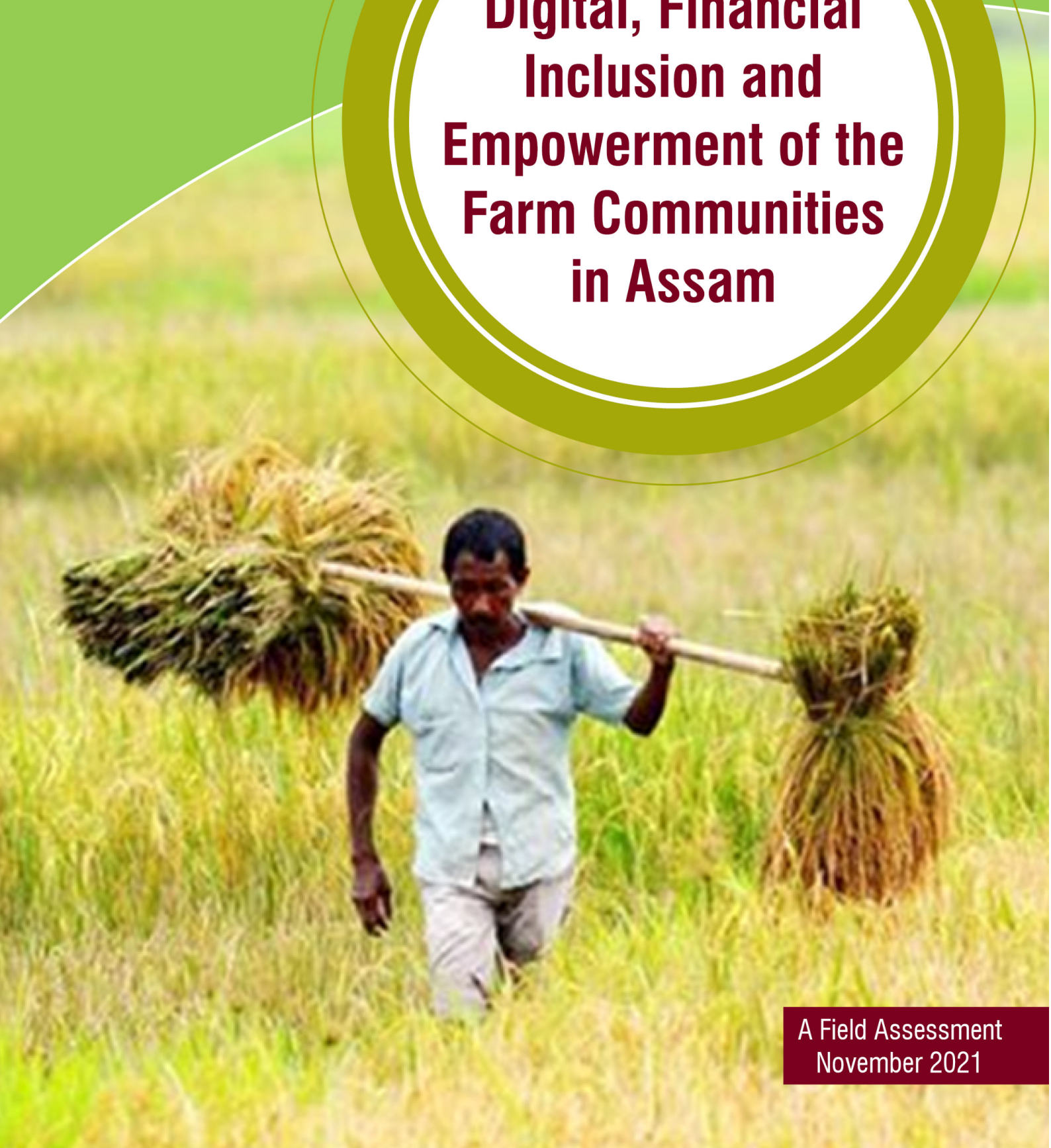
DIGITAL EMPOWERMENT *foundation*

Advancing Digital, Financial Inclusion and Empowerment of the Farm Communities in Assam



A Field Assessment
November 2021

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Council for Social & Digital Development

DEF DIGITAL EMPOWERMENT foundation

Executive Summary

The key points coming out of the study are as follows:

- The study was conducted during September and October 2021, across 7 districts of Assam, namely, Bajali, Barpeta, Cachar, Kamrup (M), Kamrup (Rural), Morigaon, and Nagaon. The highest number of respondents is from Kamrup, followed by Cachar and Nagaon districts.
- Close to 38% of the respondents belonged to the age group of 41-50 years and 29% belonged to the age group of 31-40 years
- 82.3% of the respondents were male farmers.
- When asked about the type of farming, 83% of the respondents do crop farming while 11% and 6% are engaged in poultry farming and dairy farming respectively.
- 42.5% of the respondents have been farming for 1-10 years while 27.3% have been farming for 11-20 years.
- More than half of the farmers surveyed were small farmers (57%).
- All the big and marginal farmers are male farmers, while more than 90% of all the female farmers surveyed are small farmers.
- Most of the farmer groups belonged to Farmer Producer Organizations (58.2%).
- When asked how many of them have access to mobile phones, 72% of the respondents said yes. However, there is a gender bias in this. Close to 50% of the female farmers said they do not have access to mobile phones where as only 23% of all the male farmers do not have access to mobile phone.
- When asked about the type of phone they have, 53% said feature phone. The gender impact is visible here as well as 85% of all the female farmers have feature phones while 49% of all male farmers have feature phones.
- When asked if they carry their phones all the time, 51% said yes. Again, 95% of all the female farmers said no while 43% of all male farmers said no. Female farmers do not seem to carry their phones all the time as much as the male farmers.
- When asked if they use their mobile to access agricultural information, services, and opportunities, close to 90% of the respondents said no.

- Out of those who do use the phone for accessing information on agriculture, most of them said they use it for information related to agriculture.
- Out of those who do use the phone for accessing information, 86% of them use it for PM-Kisan Yojana.
- Again, out of those who do use the phone for accessing information, 91% find them helpful.
- When asked if they find any issues in using mobile phones and getting farming information, the majority response was difficult to use. This was followed by internet speed.
- Most of the respondents were not aware of call centre and toll free service numbers. Similarly, most have not used these features.
- 77% of the respondents are not comfortable in using call centre and toll free service numbers.
- When asked about the reasons for not being comfortable in using call centre and toll free service numbers, many responded that it is difficult to understand.
- When asked if they YouTube for information, only 12% of the respondents said yes. The study also finds that most of the individuals have never used social media for such information.
- When asked if there are any Facebook groups for sharing and receiving information, more than 90% said no. This could also imply that they are not aware of such groups.
- When asked if they have used financial and banking services online, 89% of the respondents said no. Again, there is a gender effect as 95% of all the female respondents said no while 89% of the male respondents said no.
- When asked for the reasons of not using online banking services, almost half of the respondents said lack of digital literacy followed by never used.
- The problems they face are because they have never used such facilities or because of lack of digital skills.
- When asked if network is an issue, 59% said yes.
- When asked if internet speed and connectivity are issues, 57% said yes.
- When asked if cost of recharge and internet are an issue, 58% said yes.

- When asked if they need digital skills and mobile training, 51% said yes.
- When asked if local language content is an issue while getting information, 68% said yes.
- When asked if they have enough financial education and literacy about financial schemes, etc, 86% said no.
- When asked if they need financial education and support, 60% said yes.
- When asked if online mode is better to get financial training counseling and support, only 28% said yes.
- When asked if offline mode is better to get financial training counseling and support, 90% said yes.
- When asked if mobile based information and training is better, only 30.5% said yes.
- When asked if call centre based or free phone call based training and guidance is better, only 24% said yes.
- When asked if SMS based training and counseling is better, only 24% said yes.
- When asked if voice based audio clips on phone is better for training, only 28% said yes.
- When asked if Panchayat level training and counselor support facility better for training, 93% said yes.
- When asked if short term or regular support for training is helpful, 52% said regular support is better.
- When asked if they want to receive SMS or audio clips as content for training, only 30% said yes.
- When asked if mobile or SMS or call centre based training is better, only 30.5% said yes.
- When asked about the number of hours they can spend online for financial education in a week, 64% of the respondents said 1-2 hours.
- When asked about the time for online training and support, 68% said evening.
- When asked about the number of hours they can spend offline for financial education training in a week, 79% said 2-3 hours.

- When asked what time is good for offline training, 68% said evening.

1. Introduction

Assam is an agrarian economy with 69% of its population engaged in it according to the 2011 Census survey. Covid-19 has changed a lot of things and has made economies digital. However, there have been efforts to make agriculture more technological and digitized. Hence, the role of Information and Communications (ICT) is quite huge in the state. ICT can help in the enhancement of agricultural and rural development through improved information and communication processes.

ICT comprises of networks, mobile phones, devices, services, and applications that aid the processing, management, and exchange of data, information, or knowledge with a target audience. The infusion of advanced technologies has allowed agriculture to transform and become more productive. The use of ICT in agriculture in developed countries has accelerated growth of the agrarian sector and has led to rural development. This has been particularly beneficial for small and marginal farmers as these technologies have helped them address several challenges associated with traditional forms of agriculture. In developing countries, ICT has a bigger role to play in agriculture. Such technology can provide vital information on sowing, crop production, soil fertility, weather related information, information on pests and disease outbreaks. These information help in preventing crop loss and lead to more productivity.

This study was done by the Council for Social and Digital Development (CSDD), Digital Empowerment Foundation (DEF) and North East Development Foundation (NEDF), to understand the ICT readiness and capacities of the farm community in Assam towards ICT based financial education and counseling. The study seeks to understand how digitally equipped Assamese farmers are and what could be the scope of ICT in the farm sector of the state.

The study has been conducted across 7 districts of Assam, namely, Bajali, Barpeta, Cachar, Kamrup (M), Kamrup (Rural), Morigaon, and Nagaon. A total of 498 respondents have been surveyed to understand the role and scope of ICT in the state. The study further seeks to understand the contentious issues in the agricultural sector

with a focus on training, digital accessibility and literacy, and gender based biases in these issues.

2. Findings and Results

The study was conducted across 7 districts of Assam, namely, Bajali, Barpeta, Cachar, Kamrup (M), Kamrup (Rural), Morigaon, and Nagaon. The figure below shows the number of respondents from each of these 7 districts.

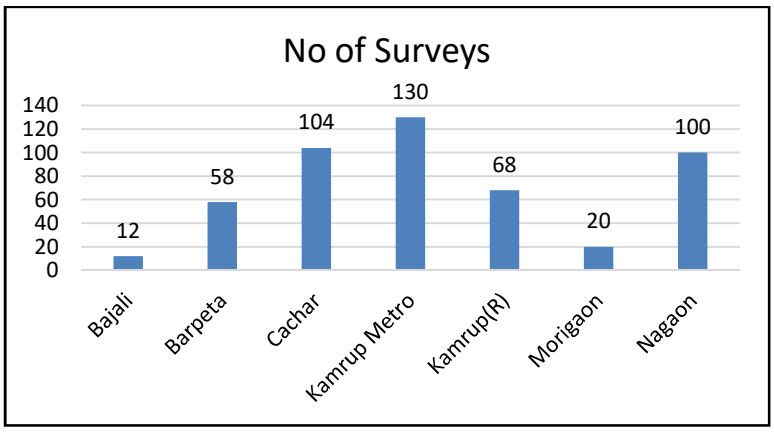

Figure 1: Districts covered under the study

The highest number of respondents is from Kamrup (M&R), followed by Cachar and Nagaon districts.

General Information

Close to 38% of the respondents belonged to the age group of 41-50 years and 29% belonged to the age group of 31-40 years. The table below makes it clear.

Age range	%
<=20	0.8
21-30	7.7
31-40	28.9
41-50	37.8
51-60	19.5
61-70	2.8
71-80	2.0
81-90	0.4
Grand Total	100.0

Table 1: Age range of the respondents

82.3% of the respondents were male farmers as shown from the figure below.

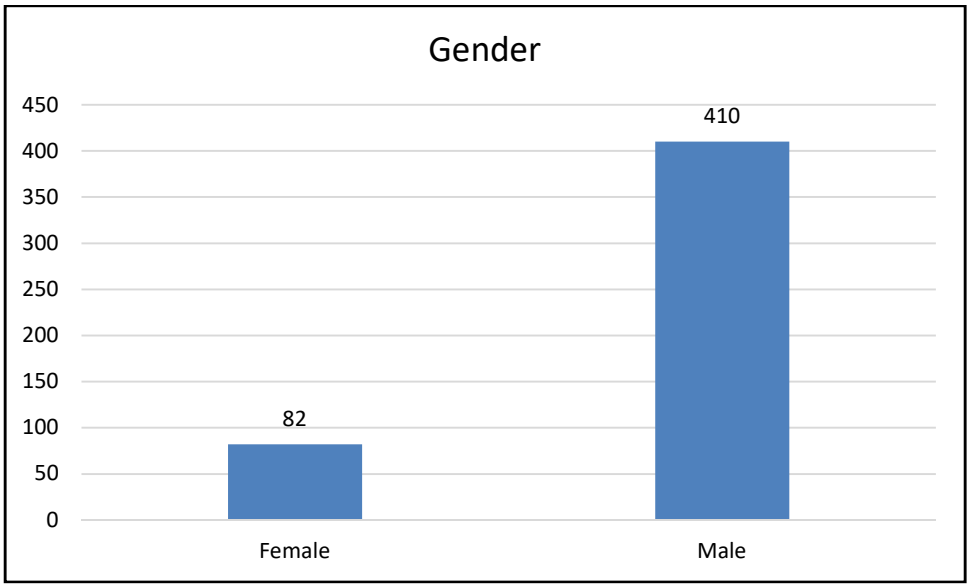

Figure 2: Gender distribution of the respondents

When asked about the type of farming, 83% of the respondents do crop farming while 11% and 6% are engaged in poultry farming and dairy farming respectively.

Figure 3: Type of farming

42.5% of the respondents have been farming for 1-10 years as shown from the figure below.

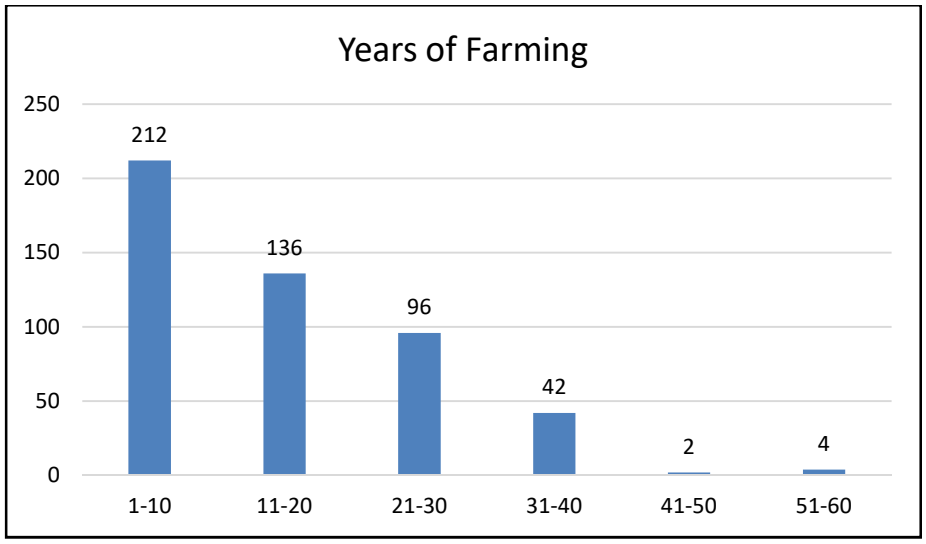

Figure 4: Years of farming

More than half of the farmers surveyed were small farmers, followed by medium farmers as shown in the figure below.

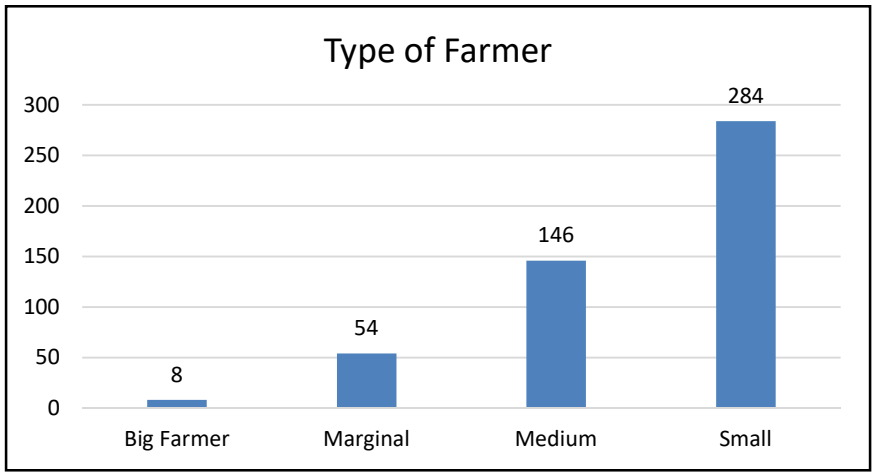

Figure 5: Type of farmer

All the big and marginal farmers are male farmers, while more than 90% of all the female farmers surveyed are small farmers.

Information about the type of farmer organizations or groups each of the respondents is a part of is also important. Most of the farmer groups belonged to Farmer Producer Organizations as revealed by the figure below.

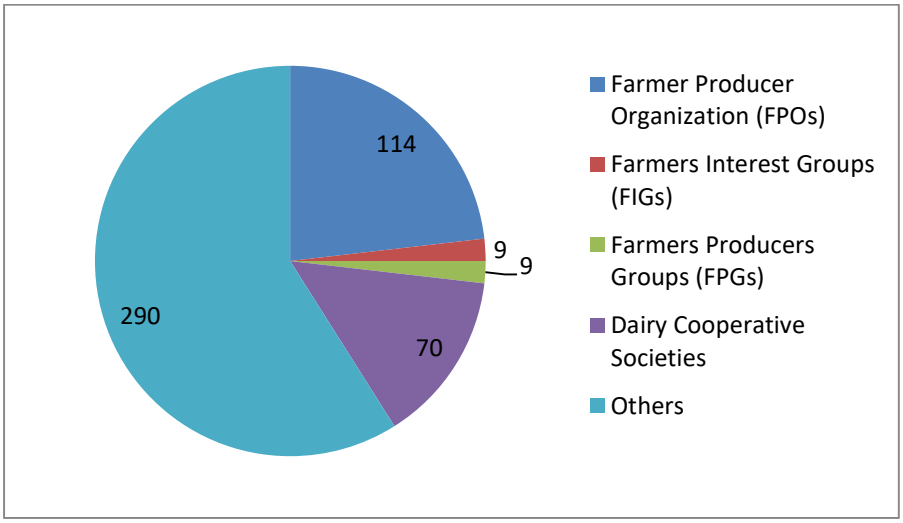

Figure 6: Farmer organizations

Access to Mobile Phones and Related Information

When asked how many of them have access to mobile phones, 72% of the respondents said yes. However, there is a gender bias in this. Close to 50% of the female farmers said they do not have access to mobile phones where as only 23% of all the male farmers do not have access to mobile phone.

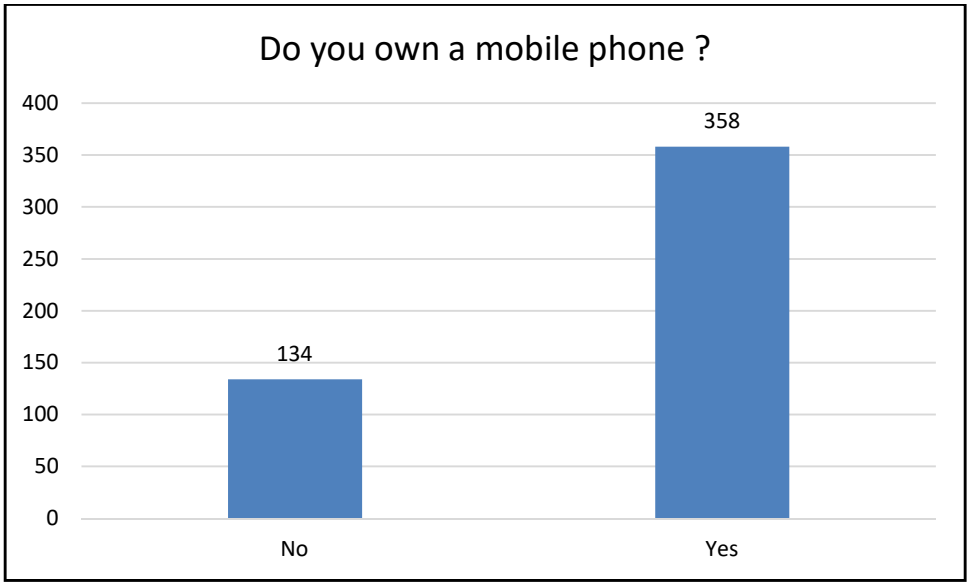

Figure 7: Access to mobile phones

When asked about the type of phone they have, 53% said feature phone. Since most of the farmers studied are small and marginal farmers, the low access to smart phones is understandable. The gender impact is visible here as well as 85% of all the female farmers have feature phones while 49% of all male farmers have feature phones. Hence, male farmers have more access to smart phones as compared to their female counterparts.

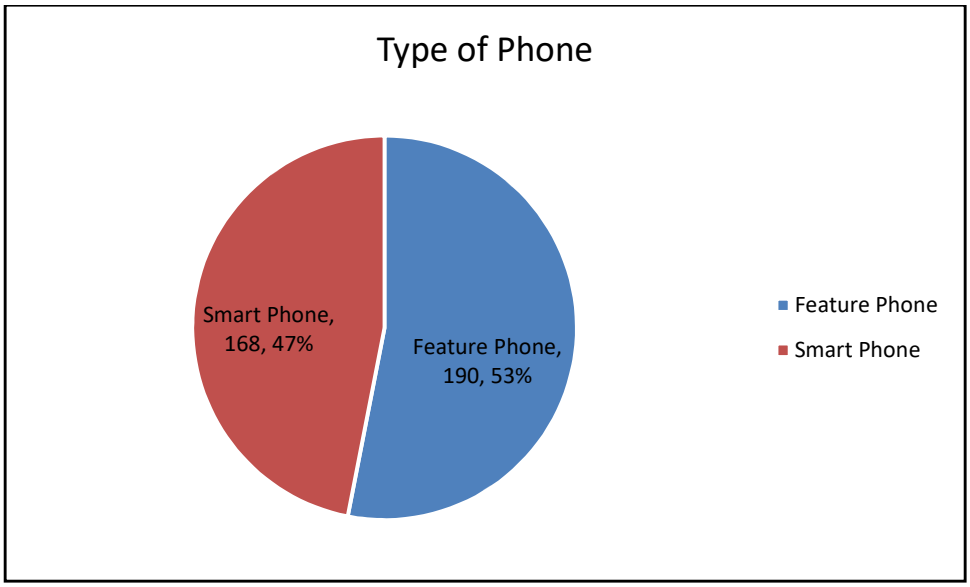

Figure 7: Type of phone

When asked if they carry their phones all the time, 51% said yes. Again, 95% of all the female farmers said no while 43% of all male farmers said no. Female farmers do not seem to carry their phones all the time as much as the male farmers.

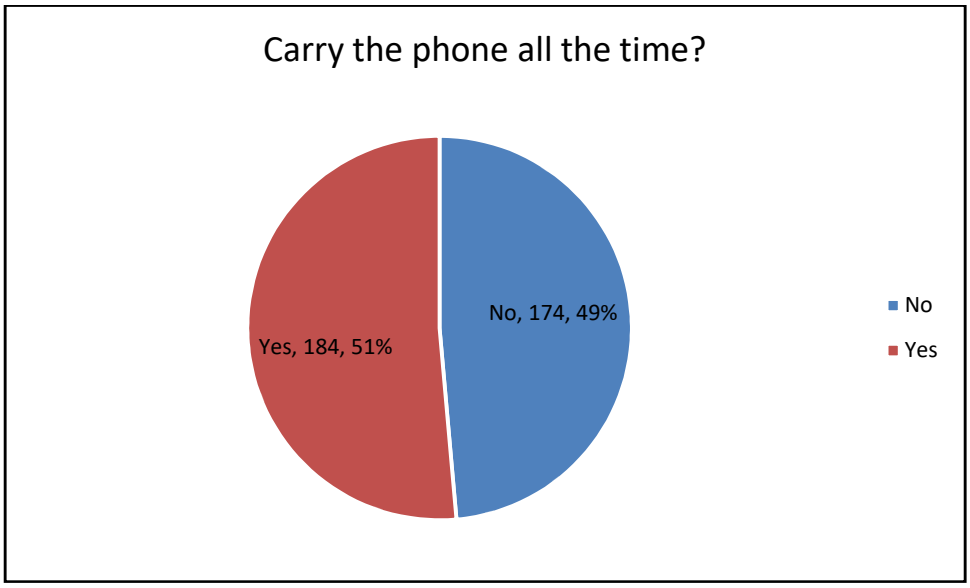

Figure 8: Carry the phone all the time

When asked if they use their mobile to access agricultural information, services, and opportunities, close to 90% of the respondents said no.

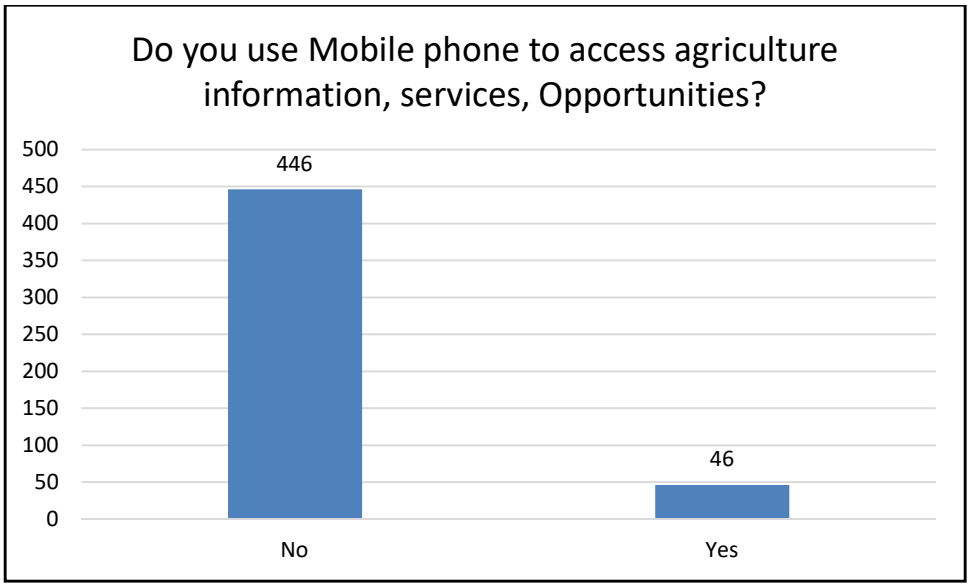

Figure 9: Use of mobile in accessing agricultural information

Out of those who do use the phone for accessing information on agriculture, most of them said they use it for information related to agriculture, followed by information on market as shown in the figure below.

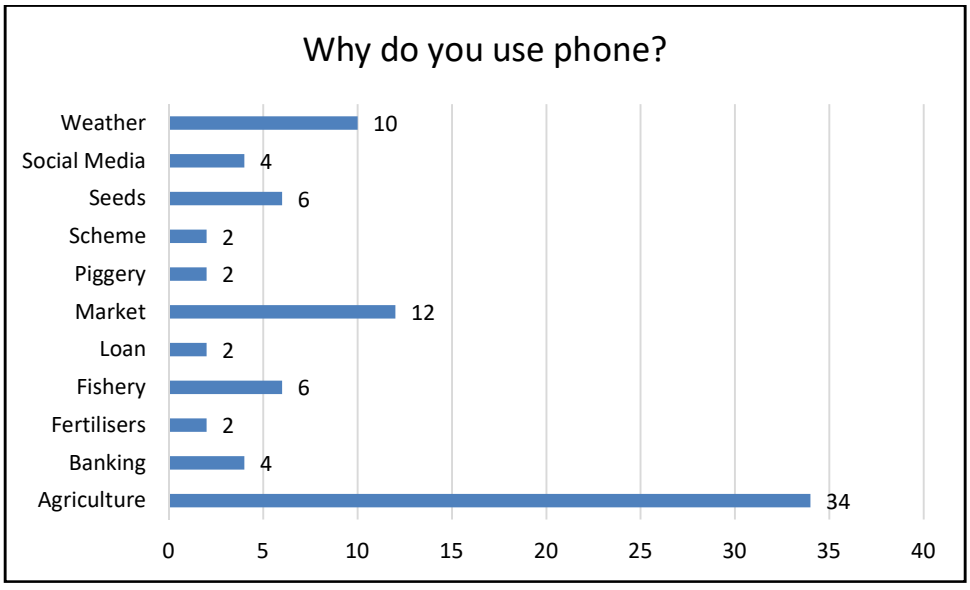

Figure 10: Use of phone

Out of those who do use the phone for accessing information, 86% of them use it for PM-Kisan.

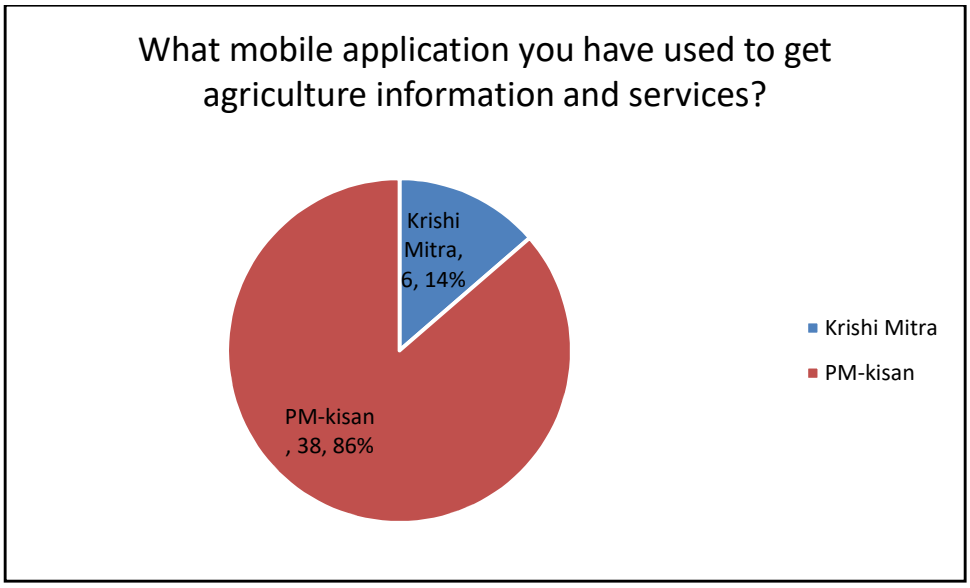

Figure 11: Mobile application used

Again, out of those who do use the phone for accessing information, 91% find them helpful. This large percentage could be because only those are using these features who find the devices and services easy to use.

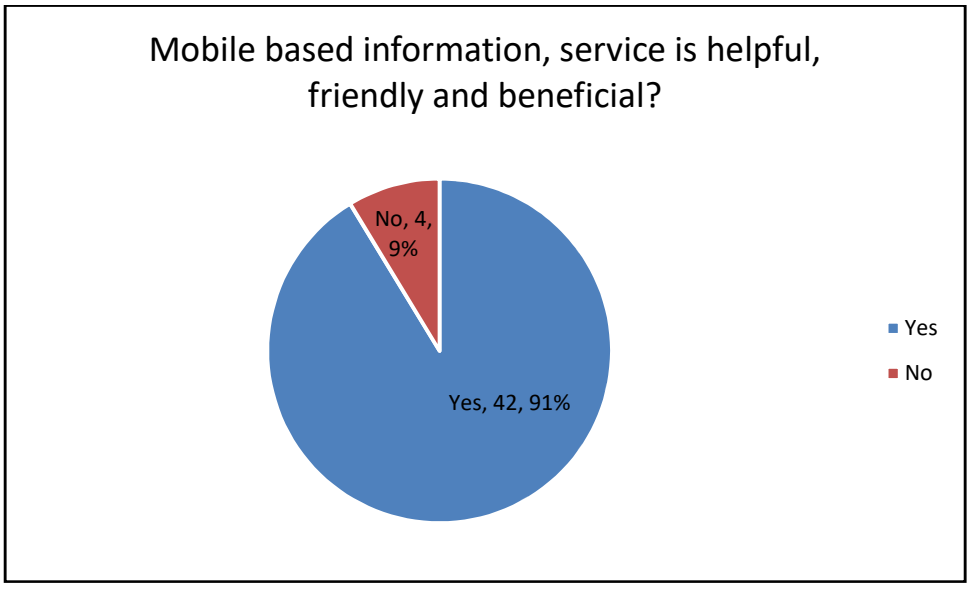

Figure 12: Is mobile based information helpful?

When asked if they find any issues in using mobile phones and getting farming information, the majority response was difficult to use as revealed by the figure below. This was followed by internet speed.

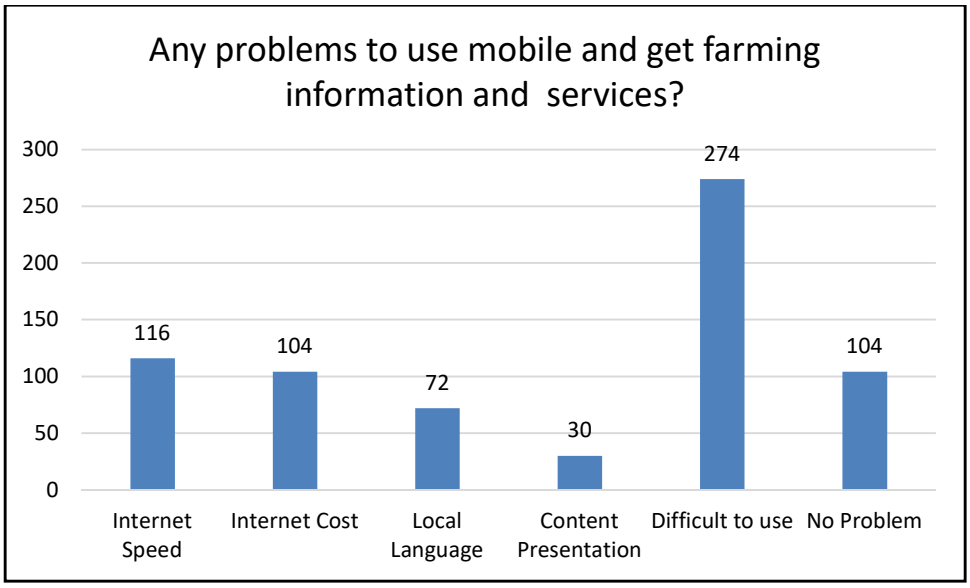

Figure 13: Problems faced

Toll free and Call Centre Services

Most of the respondents were not aware of call centre and toll free service numbers.

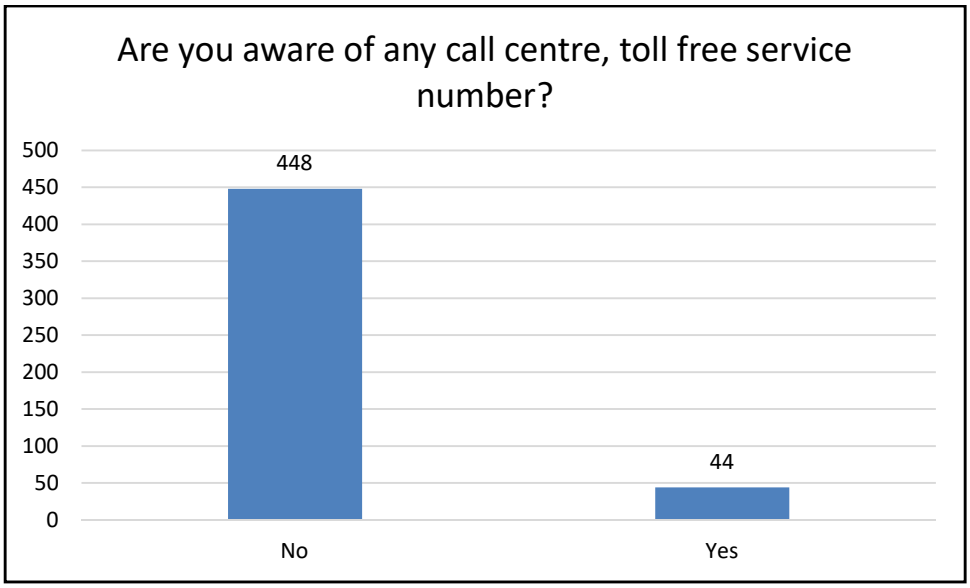

Figure 14: Awareness of call centre and toll free service numbers

Similarly, most have not used these features as reflected by the figure below.

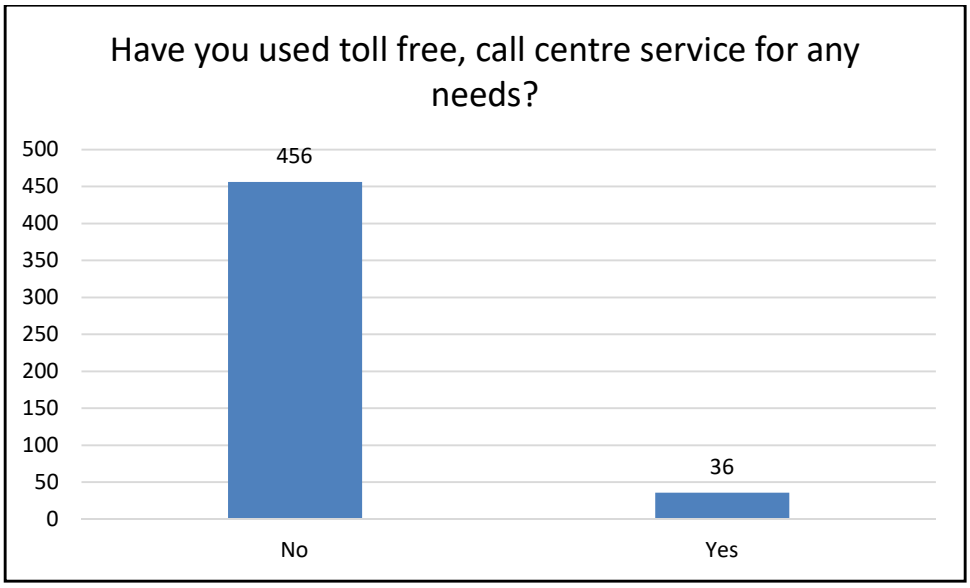

Figure 15: Use of call centre and toll free service numbers

In fact, 77% of the respondents are not comfortable in using call centre and toll free service numbers

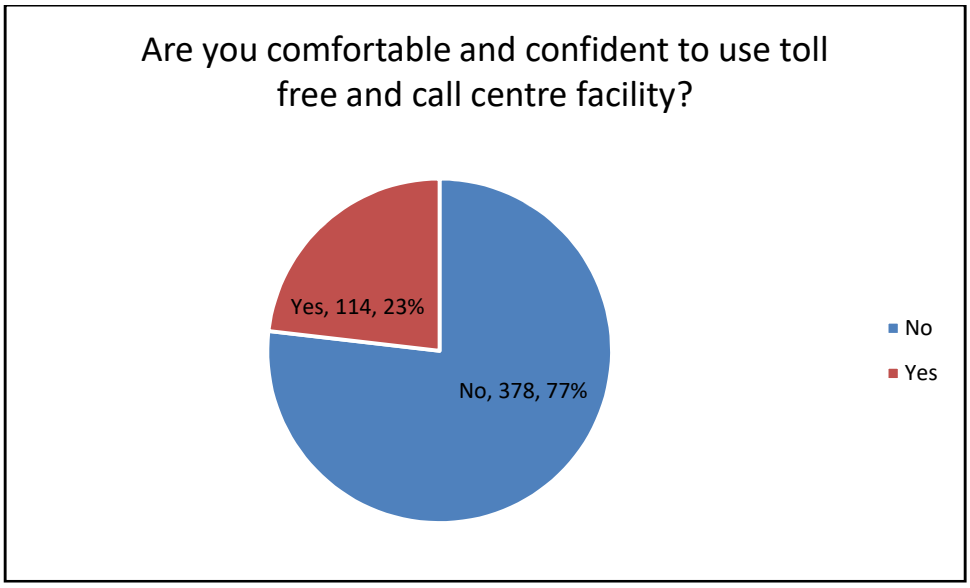

Figure 16: Comfortable in using call centre and toll free service numbers

When asked about the reasons for not being comfortable in using call centre and toll free service numbers, many responded that it is difficult to understand as seen from the figure below.

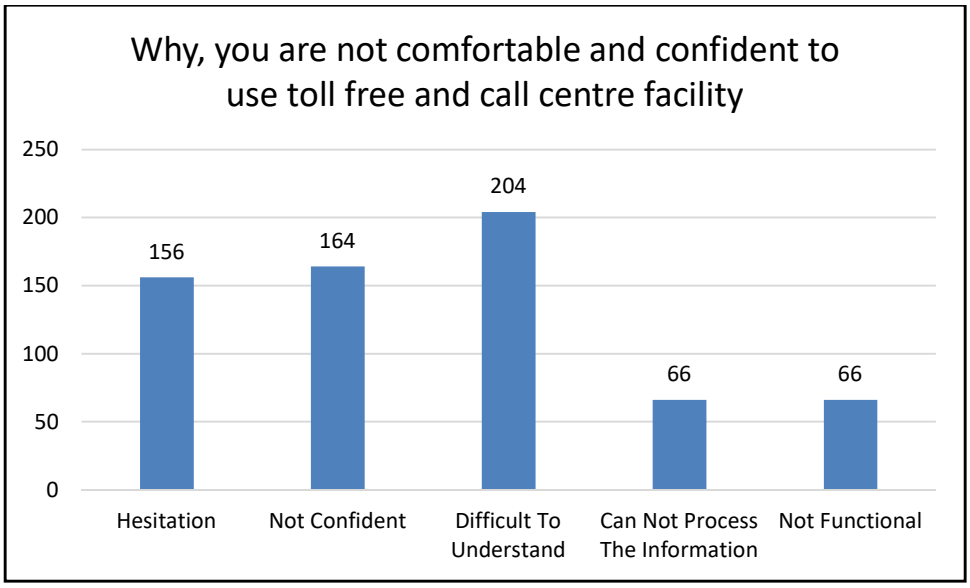

Figure 17: Reasons for not being comfortable in using call centre and toll free service numbers

Use of Social Media in Getting Information

When asked if they YouTube for information, only 12% of the respondents said yes.

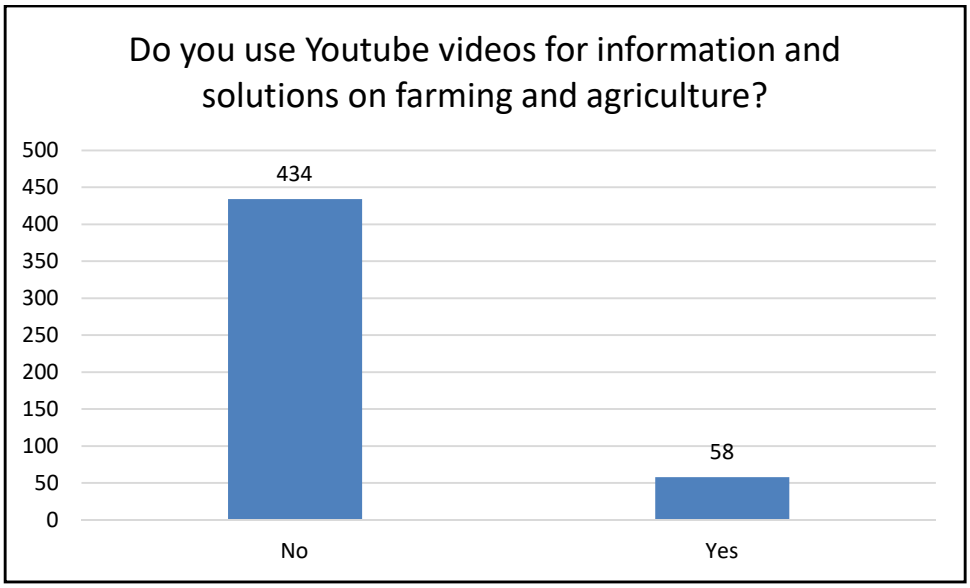

Figure 18: Use of YouTube

The study also finds that most of the individuals have never used social media for such information as seen from the figure below.

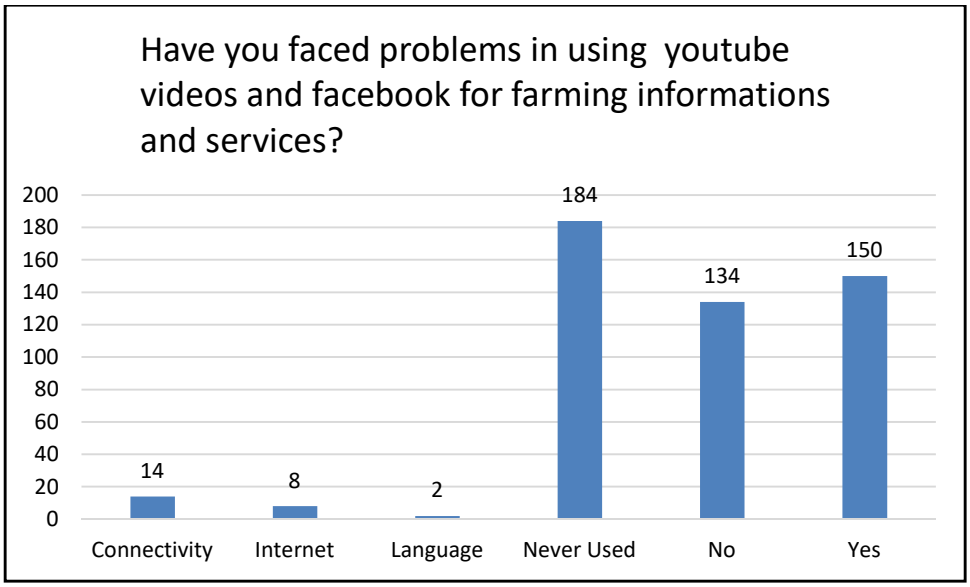

Figure 19: Problems faced in using social media for information on farming

When asked if there are any facebook groups for sharing and receiving information, more than 90% said no. This could also imply that they are not aware of such groups.

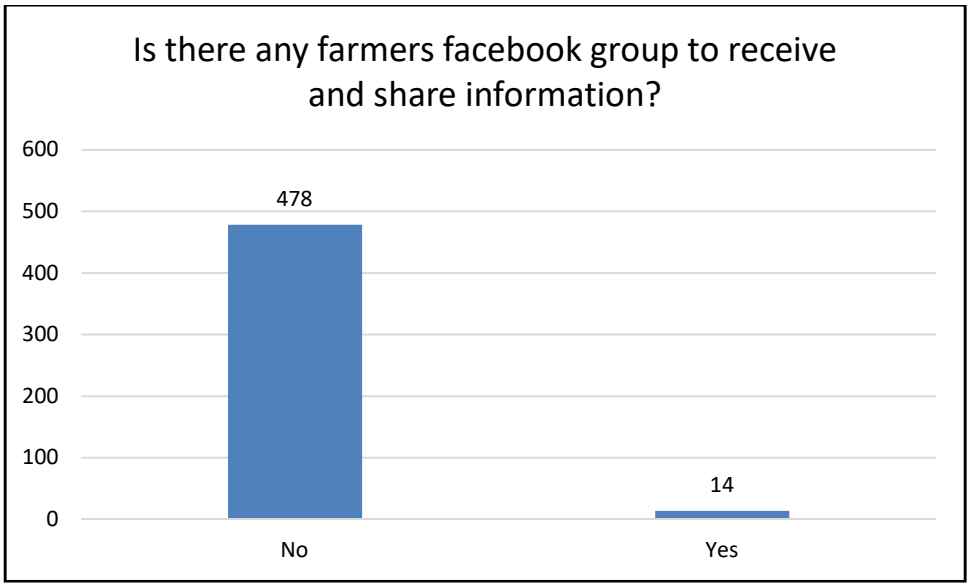

Figure 20: Facebook groups for information

Financial and Banking Services

When asked if they have used financial and banking services online, 89% of the respondents said no. Again, there is a gender effect as 95% of all the female

respondents said no while 89% of the male respondents said no. The difference may not seem much but the gender effect is hard to ignore.

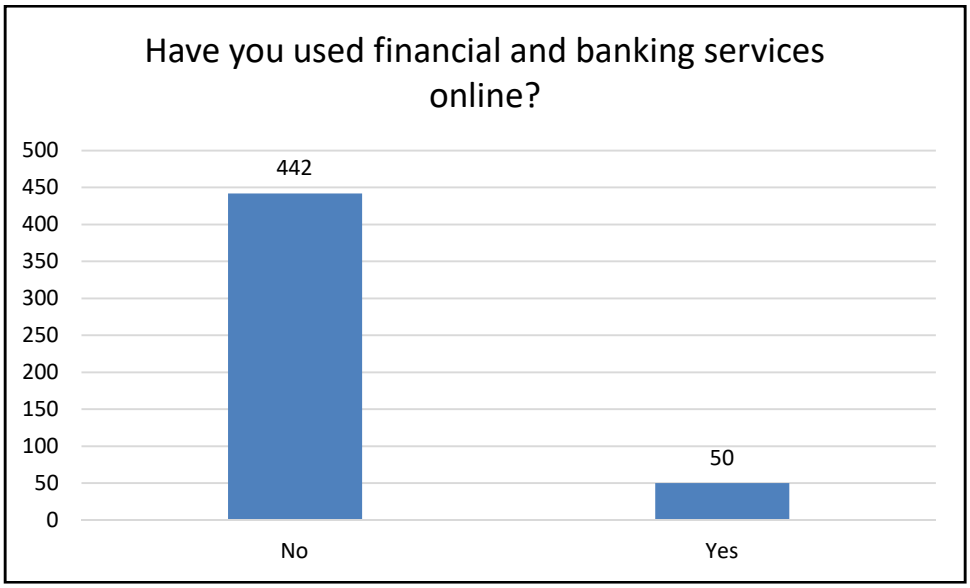

Figure 21: Financial and Banking services used online

When asked for the reasons of not using online banking services, almost half of the respondents said lack of digital literacy followed by never used as shown by the figure below.

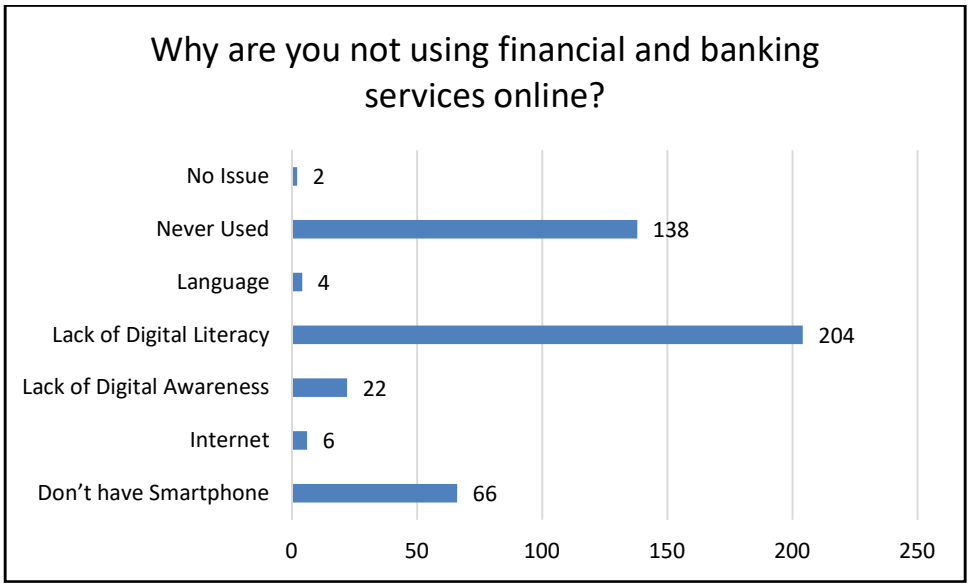

Figure 22: Reasons for not using online banking facilities

The problems they face are again because they have never used such facilities or because of lack of digital skills as revealed by the figure below.

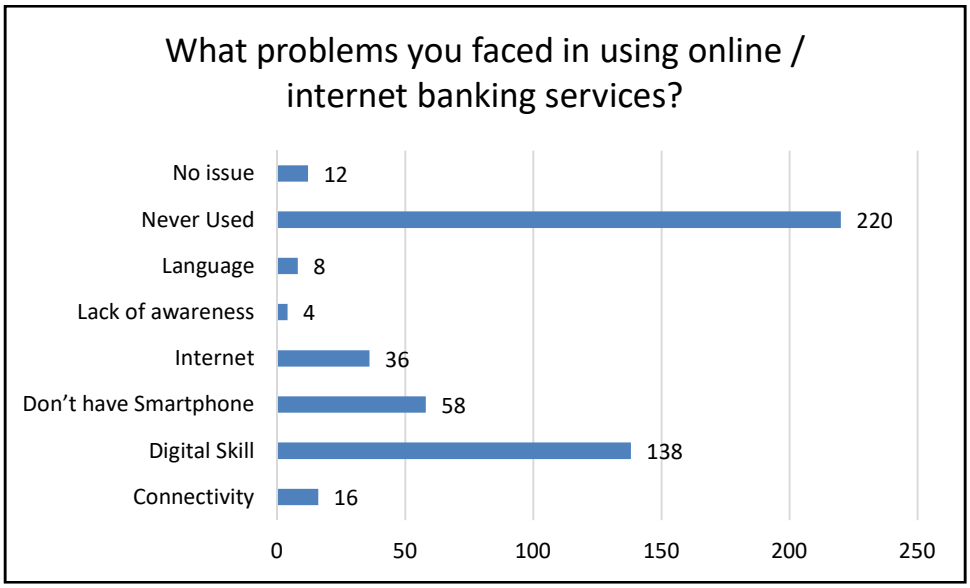

Figure 23: Problems faced while using online banking facilities

Problems faced

When asked about the problems they face in using online based agriculture services, the majority response is never used followed by lack of digital skills as seen from the figure below.

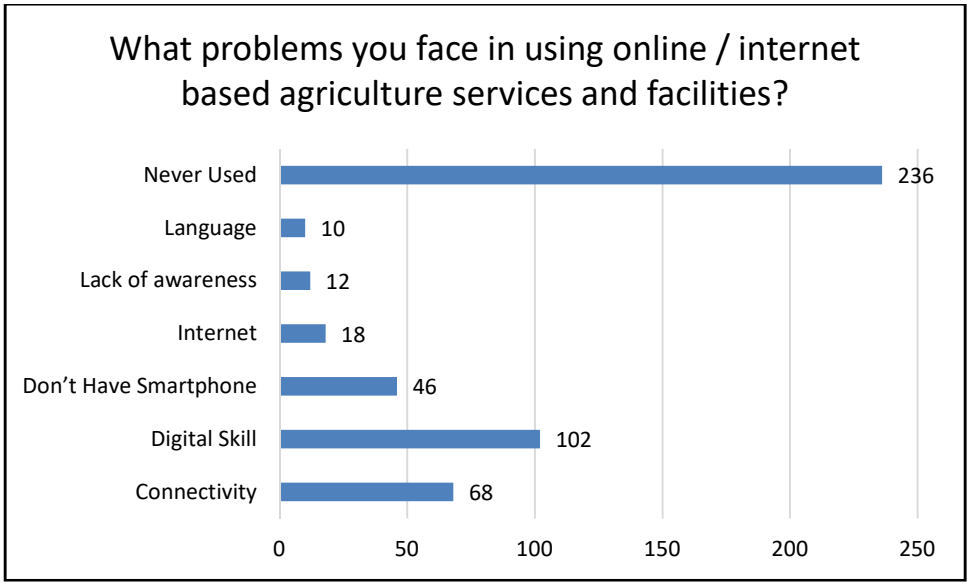

Figure 24: Problems faced in using online based agriculture services

When asked if network is an issue, 59% said yes.

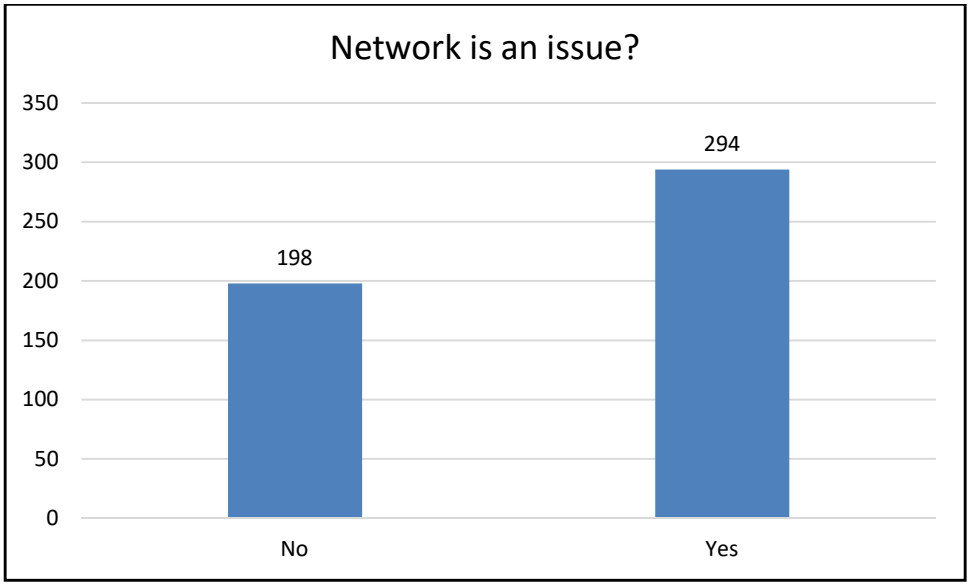

Figure 25: Network issues

When asked if internet speed and connectivity are issues, 57% said yes.

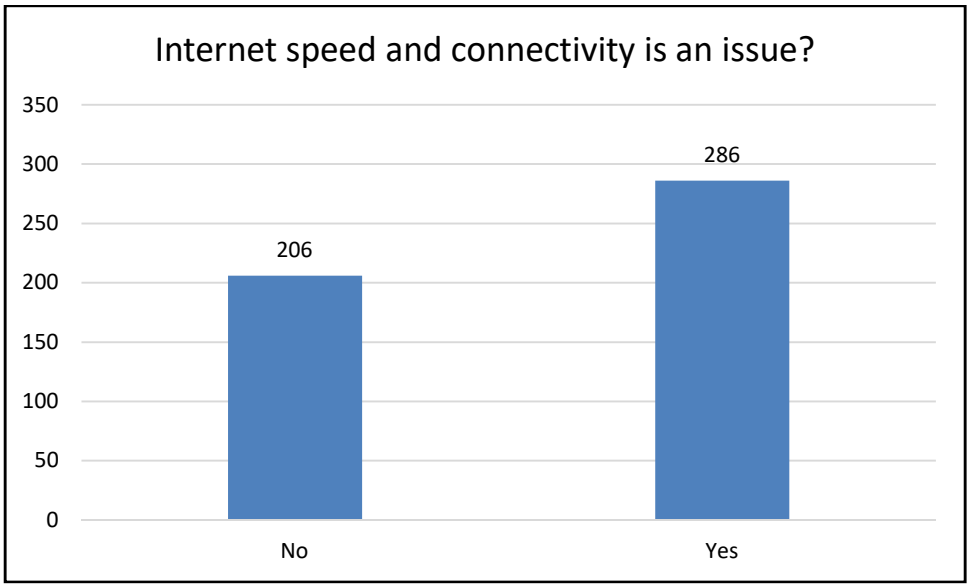

Figure 26: Internet speed and connectivity

When asked if cost of recharge and internet are an issue, 58% said yes.

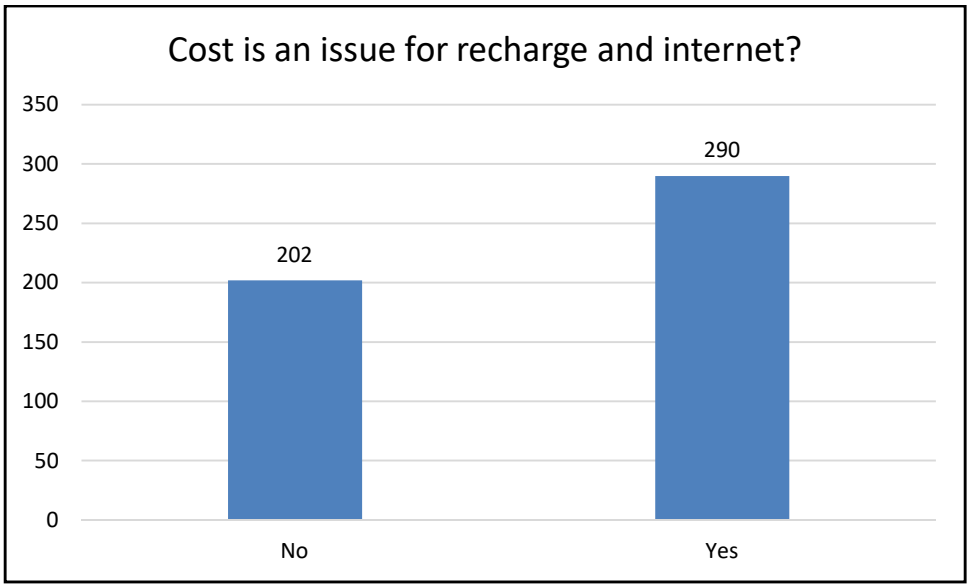

Figure 27: Cost of recharge and internet

When asked if they need digital skills and mobile training, 51% said yes.

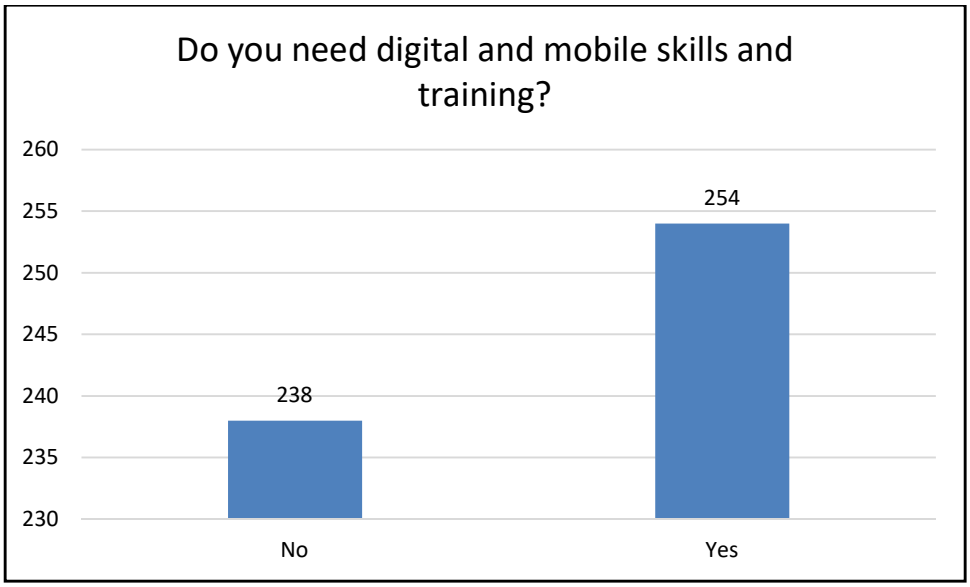

Figure 28: Need for digital training

When asked if local language content is an issue while getting information, 68% said yes.

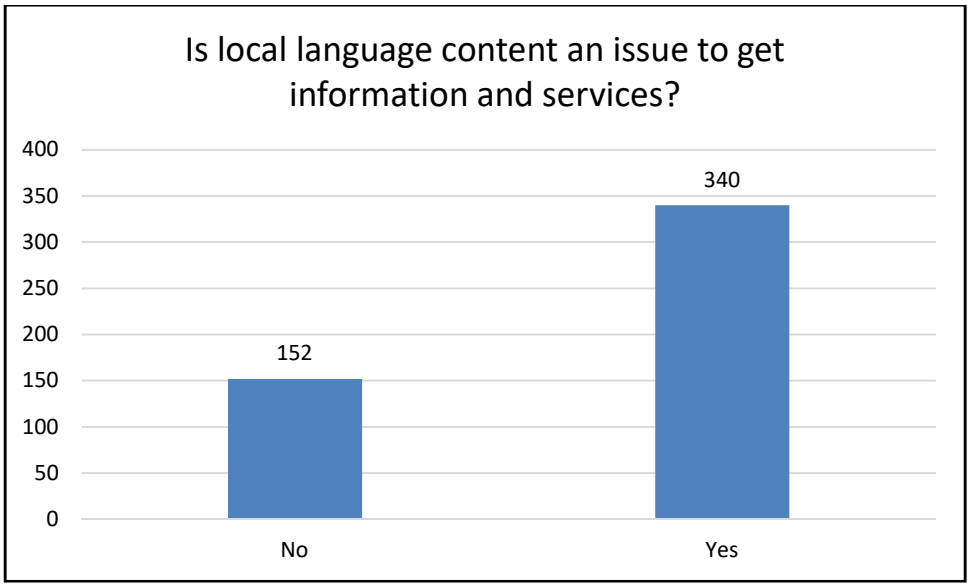

Figure 29: Local Language Content

When asked if they have enough financial education and literacy about financial schemes, etc, 86% said no.

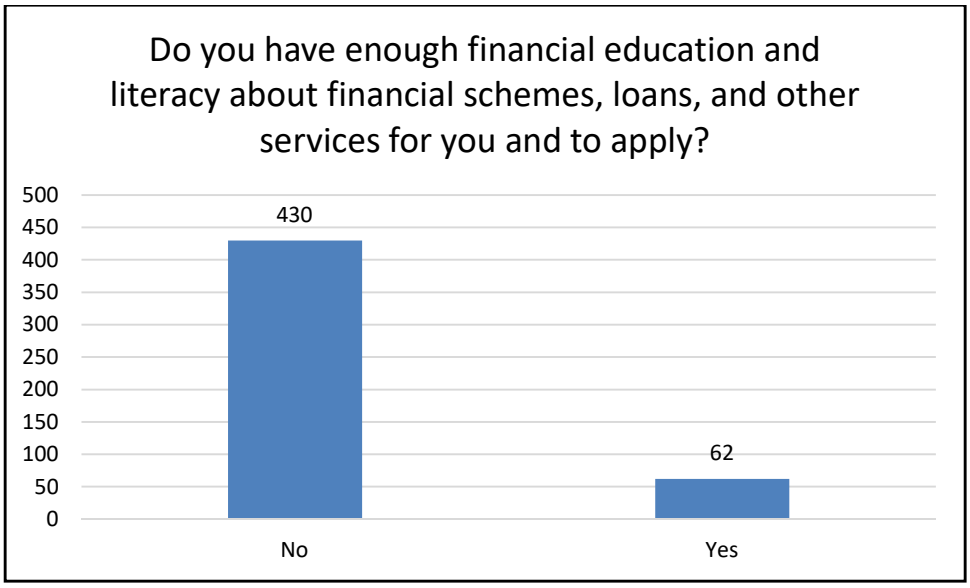

Figure 30: Financial education and literacy

Training, Support, and Guidance

When asked if they need financial education and support, 60% said yes.

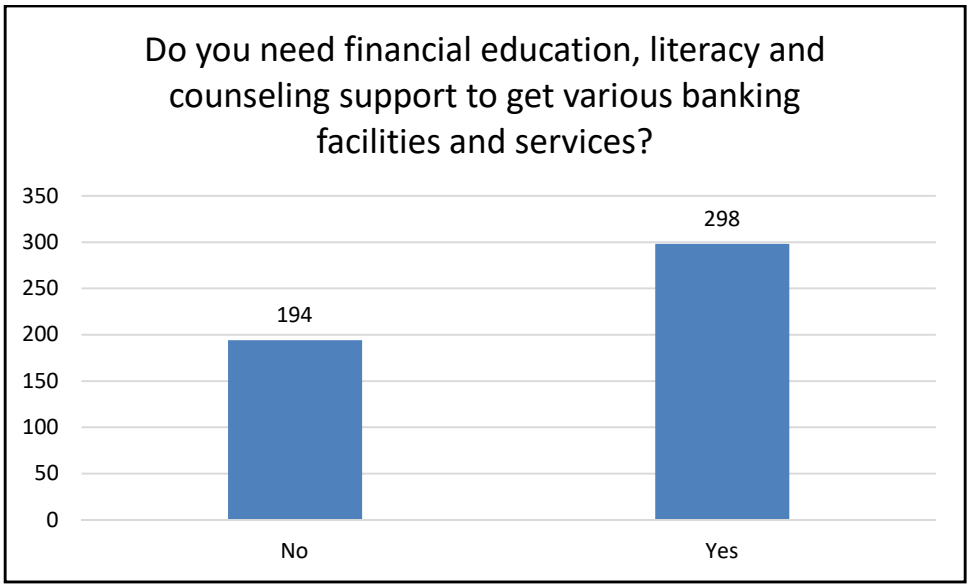

Figure 31: Financial education training and support

When asked if online mode is better to get financial training counseling and support, only 28% said yes.

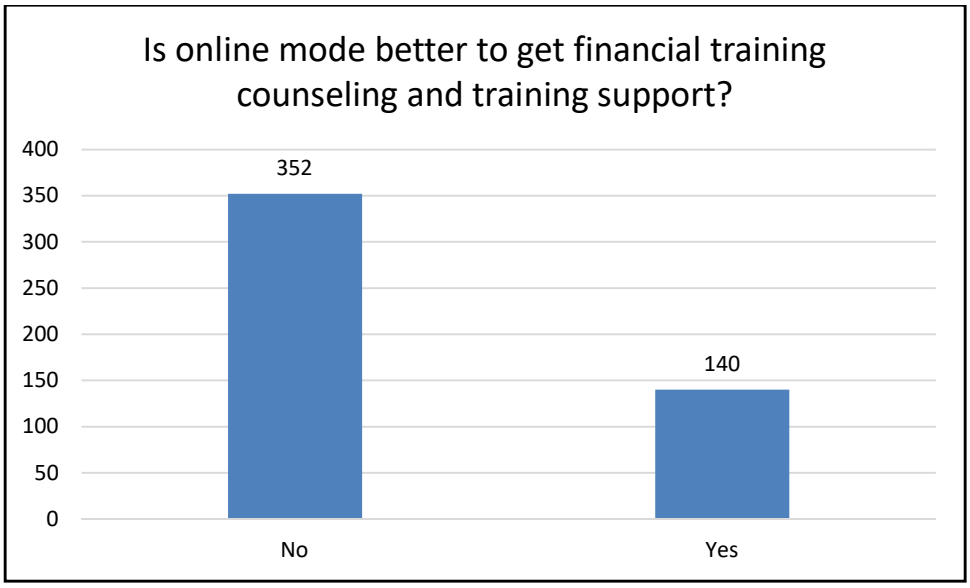

Figure 32: Online mode to get financial training counseling and support

When asked if offline mode is better to get financial training counseling and support, 90% said yes.

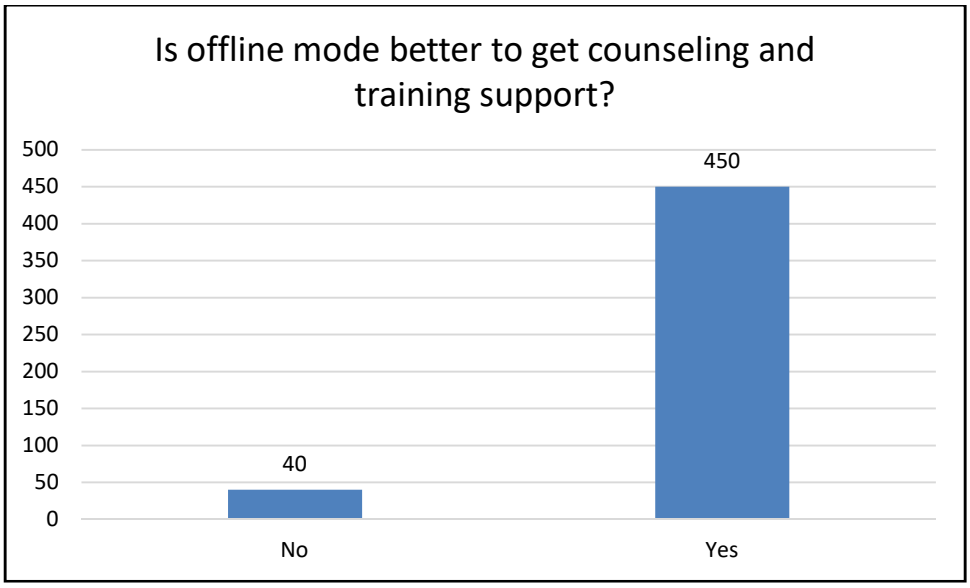

Figure 33: Offline mode to get financial training counseling and support

When asked if mobile based information and training is better, only 30.5% said yes.

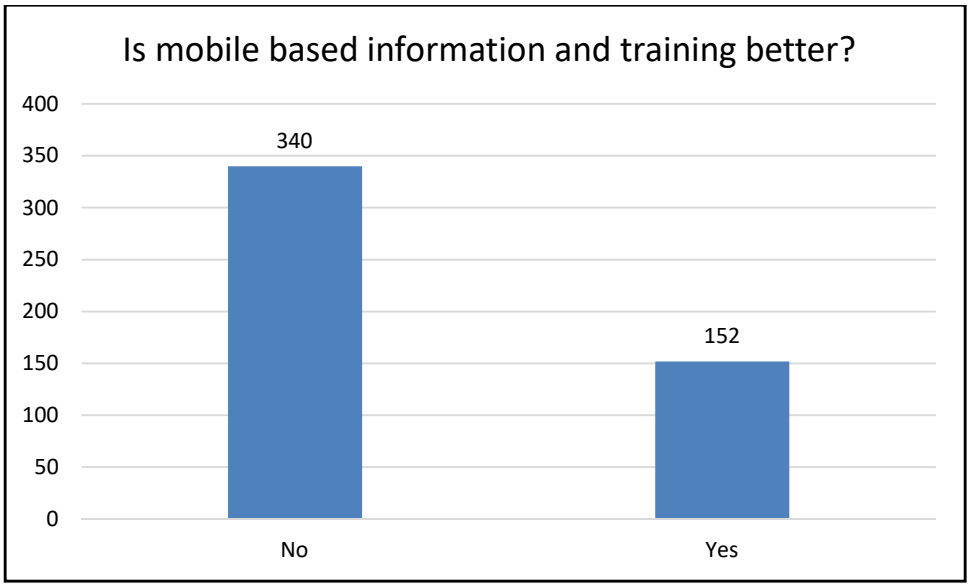

Figure 34: Mobile based information and training

When asked if call centre based or free phone call based training and guidance is better, only 24% said yes.

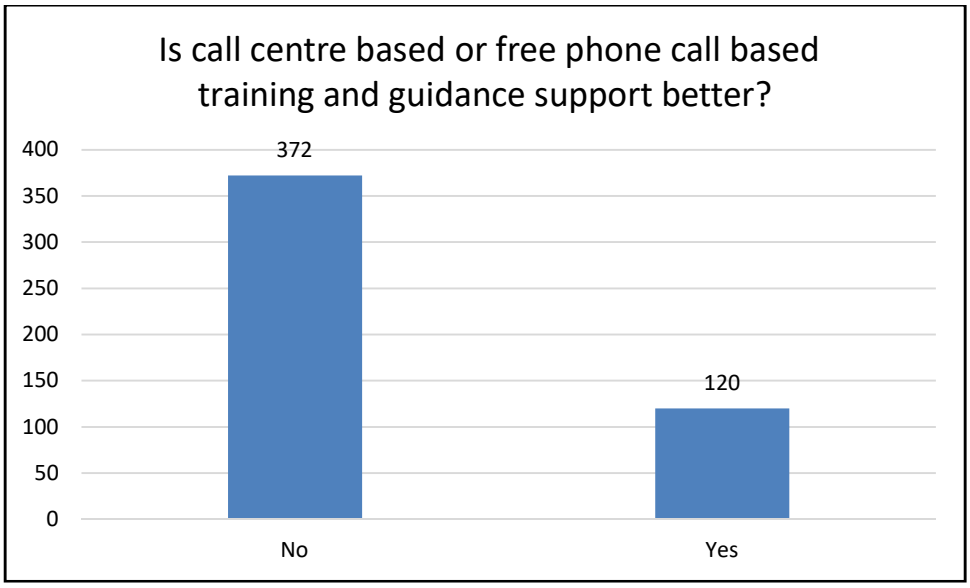

Figure 35: Call centre based or free phone call based training and guidance

When asked if SMS based training and counseling is better, only 24% said yes.

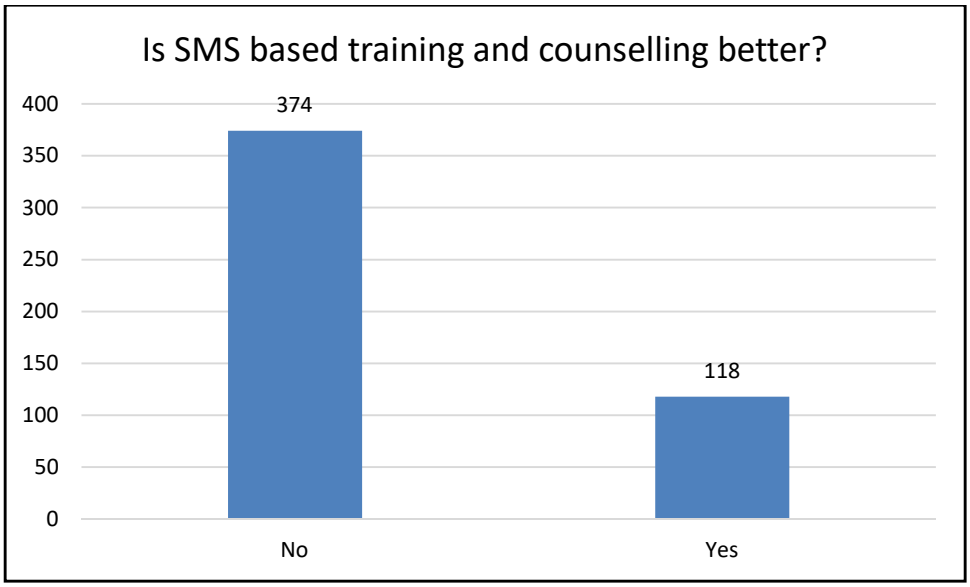

Figure 36: SMS based training and counseling

When asked if voice based audio clips on phone is better for training, only 28% said yes.

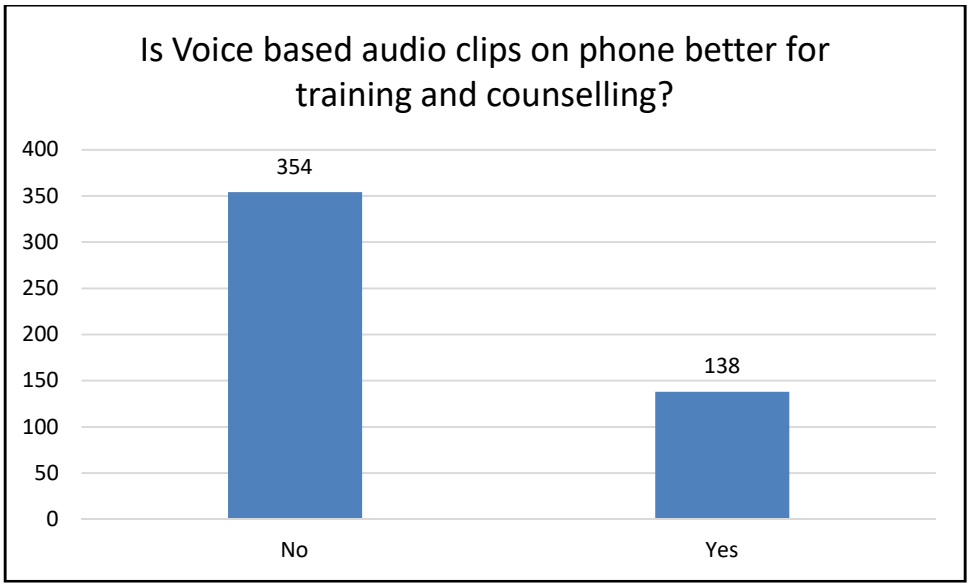

Figure 37: Voice based audio clips on phone

When asked if Panchayat level training and counselor support facility better for training, 93% said yes.

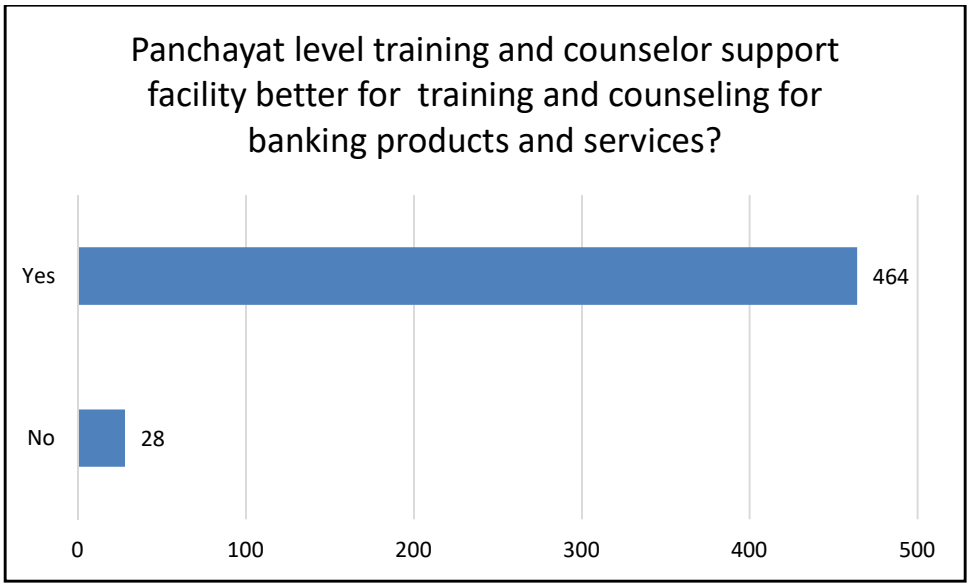

Figure 38: Panchayat level training and counselor support facility

When asked if short term or regular support for training is helpful, 52% said regular support is better.

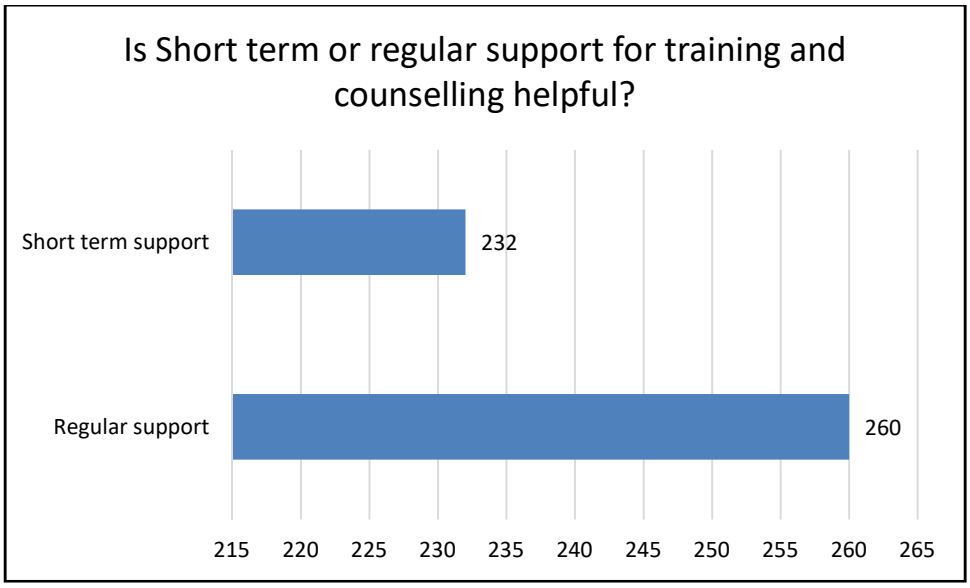

Figure 39: Short term or regular support for training

When asked if they want to receive SMS or audio clips as content for training, only 30% said yes.

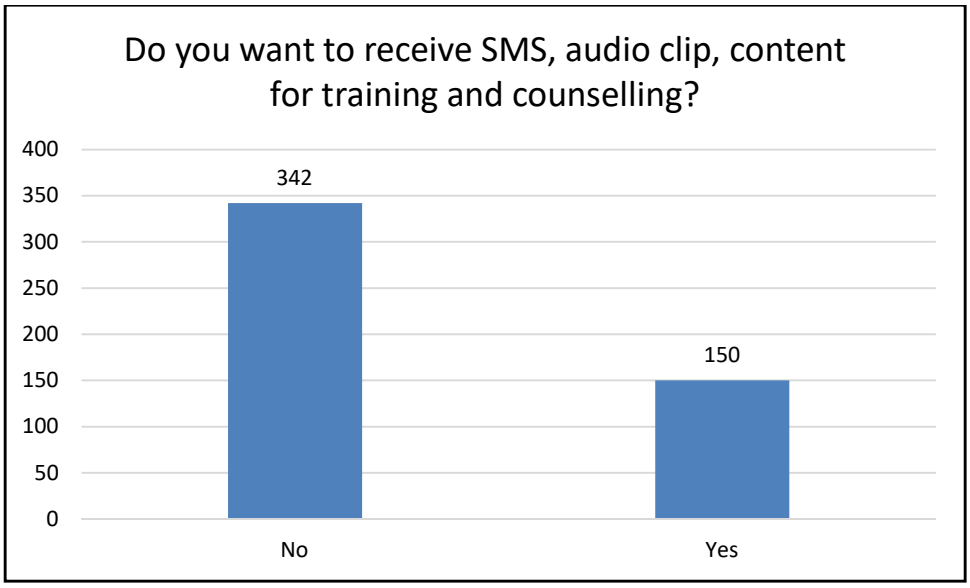

Figure 40: SMS or audio clips as content for training

When asked if mobile or SMS or call centre based training is better, only 30.5% said yes.

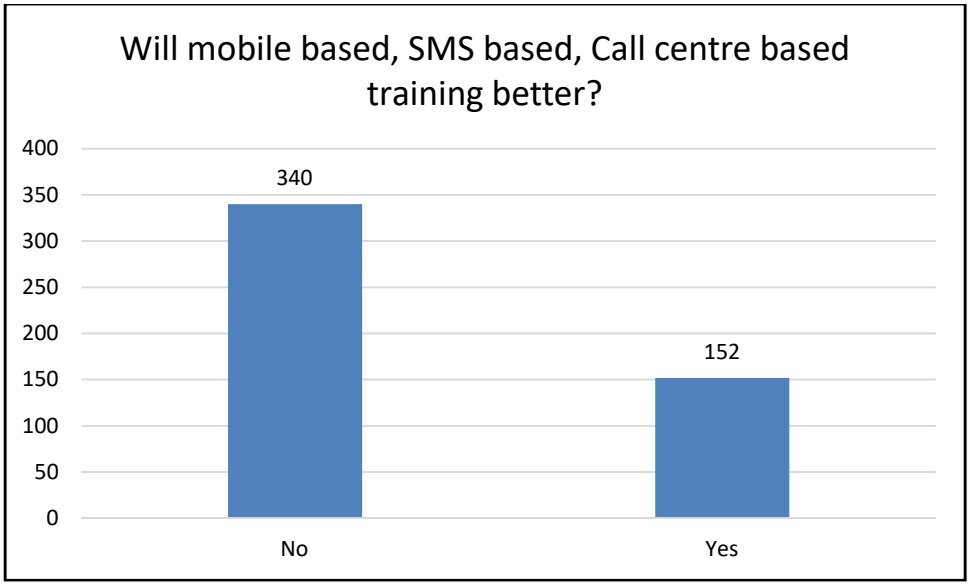

Figure 41: Mobile or SMS or call centre based training

When asked about the number of hours they can spend online for financial education in a week, 64% of the respondents said 1-2 hours.

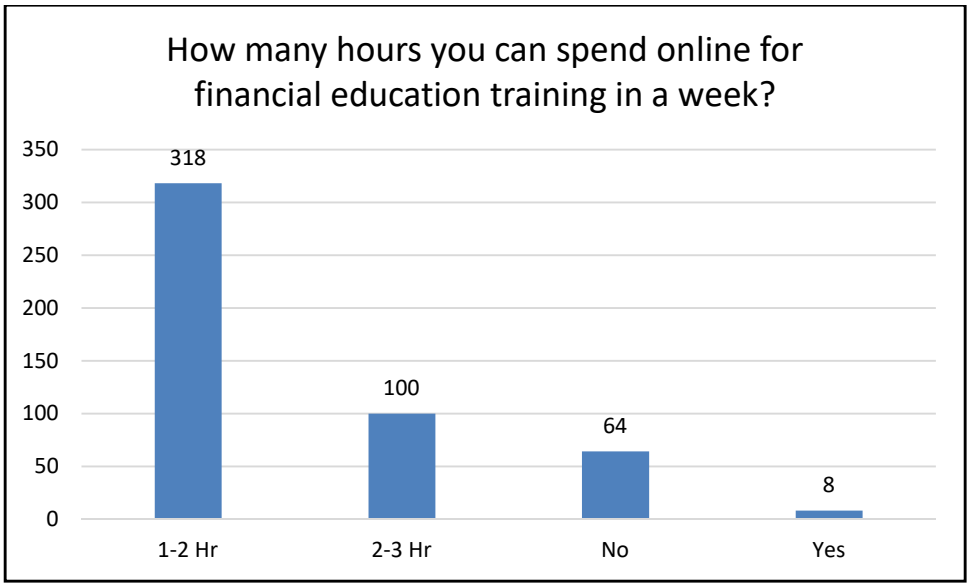

Figure 42: Number of hours for financial education in a week

When asked about the time for online training and support, 68% said evening.

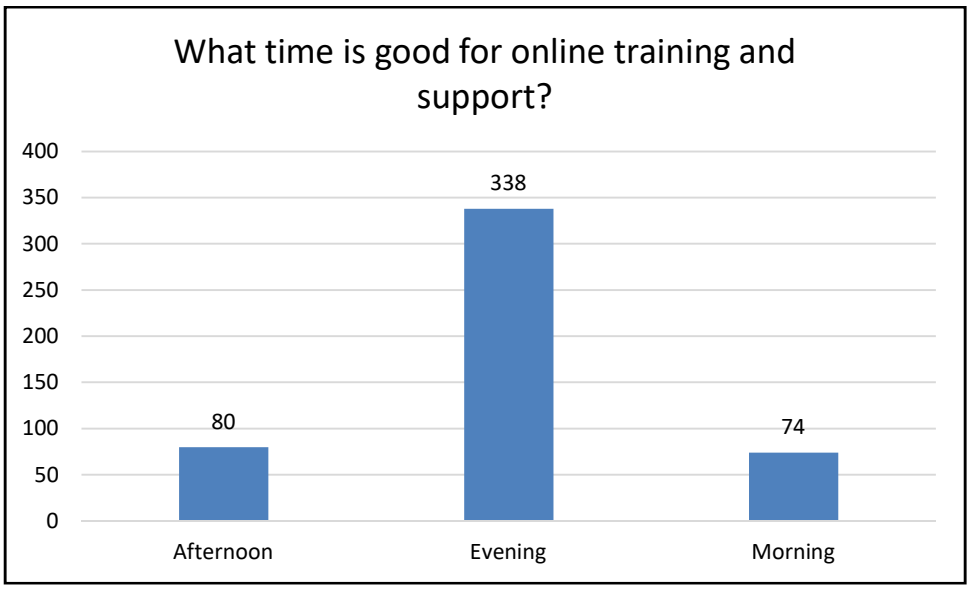

Figure 43: Time for online training and support

When asked about the number of hours they can spend offline for financial education training in a week, 79% said 2-3 hours.

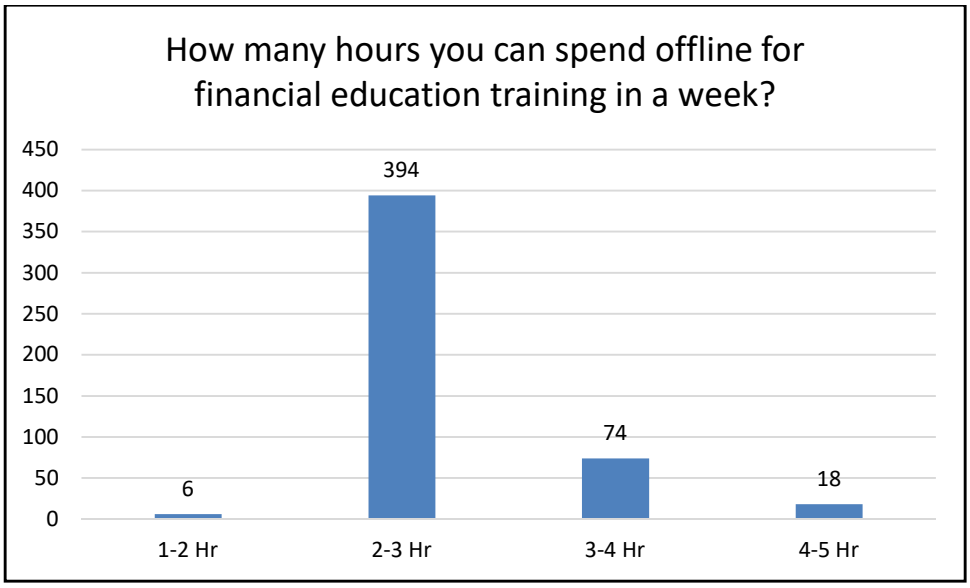

Figure 44: Number of hours for financial education training in a week

When asked what time is good for offline training, 68% said evening.

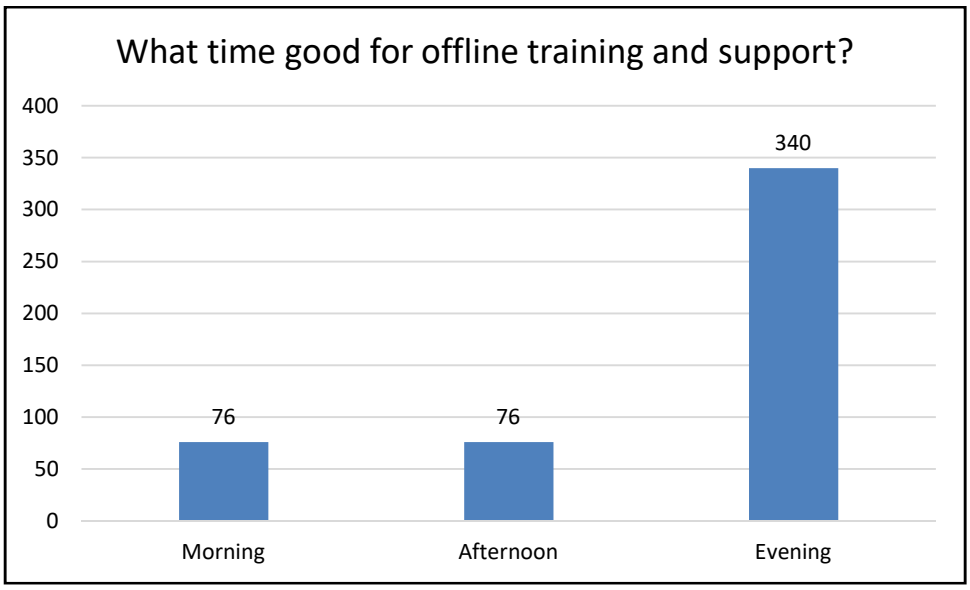

Figure 45: Good time for offline training

3. Key Issues

The key issues can be highlighted as follows:

- **Difference between male and female farmers in terms of digital accessibility:** There is a gender bias in accessibility to mobile phones. Close to 50% of the female farmers said they do not have access to mobile phones where as only 23% of all the male farmers do not have access to mobile phone. When asked about the type of phone they have, 53% said feature phone. The gender impact is visible here as well as 85% of all the female farmers have feature phones while 49% of all male farmers have feature phones. When asked if they carry their phones all the time, 51% said yes. Again, 95% of all the female farmers said no while 43% of all male farmers said no. Female farmers do not seem to carry their phones all the time as much as the male farmers.

- **General Issues in Digital Access to Information:** Close to 90% of the respondents said do not use their mobile to access agricultural information, services, and opportunities. Out of those who do use the phone for accessing information on agriculture, most of them said they use it for information related to agriculture. Out of those who do use the phone for accessing information, 86% of them use it for PM-Kisan. Again, out of those who do use the phone for accessing information, 91% find them helpful. When asked if they find any issues in using mobile phones and getting farming information, the majority response was difficult to use. This was followed by internet speed.

- **Non-awareness:** Most of the respondents were not aware of call centre and toll free service numbers. Similarly, most have not used these features.

- **Immense scope of Social Media:** When asked if they YouTube for information, only 12% of the respondents said yes. The study also finds that most of the individuals have never used social media for such information. When asked if there

are any facebook groups for sharing and receiving information, more than 90% said no. This could also imply that they are not aware of such groups.

- **Financial and Banking Illiteracy:** When asked if they have used financial and banking services online, 89% of the respondents said no. Again, there is a gender effect as 95% of all the female respondents said no while 89% of the male respondents said no. When asked for the reasons of not using online banking services, almost half of the respondents said lack of digital literacy followed by never used. The problems they face are because they have never used such facilities or because of lack of digital skills.

- **Challenges Faced:** When asked if network is an issue, 59% said yes. When asked if internet speed and connectivity are issues, 57% said yes. When asked if cost of recharge and internet are an issue, 58% said yes. When asked if they need digital skills and mobile training, 51% said yes. When asked if local language content is an issue while getting information, 68% said yes. When asked if they have enough financial education and literacy about financial schemes, etc, 86% said no.

- **Need for Training:** When asked if they need financial education and support, 60% said yes. When asked if online mode is better to get financial training counseling and support, only 28% said yes. When asked if offline mode is better to get financial training counseling and support, 90% said yes. When asked if mobile based information and training is better, only 30.5% said yes. When asked if call centre based or free phone call based training and guidance is better, only 24% said yes. When asked if SMS based training and counseling is better, only 24% said yes. When asked if voice based audio clips on phone is better for training, only 28% said yes. When asked if Panchayat level training and counselor support facility better for training, 93% said yes. When asked if short term or regular support for training is helpful, 52% said regular support is better. When asked if they want to receive SMS or audio clips as content for training, only 30% said yes. When asked if mobile or SMS or call centre based training is better, only 30.5% said yes. When asked about the number of hours they can spend online for financial education in a week, 64% of

the respondents said 1-2 hours. When asked about the time for online training and support, 68% said evening. When asked about the number of hours they can spend offline for financial education training in a week, 79% said 2-3 hours. When asked what time is good for offline training, 68% said evening.

4. Recommendations

Based on the study, the following recommendations can be made:

- Provide Digital Support to Farmers: The digital accessibility and digital literacy gaps amongst farmers became visible through the study. There should be a focus and special training for female and small farmers.
- Increase awareness and scope of digital benefits in agriculture: With raising awareness, more and more farmers will want to use digital means to get information and access to services.
- Focus on Training: While offline training seems to be the most attractive option for the farmers, any kind of training and awareness will benefit most of them. Access to localized sustained digital support, training and facilitation will go a long way to empower the community through farmers groups like FPCs, FIGs, Dairy Cooperative Societies and FPOs.
- Encourage Farmers to Use Social Media: The present age is the age of social media and more farmers should be made aware of social media groups to share information.
- Digital Scheme and support for Farmer: Special digital scheme incentives and support like (subsidized digital devices for refurbished smartphone handsets along with subsidized internet packs) could be thought of to empower farmers digitally. This could lead to farmers encouraged to use smart phones for access, demand and uptake for information and services.
- Digital, Financial Literacy (DFL) is an utmost need for the farm communities in localized context, in local language and local support in sustainable manner at Panchayat or block levels bottom up. Farmers Financial Digital Correspondents (FFCs) can be explored at every block levels at the behest of FSPs / Department to include and mobilize farm communities in digital and financial inclusion, similar to Banking Correspondents (BCs). Or BCs can be roped in for this purpose.
- Every FSPs / Banks can be mandated to have Financial, Digital Education, Counseling and Service Camps for farmers in priority districts in every 3 months or collective of FSPs / Banks can be mandated to organize these in all blocks / PRIs per 3 months.
- A mission mode programme like ‘Assam Farmers Digital Financial Literacy Mission’ could serve manifold purposes as in above.

5. Conclusion

The study reflects that most small and marginal farmers in the state use feature phones than smart phones. The study also finds a gender effect on access to digital information. Moreover, the study finds that rather than willingness to not use digital means to get information on agriculture, the farmers are either not aware or are digitally not skilled. The study also finds that farmers want training on financial education as well as want to upgrade their digital skills. The study further finds that farmers want offline training that online training.

The study can be used to understand the scope of digitalization in Assamese agriculture, what ICT can do, and how much small and marginal farmers can improve in terms of information and communication. The study further highlights that farmers in the state face a range of challenges when it comes to digital accessibility. These issues are network related issues, internet speed and connectivity issues, cost of recharge and internet related issues, need for digital skills and mobile training, and local language content related issues.Infrastructural investment can sort all of these challenges.

The study is an important addition to the range of digital literature and empirics on agriculture in the world. Such studies have not been conducted in the state of Assam on a large scale to give one an idea of what the state's farmers needs are in terms of ICT. This study provides the scope of ICT in the farming sector in the state and highlights the contentious issues of training, digital accessibility and literacy, and gender based biases in these issues.

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