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Profile of the Customers and Level of Banking Penetration: A Relationship Study

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Abstract

This paper aims to analyze the socio-economic and banking profile of the customers and the level of banking penetration of rural areas of Sivakasi. This study contains both primary data and secondary data. The researcher has used convenient sampling technique for the selection of the 200 sample respondents. Percentage analysis is used throughout the study. The researcher has applied the Chi-Square test by using of SPSS to test the relationship between socio-economic profiles of the respondents such as gender, age, educational status, family monthly income, and employment status, and their level of penetration. The Chi-Square test result reveals that there is no significant association between gender of the respondents and the level of penetration and there is significant association between socio-economic variables such as age, educational status, family monthly income, and employment status, and the level of penetration. In order to find whether the level of penetration differs on the basis of type of bank, purpose of opening bank account, and number of year's deals with bank account, the researcher has applied Kruskal Wallis test with the help of SPSS. Kruskal Wallis test results found that there is significant difference in the level of penetration on the basis of type of the bank, purpose of opening bank account, and number of year's deals with bank.

Keywords: Banking Penetration, Rural Customers, Banking Products and Services

Introduction

Banks in India play an all-pervasive role in development. Their crucial role in accelerating economic development of the country has been already recognized; in addition, after nationalization of major banks, they are increasingly called upon to serve the national economy. The horizon of commercial banking in India is enlarged and now they identify themselves with national problems and thereby bring about social and economic transformation in our country. The economic development is the process whereby economy's real national income is carried on from a lower to a higher plank over a long period. The process of economic development needs capital resources besides other structural changes like improvement in skill and efficiency of manpower, better organization, better health, education, etc. Capital formation is the most significant variable of economic development. The capital formation can be divided into three stages, i.e., savings, financing, and investment.

Banks have always played a key position in the country's economy. They play an influential role in the growth of the industry and trade. They are performing not only as the caretaker of the wealth of the countryside, but also as resources of the country, which are indispensable for the economic progression of an every nation. Banks can attain fair development in different regions of the country. They transfer surplus capital from the urbanized regions to needy and less developed (rural) regions. This reallocation of funds between regions will promote

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economic development in underdeveloped rural areas of the country.

In the current scenario, there are many rural areas where people do not know about the schemes launched by the government of India. Banking sector is the best delivery channel to spread awareness of schemes to the educated and uneducated people in the rural area. In rural area, around 43% of the people have the normal saving account, although they do not even know about the technology developed in the banking sector such as mobile banking services, ATM services, Kisan credit card, agriculture loan facilities, net banking, etc. Only 15% of the rural people in India have the knowledge about the technology development in banks.[1] Rural financial services are the speedy growing segment due to large unused possible driven by the very low penetration in rural market. This study analyses how the socio-economic and banking profiles of the customers influence the level of penetration of banking services.

Statement of the Problem

In India, more than 70% of the population lives in rural areas. Obviously, in any development planning, rural development has to get a priority. Finance being the most important part of any development process, providing banking facilities drew the attention of the policy-makers since independence. Rural areas are served mainly by commercial banks, cooperative banks, and regional rural banks. These banks have a large number of branches in the rural areas. Together, they had remarkable achievement in agricultural credit target for 2015-16 is Rs. 8,50,000 crore and achievement is Rs. 8,77,527 crore.[2] In the year 2016-17, India's central bank has been set the target at Rs. 9,00,000 crore and a sum of Rs. 7,55,995.17 crore has been disbursed as agriculture credit during April-September, 2016.[3] Moreover, the Reserve Bank of India (RBI) introduced the Basic Savings Bank Deposit Account (BSBDA) [earlier called as no-frills account] in November 2005, which was another major step for providing safe savings deposit facility to the rural and urban poor.

The RBI's monetary policy statement for2012-13 has said that penetration of banks in rural areas has increased. It said that banks are now providing banking services in rural areas through 1,38,502 outlets. This includes 24,085 rural branches, 1,11,948 business correspondent outlets, and 2,469 outlets through other modes.[4,5] In early March 2010, banks had only 21,475 brick and mortar branches in rural areas. Thus, a wide network of institutions has been established in order to expand the outreach of financial services to the rural people. Usually, the awareness of banking products and services is very low in rural areas compared to urban areas, because the banks cannot concentrate the rural people. Therefore, to examine the level of banking penetration in rural areas is very important one in today's competitive market. For that purpose, the researcher has analyzed the customers' socio-economic and banking backgrounds in the rural areas of Sivakasi. Hence, this study definitely analyzes how the socio-economic and banking profiles influence the level of banking penetration in rural areas of Sivakasi.

Review of Literature

In this part, the researcher has collected some reviews relating to the previous studies of proposed research study.

Banking plays a crucial role in the growth and expansion of developing countries like India. In India, a large number of people live in rural areas. While, the Indian banks are penetrating the rural areas to meet up with the rural customers' needs, still, they have not accomplished their goal (Bansal, P. & Behal, V., 2013). In the Indian financial sector, the role of the rural banks is important but not, it seems, that paramount. The rural banking system is obviously more inclusive of low-income people than those provided by the commercial banks (Bhavesh, J.P., et al., 2013). Due to lack of knowledge and usage of banking products and services, the bankable adults are becoming an unbanked in rural areas of India (Dileep, S. and Kesava Rao, V., 2013).

Kumar et al. (2014) investigated the level of banking penetration in 16 major states of India in terms of population covered per branch, banking business (deposit + advances) per branch, and credit-deposit ratio, and also examined their impact on socio-economic development in these states in terms of per capita. The analyses have shown that there is significant relationship between banking indicators and development indicators. Moreover, the study concludes the developed states are the gainers from banking penetration. Thus, the author suggests the government of India, the RBI, the commercial banks,

and the respective state governments have to give extra attention to the banking developments in less developed states so as to facilitate economic growth and minimize regional disparities in socio-economic development of the states.

Santosh et al. (2013) study the emergence of e-banking in rural area. Banking industry is the backbone of the financial system of a country. The author mainly focuses on an emergent model which enables efficiency and productivity of people in rural area. The study examines the illiteracy of rural areas bank customer and by designing the model as to how it will be helpful to them while carrying the internet banking transactions and also it will be helpful to banking sector to get a benefit from rural areas' bank customers to explore a banking industry. The author suggested some key points from this paper that Internet banking has evolved rapidly over the years with technological advances and that has resulted into the increasing number of internet users across various regions. In addition, it has developed as an effective distribution channel for banking products and services. It helps to attract customers as well as helps in doing banking from anywhere without going to the branch. The banks offer various services and are available anytime, anywhere, which has increased their popularity. Furthermore, the efficiency of e-banking is fully dependent on how it is used by bank customer of the rural area as of emergent model highly strive to rural area bank customer for using net banking facility.

Selvakumar et al. (2017) highlighted their study regarding the sources of banking penetration to the rural areas of people. The researcher have identified commercial banks are what type of marketing sources have used to penetrate their products and services to the rural households. Based on the study findings, advertising and direct marketing are the most influential sources to penetrate the banking to the rural society.

Sharma (2012) examined e-banking as a strong mechanism for the economic development. In order to enhance the inclination to use e-banking as a primary channel, it must be tailored as per the need of the customers. The researcher found, from this study, that the rural customers are quite satisfied with the provisions of updating, accuracy of transactions, and convenience. However, they were not much satisfied with the regulatory mechanism and compensation given in the case of fraudulent attack by unauthorized person or an error by the bank. Moreover, they anticipate improved services should be provided to the disabled persons. Besides, the author exhibits, from this study, that more than 60% of surveyed population comprises of non-graduates and approximately 72% feels uncomfortable in transacting with e-banking because of language problem. A large amount of the customers do not know about multi-language provision in e-banking. The study found that most of the village customers do not have e-banking facilities (like availability of ATM, smooth networking, and electricity supply for internet banking).

Yang et al. (2005) analyses the recent trend and development of e-banking in rural area. In recent years, the banking industry has been doing good in the Internet application. The author describes a study of three such small local banks and their efforts in developing and operating their e-banking services. Both their successes and struggles have been discussed to evaluate the performance of e-banking operations, especially for those small and local community banks. A follow-up questionnaire survey is conducted to collect updated information about the recent development of the e-banking operations for those banks discussed in this paper. Some preliminary results of this survey are explored and discussed accordingly.

Selvakumar et al. (2017) have discussed with the level of banking penetration on rural region of Sivakasi. In this study, the researcher has make out the thirty six statements under six heads, to find the level of penetration in the study area. Out of 200 respondents, 51 respondents only knew the banking services at minimum level and the remaining bank customers do not have any knowledge about banking services. For the same, 22 customers are dissatisfied with the banking services up to their usage of banking knowledge.

Objectives of the Study

- To analyze the socio-economic profile of the respondents.
- To examine the banking profile of the respondents.
- To identify the level of penetration in the study area.
- To analyze the influences of profile of customers on level of penetration of banking services.

Hypotheses of the Study

The following hypotheses are framed to fulfil the objectives of the present study.

- There is no significant association between socio-economic variables and levels of penetration of banking services.
- There is no significant influence of banking profile of the respondents on levels of penetration of banking services.

Methodology

This proposed study is both descriptive and analytical in nature and makes use of both primary and secondary data. The primary data have been collected from the rural bank customers with the help of interview schedule. The relevant secondary data have been collected mainly through the database of the RBI and various standard text books, journal, magazine, websites, and so on. The researcher has used convenient sampling technique for the selection of the 200 sample respondents which is decided by using the software available in ***www.surveysystem.com***. In order to analyze the primary data, the researcher has used statistical tools such as percentage analysis, chi-square test, and Kruskal Wallis test with the help of SPSS 16 (Statistical Package for Social Sciences).

Results and Discussion

The researcher has gathered socio-economic profile and banking profile of the customers.

Socio-Economic Profile of the Respondents

The researcher has collected the socio-economic profile of the respondents such as gender of the respondents, age of the respondents, educational status of the respondents, family monthly income of the respondents, and employment status of respondents. These details are presented in Table 1.

Table 1: Socio-Economic Profile of the Respondents

S.No.	*Particulars*		*No. of Respondents*	*Percentage*
1	Gender	Male	127	63.50
		Female	73	36.50
		Total	**200**	**100.00**
2	Age	Below 30 years	62	31.00
		30 to 40 years	81	40.50
		40 to 50 years	31	15.50
		50 years and above	26	13.00
		Total	**200**	**100.00**
3	Educational Status	School level	65	32.50
		Graduate	50	25.00
		Post graduate	27	13.50
		Diploma	14	07.00
		Uneducated	44	22.00
		Total	**200**	**100.00**
4	Family Monthly Income	Below Rs.10,000	55	27.50
		Rs.10,000 to Rs.20,000	104	52.00
		Rs.20,000 to Rs.30,000	30	15.00
		Rs.30,000 to Rs.40,000	07	03.50
		Rs.40,000 and Above	04	02.00
		Total	**200**	**100.00**
5	Employment Status	Employed	149	74.50
		Unemployed	51	25.50
		Total	**200**	**100.00**

Source: Primary Data

Table 1 shows that out of 200 respondents, 63.50% of the respondents are male; 40.50% of the respondents under the age group of 30 to 40 years; 32.50% of them have studied school level; 52.00% of the respondents family monthly income under the income category of Rs.10,000 to Rs. 20,000; 74.50% of the respondents are employed.

Banking Profile of the Customers

The researcher has collected the data relating to the banking profile of the customers like type of bank, purpose of opening the bank account, and number of years of dealing with the bank account. These details are presented in the Table 2.

Table 2: Banking Profile of the Customers

S.No.	*Particulars*		*No. of Respondents*	*Percentage*
1	Type of bank	Public Sector Bank	109	54.50
		Private Sector Bank	48	24.00
		Co-operative Bank	10	05.00
		Regional Rural Bank	33	16.50
		Total	**200**	**100.00**
2	Purpose of Opening bank account	To receive Government benefits	56	28.00
		To request Loan	50	25.00
		For Saving Money	51	25.50
		For receiving remittances	19	09.50
		For Receiving Salary	24	12.00
		Total	**200**	**100.00**
3	Number of years deals with the bank	Below 2 years	42	21.00
		2 to 5 years	94	47.00
		5 to 10 years	32	16.00
		Above 10 years	32	16.00
		Total	**200**	**100.00**

Source: Primary Data

Table 2 explicit that out of 200 respondents, 54.50% of the respondents have the bank account in public sector bank; 28.00% of the respondents have opined that the main purpose of opening bank account is to receive government benefits; 47.00% of the respondents have the bank account from two to five years.

Opinion Regarding Variables of Penetration

The researcher has analyzed the opinion of respondents about the variables of penetration. The variables are ATM Services, Card Services, Internet Banking, Mobile Banking, RTGS and NEFT, and Other Services. The researcher has collected the opinion about the above said variables with the help of Likert five-point scaling techniques. Table 3 shows the opinion of respondents.

Table 3: Opinion Regarding Variables of Penetration

S. No.	*Particulars*	*SA*	*A*	*N*	*DA*	*SDA*	*Total*
I. ATM Services							
1	I am using ATM for withdrawal of cash	60 (30.00)	79 (39.50)	04 (02.00)	40 (20.00)	17 (08.50)	200 (100.00)
2	I am able to change my ATM PIN	41 (20.50)	72 (36.00)	30 (15.00)	20 (10.00)	37 (18.50)	200 (100.00)
3	I am getting mini statements of my account using the ATM services	55 (27.50)	42 (21.00)	35 (17.50)	43 (21.00)	25 (12.50)	200 (100.00)
4	I am able to check out my balances using ATM	45 (22.50)	62 (31.00)	23 (11.50)	45 (22.50)	25 (12.50)	200 (100.00)

S. No.	Particulars	SA	A	N	DA	SDA	Total
5	I can transfer funds through ATM	19 (09.50)	60 (30.00)	35 (17.50)	66 (33.00)	20 (10.00)	200 (100.00)
6	I may deposit amount through the ATM	29 (14.50)	63 (31.50)	33 (16.50)	53 (26.50)	22 (11.00)	200 (100.00)
7	I am getting SMS alerts after using my ATM card	50 (25.00)	68 (34.00)	21 (10.50)	34 (17.00)	27 (13.50)	200 (100.00)
8	There are reasonable number of ATMs in Sivakasi and I am able to access it easily	31 (15.50)	**65 (32.50)**	23 (11.50)	61 (30.50)	20 (10.00)	200 (100.00)
II. Card Services							
9	I can make use of the benefit of taking loan on cards	00 (00.00)	02 (01.00)	43 (21.50)	126 (63.00)	29 (14.50)	200 (100.00)
10	I may get benefit of reward points or cash back	01 (00.50)	06 (03.00)	47 (23.50)	86 (43.00)	60 (30.00)	200 (100.00)
11	I am able to use the benefit of using EMI in online purchasing	00 (00.00)	00 (00.00)	42 (21.00)	115 (57.50)	43 (21.50)	200 (100.00)
12	I am able to make payment for my bills using the card services	04 (02.00)	39 (19.50)	36 (18.00)	92 (46.00)	29 (14.50)	200 (100.00)
13	I can do online shopping with the help of the card services	07 (03.50)	43 (21.50)	30 (15.00)	82 (41.00)	38 (19.00)	200 (100.00)
14	I am able to top up my mobile using the card services	09 (04.50)	36 (18.00)	40 (20.00)	74 (37.00)	41 (20.50)	200 (100.00)
III. Internet Banking Services							
15	I am able to get my account information	05 (02.50%)	15 (07.50)	43 (21.50)	92 (46.00)	45 (22.50)	200 (100.00)
16	I am able to check my balances	03 (01.50)	17 (8.50)	47 (23.50)	**90 (45.00)**	43 (21.50)	200 (100.00)
17	The bank does not misuse my personal information	06 (03.00)	05 (02.50)	69 (34.50)	79 (39.50)	41 (20.50)	200 (100.00)
18	I can make payments through Internet Banking	04 (02.00)	11 (5.50)	40 (20.00)	125 (62.50)	20 (10.00)	200 (100.00)
19	I can transfer funds from one account to another	06 (03.00)	08 (04.00)	43 (21.50)	97 (48.50)	46 (23.00)	200 (100.00)
20	I can able to make due instalment request	00 (00.00)	00 (00.00)	43 (21.50)	118 (59.00)	39 (19.50)	200 (100.00)
21	I am getting statement of my account through internet banking	04 (02.00)	11 (5.50)	38 (19.00)	93 (46.50)	54 (27.00)	200 (100.00)
IV. Mobile Banking Services							
22	I am using mobile banking for the purpose of transferring of funds	00 (00.00)	01 (00.50)	38 (19.00)	114 (57.00)	47 (23.50)	200 (100.00)
23	I am using mobile banking for the enquiry services	00 (00.00)	03 (01.50)	58 (29.00)	**89 (44.50)**	50 (25.00)	200 (100.00)
24	I can operate my DEMAT account through mobile application	00 (00.00)	00 (00.00)	36 (18.00)	114 (57.00)	50 (25.00)	200 (100.00)
25	I am able to pay my bills using mobile banking services	00 (00.00)	01 (00.50)	39 (19.50)	95 (47.50)	65 (32.50)	200 (100.00)
26	I can make M-commerce using mobile banking services	00 (00.00)	02 (1.00)	45 (22.50)	103 (51.50)	50 (25.00)	200 (100.00)
27	Mobile banking depends on mobile signal quality	00 (00.00)	01 (00.50)	84 (42.00)	74 (37.00)	41 (20.50)	200 (100.00)

S. No.	*Particulars*	*SA*	*A*	*N*	*DA*	*SDA*	*Total*
V. RTGS and NEFT							
28	I know about payee registration process	01 (00.50)	31 (15.50)	40 (20.00)	97 (48.50)	31 (15.50)	200 (100.00)
29	I am able to get instant SMS alert facility	11 (05.50)	22 (11.00)	48 (24.00)	88 (44.00)	31 (15.50)	200 (100.00)
30	I am able to make error free fund transfer	01 (00.50)	25 (12.50)	61 (31.50)	**75 (37.50)**	38 (19.00)	200 (100.00)
31	I know about the Indian Financial System Code	13 (06.50)	12 (06.00)	50 (25.00)	88 (44.00)	37 (18.50)	200 (100.00)
32	I am able to get help from RTGS/NEFT-Customer Facilitation Centre	09 (04.50)	16 (08.00)	55 (27.50)	80 (40.00)	40 (20.00)	200 (100.00)
33	I am able transact quickly	06 (03.00)	23 (11.50)	48 (24.00)	83 (41.50)	40 (20.00)	200 (100.00)
34	I am able to use RTGS/NEFT in secured manner	08 (04.00)	14 (7.00)	59 (29.50)	97 (48.50)	22 (11.00)	200 (100.00)
VI. Other Banking Services							
35	I am making use of the locker facilities provided by the banks	02 (01.00)	31 (15.50)	40 (20.00)	82 (41.00)	45 (22.50)	200 (100.00)
36	I am getting facilities such as cash credit, overdraft, cheque book etc.,	09 (04.50)	56 (28.00)	26 (13.00)	77 (38.50)	32 (16.00)	200 (100.00)
37	Easy accessibility of products and services	06 (03.00)	85 (42.50)	45 (22.50)	33 (16.50)	31 (15.50)	200 (100.00)
38	Information can be easily accessible, simple to understand and accurate	02 (01.00)	97 (48.50)	28 (14.00)	62 (31.00)	11 (05.50)	200 (100.00)

Source: Primary Data

Note: Figures in bracket are per cent to total.

SA = Strongly Agree; A = Agree; N = Neutral; DA = Disagree; SDA = Strongly Disagree

ATM Services

Table 3 revealed that most of the respondents have ***agreed*** with the statements serial numbered 1, 2, 4, 6, 7, and 8; 27.50% of the respondents have ***strongly agreed*** with the statement "I am getting mini statements of my account using the ATM services"; 33.00% of the respondents have ***disagreed*** with the statement "I can transfer funds through ATM".

Card Services

Under the opinion regarding card services, majority of the respondents have ***disagreed*** with the statements serial numbered 9, 10, 11, 12, 13, and 14.

Internet Banking Services

In Internet banking services, majority of the respondents have ***disagreed*** with the statements serial numbered 15, 16, 17, 18, 19, 20, and 21.

Mobile Banking Services

Mobile Banking Services, majority of the respondents have ***disagreed*** with the statements serial numbered 22, 23, 24, 25, and 26; 42.00% of the respondents have ***neutral*** with the statement "Mobile banking depends on mobile signal quality".

RTGS and NEFT

Opinions regarding RTGS and NEFT, most of the respondents have ***disagreed*** with the statements serial numbered 28, 29, 30, 31, 32, 33, and 34.

Other Banking Services

Under other banking services in the Table 3, most of the respondents have ***disagreed*** with the statements serial numbered 35 and 36; most of the respondents have ***agreed*** with the statements serial numbered 37 and 38.

Identification of Level of Penetration

The researcher has identified 36 out of 38 statements which have value of more than 0.5 from variables of penetration through factor analysis. So, the respondent's level of penetration has been determined and analyzed by 36 statements. For the purpose of computation of level of penetration, the researcher has assigned the following ranks.

Strongly Agree	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*
5	4	3	2	1

The level of penetration is measured in the two levels, which are low penetration and high penetration. The respondents who have scored 108 i.e. (3 × 36) and above are comes under the category of high penetration and that whose score is below 108 have low penetration level. The level of penetration of 200 sample respondents is shown in Table 4.

Table 4: Level of Penetration

S.No	*Particulars*	*No. of Respondents*	*Percentage in Total*
1	Low	149	74.50
2	High	51	25.50
Total		200	100.00

Source: Computed Primary Data

It has been observed that out of 200 respondents, 149 (74.50%) customers feel that the level of penetration is low and the remaining 51 (25.50%) customers say that the level of penetration is high.

A Relationship Study between Socio-Economic Profile of the Respondents and their Level of Penetration – Application of Chi-Square Test

The researcher has used the Chi-Square test to test the relationship between socio-economic profiles of the respondents such as gender, age, educational status, family monthly income, and employment status, and their level of penetration with the help of SPSS.

Chi- Square Test

Chi-Square test is one of the simplest and mostly widely used non-parametric tests in statistical work. The $\chi 2$ symbol is Greek letter Chi. The $\chi 2$ was first used by Karl Pearson in the year 1900. The quantity $\chi 2$ describes the magnitude discrepancy between theory and observation. The test statistics of $\chi 2$ has been computed as follows.

Chi-square test ($\chi 2$) $\sum = \frac{(O-E)^2}{E}$

$E = \frac{Row\ Total \times Coloumn\ Total}{Grand\ Total}$

O - Observed Frequency

E - Expected Frequency

df - Degrees of freedom

df - $(r-1)\ (c-1)$

r - Row

c – Column

Table 5 shows the cross tabulation of socio-economic variables and the level of penetration.

Table 5: Socio-Economic Variables and Level of Penetration: Cross Tab

S. No.	*Particulars*		*Level of Penetration*		*Total*
			Low	*High*	
1	Gender	Male	99 (77.95)	28 (22.05)	127 (100.00)
		Female	50 (68.49)	23 (31.51)	73 (100.00)
2	Age	Below 30 years	31 (50.00)	31 (50.00)	62 (100.00)
		30 to 40 years	63 (77.78)	18 (22.22)	81 (100.00)
		40 to 50 years	31 (100.00)	00 (00.00)	31 (100.00)
		50 years and above	24 (92.31)	02 (07.69)	26 (100.00)

3	Educational Status	School Level	56 (86.15)	09 (13.85)	65 (100.00)
		Graduate	33 (66.00)	17 (34.00)	50 (100.00)
		Post graduate	07 (25.93)	20 (74.07)	27 (100.00)
		Diploma	09 (64.29)	05 (35.71)	14 (100.00)
		Uneducated	44 (100.00)	00 (00.00)	44 (100.00)
4	Family Monthly Income	Below Rs.10,000	41 (74.55)	14 (25.45)	55 (100.00)
		Rs.10,000 to Rs. 20,000	83 (79.81)	21 (20.19)	104 (100.00)
		Rs.20,000 to Rs. 30,000	19 (63.33)	11 (36.67)	30 (100.00)
		Rs. 30,000 to Rs.40,000	06 (85.71)	01 (14.29)	07 (100.00)
		Rs.40,000 and Above	00 (00.00)	04 (100.00)	04 (100.00)
5	Employment Status	Employed	117 (78.52)	32 (21.48)	149 (100.00)
		Unemployed	32 (62.75)	19 (37.25)	51 (100.00)

Source: Computed Data

Gender

Table 5 reveals that out of 127 male respondents, 99 respondents (77.95%) have low level of penetration and 28 respondents (22.05%) have high level of penetration. Out of 73 female respondents, 50 respondents (68.49%) have low level of penetration and 23 respondents (31.51%) have high level of penetration.

Age

62 respondents are under the age category of below 30 years. Out 62 respondents, 31 respondents (50.00%) have low level of penetration and another 31 respondents (50.00%) have high level of penetration under the age category of below 30 years. 81 respondents are in the age of group of 30 to 40 years. Among 81 respondents, 63 respondents (77.78%) have low level of penetration and 18 respondents (22.22%) have high level of penetration. 31 respondents are under the age category of 40 to 50 years. All the 31 respondents (100.00%) have low level of penetration. 26 respondents are in the age group of above 50 years. Out of 26 respondents, 24 respondents (92.31%) have low level of penetration and two respondents (07.69%) have high level of penetration.

Educational Status

In this study, 156 respondents are educated. Out of 156 respondents, 65 respondents have completed the school level of education. Among 65 respondents, 56 respondents (86.15%) have low level of penetration and nine respondents (13.85%) have high level of penetration. 50 respondents are graduates. Out of 50 respondents, 33 respondents (66.00%) have low level of penetration and 17 respondents (34.00%) have high level of penetration. 27 respondents are post graduates. Among 27 respondents, seven respondents (25.93%) have low level of penetration and 20 respondents (74.07%) have high level of penetration. 14 respondents have completed the diploma level of education. Out of 14 respondents, nine respondents (64.29%) have low level of penetration and five respondents (35.71%) have high level of penetration. 44 respondents are uneducated and all the 44 respondents (100.00%) have low level of penetration.

Family Monthly Income

55 respondents have earned income of up to Rs.10,000. Among 55 respondents, 41 respondents (74.55%) have low level of penetration and 14 respondents (25.45%) have high level of penetration. 104 respondents have earned the income category of Rs.10,000 to Rs.20,000.

Out of 104 respondents, 83 respondents (79.81%) have low level of penetration and 21 respondents (20.19%) have high level of penetration. 30 respondents have earned the income group of Rs.20,000 to Rs.30,000. Among 30 respondents, 19 respondents (63.33%) have low level of penetration and 11 respondents (36.67%) have high level of penetration. Seven respondents have earned in the income range of Rs.30,000 to Rs.40,000. Out of seven respondents, six respondents (85.71%) have low level of penetration and one respondent (14.29%) has high level of penetration. Four respondents have earned the income of above Rs.40,000 and all the four respondents (100.00%) have high level of penetration.

Employment Status

149 respondents are employed. Out of 149 respondents, 117 respondents (78.52%) have low level of penetration and 32 respondents (21.48%) have high level of penetration. 51 respondents are unemployed. Among 51 respondents, 32 respondents (62.75%) have low level of penetration and 19 respondents (37.25%) have high level of penetration.

The Chi-Square result of socio-economic variables and the level of penetration is shown in the Table 6.

Table 6: Socio-Economic Variables and Level of Penetration: Chi-Square Test Result

S. No.	*Particulars*	*Pearson Chi-Square Value*	*Hypothesis*	*Result*
1	Gender	0.140	Accepted	Not Significant
2	Age	0.000	Rejected	Significant
3	Educational Status	0.000	Rejected	Significant
4	Family Monthly Income	0.004	Rejected	Significant
5	Employment Status	0.026	Rejected	Significant

Source: Computed Data

With regard to gender, the Chi-Square test result reveals that the Pearson Chi-Square Value is greater than the significant value of 0.05. So, the null hypothesis is accepted. Hence, there is no significant association between gender of the respondents and the level of penetration. With regard to other variables, the Pearson's Chi-Square Value is less than the significant value of 0.05. Therefore, the null hypothesis is rejected. Hence, it is concluded that there is significant association between socio-economic variables such as age, educational status, family monthly income and employment status, and the level of penetration.

Banking Profile of the Respondents and Level of Penetration: Application of Kruskal Wallis Test

In order to find whether the level of penetration differs on the basis of type of bank, purpose of opening bank account, and number of year's deals with bank account, the researcher has applied Kruskal Wallis test with the help of SPSS.

Kruskal Wallis Test

If several independent samples are involved, analysis of variance is the usual procedure. Failure to meet the assumptions needed for analysis of variance makes its value doubtful. An alternative technique was developed called the Kruskal Wallis one-way analysis of variance or the H-test. This test helps in testing the null hypothesis that k independent random samples come from identical populations against the alternative hypothesis that the means of these samples are not all equal.

As is done in the Mann-Whitney U-test, all data are ranked as if they were in one sample, from lowest to highest; then, the rank sums of each sample are calculated. The H-statistic is calculated from the formula:

$$H = \frac{12}{N(N+1)}\left(\frac{R_1^2}{n_1} + \frac{R_2^2}{n_2} + \ldots + \frac{R_k^2}{n_k}\right) - 3(n+1)$$

When n1, n2… rk are the numbers in each of k samples, N= n1 + n2 + … nk and R1, R2… Rk are the rank sums of each sample. If there are ties, the usual procedure is followed; but H is fairly sensitive to ties, so if there are very many of them, a correction should be made. The effect of the correction is to increase slightly the value of H, so its use is not imperative. For small samples, H is approximately distributed as Chi-Square with k-1 degrees of freedom. If the null hypothesis is true and each sample

has at least five observations, the sampling distribution of H can be approximated closely with a chi-square distribution with k-1 degrees of freedom.

The researcher has framed the hypothesis that *"there is no significant difference in the level of penetration on the basis of type of bank, purpose of opening bank account and number of year's deals with bank"*.

To test the above hypothesis, Kruskal Wallis test has been applied by using SPSS and the result is presented in the Table 7.

Table 7: Results of Kruskal Wallis Test

	Type of the Bank	*N*	*Mean Rank*	*Result*	*Hypotheses*
Level of Penetration	Public Sector Bank	109	102.52	0.000	Rejected
	Private Sector Bank	48	118.75		
	Co-operative Bank	10	75.00		
	Regional Rural Bank	33	75.00		
	Total	**200**			
	To receive Government benefits	56	85.71	0.000	Rejected
	To request Loan	50	91.00		
	For Saving Money	51	122.06		
	For receiving remittances	19	101.32		
	Receiving Salary	24	108.33		
	Total	**200**			
	Below 2 years	42	91.67	0.008	Rejected
	2-5 years	94	111.17		
	5-10 years	32	96.88		
	Above 10 years	32	84.38		
	Total	**200**			

Source: Computed Primary Data

Table 7 reveals that the significant values of Kruskal Wallis test is less than the acceptable level of 0.05. Hence, the null hypothesis is rejected and it is concluded that there is significant difference in the level of penetration on the basis of type of the bank, purpose of opening bank account, and number of year's deals with bank.

Conclusion

In the study, it was found that majority of the respondents have disagreed with the services of card, internet banking, mobile banking. and RTGS and NEFT. So, the researcher has suggested that the banks must provide the awareness programmes to the customers to make them understand the importance of these services. Moreover, this study reveals that the penetration level is low among the rural areas. Therefore, the researcher has suggested that the banks should establish number of bank branches in the rural areas and attract the rural people to utilize the banking products and services. Through this, the bank definitely reaches the rural areas of the society.

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