



ANALYSIS OF BANKING SERVICES THROUGH INFORMATION TECHNOLOGY AND ITS IMPACT ON RURAL PLACES IN PUNE DISTRICT

Dr. Vaishali Sangvikar

Professor and Head, M.C.A.Department, Modern college of Engineering, Shivaji Nagar, Pune,
411005

ABSTRACT

This study is based on questionnaires presented to people from rural areas in Pune district. Peoples provided financial information related Banking services or rural kiosks and access or use of ATM services in their village. People were eager to acquire new information because they always needed these service as compared with urban people. They feel that if these services are provided effectively as in urban areas they would also like to use all services like urban people. Also these people wants their sons and daughters to learn all these Information Technology Services.

Keywords: SHGs, MFCs, ICT, ATM

Introduction

In Rural India, Bank is most important medium for mutually beneficial distribution of capital from those with surplus capital to those who require it. According to National Bank for Agriculture and Rural development (Nabard) these has been good 30% growth in loan disbursement by Banks. Rs. 12,253/- crore in 2008-09 compared to Rs.8,849/- crore in 2007-08 to Self –Help Groups (SHGs) which small borrower (90% are women). Outstanding loan amount Rs. 22,679 crore of 31st March 2009 from Rs. 17,000/- crore in same last year. SHGs

model has been leading driver of microfinance in the country. Microfinance companies (MFCs) has been leading to small borrowers, disbursements were up by 94% to Rs. 9,500/- crore in previous fiscal, outstanding amount was up to Rs. 14,400/- crore as of 31 March 2009 from Rs.6,000/- crore as of 31 March 2008. Therefore indirectly lending to borrower. Recently strategies of SBI lending directly through the SHGs model and MFCs are attractive to small borrower because they offer funds at lower interest rate compared to private money lenders only problem is that poor people doesn't get identification card, house document , neighbors reference, they required some help desk, how to use technology such problems. Crisil estimates that at least 90% of all MFCs funds came from the Banks. According to a study by National council of applied Economic Research in 2008 on impact and sustainability of SHGs bank linkage programmers. Role of SHGs is that performing better not only providing of financial services in term of augmenting saving , lending and ensuring loan recovery but also awareness and empowerment.

Mr. Vijay Chandok, senior general manager and global head (SME), ICICI Bank say that "Bank is struggling to build the right model to reach to make microfinance high growth, scalable and cost efficient".

I. Methodology

The researcher has adopted Methodological approaches and research design of the topic. The study is focused on the availability of Financial Information from various Information Technology Services to get information related to ATM services at rural places in Pune District.

The study is trying to find out the usage of Information Technology services in rural area also the study shall investigate the impact of IT services on the life of rural area. The study shall investigate the awareness, need, frequency of use, performance satisfaction of using, Benefits about IT services. Researcher shall investigate Internet connectivity and Mobile Services Network in rural area of Pune district and trying to understand the upcoming new technologies, and interest of rural people in using them in rural area of Pune district.

Research Questions:

Researcher has set following questions to understand the problems and prospects of Information technology in rural area.

1. What is the role of ICT for rural India?
2. What are the government policies of ICT development in rural area?
3. To find out the awareness of IT services in Pune District villages.
4. What are the basic amenities available in rural area of Pune district?
5. What are the needs of IT services and impact are seen in the rural area?
6. To find out the frequency and performance of use of IT service in rural area?
7. What are the benefits that occurred from the IT services?
8. Which bandwidth is getting for Internet service?

Research Objective:

To study the various information technology services available at rural places in Pune district, and to understand problems of Financial Information available so that people will choose ATM service at rural places in Pune District.

Research Hypotheses:

People living in rural areas feel that the ATM Centres are essential for various financial transactions required by them and provides effective banking services

Researcher had to understand the problems and prospects of rural Information Technology Services and network problems and prospects. Since the requirements of Information Technology of various villages were to be understood and documented, an exploratory design was chosen to conduct the study.

Sample size and Sampling method:

As there are different types of Information Technology requirements of in different people, looking at the universe stratified random sampling was done with the sample size of 150 (around 10% of total villages that is 1500) was selected as representation of population. The method of sampling used was non probability random sampling. Researcher has selected group of respondents like Student, Employee, Self Employee, Farmer and Other (daily wages, Landless etc.). Family structure whether joint / nuclear as well as Monthly Income (Below 3,000/ 3,000-5,000/5,000-10,000/10,000-20,000/Above 20,000)

The purposes of gathering information were distributed among different respondents. They are designed for statistical analysis of the responses. Type were considered for the purpose i.e. some question are in the form of Yes/No type, some descriptive, for some scale was provided.

For this study researcher has selected 150 villages out of villages in Pune District and collected one questionnaire from each village. Researcher has collected basic information right from demographics as well as IT services available, usage, awareness, Need of service, benefit, Interest of using and opinion of village people.

Secondary Data Collection:

Secondary data for the study was taken from various Indian and Foreign surveys, manuals, websites, magazines, etc.

Analysis and Interpretation of Results:

Once the data is collected, analysis and interpretation of results is one of the important steps in research. This process is linked with various operations. Like - establishment of categories, the application of these categories to raw data through coding, tabulation and then drawing statistical inferences. There exist different categories through which new data can be classified like coding, editing and tabulation. After this classification, analysis of work is based on the computation of various percentages, coefficients etc., by using statistical methods and formulae. In the process of analysis, relationships or differences supporting or conflicting with original or new hypothesis should be subjected to tests of significance to determine with what validity of data can be said to indicate a conclusion.

Research Tools used:

Researcher assumed the Normal Distribution for interval estimation for the % of data with given attributes at the confidence level of 95%.

In probability theory and statistics, the **normal distribution** or **Gaussian distribution** is a continuous probability distribution that describes data that cluster around the mean. The graph of the associated probability density function is bell-shaped, with a peak at the mean, and is known as the **Gaussian function** or **bell curve**.

The normal distribution can be used to describe, at least approximately, any variable that tends to cluster around the mean. For example, the heights of adult males in the India are roughly

normally distributed, with a mean of about 70 in (1.8 m). Most men have a height close to the mean, though a small number of outliers have a height significantly above or below the mean. A histogram of male heights will appear similar to a bell curve, with the correspondence becoming closer if more data are used.

Chi-square test is used by researcher to find out the dependency of the variables. This has also helped researcher to find out whether there is difference sector wise in the security requirements of the organizations.

Analysis of Data:

According to the census 2001, Pune District has population of around 4,485,000 (2005), 71 % population is literate, geographic area is 700 km² (270 sq mi). Pune District has 14 Taluka, there are around 1500 villages. Researcher has taken 12 Taluka and 150 villages as a sample for data analysis.

Table 1 Population of Villages:

Total Villages	150
Mean	2217
Minimum	1015.00
Maximum	6046.00

Table 2 Age Group of 150 respondents:

Age Group in years	15-20	20-25	25-30	30-40	40-45	Above 45	Total
Respondents	15	43	65	15	12	Nil	150

The researcher has collected data from respondents having age of 15 years and above.

Table 3 Profession of 150 respondents:

Profession	Student	Service	Self Employed	Farmer	Other	Total
Respondents	25	34	53	27	11	150

Maximum respondents contacted by the researcher were self employed. In villages most of the people are self employed or engaged with farming.

Table 4 Education level of 150 respondents:

Education	Secondary	Higher Secondary	Graduate	post Graduate	Total
Respondents	30	67	41	12	150

Table 5 Monthly Income of 150 respondents.

Monthly Income	Below 3,000	3,000-5,000	5,000-10,000	10,000-20,000	Above 20,000	Total
Respondents	14	81	42	13	0	150

It was observed that monthly incomes of people staying in villages are having less than Rs. 20,000.

Table 6 Amenities available in the villages.

Amenities available	Yes	No	Total
Internet	57	93	150
	38.0%	62.0%	
Cyber Café	37	112	150
	24.8%	75.2%	

Bank	67	83	150
	44.7%	55.3%	
ATM Center	5	145	150
	3.3%	96.7%	

It was observed that only 38% villages are having Internet facility, 24.8% villages are having cyber café. 44.7% villages are having banks in the villages. Only 3.3 % villages were having the ATM facility. There is need for more ATM service.

The researcher has found out that the villages in Pune district are having 44.7% Banks facility available. The financial information should available at Bank so that rural people will get usage of ATM service.

II. Availability of Bank and ATM service at Rural

Table 7 Bank available in 150 villages

Amenities	Available	Percentage	Not Available	Percentage	Total
Bank	67	44.67	83	55.33	150

It was observed that the villages having banking facility are only 44.67%.Majority of the villages are not having banking facility and they have to depend on the nearby towns. With the help of Information Technology Services banking facilities can be made available to rural people.

Table 8 the ATM centre.

Amenities	Available	Percentage	Not Available	Percentage	Total
ATM Centre	5	3.33	145	96.67	150

It was observed that 96.67% villages are not having ATM facility in their villages in Pune district. Here is a greater scope of banking facility with the help of information technology. Major Banks can make available their services at rural places with the help of Information Technology tools. They can install their ATM centres in every village. Rural people can be taught about its usage.

III. Understanding of Internet service, Bank facility and ATM service

Table 9 Awareness of Internet Services: Communication, Web Services, Information Retrieval, Internet Telephony.

Internet Services	Aware	Not aware	Total
Communication	56 (37.6%)	93	149
Web Services	56 (37.6%)	94 (62.4%)	150
Information Retrieval	56 (37.6%)	94 (62.4%)	150

The researcher asked the respondents about the benefits of the various Information Technology Services and its importance for them..67% said that it's important for easy and fast communication. It shows that they are interested in speedy communication facilities which can be fulfilled by the Information Technology tools. The respondents felt that data analysis and data management services were not very important for them. They have not understood the importance of data analysis and data management tools.

Respondents have given importance to the benefits of IT like information availability, savings, and time available for family, services at doorstep, better academic performance, better quality of life and entertainment.

This shows that people at rural places are giving importance for various Information Technology Services and wish to avail those facilities for their benefits.

IV. Conclusion

People living in rural areas feel that the ATM Centres are essential for various financial transactions required by them and provides effective banking services

Even the villagers feel that the ATM Centres are essential for the financial information required by them.

Researcher was interested in the finding out the different amenities available in the villages and how these amenities were beneficial to the villagers. Therefore the researcher identified question Q_2, from the questionnaire where in respondents were requested to choose whether ATM Centres was essential and if it provides effective services.. This question was dichotomous, i.e. either they felt it was essential or not essential (V1) and similarly Q_7_7, enquired about the benefit the villagers derived by utilizing the different IT services. Researcher was interest to find out whether there is any association between ATM Centres and benefit obtained from ATM Centres. The hypothesis was statistically stated as follows:

H₀: Effective financial transactions are not dependent on efficient ATM services at rural places **H₁:** Effective financial transactions are dependent on efficient ATM services at rural places **Test Statistic:** Pearson Chi-Square test dependent of variables as both the variables V1 and V2 where discrete categorical variables measured on nominal scale. Pearson Chi-Square test for dependent of variables has thought to be most appropriate test.

Observation: Chi –Square value = 14.368 with 1 df and p value = 0.001.

Inferences: Since Chi-Square value = 14.368 and p value = 0.001 < 0.05 , H₀ rejected and H₁ is accepted.

Table 10 Amenities available in the Village ATM Centres * Financial Information.

Cross tabulation

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.368	1	0.001

Conclusion: It may not require an expert's opinion to accept the fact that in the cities ATM Centres are important source of financial information also in case of villages it is true. ATM Centres are emerging as source of financial transactions to people living there.

On-line banking facilities and ATM facilities should increase at rural places of Pune district with the help of Information technology

The villages having banking facility are only 44.67%. Majority of the villages are not having banking facility and they have to depend on the nearby towns. With the help of Information Technology Services banking facilities can be made available to rural people.

Majority villages are not having ATM facility in their villages in Pune district. Here is a greater scope of banking facility with the help of information technology. Major Banks can make available their services at rural places with the help of Information Technology tools. They can install their ATM centers in every village. Rural people can be taught about how to use and make their banking and financial services efficient.

V. References

1. Prof. T.P. Rama Rao, ICT and e-Governance for Rural Development Center for electronic governance, Indian Institute of Management , Ahmedabad. https://www.unihohenheim.de/witheorie/globalisierung/dokumente/chopra_wp.pdf.
2. Anand Chopra 2005, "Bridging India's Digital Divide: Some Policy and Technological Options".
3. Ranjesh Gajra, "microfinance companies are leading fast but many are still un-banked", Cover story (Finance Inclusion), Business world, RNI no. 39847/81, 28 December 2009.
4. Mr. Srikanth Srinivas, "Faster, safer larger Banking, with technology as its core, HDFC Bank is most friendly Bank", cover story technology, RNI no. 39847/81, 28 December 2009.
5. Mr. Shane Greenstein, "Economic and Business Dimensions The Broadband Price is not Right, Developing an effective pricing index is essential to understanding the value

of broadband connectivity” DOI: 10.1145/1592761.1592771, Communication of the ACM, November 2009, volume 52, No.11.

6. Mr. Deepak Halan and Amit sharma, “Estimating Internet Traffic (the Internet is expanding rapidly in India. Unless we have reliable traffic data the quality of service cannot be improved), India Management, The journal of All India management Association(AIMA), December 2009, volume 48, issue 12.
7. Renee Kuriyan and Kentaro Toyama, “Review of Research on Rural PC Kiosks”rkuriyan@berkeley.edu; kentoy@microsoft.com, April 14, 2007. <http://research.microsoft.com/research/tem/kiosks>.