their loans (not more than 75K) with their earnings (reasonable to high) and become a role model for the younger generation. The beneficiaries are Rural and semi –urban people. The schemes were implemented by Haryana, Punjab, Madhya Pradesh, Gujarat and Orissa.

CONCLUSION

- Once the industry linkage is established, then automatically the whole machinery of consumer

demand creation comes into play. This includes high volume production, good quality products, media advertising, sales outlets and after sales service. No technology has successfully reached the masses without the above attributes and rural technology should follow the same evolutionary process.

- Rural technology development should take place with this as a major theme. There are a large number of cases where people are ready to pay a higher price for goods which give them convenience. Also associated with the theme of convenience is sophistication. Hallmark of evolution is size reduction and increased sophistication and complexity of systems. Technology developers should not shy away from complex and sophisticated technologies for rural areas. As long as these technologies are backed by good after-sales service, are convenient to use and are reasonably priced, they will spread rapidly.

- The spread of rural technologies will be facilitated if they also are employment generators. Thus high-tech agrobased industries can provide a possible solution. These industries will be in the areas of food processing, energy production (electricity producing plants running on biomass and ethanol production) and production of raw materials for chemical industries. Sugar cooperatives (which are chemical industries) have shown that in rural Maharashtra all round development takes place right from agriculture development to consumer items growth to increased employment around them.

- The *Gram Panchayat* could play a significant role in creating awareness at the grassroots level. Appropriate technology and creative media could be used to raise awareness. The relevant resource materials in regional languages could be made available in hard copies as well as in soft copies through internet. The g*ram panchayats* also can consider using media such as documentary films, street plays, competitions etc. to spread consumer awareness. The services of government primary school teachers could be utilised in conducting consumer awareness programmes.

- The technology has drastically changed the life of rural People. Rural people are using mobile phone to do their business. The social life of the rural people has been improved by using technology. Banks are providing credit cards to the rural people.

Finally, it should be pointed out that in any such discussion about rural technology development and propagation, the question boils down to whom this technology is for. Most of the funding agencies and the participatory groups like NGOs would like to see these technologies benefit of the rural population. However, the economic situation of these people precludes any or little participation in this process. It is however possible that if the technologies help 250 million people (high market potential group) in rural areas, the whole process can snowball to include the poorest sections into the economic revolution. This vast rural market can produce whole economic systems which will span from manufacturing to service industries. Ministry of Information technology is in the process of connecting every *panchayat* in the country through internet. By 2012, every *panchayat* will have an internet equipped service center, to ensure rural access to various online services.

"India's way is not Europe's. India is not Calcutta and Bombay. India lives in her seven hundred thousand villages", *~ Mahatma Gandhi in 1926.*

REFERENCES:

1. India: Innovation in Rural Marketing Prof. Pankaj Arora

2. Kashyap, P. and S. Raut 2006. The Rural Marketing Book. New Delhi: Biztantra.

3. Kotler, P., K. Keller, A.Koshy and M.Jha 2007. Marketing Management : A South Asian Prespective. New Delhi : Pearson Prentice Hall.

4. Kotler, P.2000. Marketing Management. NJ: Prentice-Hall.

5. Koehn, Nancy F. Brand New: How entrepreneur Earned Consumer's Trust from Wedgewood to Dell. Boston: Harvard Business School Press, 2001.

6. Krishnamacharylu, C.S.G. and L. Ramakrishnan. 2002. Rural Markeitng: Text and Cases. Delhi: Pearson Education.

7. Nabi, M.k. and K.C.Raut 1995.' Problem and Imperatives of Rural Marketing In India' , Indian Journal of Marketing. 24 (2-3): 16 -24.

8. Prahalad, C.K.2005. The fortune at the bottom of the pyramid: Eradicating Poverty through Profits. New Delhi: Pearson Education.

9. Rajagopal. 1994. 'Marketing Channel for Rural Industries', Journal of Rural development, 13 (4):593-601.

10. Rao, K.L.K and R.G.Tagat. 1985. ' Rural Marketing : A development Approach' , Vikalpa 10 (3): 315 -26.

11. Singh. Nirvikar , Information technology and rural development in India, University of California, Santa Cruz, USA, April 2004.

12. Vaswani, L.K., R. Aithal, D. Pradhan and G.Sridhar. 2005. 'Rural Marketing in Development Paradigm', International Journal of Rural Management, 1 (2): 245-62.

13. Velayudhan, S.K. 2002. Rural Marketing: Targeting the Non – urban consumer. New Delhi:response Books.

14. Viitanen. K.Anita ; The Role of ICT in Governing Rural Development

15. Consumer Behavior in Rural Marketing-a new paradigm Dr.Satya Prakash Srivastava and Manish Kumar

16. Rural Consumers and Role of Local Bodies in Consumer protection George Cheriyan *Director, CUTS International Head, CUTS Centre for Consumer Action, Research & Training*