4.1 Social background of the respondents

In social science research, analyzing the social background of the respondents is pivotal. It is pivotal in the sense that it provides a clear-cut scenario regarding their social, economic and political status, the right they enjoy and the services they receive from the service providers. It helps in the interpretation of the data and to coordinate between independent variables and dependent variables.

4.1.1 Sex ratio

Sex ratio is an important independent variable. Either both the sex enjoys the same right or service, their position in the society; knowing all these elements is of the great significance in social science research. On the other hand it also helps to observe their correlation with mobile communication for development. On the basis of sex ratio, respondents have been classified into two categories as shown in the table 4.1.

Table 4.1.1.1 Distribution of the respondents according to sex ratio

SL.No	Sex	Frequency	Percentage (%)
1	Male	374	62
2	Female	234	38
3	Total	608	100

The study is designed on incidental sampling to interact with respondents, so there is no specific preference assigned to them. The above table reveals that male respondents dominate the study. There are 62% male and 38% female respondents. In a general view representation of male and female is significant and it will help to examine various aspect of gender wise correlation with mobile communication for development. The table revealed that a significant amount of both male and female population uses mobile phones, but comparatively more male respondents are using mobile phones than the female respondents.

4.1.2 Age group

On the basis of age group of the respondents they are classified into three categories as Young (20-40), Middle (40-60), and Old (60 & above). From these three categories researchers tried to find significant variations in the use of mobile phones on the basis of age.

Table 4.1.2.1 Distribution of the respondents with their age group

SL.No	Age group	Frequency	Percentage (%)
1	Young (20-40)	400	66
2	Middle (40-60)	145	24
3	Old (60 & above)	63	10
4	Total	608	100

Pertaining to the above table it is observed that minimum number of respondents belongs to old age group and maximum numbers of respondents fall under young group. Percentage wise there are 66% respondents belonging to young group, 24% in middle age group and 10% in old age group. Younger generation is more acquainted with the new tools of communication than old age persons. The representation of respondents is very significant to achieve the objective of the study. It is also observed that in the hierarchy of the representation of the respondents, middle age group occupied the second position. Therefore, it can be said that mobile utility follow ascending pattern on the basis of age category among the respondents and young population is more fond of this new communication device.

4.1.3 Occupation and activity of respondents

The occupation and activity of respondents is classified into five categories namely student, cultivator/farmer, labour, self-employed and regular income access group and house wife. Mason, carpenter, manual workers in brick fields, those who don't own their cultivated land and working on others land and those who don't have any specific job and engaged in seasonal jobs have been included in the labor class group. In self-employed group respondents with occupation/activity as driver, tailor, barber, weaver, shopkeeper, artisans etc., are included. In regular income access group respondents with regular income from government and private jobs have been counted.

Table 4.1.3.1 Distribution of respondents on the basis of occupation/activity

SL.No	Occupation/Activity	Frequency	Percentage (%)
1	Student	129	21
2	Farmer	116	19
3	Labour	90	15
4	Self-employed	147	24
5	Regular income access	57	10
6	House wife	69	11
7	Total	608	100

In accordance to the above table it is observed that self-employed respondents occupied the highest percentage among the range of occupation/activity of the respondents. There are 24 % self-employed respondents followed by 21% student group and 19% cultivator/farmer group. Remaining 15%, 11% & 10% are labour class, house wife & regular income access group respectively. From such classification of occupation/activity it can be said that mobile phones have become a common and necessary gadget across various occupation of rural areas.

4.1.4 Monthly family income of the respondents

Monthly family income of the respondents is divided in three categories as low income group, medium income group and high income group. From the monthly income profile of the respondents, the economic condition of respondents and its correlation with mobile communication for development will be observed.

Table 4.1.4.1 Distribution of the respondents with their monthly family income

SL.No	Monthly income	Frequency	Percentage (%)
1	Low (>8000)	382	63
2	Medium (8000-16000)	163	27
3	High (16000 & above)	63	10
4	Total	608	100

From the above table, it is observed that most of the respondent belongs to lower income group. In this group there are 63% respondents, followed by 27% medium income group and 10% belonging to high income group. The present study shows that there is no negative co-relation between the income and owning mobile phones. It also shows the acceptance of mobile phones as means of communication for different income groups.

4.1.5 Educational qualification of the respondents

Respondents are classified on the basis of illiterate, below matriculate, matriculate, secondary, graduate & post graduate. The educational profile of respondent helps to observe the gap in adoption of new tools of communication for developmental purposes.

Table 4.1.5.1 Distribution of the respondents according to their educational qualification

SL.No	Educational qualification	Frequency	Percentage (%)
1	Illiterate	7	1
2	Below matriculate	131	22
3	Matriculate	158	26
4	Higher secondary	151	25
5	Graduate	129	21
6	Post graduate	32	5
7	Total	608	100

It is apparent from the above table that minimum number of respondent fall under illiterate and maximum number of respondents falls below matriculate. There are 26% matriculate respondents, followed by 25%, 22%, 21% respondents under higher secondary, below matriculate and graduate level of education respectively. It is observed that very meager number of respondents belongs to illiterate and post graduate level of education i.e., in percentage wise 1% and 5% respectively. In general respondents are well distributed in each educational level. Cumulatively most of respondents belong to matriculate and secondary level i.e., 26+25 = 51%. The data shows that all the educational statuses are equally represented in the study except illiterate and post graduate. From the pattern of data representation, the study is significant in observing the use of mobile communication across various educational statuses for developmental purposes.

4.1.6 Family size of the respondents

The family size of respondent is categorized into three-small (1-5), medium (6-10), and large (11 & above) families. In social science research observing the family back ground of the respondents is significant in the sense that from such observation researchers will able to correlate the finding of the study with the social background of the respondents. Further, researchers will able to generalize the social structure of rural areas.

Table 4.1.6.1 Distribution of respondents according to their family size

SL.No	Family size	Frequency	Percentage (%)
1	Small (1-5)	404	67
2	Medium (6-10)	185	30
3	Large (11& above)	19	3
4	Total	608	100

The above data shows that 67% of the respondents have small family size, followed by 30% medium family size and meager numbers of respondents i.e., 3% belongs to large family. From the pattern of data representation it is observe that family size of the respondents follow decreasing order from small to large. Therefore, it can be said that in rural setup also there is a strong evidence of family planning. In the low economic condition of rural areas the representation of the family size in the study is significant i.e. majority of the respondents have small family.

4.1.7 House type of the respondents

House type of respondent is divided into two categories as pucca and cacha house. House made by brick is included in pucca category and those houses made by mud, bamboo and by wood are included in cacha category house. Such observation will illustrate the living standard of rural areas.

Table 4.1.7.1 Distribution of respondents according to their house type

SL.No	House type	Frequency	Percentage (%)
1	Pucca	101	17
2	Cacha	507	83
3	Total	608	100

In accordance to the table it observe that only 17% of respondents are living in pucca house and 83% of respondent are living in cacha house. The data clearly indicates living standard of the rural masses. Therefore, from the representation of the data it is observed that the living standards of the rural people are very poor. For the present study the representation of the data is significant in the sense that in such poor socioeconomic condition how mobile communication contributes to the development of rural areas will be able to observe.

4.1.8 Latrine condition of the respondents

The latrine condition of respondents is divided on the basis of having latrine facility with septic tank or not having it. Analyzing such data is pivotal since it is closely related to hygienic and health of the rural areas. Further, researchers will able to observe how far rural sanitation scheme are active, since government of India has implement various sanitation program focus on rural areas.

Table 4.1.8.1 Distribution of respondents according to their latrine condition

SL.No	Type of latrine	Frequency	Percentage (%)
1	Septic tank	333	55
2	Without septic tank	275	45
3	Total	608	100

From the above table it is observed that 55% of the respondents have latrine with septic tank and 45% have latrine without septic tank. As the data indicates that majority of the respondents have latrine with septic tank which means majority of the respondents are living in hygienic and healthy condition. Further, it can be considered that rural people are well aware of the diseases spreads from the unhygienic type of latrine.

4.1.9 Fuel used by the respondents for cooking

Fuel used by respondents for cooking is categorized into six categories as LPG, wood, other, LPG + wood, LPG + other, and wood + other. In other category kerosene stove and electric cooker are included.

Table 4.1.9.1 Distribution of respondents according to the type of fuel use for cooking

SL.No	Fuel use for cooking	Frequency	Percentage (%)
1	LPG only	142	23
2	Wood only	364	60
3	Other only	0	0
4	LPG + Wood	58	10
5	LPG + Other	38	6
6	Wood + Other	6	1
7	Total	608	100

The above data shows that the highest percentage of respondents are using wood for cooking purposes i.e., 60%, followed by 23% LPG, 10% LPG + wood, 6% LPG + other and 1% wood + other. No single respondent is found dependent only on other means of cooking. It is well observed that maximum number of respondents follow traditional way of cooking. Such observation indicates that rural people are not enjoying the same right/service that is enjoyed by the urban people.

4.1.10 Source of drinking water

Source of drinking water for respondents is divided into six categories as pond, government supply water, other source, pond + government supply water, pond + other, and government supply water + other source. In other source of drinking water - river, well, tube well and private paid water are included. Table shows the distribution of respondents on the basis of source of drinking water.

Table 4.1.10.1 Distribution of respondents according to the source of drinking water

SL.No	Source of drinking water	Frequency	Percentage (%)
1	Pond	250	41
2	Govt. supply water	203	33
3	Other source	83	14
4	Pond + Govt. supply water	33	5
5	Pond + Other source	39	7
6	Govt. supply water + Other source	0	0
7	Total	608	100

From the above data shown in the table it is observed that maximum number of respondents use pond water for drinking and cooking purposes. 41% of respondents use pond water followed by 33% Government supply water, 14% from other source, 5% from pond + govt. supply water, and 7% from pond + other source. Therefore, it can be concluded that majority of the respondents depend on traditional source of water i.e., pond.

4.1.11 Road and Transportation condition of the respondents

Road and transportation is an important source of communication and factor for development. On the basis of road and transportation condition, respondents are divided into three categories as good, medium and bad condition. In good road and transportation condition, both road and transportation are good. In medium road & transportation condition one of them is not good. Both the road and transportation are not good then it is included in bad road & transportation condition.

Table 4.1.11.1 Distribution of respondents on the basis of road & transportation facilities

SL.No	Road & Transportation	Frequency	Percentage (%)
1	Good	152	25
2	Average	190	31
3	Bad	266	44
4	Total	608	100

From the table it is observed that road & transportation condition of villages is yet to be developed. 44% of the respondents responded that road and transportation are in bad condition followed by 31% who rated it as average and another 25% respondents who rated it as good. Therefore, it can be said that road and transportation of rural areas are under developed and analyzing the role of mobile communication in such situation will be of great significant.

4.1.12 Mass media possession by the respondent

Mass media is a crucial element in development. The role of mass media in today's society is very well known, especially in rural development. On the basis of possession of mass media, respondents are divided into several categories. In this analysis researchers will able to observe reach and access of mass media in rural areas.

Table 4.1.12.1 Distribution of respondents on the basis of possession of mass media

SL.No	Mass media	Frequency	Percentage (%)
1	Radio	32	5
2	TV	61	10
3	Newspaper (NP)	7	1
4	Internet	4	1
5	Radio + TV + NP + Internet	78	13
6	Radio + TV + NP	159	26
7	Radio + TV + Internet	31	5
8	Radio + NP + Internet	9	1
9	Radio + TV	116	19
10	Radio + NP	11	2
11	Radio + Internet	6	1
12	TV + NP + Internet	11	2
13	TV + NP	38	6
14	TV + Internet	18	3
15	NP + Internet	2	0
16	Not possess any media	25	4
17	Total	608	100

The data presented in table reveals that 26% of respondents have radio, TV & newspaper, followed by 19% having radio & TV only. There are 13% respondents who have radio, TV, newspaper & internet ;10% of respondents having TV only ;6% of respondents having TV &newspaper; 5% of respondents having only radio & another 5% having radio, TV & internet; 4% of respondents don't possess any media, 3% possesses TV & internet; 2% of respondents possesses TV, newspaper & internet and another 2% possessing radio and newspaper and 1% of respondents possessing only either newspaper, internet, radio, newspaper or internet; and another one percent possessing radio & internet only. It is observed from the above table that more than 90% of the respondents have access to mass media. TV, radio and newspaper are most popular mass media possessed by most respondents. Internet access rate is very low among the respondents.

4.2 Beginning year of mobile use by respondents

Observing the beginning year of mobile use by respondents will help in understanding the reach & access of mobile phone as well as in identification - either it is new or old phenomenon in rural areas.

Table 4.2.1 Distribution of respondents on the basis of initial year of using mobile phone

SL.No	Beginning year	Frequency	Percentage (%)
1	2004-2008	153	25
2	2009-2013	323	53
3	2014	132	22
4	Total	608	100

From the above table it is observed that mobile phone is not a new tool of communication to rural masses. 53% of respondents started using mobile phone within the period 2009-2013, followed by 25% within the period 2004-2008. 22% of respondents started using mobile phone from 2014. From the above distribution of data it is observed that least number of respondents start using mobile phone very recently. The table shows the longevity of the use of mobile phone in the study area since its inauguration in Manipur in the year 2004. Therefore, it can be said that villagers have also adopted their mode of communication from early days.

4.3 Opinion of respondents on essentiality of mobile phone

Examining mobile communication for development is an important characteristic to shape respondent's opinion on mobile phone. This observation will help to understand respondent's view on mobile phone in their day to day activities and how they consider mobile phone use.

Table 4.3.1 Distribution of respondent's opinion on essentiality of mobile phone

SL.No	Opinion	Frequency	Percentage (%)
1	Essential device	473	78
2	Non-essential device	135	22
3	Total	608	100

The data reveal that mobile phone is an essential device to respondents in their day to day life. 78% of respondents consider mobile phone as essential device for communication & getting information in their daily activities. Meager numbers of respondents i.e., 22% consider mobile phone as not essential device for communication. Therefore, on the basis of the data we can say that mobile phone is considered as an essential device of communication by majority of rural population.

4.4 Respondent's family members (Adult) having mobile phone

It is important to examine the penetration of mobile phone in rural areas, such examination will help in determining the reach and access of mobile phone in rural areas and its correlation with development. In this analysis the rate of possession of mobile phone in a family member is examine.

Table 4.4.1 Distribution of respondent's family member having mobile phone

SL.No	Possession of mobile phone	Frequency	Percentage (%)
1	Only one member (Adult)	458	75
2	All family members (Adult)	150	25
3	Total	608	100

From the above data it is observed that 75% of the families possess only one mobile phone and 25% of the families have all its adult members possessing mobile phone. The data shows that possession of mobile phone as personalized gadget has been accepted in rural areas also as 25% of all the adult in a family is having mobile phones.

4.5 Types of service used by the respondents provided by mobile service provider

By observing the type of service used by the respondents provided by mobile service provider, the extent of taking advantage of this media by the rural masses will be determined. Consequently it will help to design and developed the development model of mobile communication. Table 4.5 show the distribution of respondents on the basis of type of mobile service used as provided by mobile service provider.

Table 4.5.1 Distribution of respondents and the type of mobile service used

SL.No	Type of service	Frequency	Percentage (%)
1	Only voice calling	97	16
2	Voice calling and SMS	342	56
3	Voice calling + SMS + other service	169	28
4	Total	608	100

From the above table it is observed that majority of the respondents used voice calling & SMS service, 56% of the respondents used voice calling & SMS, followed by 28% voice calling, SMS & other service. Least number of respondents i.e., 16% is found to use only voice calling service. It is examined from the above data that respondents are less aware about the new service provided by telecommunication. With such set of data we can say that voice calling and SMS are the most frequently used services by respondents in rural areas. Therefore, we can conclude that considering the ground reality in mobile phone base development project will be most effective if designed by employing more voice services and SMS.

4.6 Expenditure profile of respondents on mobile phone per month

On the basis of expenditure profile of respondents on mobile phone per month it is categorized into three categories as low (0-50), medium (51-100) & high (101&above).

Table 4.6.1 Distribution of respondent's expenditure on mobile phone per month

SL.No	Expenditure per month	Frequency	Percentage (%)
1	Low (0 – 50)	192	31
2	Average (51-100)	205	34
3	High (101 & above)	211	35
4	Total	608	100

From the table it is observed that 35% of respondents spend more than 101 per month followed by 34% respondents who spend 51-100 per month. Least number of respondents spend 0-50 per month which represents 31% of the respondents. From the data it is observed that rural people are using mobile phone for various purposes as highest per cent of respondents i.e., 35% spends more than Rs. 101 per month.

4.7 Respondent's opinion on mobile phone use as wastage of time and money

From the opinion of respondents, the importance of mobile phone in their daily life and economic activities can be deduced.

Table 4.7.1 Distribution of respondents based on their positive or negative opinion regarding the use of mobile phone

SL.No	Wastage of time and money	Frequency	Percentage (%)
1	Yes	21	3
2	No	587	97
3	Total	608	100

It is clearly observed from the table that using mobile phone doesn't affect the economic system of rural people as97% of the respondents have given opinion that using mobile phone doesn't waste time and money. Few respondents are of the opinion that using mobile phone is wastage of time and money; which represents 3% of the respondents. Therefore, it can be said that for most of the respondents mobile phone is a useful device and they don't support the idea that mobile phone is wastage of money and time.

4.8 Rate of respondents surfing internet

Internet is also an important constituent for development in present days. Observing the penetration of internet among respondents will help to conclude whether internet is a new phenomenon to rural people. The correlation of internet and development in rural areas can also be examined from this analysis.

Table 4.8.1 Distribution of respondents surfing internet

SL.No	Surfing internet	Frequency	Percentage (%)
1	Student	105	17
2	Cultivator/Farmer	6	1
3	Labourer	5	1
4	Self-employed	13	2
5	Total	608	100

As the data indicates majority of the respondents don't used internet and among the internet surfing respondents, student group used the internet most, followed by regular income access group. There are 74% respondents which don't used internet, 17% of students used internet, 4% of regular income access group used internet, 2% of self-employed group used internet and 1% each for cultivator/farmer, labour class, and house wife. Therefore, the data indicates internet is not a new phenomenon to rural people since every section of the rural people are using internet for various purposes.

4.9 Problems while using mobile phone

On the basis of problem faced in using mobile phone it is divided into different groups. In 'other' group problem such as frequent coming of promotional call or SMS are included. By observing the problems, it will help to understand the obstacle that overcomes in the path of mobile communication for development.

Table 4.9.1 Distribution of respondents and problems faced in using mobile phone

SL.No	Wastage of time and money	Frequency	Percentage (%)
1	Network problem (NP)	75	12
2	Electric problem for charging (EPC)	104	17
3	Recharge problem (RP)	9	2
4	Other problem	43	7
5	No problem	204	34
6	NP + EPC + RP	8	1
7	NP + EP	110	18
8	NP + RP	4	1
9	NP + Other	8	1
10	EP + RP	3	1
11	RP + Other	11	2
12	RP + Other	2	0
13	NP + EP + Other	26	4
14	NP + RP + Other	1	0
15	Total	608	100

From the above table it is revealed that only 34% of respondents don't have any problems in using mobile phone while remaining 66% of respondents have problems of different kind. There are 18% respondents which encounter problems of network and electric for charging mobile phone. 17% of respondents face electric problem only and 12% of respondents face network problem. Respondents also face the problems of frequently receiving promotional call and SMS from their mobile service provider; there are 7% respondents which encounter such kind of problem.4% of respondents represent the problems of network, electric & other. There are 2% each respondent who face the problems of recharge only and electric and other. 1% of each respondent faced network, electric & recharge; network & recharge; network & other; electric & recharge. As the data shows respondents have encountered with common problem of poor network, electricity and promotional call or messages. No operating problem is found in the study, therefore it can be said that village population also have acquainted with the skills of effective use of mobile phone.

4.10 Rate of respondents using mobile banking services

For entrepreneurs, micro scale industries, self-help group, traders, etc., mobile banking is very useful if effectively utilized. Respondents are found to be less in number in using mobile banking facilities. Those few respondents using mobile banking services are government employee or private employee.

Table 4.10.1 Distribution of respondents using mobile banking services

SL.No	Mobile banking service	Frequency	Percentage (%)
1	Yes	71	12
2	No	537	88
3	Total	608	100

From the above data it is observed that meager number of respondents is using mobile banking services and majority of respondents don’t used mobile banking services. There are 12% respondents using mobile banking services and 88% of respondents who doesn't use mobile banking services. Further it can be observed that respondents are less aware about mobile banking services perhaps due to the fact that there are less bank account owners. Therefore, on the basis of rates it can be said that use of mobile phone for m-banking is very low among the people from rural areas.

4.11 Respondent’s participation in radio/TV phone-in-programs for health & agriculture

Table 4.11 shows the distribution of respondent’s participation in radio/TV phone-in-programs related to health & agriculture. It is important to observe such participation rate as it will help to design and improve the program for further participation.

Table 4.11.1 Distribution of respondent’s participation in radio/TV phone-in-programs

SL.No	Radio/TV phone-in-programs	Frequency	Percentage (%)
1	Yes	128	21
2	No	480	79
3	Total	608	100

It is observed from above data that majority of the respondents don’t participate in radio/TV phone-in-programs. There are 79% respondents which don’t participate in radio/TV phone-in-programs and 21% respondents found to be participating in radio/TV phone-in-programs related to health & agriculture. It is clear from the above data that less respondents are taking the advantage of mobile communication for communicating with the expert available on radio/TV regarding their problems. However, their lesser positive response is also a good sign because interacting with experts in real time has no mass participation patterns.

4.12 Mobile communication and cultivator/farmer group respondents

Observing the importance of mobile phone in agricultural activities is pivotal. It shows how farmers utilized the advantage of mobile phone in their agricultural related activities and marketing purposes. Such observation will help to design and improvise mobile communication in a more effective way. In agricultural activities out of 608 respondents 116 respondents are engaged, their way of using mobile communication in agricultural activities is depicted in table 4.12. Further, gender wise, age wise, educational status wise and family income wise correlation of mobile communication in agricultural activities is analyzed.

Table 4.12.1 Distribution of farmers and correlation with mobile communication

SL.No	Mobile communication	Frequency	Percentage (%)
1	Only communication with agri expert/other	0	0
2	Only communication in marketing purpose	49	42
3	Communication with agri expert/other & in marketing	21	18
4	No benefit of mobile communication in agri/marketing	46	40
5	Total	116	100

The table reveals that people in rural area have started using mobile phone to communicate for functional purposes. 42% of the total respondents have used mobile phones for marketing and business related activities. 21% respondents have used it for taking advices for agriculture, along with commerce related advices. 40% respondents use it for routine communication only. Therefore, it can be said that a gradual increase is observed in the use of mobile phone for business and agricultural activities.

4.12.1 Gender wise correlation of mobile communication in agricultural activities

In this analysis male and female wise access to mobile communication for agricultural purposes is examine. From such analysis gender wise variation in using mobile communication for agricultural purposes will be observed. There are 116 respondents engaged in agricultural activities of which 100 respondents are male and 16 are female.

Table 4.12.1.1 Gender wise distribution of respondents using mobile communication for agricultural purposes

SL. No	Sex	Mobile communication in agriculture		Total	Percentage (%)	
		Benefit access	No benefit		Benefit access	No benefit
1	Male	60	40	100	60	40
2	Female	10	06	16	62	38

Pertaining to above data it is observed that out of 100 male respondents who engaged in agricultural activities 60 respondents are getting benefit of mobile communication and 40 respondents are not. Among the female respondents there are 16 respondents who are engaged in agricultural activities of which 10 are getting benefit of mobile communication and 6 respondents are not. Percentage wise 60% of male respondents are getting benefit of mobile communication and 40% are not. Among the female respondents 62% are getting benefit and 38% are not getting benefit of mobile communication in agricultural related activities. After observing the data it can be stated that male and female both actively takes the advantage of mobile communication in agricultural related activities. For clarity of the observation graphically it is highlight in the fig. 4.12.1.1

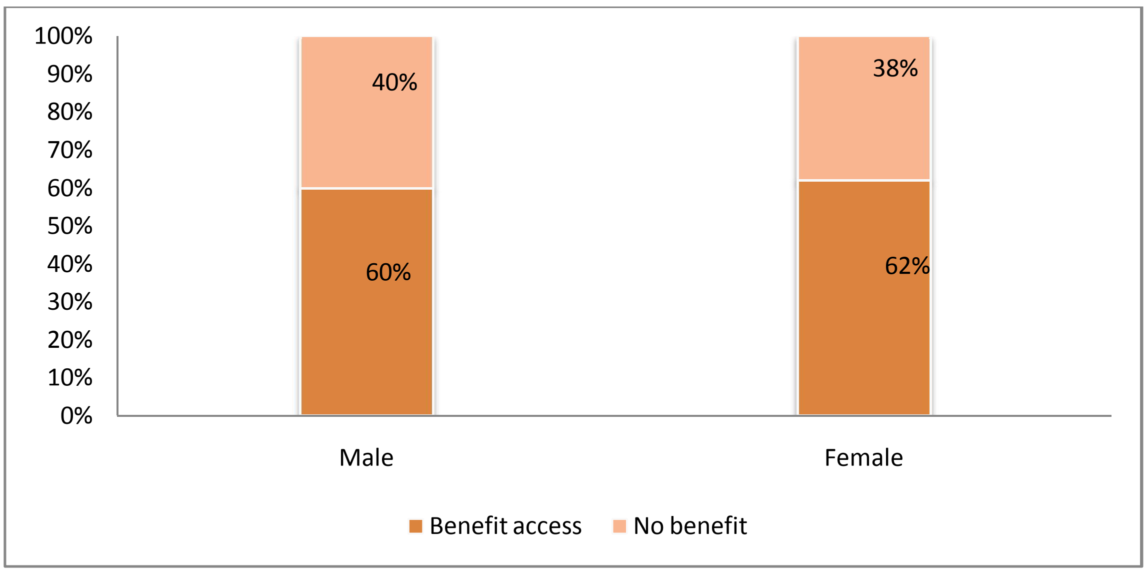

Fig. 4.12.1.1: Graphical representation of gender wise used of mobile communication in agriculture

4.12.2 Age wise correlation of mobile communication in agricultural activities

From this analysis, age wise variation in using mobile communication for agricultural purposes will be observed. Further, it can be observed whether all the age groups are actively using mobile communication in agricultural activities. Out of 116 respondents engaged in agricultural activities 42 respondents belong to young age group, another 42 respondents in middle age group and 32 respondents in old age group.

Table 4.12.2.1 Age wise distribution of respondents using mobile communication for agricultural purposes

SL. NO	Age	Mobile communication in Agriculture		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Young	26	16	42	62	38
2	Middle	27	15	42	64	36
3	Old	17	15	32	53	47

Considering the above table it is observed that out of 42 respondents belonging to young age group 26 respondents got the benefit of mobile communication and 16 respondents are not getting benefit of mobile communication in agricultural activities. Among the middle age group out of 42 respondents 27 respondents got the benefit and remaining 15 respondents are not getting benefit of mobile communication in agricultural activities. In old age group out of 32 respondents 17 respondents got the benefit of mobile communication and 15 respondents are not getting benefit of mobile communication. Percentage wise 62% respondents of young age get the benefit and 38% respondents are not getting benefit of mobile communication. Among the middle age 64% respondents are getting benefit and 36% respondents are not. In old age group 53% respondents are getting benefit and 47% respondents are not getting benefit of mobile communication in agricultural activities. Therefore, it observed that all the age group actively takes the advantage of mobile communication for agricultural purposes. To put clarity in the observation graphically it is depicted in the fig. 4.12.2.1.

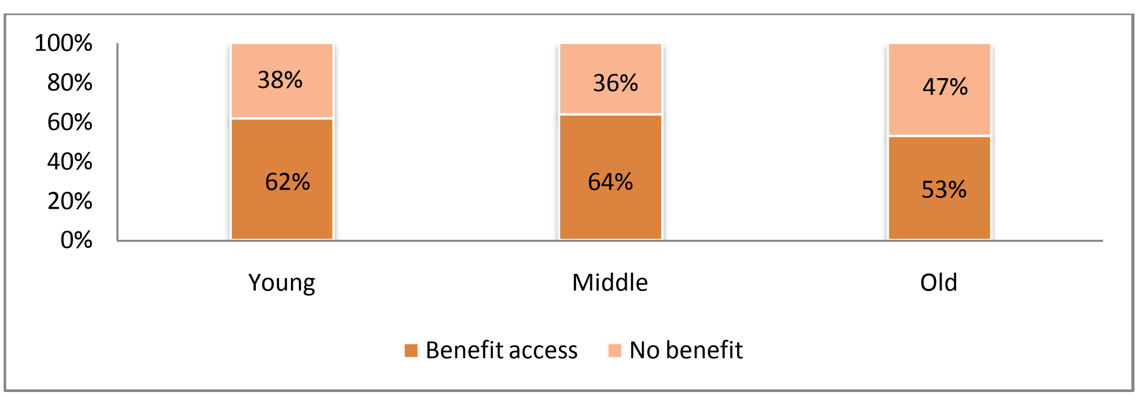

Fig. 4.12.2.1: Graphical representation of age wise used of mobile communication in agriculture

4.12.3 Educational status wise correlation of mobile communication in agricultural activities

Educational status of the respondents are classified into six groups as illiterate, below matriculate, matriculate, higher secondary, graduate and post graduate. There are 2 respondents belonging to illiterate group, 33 respondents in below matriculate, 43 respondents in matriculate, 28 respondents in higher secondary, 8 respondents in graduate and 2 in post graduate group. From such observation educational status wise variation in using mobile communication will be observed.

Table 4.12.3.1: Educational status wise distribution of respondents using mobile communication for agriculture

SL. NO	Educational Status	Mobile communication in Agriculture		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Illiterate	1	1	2	50	50
2	Below Matriculate	20	13	33	61	39
3	Matriculate	25	18	43	58	42
4	Higher secondary	18	10	28	64	36
5	Graduate	5	3	8	63	37
6	Post Graduate	1	1	2	50	50

The above table revealed that in illiterate group there are 2 respondents of which 1 respondent get the benefit and another 1 respondents don’t get the benefit of mobile communication. In under matriculate group there are 33 respondents of which 20 respondents get the benefit and 13 respondents are not getting benefit of mobile communication. In matriculate group out of 43 respondents 25 are getting benefit and 18 respondents are not. There are 28 respondents in higher secondary group of which 18 respondents get the benefit and 10 are not. Among the graduate group there are 8 respondents of which 5 respondents are getting benefit and 3 respondents are not. In post graduate group there are 2 respondents of which 1 respondent get the benefit and another 1 respondent who does not benefit from mobile communication in agriculture. Percentage wise 50% of respondents belong to illiterate group get the benefit of mobile communication and another 50% respondents don’t get the benefit of mobile communication. 61% of respondents belong to under matriculate group get the benefit of mobile communication and 39% respondents of the same group are not getting the benefit of mobile communication. In matriculate group 58% respondents get the benefit and 42% are not. Among the higher secondary group 64% respondents are getting benefit and 36% respondents are not getting. 63% respondents belonging to graduate educational level group get the benefit of mobile communication and 37% respondents are not. In post graduate group only 2 respondents are there. However in percentage wise observation 50% respondents are getting the benefit of mobile communication and another 50% respondents of the same group are not getting the benefit of mobile communication in agricultural activities. Therefore from the presentation of data against each educational status it can be stated that all the educational status purposefully takes the advantage of mobile communication in agriculture and in its related activities. For better understanding of the explanation graphically it is highlighted in the fig. 4.12.3.1.

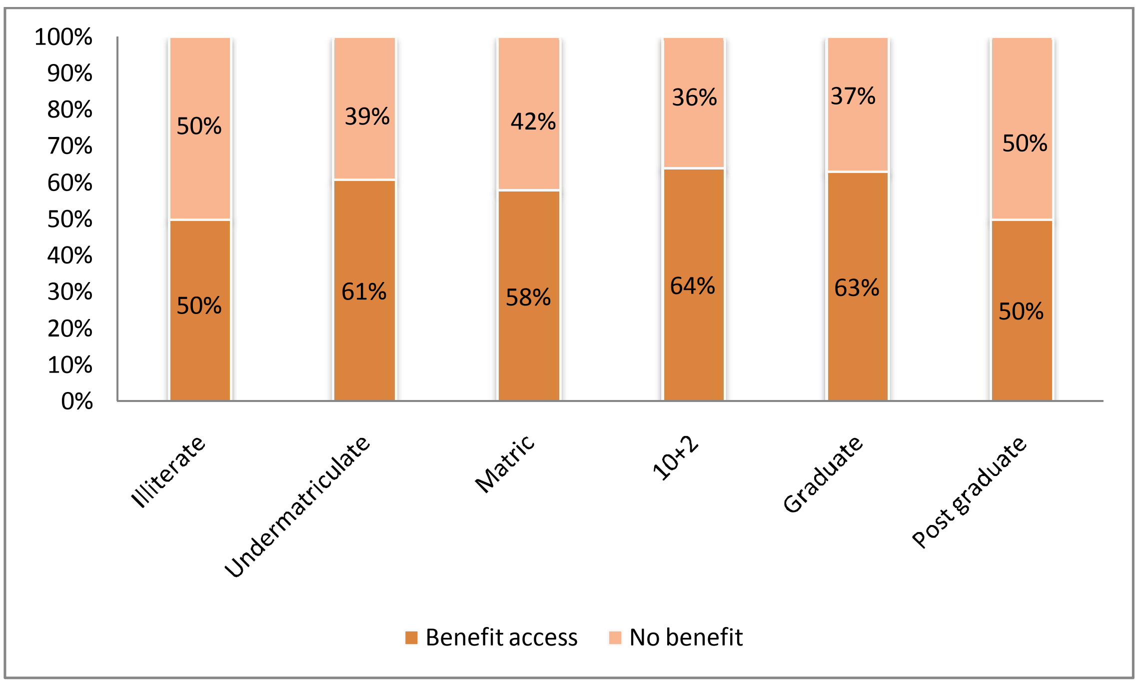

Fig. 4.12.3.1: Graphical representation of educational status wise used of mobile communication in agricultural purposes

4.12.4 Family income wise correlation of mobile communication in agriculture

This analysis is based on respondents' family income per month. Here whether the use of mobile communication in agricultural purposes is either dependent on family income or not is examined. From such examination researcher will be able to state the correlation between the two variable i.e., family income and mobile communication in agriculture.

Table 4.12.4.1 Family income wise distribution of respondents used of mobile communication in agriculture

SL. NO	Family income/ Month	Mobile communication in Agriculture		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Low	47	34	81	58	42
2	Medium	18	10	28	64	36
3	High	5	2	7	71	29

From the above table it is observed that there are 81 respondents under low income group of which 47 respondents get the benefit of mobile communication and 34 respondents are not. Among the medium income group there are 28 respondents of which 18 respondents are getting the benefit of mobile communication and 10 respondents are not. In high income group there are 7 respondents of which 5 respondents get the benefit of mobile communication and 2 respondents are not getting the benefit of mobile communication in agricultural related activities. Percentage wise 58% of respondents belong to low income group get the benefit and 42% of respondents are not. In medium income group 64% of respondents get the benefit and 36% respondents are not. Number of respondents belong to high income group is very low compare to other income group. However in percentage respondents belonging to high income group have the highest percentage of beneficiary i.e., 71% and 29% respondents are not getting benefit of mobile communication in agricultural related activities. Therefore from the pattern of data presentation against each income group it observed that all the villagers belonging to different income group used mobile communication effectively and there is no barrier of income in using mobile communication for agricultural purposes. Graphical representation of the observation is highlighted in the fig. 2.12.4.1.

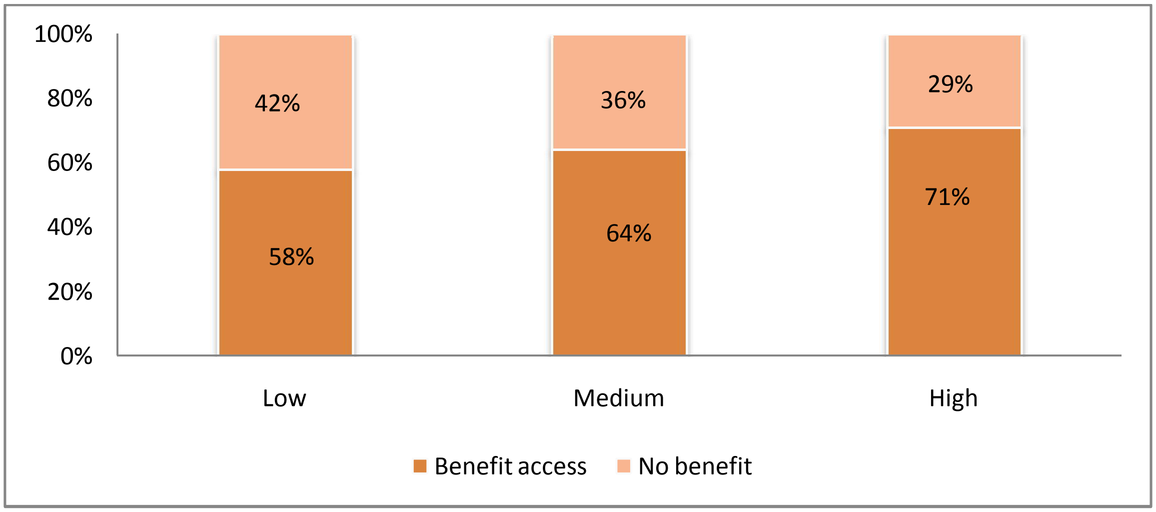

Fig. 4.12.4.1: Graphical representation of family income wise used of mobile communication in agriculture

4.13 Mobile communication and labour class respondents

In labour class those respondents whose occupation/activity were mason, carpenter, working in brick field as manual worker, those respondents who don't own their cultivated land and working in others land and those respondents who engage in seasonal jobs were included in this group. There are 90 respondents who fall under labour class. Observing how labour class acquaints with mobile communication in their earning process is very much important in developing mobile communication for development. Gender wise, age wise, educational status wise and income wise correlation of mobile communication and labour class is also examined.

Table 4.13.1 Distribution of labour class respondents and correlation with mobile communication

Sl.No	Mobile Communication	Frequency	Percentage (%)
1	Among co-workers & Finding new work place	44	49
2	No benefit	46	51
3	Total	90	100

As the table shows that there are 90 respondents under labour class of which 44 respondents are getting benefit of mobile communication and 46 respondents are not. Further it is observed that among the labour class non beneficiary of mobile communication are more in number, however there is no huge gap between the beneficiary and non-beneficiary. In percentage wise 49% of respondents get the benefit of mobile communication in searching job, in communicating with co-workers on new avenue of job or in wage related issues. Another 51% of respondents are of the opinion that they are not getting any benefit of mobile communication in their earning process. Therefore, the data indicates that mobile phones have become device of importance for labourer also and it can be utilized to search new avenues for better coordination and to communicate for their betterment.

4.13.1 Gender wise correlation of mobile communication in labour activities

In this analysis gender wise used of mobile communication in labourer activities is examined. From such examination, variation between male and female in using mobile communication for labourer activities will be observed.

Table 4.13.1.1 Gender wise distribution of labour class respondents using mobile communication for labourer activities

SL. No	Sex	Mobile communication and labour class		Total	Percentage (%)	
		Benefit access	No benefit		Benefit access	No benefit
1	Male	41	41	82	50	50
2	Female	3	5	8	38	62

Pertaining to above table it is observed that there are 82 male respondents and 8 female respondents belonging to labour class. Among the 82 male respondents, 41 respondents are getting benefit of mobile communication while remaining 41 respondents are not getting the benefit of mobile communication in labourer activities. Out of 8 female respondents, 3 respondents are getting benefit while 5 respondents are not getting the benefit. In percentage wise 50% male respondents are getting benefit while another 50% respondents are not. Among the female respondents, 38% are getting benefit while 62%

are not getting the benefit of mobile communication in labourer activities. Therefore, from the observed data it can be stated that among the villagers who are engaged in labourer activities, male are actively used mobile communication in their earning process. Among the female villagers too, acceptance of mobile communication in earning process is also evidenced from the observed data. Graphical representation of the observed data is depicted in the fig. 4.13.1.1 for better understanding of the observation.

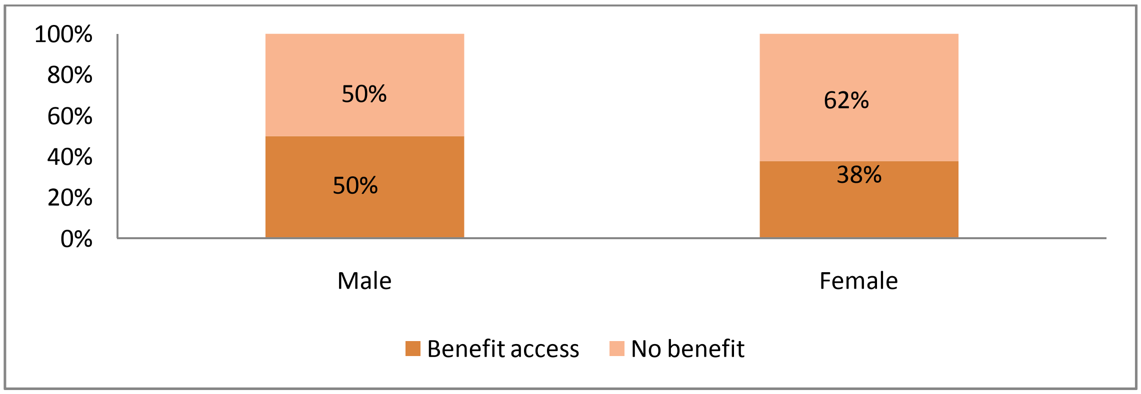

Fig. 4.13.1.1: Graphical representation of gender wise use of mobile communication in labourer activities

4.13.2 Age wise correlation of mobile communication in labour activities

Observing age wise used of mobile communication in labourer activities is pivotal. Since, from such observation it will help to observe the variation among age groups. For such observation age group is categorized into young, middle and old age groups. Each age group does not have equal participants and therefore percentage wise calculation is made on the number of each age group individually.

Table 4.13.2.1 Age wise distribution of respondents used of mobile communication in labourer activities

SL. NO	Age	Mobile communication and labour class		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Young	25	22	47	53	47
2	Middle	15	21	36	42	58
3	Old	4	3	7	57	43

According to the above table it is observed that there are 47 respondents belonging to the young age group, 36 respondents in middle age and 7 respondents in old age. In young age group out of 47 respondents 25 respondents get the benefit and 22 respondents do not. Regarding middle age group 15 respondents get the benefit and 21 respondents do not. Old age group are low in number, out of 7 respondents in old age group 4 respondents get the benefit and 3 respondents are not getting benefit of mobile communication in their earning process. In percentage wise 53% of young age group get the benefit and 47 do not. Among the middle age group 42% get the benefit and 58% do not. In old age group 57% get the benefit and 43% are not getting the benefit of mobile communication in any labourer activities. Therefore from the percentage wise observation it can be stated that all the age groups actively takes advantage of mobile communication in their earning process. Graphical representation of the observation is depicted in the fig 4.13.2.1.

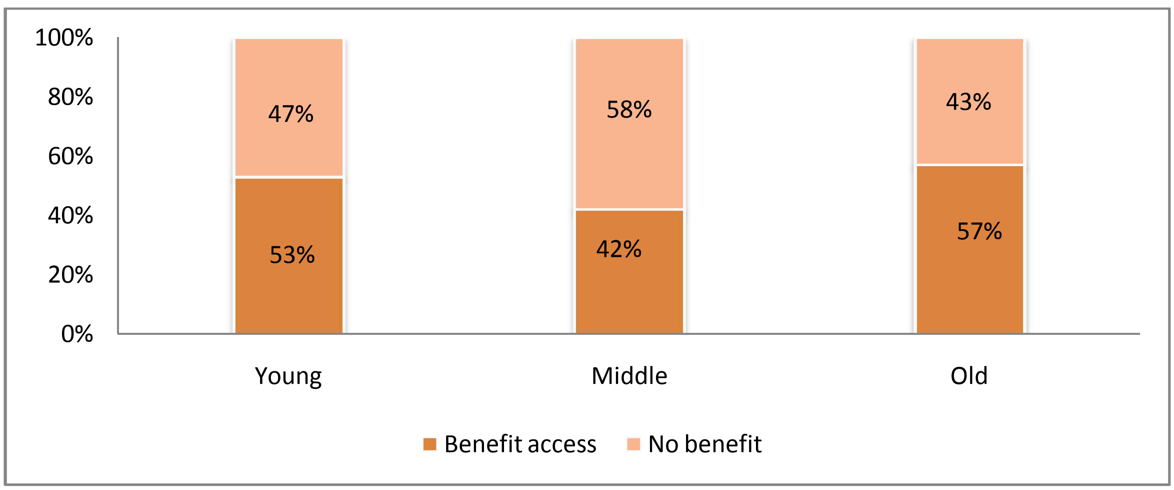

Fig. 4.13.2.1: Graphical representation of age use of mobile communication in labourer activities

4.13.3 Educational status wise correlation of mobile communication in labour activities

Education is an important aspect in the field of rural development. Observing educational status wise correlation of mobile communication and labour class is vital. From such observation variation between the two variables i.e., educational status of labour class and mobile communication will be observed. Further, from such observation researcher will be able to state that all the educational statuses are actively or passively taking the advantage of mobile communication in labourer activities. Percentage wise calculation of the observation is made on the number of respondents belonging to each group individually. Since, there is no equal number of respondents belonging to each group.

Table 4.13.3.1 Educational wise distribution of respondents used of mobile communication in labourer activities

SL. NO	Educational Status	Mobile communication and labour class		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Illiterate	0	1	1	0	100
2	Below matriculate	16	23	39	41	59
3	Matriculate	15	12	27	56	44
4	Higher secondary	8	5	13	62	38
5	Graduate	5	5	10	50	50
6	Post Graduate	0	0	0	0	0

In regard to above table it is observed that there is only one respondent under illiterate group, 39 in below matriculate, 27 in matriculate, 13 in under higher secondary, and 10 respondents in graduate. There is no respondent which fall under post graduate group. In illiterate group there is only one respondent and the said respondent doesn't get the benefit of mobile communication. In below matriculate out of 39 respondents 16 respondents get the benefit of mobile communication and 23 respondents do not. Among matriculate group respondents 15 respondents get the benefit and 12 respondents do not. There are 8 respondents under higher secondary educational status who get the benefit and 5 respondents who do not. Out of 10 respondents in graduate group respondents 5 are getting benefit and remaining 5 are not getting. In percentage wise calculation 41% belonging to under matriculate get the benefit and 59% are not. In matriculate group 56% get the benefit and 44% do not. In higher secondary group 62% get the benefit and 38% do not. Regarding graduate group respondents 50 % each are getting benefit. Therefore, from the observation it is observed that majority of the respondents belonging to each educational status are accepting mobile communication. This is sign of accepting mobile communication by the villagers as a new means of empowerment in their earning process. Graphically percentage wise representation of the above data is illustrated in the fig. 4.13.3.1.

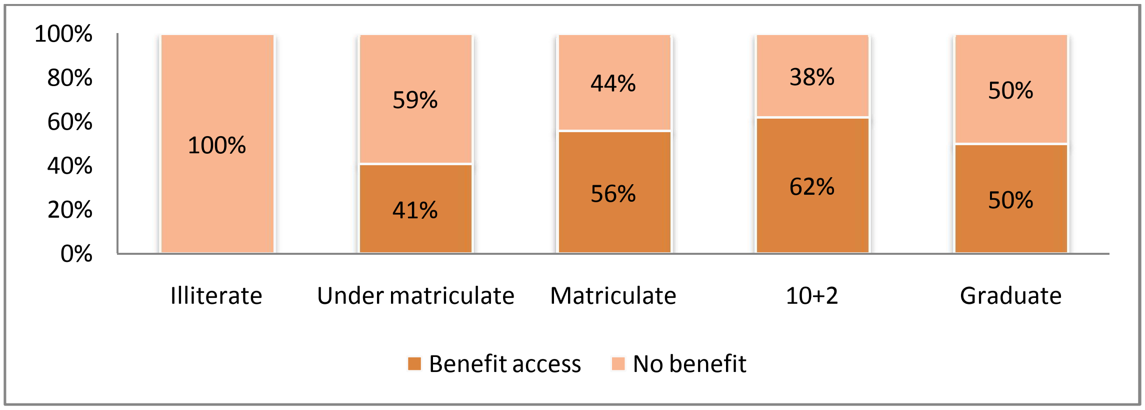

Fig. 4.13.3.1: Graphical representation of educational status wise used of mobile communication in labourer activities

4.13.4 Family income wise correlation of mobile communication in labour activities

Family income of the respondent is categorized as low income, medium income and high income. Here in this analysis, income wise used of mobile communication in labourer activities is analyzed. From such analysis variation between the two variables i.e., family income of labour class and mobile communication will be observed. Numbers of respondents belonging to each income group are not equal. Therefore, percentage wise calculation of the observation is made on the number of respondents belonging to each income group individually.

Table 4.13.4.1 Family income wise distribution of respondent's using mobile communication in labourer activities

SL. NO	Family income/ Month	Mobile communication and labour class		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Low	40	42	82	49	51
2	Medium	4	4	8	50	50
3	High	0	0	0	0	0

Pertaining to above table it is observed that there are 82 respondents in low income group and 8 respondents in medium income group. There is no respondent belonging to high income group. In low income group 40 respondents are getting benefit and 42 respondents are not. In context of medium income group 4 respondents are getting benefit and remaining 4 respondents are not. In percentage wise observation 49% respondents belonging to low income group are getting benefit of mobile communication and 51% are not. 50% each respondent belonging to medium income group are getting benefit. Therefore, it is observed that acceptance of mobile communication is not dependent on family income. Villagers belonging to different income groups are actively taking the benefit of mobile communication in their earning process. Graphically percentage wise observation of the above data is represented in the fig. 4.13.4.1.

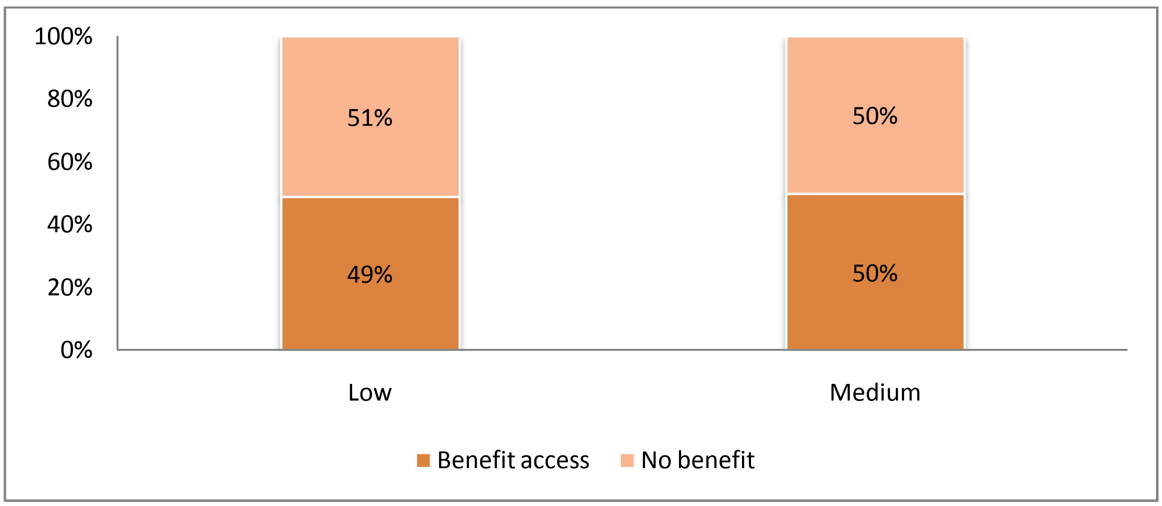

Fig. 4.13.4.1: Graphical representation of family income wise use of mobile communication in labourer activities

4.14 Mobile communication and self-employed group respondents

In self-employed group, those respondents whose occupation/activity were driver, tailor, barber, weaver, shopkeeper, artisans, etc., were included. There are 147 respondents under self-employed group. It is important to observe the correlation between self-employed and mobile communication to thoroughly understand mobile communication for development. From such observation researcher will be able to observe the variation between the two variables. Further, gender wise, age wise, educational status wise and income wise correlation of mobile communication in self-employed activities is also analyzed. Table 4.14.1 illustrates the ways of use of mobile communication in self-employed activities.

Table 4.14.1 Distribution of self-employed respondents and its correlation with mobile communication

SL.No	Mobile communication	Frequency	Percentage (%)
1	Selling product/service	34	23
2	Taking order/ordering product/service	29	20
3	Selling & taking order/ordering product/service	35	24
4	No benefit	49	33
5	Total	147	100

The above table revealed that there are 147 respondents under self-employed group of which 49 respondents are not getting any benefit of mobile communication in their business and earning process. However, majority of the respondents is of the opinion that mobile communication is a useful means of empowering their business. There are 98 respondents who get the benefit of mobile communication in marketing purposes. In percentage wise observation 23% of the respondents get the benefit of mobile communication in selling their products. 20% of the respondents get the benefit of mobile communication in taking order/ordering product/service. Another 24% of the respondents get the benefit of mobile communication in selling & taking order/ordering product/service. Therefore, the data indicates mobile phone have the potential to empower rural people who engage in small scale business activities in their marketing purposes.

4.14.1 Gender wise correlation of mobile communication and self-employed

This analysis will be useful in two aspects; one is in understanding gender wise participation of rural people in self-employed activities and another one in understanding gender wise variation in using mobile communication for self-employed activities. Percentage wise calculation of the observation is made on the number of male and female individually: Since there is no equal number of male and female in the analysis.

Table 4.14.1.1 Gender wise distribution of respondents used of mobile communication in self-employed activities

SL. No	Sex	Mobile communication in Self-employed		Total	Percentage (%)	
		Benefit access	No benefit		Benefit access	No benefit
1	Male	41	18	59	69	30
2	Female	57	31	88	65	35

From the above table it is observed that there are 59 male respondents and 88 female respondents who are engaging in self-employed activities. Out of 59 male respondents 41 respondents are getting the benefit of mobile communication and 18 respondents are not. Regarding female respondents 57 are getting benefit and 31 are not. In percentage wise observation 69% male respondents are getting benefit and 31% are not. Among the female respondents 65% are getting the benefit and 35% are not getting the benefit of mobile communication is their business activities. From the data it is observed that female is more active then male in self-employed activities and in terms of using mobile communication for business activities both male and female is active. Therefore, it is observed that in rural area acceptance of mobile communication in business activities are very high among male and female. For better understanding of the analysis, graphically the same is illustrated in the fig. 4.14.1.1.

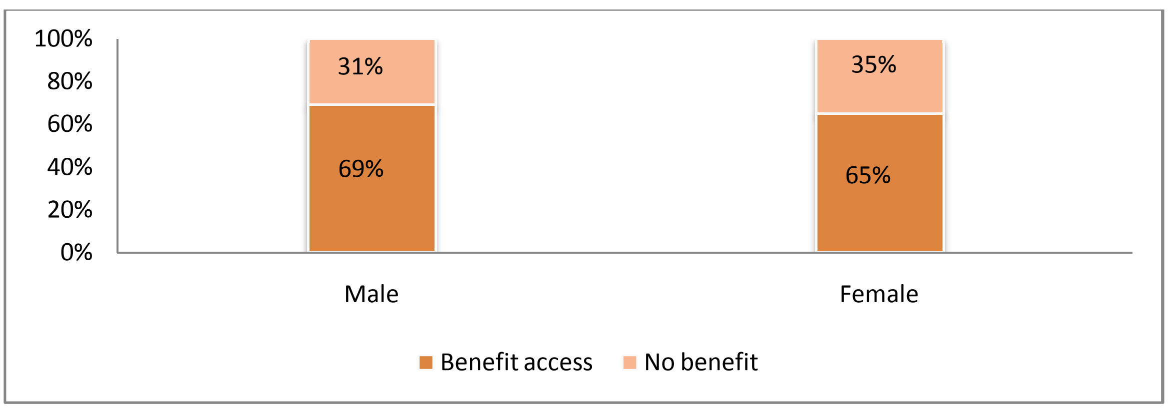

Fig. 4.14.1.1: Graphical representation of gender wise use of mobile communication in self-employed activities

4.14.2 Age wise correlation of mobile communication and self-employed

For the analysis age is categorized into young, middle and old. Age is also an important factor for participation in the earning process. In physically involvement earning process, old aged people are less active. Considering the importance of age factor in earning process the present analysis will be useful in observing the variation between the age of self-employed and mobile communication. There is no equal number of respondents belonging to each age group. Therefore, percentage wise calculation of the observation is made on the number of respondents belonging to each age group independently.

Table 4.14.2.1 Age wise distribution of respondents and use of mobile communication in self-employed activities

SL. NO	Age	Mobile communication in Self-employed		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Young	57	30	87	66	34
2	Middle	36	13	49	73	27
3	Old	5	6	11	45	55

Relevant to above table it is observed that there are 87 respondents belonging to young age, 49 in middle age and 11 in old age group. In young age group out of 87 respondents 57 respondents are getting benefit and 30 are not. Regarding middle age group 36 respondents are getting benefit and 13 are not. Number of respondents belonging to old age group is very low. Out of 11 respondents 5 are getting benefit and 6 respondents are not getting the benefit of mobile communication in self-employed activities. In percentage wise observation 66% of the respondents belong to young age are getting the benefit and 34% are not. In middle age group 73% are getting the benefit and 27% are not. Among the old age group 45% are getting the benefit and 55% are not getting the benefit of mobile communication in self-employed activities. From the data it is evidenced that there is less participation of old age people in self-employed activities. Among the young and middle age group participation level are very high and also actively taking the advantage of mobile communication in their business activities. There is also evidence of acceptance of mobile communication among the old age people of rural areas in their earning process. In order to put more clarity in the observation graphically it is highlight in the fig. 4.14.2.1.

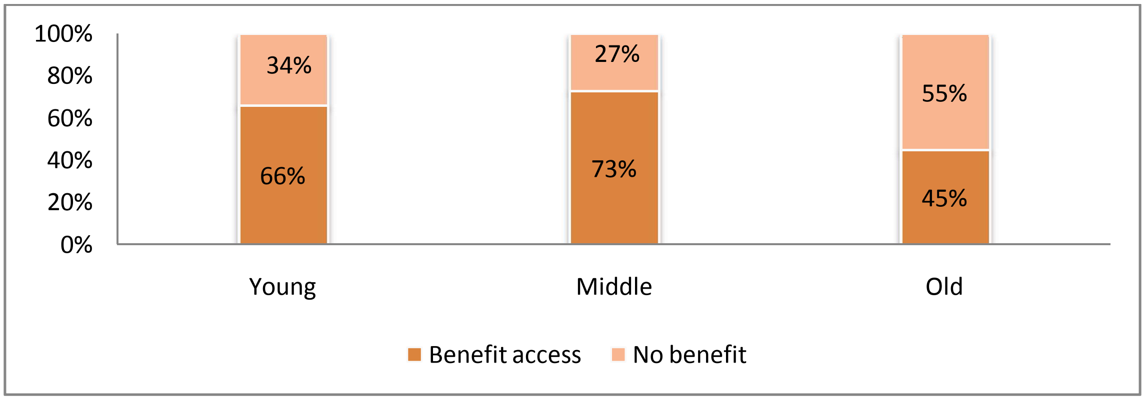

Fig. 4.14.2.1: Graphical representation of age wise use of mobile communication in self-employed activities

4.14.3 Educational status wise correlation of mobile communication and self-employed

In this analysis educational status of the respondents is categorized into six as illiterate, below matriculate, matriculate, 10+2, graduate and post graduate. From such observation variation between the two variables i.e., educational status of self-employed and mobile communication will be observed. Further it will help to observe that use of mobile communication in business depend on educational status of the respondents. Since, there is no equal number of respondents belonging to each educational status, percentage wise calculation of the observation is made on the number of respondents belonging to each educational status individually.

Table 4.14.3.1 Educational status wise use of mobile communication in self-employed activities

SL. NO	Educational Status	Mobile communication in Self-employed		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Illiterate	0	0	0	0	0
2	Below matriculate	27	9	36	75	25
3	Matriculate	35	20	55	64	36
4	10+2	25	12	37	68	32
5	Graduate	10	8	18	56	44
6	Post Graduate	1	0	1	100	0

Pertaining to above table, no single respondent belongs to illiterate group and only one respondent belongs to post graduate group. There are 36 respondents in under matriculate, 55 in matriculate, 37 in 10+2, and 18 respondents in graduate. Out of 36 respondents in under matriculate 27 respondents are getting the benefit and 9 are not. In matriculate group 35 respondents are getting the benefit and 20 respondents are not. Among the 10+2 group 25 are getting the benefit and 12 are not. In graduate group 10 respondents are getting the benefit and 8 are not. Regarding the post graduate group there is only one respondent and the said respondent is getting the benefit of mobile communication in their business activities. In percentage wise observation 75% of respondents belonging to under matriculate group get the benefit and 25% respondents do not. In matriculate 64% are getting benefit and 36% are not. Among the 10+2 group 68% are getting benefit and 32% are not. In case of graduate group 56% are getting benefit and 44% are not. In post graduate group as there is only one respondent getting benefit out of one, therefore it is considered that 100% is getting benefit. From the data it is observed that used of mobile communication in business activities doesn't depend on educational status. Hence, rural people who possess different educational qualification also accepted the potentiality of mobile communication in empowering their business activities. To increase clarity in the observation graphically, it is illustrated in the fig.4.13.3.1.

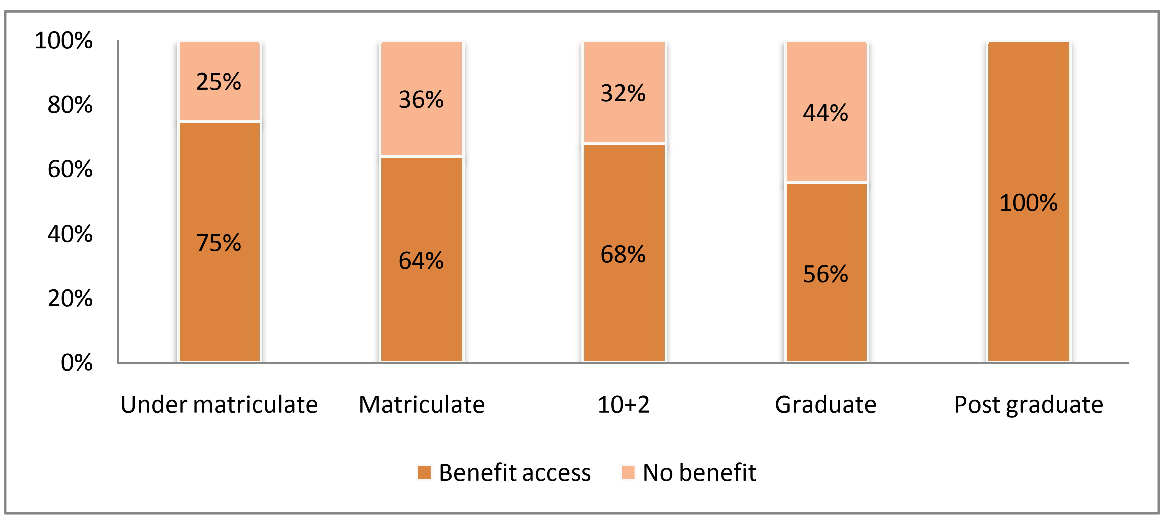

Fig. 4.14.3.1: Graphical representation of educational wise use of mobile communication in self-employed activities

4.14.4 Family income wise correlation of mobile communication and self-employed

Family income of the respondents is categorized into low, medium and high. From such observation of use of mobile communication in business activities, respondent's dependency on family income will be observed. On the other hand variation between income of the self-employed and mobile communication will also be observed. Percentage wise calculation of the observation is made on the number of respondents belonging to each income group independently.

Table 4.14.4.1 Income wise distribution of respondents used of mobile communication in self-employed activities

SL. NO	Family income/ Month	Mobile communication in Self-employed		Total	Percentage (%)	
		Benefit access	No Benefit		Benefit access	No Benefit
1	Low	58	34	92	63	37
2	Medium	37	13	50	74	26
3	High	3	2	5	60	40

From the table it is observed that there are 92 respondents are under low income group, 50 respondents are under medium income, and 5 respondents are under high income group. Majority of the respondents belongs to low income group and meager number of respondents belongs to high income group. Out of 92 respondents belonging to low income 58 respondents are getting the benefit and 34 respondents are not. In medium income group 37 respondents are getting the benefit and 13 respondents are not. In case of high income group 3 respondents are getting the benefit and 2 respondents are not. In percentage wise distribution 63% of respondents belonging to low income group get the benefit and 37% are not. Among the medium income group 74% are getting benefit and 26% do not. In high income group 60% are getting benefit and 40% are not getting the benefit of mobile communication in their business process. Therefore, from the data it is observed that used of mobile communication in business activities doesn't depend on family income. Further it is observed that rural people of different income group actively used the advantage of mobile communication. This is the sign of acceptance of mobile communication in their earning process.

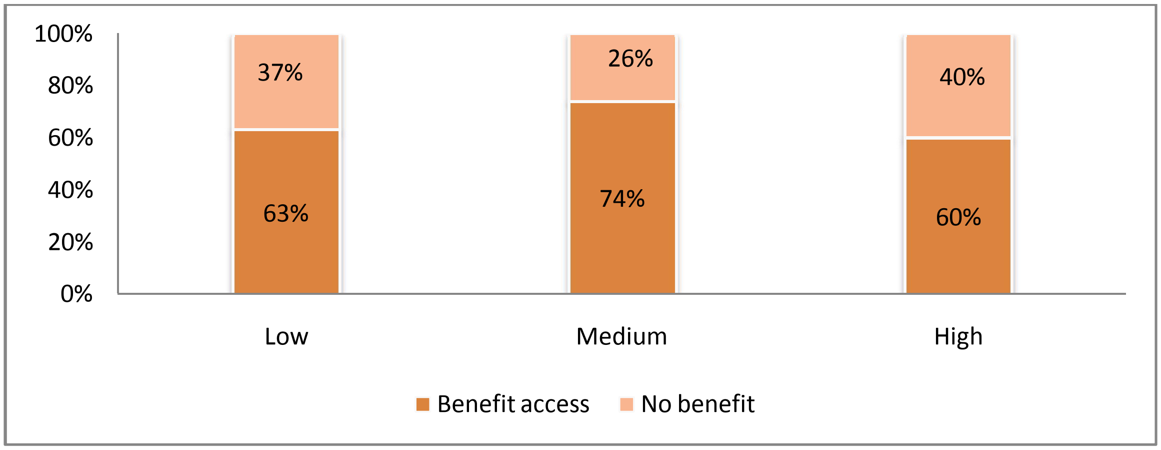

Fig. 4.14.4.1: Graphical representation of family income wise used of mobile communication in self-employed activities

4.15 Correlation of mobile communication and education

In this analysis used of internet and SMS for educational purposes is examined. The analysis is only limited to student community, since among the groups of respondents student group are the key player in the education sector. In the first place the analysis examines the rate of student surfing internet. From such observation researcher will be able to observe the penetration of internet in rural areas especially among the student community. Further, the purpose of using internet will also be analyzed. In the second place device used for surfing internet is examined. Thirdly, used of SMS for educational purposes is examined.

Table 4.15.1 Distribution of students surfing internet

SL.No	Surfing internet	Frequency	Percentage (%)
1	Yes	105	81
2	No	24	19
3	Total	129	100

Pertaining to the table it is observed that there are 129 respondents belonging to student group of which 105 respondents used internet and 24 respondents do not. In percentage wise 81% of the respondents belong to student group who surfs internet and 19% of the respondents do not. Therefore, from the data it is observed that majority of the students are surfing internet. This is the sign of high penetration of internet among the student community of rural areas.

4.15.1 Rate of student surfing internet for educational purposes

In this analysis, use of internet in educational related activities is examined. Educational related activities includes use of internet for searching study material or for project or assignment, use of social networking site and e-mail for subscribing e-journal, newspaper, and magazine etc. use of internet for searching new educational institute for further study and use of internet for exam related activities etc. are included. From such analysis researcher will be able to observe how effectively rural student community are using internet.

Table 4.15.1.1 Distribution of student surfing internet for educational purposes

SL.No	E-education	Frequency	Percentage (%)
1	Yes	87	83
2	No	18	17
3	Total	105	100

Relevant to above table it is observed that out of 105 students surfing internet 87 students are used for educational purposes in addition to entertainment and 18 students used it normally for communication with friend circles and for entertainment. In percentage wise observation 83% students are surfing for educational purposes and 17% are for communication and entertainment purposes. Therefore, it is observed that majority of the students used internet for multi purposes. This is the sign of acceptance of internet in rural areas for development purposes. Student community of rural areas have used internet for communication, entertainment and for educational purposes.

4.15.2 Devices use for surfing internet by student

For surfing internet, basically, either mobile phone or computer/laptop is necessary. It is important to observe the device used for surfing internet. From such analysis variation in possession of mobile phone and computer/laptop in rural areas will be observed.

Table 4.15.2.1 Distribution of students and devices use for surfing internet

SL.No	Devices use for surfing Internet	Frequency	Percentage (%)
1	Mobile Phone	85	81
2	Computer/Laptop	6	6
3	Mobile Phone & Computer/Laptop	14	13
4	Total	105	100

As the table reveals that majority of students used mobile phone for surfing internet and least number of student used computer/laptop for internet surfing. There are 81% students surfing internet from mobile phone, 6% from computer/laptop and remaining 13% from both mobile phone &computer/laptop. Therefore, it is observed that among the students community of rural areas mobile phone are widely used for internet. In rural areas mobile phone is no more accepted as luxury device but device for development.

4.15.3 Rate of student subscribing SMS

SMS is also an important feature of mobile communication. It is also important to analyze the ways the rural students take the opportunity of SMS in relation to their academic atmosphere. SMS related to job news, sports news, political news, exam result news, entertainment news are subscribed by the student.

Table 4.15.3.1 Distribution of students subscribing SMS

SL.No	SMS subscribe	Frequency	Percentage (%)
1	Yes	38	29
2	No	91	71
3	Total	129	100

It is observed form the table that majority of the students don’t subscribes SMS, there are 71% students which don’t subscribes SMS and 29% of students subscribes SMS related to job news, sports news, political news, exam result news, entertainment news etc. Therefore, the present data indicates that students of rural areas also used SMS for accessing to excess information. With the penetration of internet, use of SMS is reducing not only in rural areas but also in urban areas.

4.16 Correlation of mobile communication between respondents and development service provider

For better development of rural areas, sound communication system is required between public and development service provider. Development service providers are those who directly or indirectly engaged in delivering government rural development scheme. Such as Pradhan, Member, other village coordinator etc. They engaged in distributing Public Distribution System items like rice, sugar, kerosene etc. to villagers and in providing information or facilities for rural housing scheme, rural sanitation programme, rural drinking water scheme etc. Sometimes they also engaged in old age pension programme. Analyzing the correlation of mobile communication between respondents and development service provider will help in understanding the relation between public and service provider and the contribution of mobile communication in establishing a strong communication network.

Table 4.16.1 Distribution of respondent's use of mobile communication for development service provider

SL.No	Mobile communication	Frequency	Percentage (%)
1	Pradhan/member/villages coordinator	149	25
2	No communication	459	75
3	Total	608	100

In accordance with the table it is observed that out of 608 respondents, 149 respondents are getting benefit of mobile communication in communicating with development service provider while remaining 459 respondents are not. In percentage wise observation, 25% are getting benefit and 75% are not. According to the data majority of the respondents don't have any mobile communication with development service provider and meager number of respondents do have mobile communication with development service provider. Even though it is few in number, it definitely is an encouraging sign of acceptance of mobile communication in development purposes. On the other hand mobile communication with development service provider is not a mass participation process in real time. Therefore, it is observed that villagers are using mobile communication for communicating across various grass root level service provider. Further it is observed that mobile communication have the potentiality of establishing strong communication network between villager and grass root development service provider.

4.16.1 Gender wise correlation of mobile communication and development service provider

The gender variation in mobile communication with service provider is being analyzed here. In this analysis, detailed data information will be observed for the mentioned purpose. Further, the gender distinction in the rural areas can be drawn from the study. Numbers of male and female are not equally represented in the study; therefore, percentage wise calculation of the observation is made individually.

Table 4.16.1.1 Gender wise distribution of respondent's use of mobile communication for development service provider

SL. No	Sex	Mobile communication and development service provider		Total	Percentage (%)	
		Yes	No		Yes	No
1	Male	103	271	374	28	72
2	Female	46	188	234	20	80

Focusing on the above table it is observed that out of 374 male respondents, 103 respondents are using mobile communication for communicating with development service provider while 271 respondents are using it for normal communication. Among the 234 female respondents, 46 respondents use mobile communication for communicating with development service provider. In percentage wise observation also, 28% male respondents use mobile communication for communicating with development service provider. Among the female respondents too, only 20% use mobile communication for communicating with development service provider. Considering the above data it is observed that there is no huge gap in percentage of use of mobile communication for development purposes between male and female. Therefore, it can be concluded that male and female equally participate in development activities and utilized the capability of mobile communication in development process. To increase clarity of the observation it is graphically represented in the fig. 4.16.1.1.

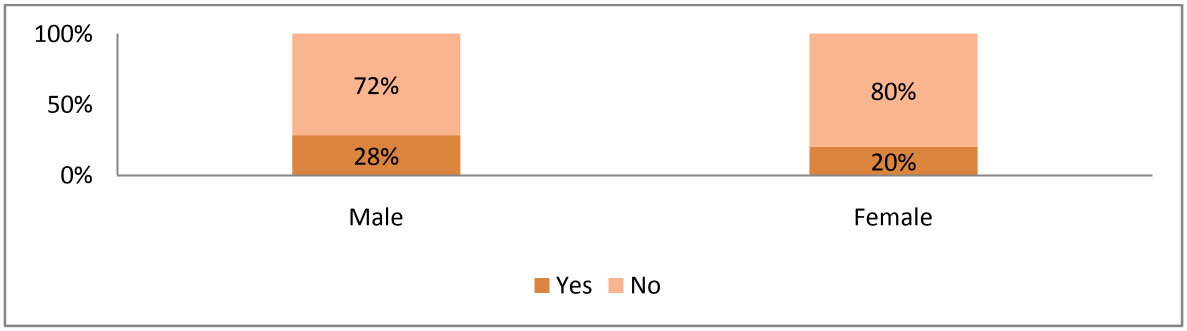

Fig. 4.16.1.1: Graphical representation of gender wise use of mobile communication with development service provider

4.16.2 Age wise correlation of mobile communication and development service provider

In this analysis researchers will be able to observe age wise variations in the use of mobile communication for communicating with development service provider. Further, researchers will be able to observe the barriers in the path of use of mobile communication for development purposes. Number of respondents in each age category is not equal; therefore percentage wise calculation of the observation is made on the number of each age group individually.

Table 4.16.2.1 Age wise distribution of respondent's use of mobile communication for development purposes

SL. NO	Age	Mobile communication and development service provider		Total	Percentage (%)	
		Yes	No		Yes	No
1	Young	70	330	400	18	82
2	Middle	60	85	145	41	59
3	Old	19	44	63	30	70

Pertaining to the above table it is observed that out of 400 respondents belonging to young age group, 70 respondents are using mobile communication for communicating with development service provider while 330 respondents are not. Among the middle age group out of 145 respondents, 60 are using mobile communication for the said purpose while 85 respondents are not. In old age group out of 63 respondents, 19 are using mobile communication for communicating with development service provider while 44 respondents are not. In percentage wise observation 18% respondents belonging to young age group are using mobile communication for communicating with development service provider while 82% are not. In relation to young age group 41% respondents are using mobile communication for communicating with development service provider while 59% are not. Among the old age group 30% are using mobile communication for the said purpose while 70% are not. Therefore, from the data it is observed that middle and old age groups are more active in use of mobile communication than young age group. Further, it is observed that there is not much barrier of age in used of mobile communication for communicating with development service provider. Graphically it is illustrated in the fig. 4.16.2.1.

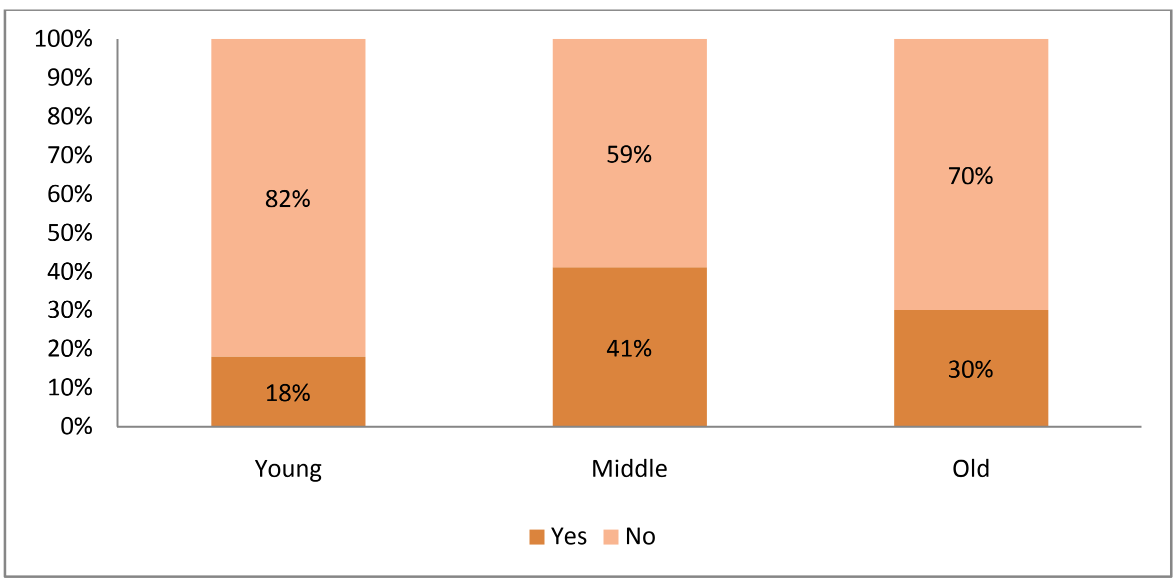

Fig. 4.16.2.1: Graphical representation of age wise use of mobile communication with development service provider

4.16.3 Educational status wise correlation of mobile communication with development service provider

Educational qualification wise distinction in the use of mobile communication with development service provider is being analyzed here. From such analysis researchers will be able to observe the educational qualification wise variation in the use of mobile communication for communicating with development service provider. Further, researchers will be able to observe educational qualification as a barrier in the path of use of mobile communication for communicating with development service provider. Percentage wise calculation of the observation is made on the basis of total number of each educational status individually. Since, number of each educational status is not equally represented in the study.

Table 4.16.3.1 Educational qualification wise distribution of respondent's use of mobile communication for development service provider

SL. NO	Educational Status	Mobile communication and development service provider		Total	Percentage (%)	
		Yes	No		Yes	No
1	Illiterate	0	7	7	0	100
2	Below matriculate	36	95	131	27	73
3	Matriculate	31	127	158	20	80
4	Higher secondary	44	107	151	29	71
5	Graduate	29	100	129	22	78
6	Post Graduate	9	23	32	28	72

In consideration to above data it is evidenced that meager number of respondent belongs to illiterate group. Respondents belonging under this group do not use mobile communication for development service provider. In under matriculate group there are 131 respondents, of which 36 respondents use mobile communication for the mentioned purpose while 95 respondents are not. Among the matriculate 31 respondents use it for the said purpose while 127 respondents are not. In 10+2, graduate and post graduate group 44 respondents, 29 respondents and 9 respondents respectively use mobile communication for development service provider. In percentage wise observation 10+2 group have the highest percentage followed by post graduate, under matriculate, graduate and matriculate in the use of mobile communication. There are 29% respondents in 10+2 group, 28% in post graduate, 27% in under matriculate, 22% in graduate and 20% in matriculate. Therefore, it is observed that there is no huge gap of percentage against each educational status. Such observation means that there is no variation of education in the use of mobile communication for development service provider. Rural people belonging to different educational status equally accepted the potentiality of mobile communication. Graphically, the observation is highlight in the fig. 4.16.3.1 for better understanding.

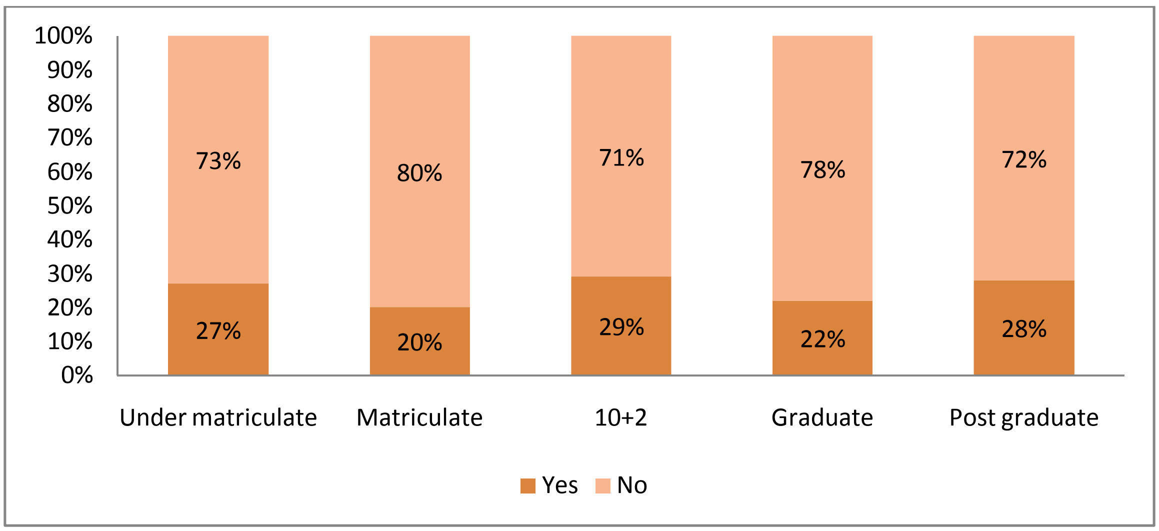

Fig. 4.16.3.1: Graphical representation of educational status wise use of mobile communication with development service provider

4.16.4 Family income wise correlation of mobile communication with development service provider

In this analysis, whether the family income of respondents acts as a barrier in the use of mobile communication with development service provider or not is being examined. From such examination researchers will be able to observe the variations between the two variables i.e., income of respondents and use of mobile communication with development service provider. Further, researchers will be able to observe detailed data information of how respondents belonging to different income group use mobile communication for development purposes. Percentage wise calculation of the observation is made on the number of each income group individually. Since, there is no equal number of respondent belonging to each income group.

Table 4.16.4.1 Family income wise distribution of respondent's use of mobile communication for development service provider

SL. NO	Family income/Month	Mobile communication and development service provider		Total	Percentage (%)	
		Yes	No		Yes	No
1	Low	89	293	382	23	77
2	Medium	35	128	163	21	79
3	High	25	38	63	40	60

In accordance with the table it is observed that majority of the respondents belongs to low income group followed by medium and high. There are 382 respondents in low income group, of which 89 respondents use mobile communication with development service provider while 293 respondents use it for normal communication. In medium income group 35 respondents use it for the said purpose and in high income group 25 respondents use it. In percentage wise observation 40% of the respondents belonging to high income group use it for the mentioned purpose followed by low income group and medium income group i.e., 23% and 21% respectively. From the percentage wise calculation of the data it is observed that there is no barrier of income in the use of mobile communication for development purposes. Further, it is observed that there is less variation among the income group in the use of mobile communication for development purposes. Therefore, it can be concluded that villagers belonging to different income group utilizes mobile communication in development purposes. Graphical percentage wise observation of the data is illustrated in the fig 4.16.4.1.

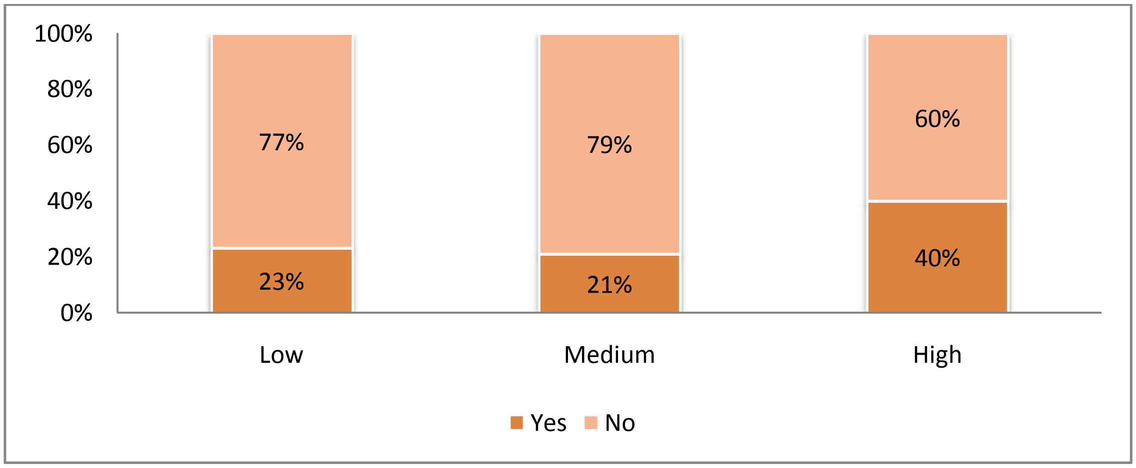

Fig. 4.16.4.1: Graphical representation of family income wise use of mobile communication with development service provider

4.17 Correlation of mobile communication between respondents and health services provider

Health sector is a key sector for development. Recognizing its importance in development, grass root level health service provider is deployed in every village under National Rural Health Mission (NRHM). In this analysis health service provider are those who engaged in NRHM like ASHA, nurse, doctor, village or district health coordinator etc. From such analysis association between respondents and mobile communication for health will be observed. Further, gender wise, age wise, educational qualification wise and income wise correlation of mobile communication between respondents and health service provider is also being analyzed here.

Table 4.17.1 Distribution of respondents' use of mobile communication for health

SL.No	Mobile communication	Frequency	Percentage (%)
1	ASHA/Doctor/Health expert	189	31
2	No communication	419	69
3	Total	608	100

In association with the above table it is observed that out of 608 respondents, 189 respondents use mobile communication for health while 419 respondents do not. In percentage wise observation 31% respondents use it for the mentioned purpose and 69% do not. From the representation of the data it is evidenced that meager number of respondents use mobile communication for health and majority of the respondents do not. Mass mobile communication with health expert is not a mass participation process in real time. On the other hand villagers who do need health service, either contact health expert physically or through mobile communication. Moreover, majority of the respondents have misconception about NRHM/ASHA that it deals only with maternity cases. Therefore, it can be concluded that 31% acceptance in use of mobile communication in rural areas is a significant number. This is the sign of accepting mobile communication in rural areas for development purposes. Moreover, there is no sign of use of specially design mobile application for health.

4.17.1 Gender wise correlation in use of mobile communication for health

In this analysis gender wise use of mobile communication for health is being analyzed. From such analysis gender variations in use of mobile communication for health will be observed. Further, researchers will be able to observe gender as a barrier in the use of mobile communication for health. Percentage wise calculation of the observation is made on the number of male and female individually. Since there is no equal number of male and female in the study.

Table 4.17.1.1 Gender wise distribution of respondents' use of mobile communication for health

SL. No	Sex	Mobile communication and Health		Total	Percentage (%)	
		Yes	No		Yes	No
1	Male	96	278	374	26	74
2	Female	93	141	234	40	60

Pertaining to the above table it is evidenced that out of 374 male respondents, 96 respondents use mobile communication for health while 278 respondents do not. In case of female out of 234 respondents, 93 use it for the said purposes while 141 respondents do not. In percentage wise observation variations in the use of mobile communication between male and female is observed. There are 40% female respondents and 26% male respondents using mobile communication for health. Therefore, from the percentage wise observation of the data it is observed that in rural areas females are more concerned of health issues than male. Graphical representation of the observation is illustrated in the fig. 4.17.1.1.

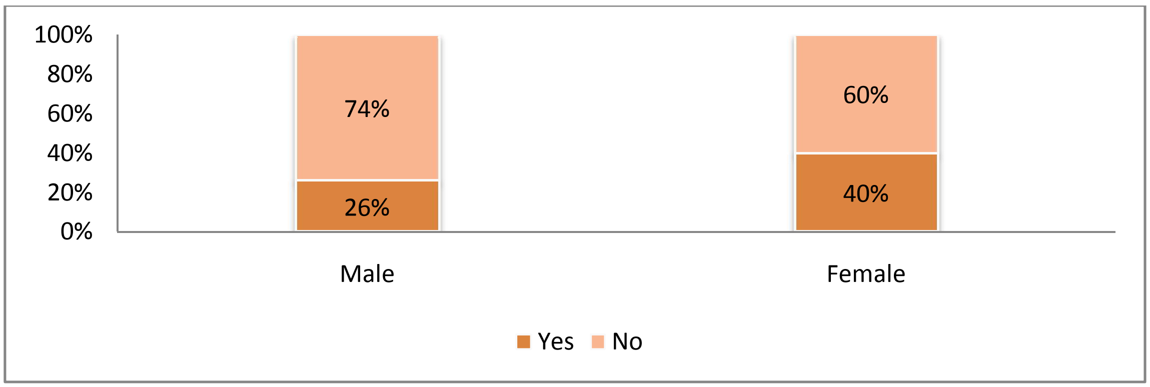

Fig. 4.17.1.1: Graphical representation of gender wise use of mobile communication for health

4.17.2 Age wise correlation in use of mobile communication for health

In this analysis age wise use of mobile communication for health is being examined. From this analysis researchers will be able to observe the age variations in the use of mobile communication for health. Percentage wise calculation of the observation is also made on the number of each age category individually. Since, there is no equal number of respondents belonging to each age group.

Table 4.17.2.1 Age wise distribution of respondents' use of mobile communication for health

SL. NO	Age	Mobile communication and Health		Total	Percentage (%)	
		Yes	No		Yes	No
1	Young	161	239	400	40	60
2	Middle	24	121	145	17	83
3	Old	4	59	63	6	94

From the above table it is observed that out of 400 respondents belonging to young age group, 161 respondents use it for health communication. In middle age group out of 145 respondents, 24 respondents use it for health communication. Among the old age group out of 63 respondents, only 4 respondents use it for the mentioned purposes. In percentage wise observation young age group have the highest percentage in use of mobile for health communication followed by middle and old age group. There are 40% young age respondents, 17% middle age respondents and 6% old age respondents using mobile communication for health. Therefore, from the data it is evidenced that there is age variations in use of mobile communication for health. Further, it is observed that villagers belonging to different age groups have accepted the potentiality of mobile for health communication. Graphically percentage wise observation of the analysis is highlighted in the fig 4.17.2.1.

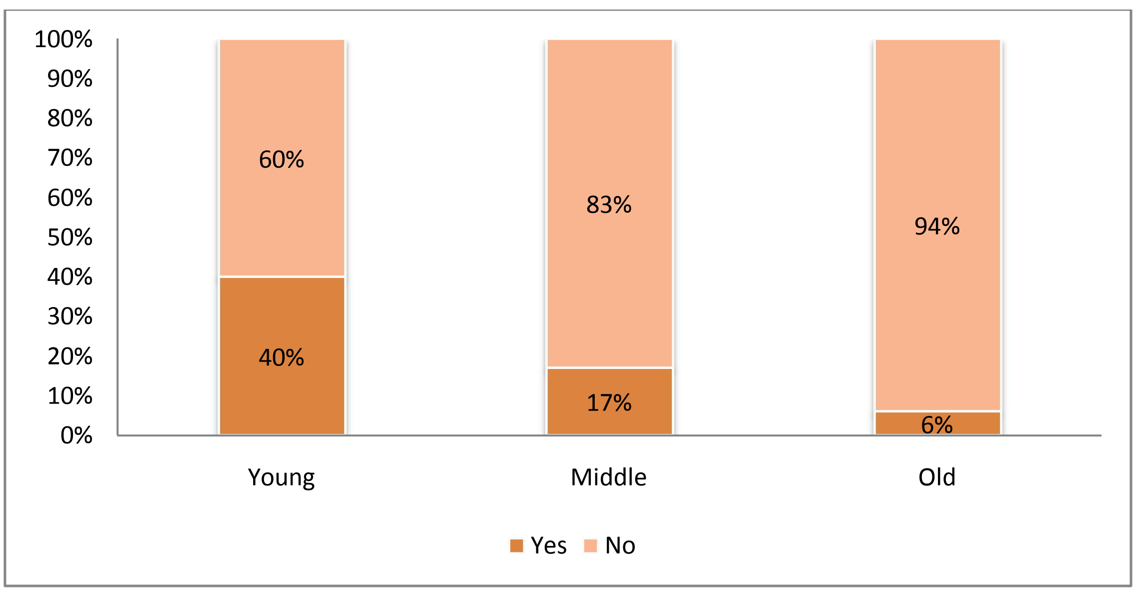

Fig. 4.17.2.1: Graphical representation of age wise use of mobile communication for health

4.17.3 Educational status wise correlation in use of mobile communication for health

In this analysis educational qualification wise use of mobile communication for health is being analyzed. From such analysis researchers will be able to observe education wise variations in the use of mobile communication for health. Further, detailed data information about the use of mobile communication against each educational status will also be observed. In this analysis numbers of respondents belonging to each educational status category are not equal. Therefore, percentage wise calculation of the observation is made on the number of respondents belonging to each educational status individually.

Table 4.17.3.1 Educational status wise distribution of respondents' use of mobile communication for health

SL. NO	Educational Status	Mobile communication and Health		Total	Percentage (%)	
		Yes	No		Yes	No
1	Illiterate	3	4	7	43	57
2	Below matriculate	53	78	131	40	60
3	Matriculate	61	97	158	39	61
4	Higher secondary	36	115	151	24	76
5	Graduate	28	101	129	22	78
6	Post Graduate	8	24	32	25	75

In association with the above table it is observed that respondents belonging to each educational group use mobile communication for health. There are 3 respondents in illiterate group, 53 in under matriculate, 61 in matriculate, 36 in higher secondary, 28 in graduate and 8 respondents in post graduate are using mobile communication for health. In percentage wise observation respondents belonging to illiterate group have the highest percentage in use of mobile communication for health followed by below matriculate, matriculate, post graduate, 10+2 and graduate. There are 43% respondents under illiterate group using mobile communication for health, 40% in below matriculate group, 39% in matriculate, 24% in higher secondary, 22% in graduate and 25% in post graduate group. From the percentage wise presentation of data it is observed that there is no huge gap of percentage among the different educational groups. Therefore, it can be concluded that there is no educational variations in the use of mobile communication for health. Graphical percentage wise observation of the analysis is illustrated in the fig. 4.17.3.1.

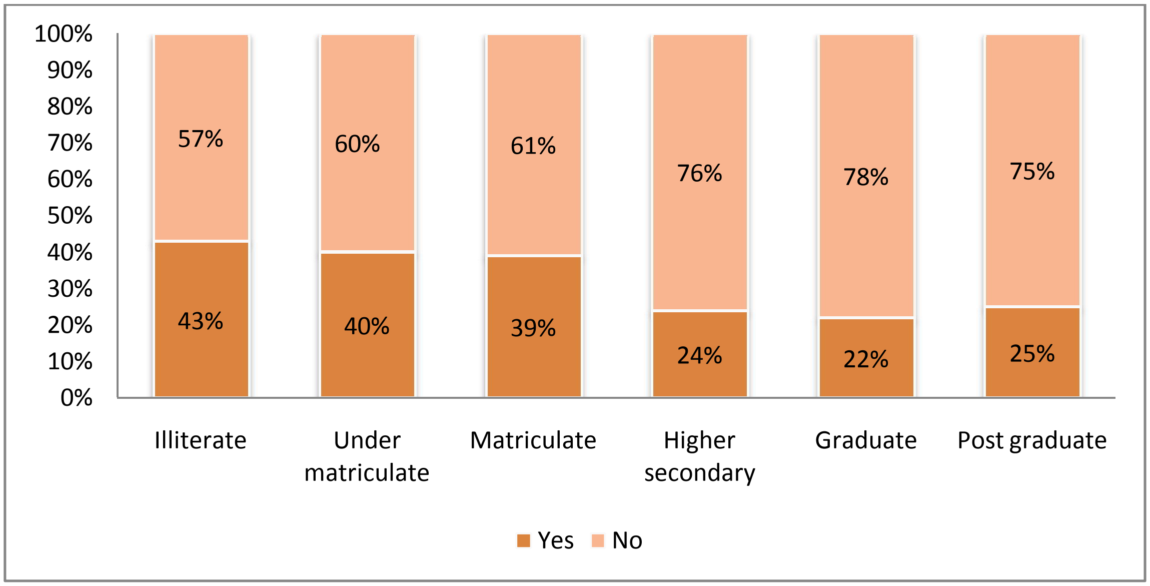

Fig. 4.17.3.1: Graphical representation of educational qualification wise use of mobile communication for health

4.17.4 Family income wise correlation in use of mobile communication for health

In this analysis, family income wise use of mobile communication for health is being observed. This analysis will bring light to the way of use of mobile communication for health among different income group. From such analysis researchers will be able to observe income variations in the use of mobile communication for health. Percentage wise calculation of the observation is made on the number of respondents belonging to each income group independently. Since, there is variation in the number of respondents belonging to each income group.

Table 4.17.4.1 Income wise distribution of respondents' use of mobile communication for health

SL. NO	Family income/ Month	Mobile communication and Health		Total	Percentage (%)	
		Yes	No		Yes	No
1	Low	111	271	382	29	71
2	Medium	57	106	163	35	65
3	High	21	42	63	33	67

Pertaining to the above table it is observed that 111 respondents belonging to low income group use mobile communication for health. In medium and high income group 57 and 21 respondents respectively use mobile communication for health. In percentage wise observation medium income group have the highest percentage in use of mobile communication for health i.e., 35%, followed by 33% of high income group and 29% of low income group. From the percentage wise observation it is observed that there is less gap in the percentage of use of mobile communication for health among the villager belonging to different income group. Therefore, it can be concluded that there is no barrier among different income group in use of mobile communication for health. Graphically, percentage wise observation of the analysis is illustrated in the fig. 4.17.4.1.

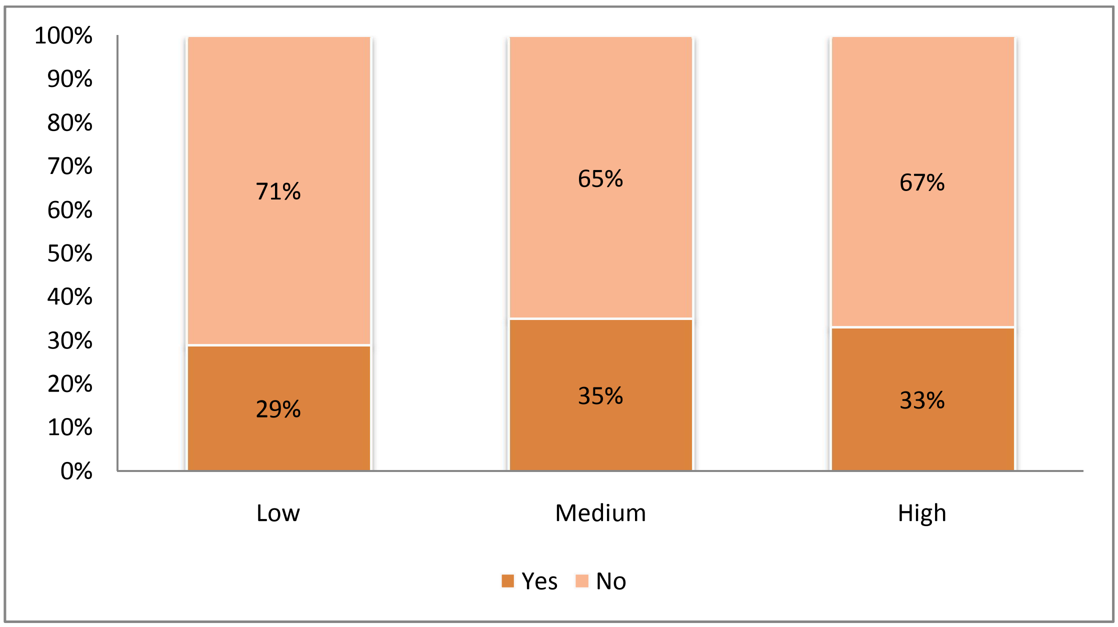

Fig. 4.17.4.1: Graphical representation of income wise use of mobile communication for health