International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

RURAL INDIA GENDER DIFFERENTIAL IN MOBILE PHONE USAGE IN A DISCRIMINATE ANALYSIS APPROACH

R. Manikandan

Research Scholar, Department of Applied Research, The Gandhigram Rural Institute (Deemed to be University), Gandhigram, Tamil Nadu

DOI: 10.46609/IJSSER.2023.v08i09.035 URL: https://doi.org/10.46609/IJSSER.2023.v08i09.035

Received: 15 September 2023 / Accepted: 25 September 2023 / Published: 3 October 2023

ABSTRACT

A cross-sectional study was conducted to find out whether gender differential exist on mobile phone use at rural villages. A sample of 75 respondents was used in the study in Salem district. The cross-tabulation analysis of gender over age, family size, education, marital status and monthly income were analyzed. The study revealed that there is discrimination on mobile phone use among gender group in the rural village. It considered five variables namely, age, gender, education, marital status and monthly income to assess the discrimination between the male and female youths on mobile phone usage. Among the five variables, age and monthly income found to be statistically signification showing those two variables mainly causes for discrimination between male and female. Although mobile use has both positive and negative effects, it is believed to have better advantage for educational purpose and increasing awareness for decision making.

Keywords: Mobile phone, background variables, gender group, discriminant function

Introduction

At present, the communication and business activities totally depend upon mobile phone technology. It has become an essential part of our day-to-day life. Motorola developed the first portable cell phone in 1973, which was used for a maximum of 30 minutes talk time with 10 hours of charging. The very first mobile device cost was not very cheap which is equivalent to Rs 8.33 lakh in today's money. But, currently one can buy with a potable technology driven smart phone within Rs 25,000. As a result, right from school going kids to office goers use mobile phone judicially. The impact of mobile phone use has both positive and negative effects. During 2022-23, about 35-40 per cent of the 122 million smart phones sold in rural India as reported by International Data Corporation (IDC), India. A recent study conducted by India

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

Infoline Finance Limited (IIFL) securities in villages along Mumbai-Nashik highway in Maharashtra, indicated an increasing use of smart phone due to falling price in the range of Rs 10,000 -15,000.

It is reported that after the fall out of Covid-19, the usage of mobile phone has increased exponentially in both rural and urban segments. This is because of its utility as well low price. The study of mobile phone use among rural youths in India has become an important issue in the context of increasing use in education, business and other sectors. Recent studies, Swaminathan Radhakrishnan and K.S.Chandrasekar (2012), Isha Nachiya (2016), Jingjing Chen (2021), Udit Maheshwar (2021), showed the mobile phone usage on general perspective in India. They did not portray gender differential among rural youths in India. Therefore, the present study has been focused on finding out the gender differential among rural youths on mobile phone usage.

Material and Methods

The study is based on cross-sectional data which were collected through a pre-tested questionnaire administered to the selected sample respondents. A total of 75 sample respondents were selected at random out of 340 households in Kandarkulamanickam village of Attiyampatti rural block of Salem District in Tamil Nadu. Data were classified into (both male and female) four age groups, viz., (15-20); (20-25); (25-30); and (30-35) years. Details of demographic variables were also collected during the study. A cross-tabulation analysis is used for analyzing demographic variables.

Discriminant analysis is a multivariate technique used for classifying a set of observations into pre-defined groups. The main objective of the technique is to understand group differences and to predict the likelihood that a particular entity will belong to a particular class or group based on independent variables. In this model, the dependent variable will consider dichotomous variable and a set of independent metric variables. The functional model can be defined as

$$Z = c + b_1X_1 + b_2X_2 + b_3X_3 + \ldots b_nX_n,$$

where the dependent variable consider dichotomous values and X_1, X_2, … takes metric/ratio values. In the present study, the discriminant analysis is used to differentiate gender group (male and female) towards usage of mobile phone with respect to demographic variables such as age, family size, marital status, education and monthly income. The data were analyzed using SPSS software.

Results and Discussion

In this section, the profile of demographic variables such as age, family size, gender, marital status, education, and occupation of sample respondents are discussed.

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

1. Gender by Age

The data on gender by age group of sample respondents are presented in Table1. It is witnessed that age groups (20-25) and (25-30) put together shared about 73.3 per cent of total respondents. Of them, 41.9 per cent of male and 34.1 per cent of female were under age group (25-30), followed by 29 per cent of male and 40.9 per cent of female under age group (20-25). The lowest age group (15-20) had 9.3 per cent, while the largest age group (30-35) had 17.3 per cent irrespective of gender population. It can be viewed that age groups (20-25) and (25-30) had higher number of samples, reflecting the mobile phone usage was higher in those groups.

Table 1: Gender by age of respondents

Age (Years)	Gender (%)		Total (%)
	Male	Female	
15-20	3.2	13.6	9.3
20-25	29.0	40.9	36.0
25-30	41.9	34.1	37.3
30-35	25.8	11.4	17.3
Total (%)	100.0	100.0	100.0

Source: Sample survey

2. Gender by Family size

The gender by family size of respondents showed (Table 2) that the largest number of family size was (3-4) that accounting for 65.3 per cent of total sample size. The least was (1-2) with 1.3 per cent; and > 6 was 4.0 per cent. Among gender group, female was higher number (70.5 per cent) than male (58.1 per cent) for family size (3-4). For size group (1-2), none of them were female and 3.2 per cent were male. In the case of higher family size (>6), the percentage of male and female were 3.2 and 4.5 respectively. Therefore, it can be inferred that majority of gender group fell under family size groups (3-4) and (5-6).

3. Gender by Martial Status

The status of gender by marital status of respondents is showed in Table.3. It is observed that 60 per cent of them were married and 40 per cent were unmarried. Among the married, 65.9 per cent were female and 51.6 were male. Likewise, for unmarried, 48.4 per cent were male and 43.1 per cent were female.

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

Table 2: Gender by Family size of respondents

Family size	Gender (%)		Total (%)
	Male	Female	
1-2	3.2	0.0	1.3
3-4	58.1	70.5	65.3
5-6	35.5	25.0	29.3
> 6	3.2	4.5	4.0
Total (%)	100.0	100.0	100.0

Source: Sample survey

4. Gender by Education

The data on gender by educational status of respondents are presented in Table 4. It is witnessed from that table that majority of mobile phone users were from collegiate students (58.7 per cent), followed by higher secondary school (20.0 per cent), high school (12.00 per cent); middle school (8.00 per cent) and primary (1.3 per cent). This shows that the majority of mobile phone users were collegiate and higher secondary school students. A similar trend could be seen for gender by education.

Table 3: Gender by Martial status

Marital status	Gender (%)		Total (%)
	Male	Female	
Married	51.6	65.9	60.0
Unmarried	48.4	34.1	40.0
Total (%)	100.0	100.0	100.0

Source: Sample survey

Table 4: Gender by Martial status

Educational status	Gender (%)		Total (%)
	Male	Female	

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

Primary	3.2	0.0	1.3
Middle level	9.7	6.8	8.0
High school	9.7	13.6	12.0
Higher Secondary	19.4	20.5	20.0
Collegiate	58.1	59.1	58.7
Total (%)	100.0	100.0	100.0

Source: Sample survey

5. Gender by Education

The data on gender by educational status of respondents are presented in Table 4. It is witnessed from that table that majority of mobile phone users were from collegiate students (58.7 per cent), followed by higher secondary school (20.0 per cent), high school (12.00 per cent); middle school (8.00 per cent) and primary (1.3 per cent). This shows that the majority of mobile phone users were collegiate and higher secondary school students. A similar trend could be seen for gender by education.

Table 5: Gender by Occupation

Occupation	Gender (%)		Total (%)
	Male	Female	
Private work	48.4	34.1	40.0
Business	32.3	6.8	17.3
Homemaker	0.0	22.7	13.3
Students	12.9	29.5	22.7
Others	6.5	6.8	6.7
Total (%)	100.0	100.0	100.0

Source: Sample survey

6. Gender by Occupation

The details of occupational status of respondents are given in Table 5. Among the total sample respondents, 40 per cent of them were working at private firms, 22.7 per cent were students; 17.3 per cent were doing business; 13.3 and 6.7 per cent were homemakers and others. By gender

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

wise classification, 48.4 per cent were male and 34.1 per cent were female who work at private firm. For students, 29.5 per cent were female and 12.9 per cent were male. In the case of business, 32.3 per cent were male and 6.8 per cent were female. Therefore, it is clear that among different occupational categories, the majority of sample respondents who use mobile phone were working at private firms, followed by students.

Discriminant Function

In the second section, the discriminant analysis approach has been adopted to find out whether the mobile phone use discriminate between male and female group based on variables such as age, family size, marital status, education, and monthly income. The analysis reveals mean differences with respect to age, family size, marital status, education and monthly income for male and female. Box's M value (26.6) was found to be significant as F value was 1.637 with $p<0.05$ indicating the existence of discrimination between gender group on mobile phone usage. Wilks` lambda was 0.81 with eigen value (0.22). These values indicate the existence of differences between gender groups that have different means. Canonical correlation, which equals 0.42, on the basis of which it can be concluded that there is a correlation between the discriminant function and the gender group - chi-square test for the canonical function, which equals 14.079 with $p<0.015$. Standardized coefficients are used for evaluating the unique contribution of the independent variable to the discriminant function. It is observed that a significant difference in age and monthly income of male and female contributed for mobile phone use. The classification matrix clearly shows how gender constituting the sample is distributed across groups. 61.3 per cent of original grouped cases correctly classified. Further, proportion of female (61.3 percent of male and 38.7 per cent of female) was less than male respondents.

Conclusion

The study vividly revealed that there is discrimination on mobile phone use among gender group in the rural village. It considered five variables namely, age, gender, education, marital status and monthly income to assess the discrimination between the male and female youths. Among the five variables, age and monthly income found to be statistically signification which discriminated between the male and female. Although mobile use has both positive and negative effects, it is believed to have better advantage for educational purpose which is increasing awareness about current issues in the globe.

References

1. Isha Nachiya (2016), Smart Phone Usage among the Rural People in Thiruvarur district, Tamilnadu, Indian Journal of Applied Research, Vol 6 (3), pp: 26-27.

ISSN: 2455-8834

Volume:08, Issue:09 "September 2023"

2. Jingjing Chen (2021), Do mobile phones empower women? A perspective from rural India, Warwick Monash Economics Student Papers 2021/09, Department of Economics, University of Warwick Monash Business School, Monash University, Australia.

3. Government of India (2023), Economic Survey, Ministry of Finance, New Delhi.

4. Suresh. M, Balaji.P, and RameshKUmar. P.M, (2020) Dominant groups and differences in smart phone and internet use: A discriminant analysis approach, International Journal of Management, Vol 11(4), April, pp:305-315.

5. Swaminathan Radhakrishnan and K.S.Chandrasekar (2012), The Mobile Phone In India: Usage and social impact on everyday decision-making, control, autonomy and connectedness In the family and amongst youth, SS International Journal of Business and Management Research, Vol. 2(3), pp 111-124.

6. Udit Maheshwar (2021) Mobile phone usage pattern among youth in the urban and rural area, International Journal of Advanced Research, Vol 9(02), pp : 691-693.

7. UNESCO (2015), Mobile Phones and Literacy: Empowerment in Women's hands- A Cross Case Analysis of Nine case Experiences, Paris 07 SP, France.

