

**USE OF COMMUNICATION SOURCES BY THE WOMEN
BENEFICIARIES OF RDRS IN INCOME GENERATING ACTIVITIES**

**A Thesis
By**



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Student No. 1005102

Session: 2010-2011

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**MASTER OF SCIENCE
IN
AGRICULTURAL EXTENSION**

Department of Agricultural Extension

Hajee Mohammad Danesh Science and Technology University Dinajpur

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The Author

USE OF COMMUNICATION SOURCES BY THE WOMEN BENEFICIARIES OF RDRS IN INCOME GENERATING ACTIVITIES

ABSTRACT

The main purpose of this study was to categories and describes the profile characteristics of the women beneficiaries, to determine the use of communication sources by the women beneficiaries, and to explore the relationship between the profile characteristics of the women beneficiaries of RDRS with their use of communication sources. Data were collected using interview schedule from a sample of 112 women beneficiaries selected by multistage random sampling procedure from five villages of Rajendrapur union under sadar upazila of Rangpur district during 15 February to 16 March 2012. Use of communication sources by the RDRS women beneficiaries was determined initially on three dimensions viz. attitude, contact and application, and finally the use of communication sources index (UCSI) was computed. The UCSI ranged from 45.24 to 277.68 with a possible range of 0 to 300. Based on UCSI, among the 10 communication sources the first five communication sources were husband (277.68), neighbours (219.05), RDRS- worker (205.95), RDRS group meeting (193.45) and relatives (160.42). The findings revealed that the highest proportion (38.39 percent) of the women beneficiaries had medium use of communication sources compared to 33.93 percent low use and 27.68 percent high use. However, the last five communication sources were RDRS officer (134.82), mobile phone (112.80), television (68.75), inputs dealer (63.99) and SAAOs (45.24). Among the 10 characteristics of the women beneficiaries education, farm size, annual income, daily time use, credit received and participation in IGAs showed positive relationship with their use of communication sources; fatalism of the women beneficiaries showed negative correlation while their age, family size and dependency had no relationship.



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CHAPTER 1

INTRODUCTION

1.1 Background Information

Women constitute almost half of the total population of the country. But it is a matter of regret that rural women are economically dependent and vulnerable, educationally backward as well as politically and socially disadvantaged (Sarker and Rahman, 2007). Though, women are playing very important role in both at home and outside but still disparities exist between men and women in education, health, employment and income opportunities, control over assets, personal security and participation in the political process (Hoque and Itohara, 2008).

Economic independence is one of the means to empower the women. The existence of women in a state of economic, political, social and knowledge disempowerment is known to be a major hindrance to economic development. Income is the most important factor for human well being as well as the living standard, health status, social and political power (Mondal *et al.*, 2009). Therefore, many rural women are presently engaged in income generating activities by the assistance of NGOs in their development activities. Among these activates, Microfinance program creates income-earning opportunities for rural poor women by providing small loans to them. With the loans provided, rural women engage themselves successfully in various incomes generating activities to earn money. They operate numerous small businesses and home-based productive activities to increase their income level. Rural women can use their increased income to meet up treatment expenses, improve quality of sanitation, pay their children's school fees, and enhance the nutrition status of household members (Downs, 2007).

RDRS Bangladesh is a respected, long-established development NGO working to empower the rural poor especially women in northwest Bangladesh for over 40 years. During its first five years has been provided a relief and rehabilitation services to all affected in the war-ravaged corner of northwest Bangladesh. In 1976, changing needs among its beneficiaries, RDRS launched rural development program. Over the next three decades, the program and project of RDRS has been regularly reworked to ensure a high quality of provision to meet the ever-growing aspirations of the rural poor. Now a day RDRS Bangladesh is implementing of its development program in four mainstream programs e.g. civil empowerment, quality of life, natural resources & environment and economic empowerment (RDRS, 2011). Presently RDRS is working with 2.25 million beneficiaries through 19,824 groups. Among the group

member, women are 87 percent (RDRS, 2012). So, women empowerment is the main focusing area of RDRS Bangladesh. RDRS is trying to contribute for enhancing the income-generating activities of group members in three programs like agriculture, microfinance and enterprise.

Income generating activities are considered as those initiatives that affect the economic aspects of people's lives through the use of credit, technology and training, which are being fulfilled by the three programs. RDRS believes that use of communication sources by the women beneficiaries is important for their enhancing income as well as livelihood. For enhancing their information received capacity in IGAs, RDRS organizes the poor women in formation of group and provide credit and training to utilize the credit in rightly. As most of the women are chosen agricultural activities as an income generating activates, thus RDRS organizes training on new agricultural technology and establish study and demonstration plot for increasing knowledge and skill as well as use of communication sources (RDRS, 2006).

1.2 Importance of the Study

Women are heavily represented among the poor and landless families. Limited job opportunity in various sectors, low wages, shortage of capital, lower level of working skill, low level of literacy, contribute to low productivity of the farming families. In Bangladesh the role of women is strongly affected by social and religious norms. The restrictions constrain women involvement in outside home. However, the women productive involvement is high especially in rural area, which is not clearly reflected in official statistics. In order to improve this position of women in Bangladesh a large number of NGOs are now working in the country. These NGOs are contributing effectively for the development of the marginal or landless farmers and particularly the women community at the village level. These NGOs initiated different activities such as education, agriculture, health, women rights, social development, economic promotion through enterprise and microfinance. RDRS Bangladesh plays an important role in employing and empowering the women and their use of communication sources to get farming IGAs information.

The main focus of the study is to explain the use of communication sources by the women beneficiaries of RDRS in IGAs. The finding of the study will be applicable to RDRS area and will also have implication for other area of the country having similarity to be helpful for the field workers of different nation building department to improve strategies of extension for effectively working with women.

1.3 Statement of the Problem

A huge number of extension workers serve in different government and non-government organizations, who mostly work as communicator. Their success in professional extension work largely depends on how successfully they can communicate with their clients. As communication is a two-way process it requires mutual understanding of each other (Sayed and Ali, 1997). It is equally important that the women beneficiaries of RDRS understand the extension workers, and the extension workers also understand the women beneficiaries. Although, the extension workers credibility plays a very important role in successful communication, understanding the women's communication behavior is equally important in establishing communication.

Women are the disadvantageous class of the society. Active participation of women is of crucial importance for the success of any development program. For many landless families the homestead is the only land resources for production. But due to inadequate knowledge, skill and opportunity, they are unable to participate in IGAs and cannot earn maximum productivity from homestead resources. RDRS mostly deal with landless women, the detrimental class of the society. Many activities like homestead gardening, crop cultivation, livestock rearing, mat making etc. have been considered for women in order to receive returns and achieve empowerment.

Existing social system, illiteracy and limited facilities for improving knowledge and skill of the women beneficiaries along with inadequate employment opportunities have blocked them in the participation of development activities. So, it is necessary to provide them ample knowledge and training in order to provide them to perform their job in better way in the various field of development activities especially IGAs on homestead agricultural production. Very few researchers have so far been conducted on the use of communication sources by women in Bangladesh. But there is an urgent need to identify the use of communication sources by women in order to participation in IGAs by the development agencies.

1.3 Objectives of the Study

Keeping in view of the above circumstances, the present study was undertaken the following objectives:

1. To categories and describe the profile characteristics of the women beneficiaries of RDRS. The profile characteristics included: age, education, family size, farm size,

annual income, daily time use, credit received, dependency, fatalism and participation in IGAs.

2. To determine the use of communication sources by the women beneficiaries.
3. To explore the relationship between the profile characteristics of the women beneficiaries with their use of communication sources.

1.5 Assumptions of the Study

According to Good (1945), “an assumption is the supposition that an apparent fact or principle is true in the light of available evidence”. The researcher made the following assumptions while undertaken the study:

1. The respondents were capable of furnishing proper responses to the questions included in the interview schedule.
2. The responses furnished by the respondents were reliable and valid.
3. The researcher who acted as interviewer was well adjusted to the social and cultural environment of the study area. Hence, the data collected by the researcher from the respondents furnished their correct opinions without any hesitations.
4. The items, questions and scales used for measuring the variables were reasonably adequate to reflect the respondents’ real queries.
5. The sampling procedures followed for this study, analysis of data and interpretations etc. were free from any biases.

1.6 Limitations of the Study

In order to make the study meaningful and manageable from the point of view of the academic research, it was necessary to impose some limitations:

1. Since the findings were based on the ability of the respondents to recall and on the verbal opinions expressed by them, the study was confined to both their ability to recall and also their sincerity and honesty in providing the needed information.
2. The study was confined to one union under sadar upazila of Rangpur district.
3. There are several communication sources from which the women beneficiaries may receive their farm information but in the present study only 10 communication sources were taken into consideration.
4. There were many women in the study area but only the women involved in RDRS income generating activities (IGAs) were considered for this study.

5. There are many characteristics of the women beneficiaries but only ten of them were selected for investigation in this study.

1.7 Definition of Important Terms

For the purpose of clarity, certain terms frequently used throughout the entire study are defined and interpreted as follows:

Communication is a process by which two or more people exchange ideas, facts, feelings or impressions in way that each gains a common understanding of the meaning, intent and use of the message.

Communication source refers to the channel through which various information are diffused to the farmers about selected technologies.

Age is defined as the period of time in years to the time of interview of an individual.

Education refers to the number of years, a women attended in school.

Family size refers to the actual number of members in the family of the farmers including him, his wife spouse children and other dependents that live and eat together in a family unit.

Farm size included the local area cultivated by a respondent or his family as owner/lease holder or share tenant.

Annual income is defined as the total earning of an individual and the members of his families both from agriculture and other sources (business, service and other sources).

Daily time use refers how many hours of a day she kept herself involved in selective seven activities. These activities are Agricultural product processing, homestead plantation and vegetable cultivation, childcare and education, livestock management, cooking, cleaning of homestead and cloth washing.

Credit received of a respondent was defines as the degree to which her credit requirement was fulfilled by the amount of credit actually received by her during last year.

Dependency refers the state of relying on somebody/something for something, especially when this is not normal or necessary.

Fatalism refers the belief that events are decided by fate and that you cannot control them; the fact of accepting that you cannot prevent something from happening.

Income generating activities will be considered those initiatives that affect the economic aspects of people's lives through the use of economic tools such as credit.

Non-Government Organization (NGO) is an organization developed and managed by private initiatives.

RDRS Bangladesh: Originally established as the Bangladesh Field Program of the Lutheran World Federation in 1972, RDRS was developed from the Cooch Bihar Refugee Service, which had assisted Bangladeshi refugees during our War of Liberation. During its first five-year, RDRS provided a relief and rehabilitation services to all affected in the war ravaged corner of northwest Bangladesh. In 1976, changing needs among its clients determined that Rangpur Dinajpur Rural service be refashioned into a rural development program. Over the next three decades, the program and project of RDRS has been regularly reworked to ensure a high quality of provision to meet the ever-growing aspirations of the rural poor. In 1997, RDRS finally became an independent, national NGO, yet remaining an Associate Program of LWF/Department for World Service. Recently RDRS Bangladesh is implementing of its development program in four mainstream programs e.g. civil empowerment, quality of life, natural resources & environment and economic empowerment.

CHAPTER 2

REVIEW OF LITERATURE

The study is mainly concerned with the factors contributing to use of communication sources by the women beneficiaries of RDRS. A perusal of the literature available revealed that only limited number of studies has been carried out on use of communication sources in home and abroad. However, an attempt has been made to review the literature, which are meaningful and have relevance to this study. The critical review presented in the following two sections.

2.1 Information Relating to Use of Communication Sources

Thusoo and Sohi (2000) in their study found that a very large portion of the rice growers could not make any contact with extension personnel regarding their farm affairs. Similarly a majority of them was also poorly exposed to some electronic and print media as their source of farm information. There was no significant association of extension contacts and use of improved rice technology of the intended farmers. But exposure of the farmers to mass media was significantly associated to their use of rice technology viz; seed rate, time of sowing and time of application of nitrogenous fertilizer.

Egbule and Njoku (2001) found that the mass media have performed poorly in disseminating requisite agricultural information to farmers, although there was a positive correlation between mass media usage and farm yield. The greatest percentage of rural farmers receives information on modern agricultural practices from radio, although they prefer television. Given farmers' preference for television over other mass media, there is a need to establish special agricultural programmes on community/rural television stations.

Anyanwu *et al.*, (2002) in their study observed that women farmers preferred getting information through interpersonal sources such as friends, relatives, women cooperative societies and meetings organized for women farmers.

Ekoja (2002) in his study found that agricultural extension agents and contact farmers were the most preferred sources of communication, followed by radio, farmers' field days and extension publications were third and fourth, respectively, in terms of preference, while television and film shows were the least preferred medium of communication. This low rating could be attributed primarily to the relative unavailability of television in rural areas. It was predicted that this medium would gain in popularity as a source of

communication once farmers were empowered economically and the infrastructure needed to receive television transmissions in their settlements was provided.

Rahman (2002_a) observed that the highest portion (39 percent) of the respondent were medium level viewer as compared to 17 percent high level viewer and 11 percent low level viewer. Thirty three percent of the respondents were found as non viewer. The study further revealed that appreciable portion of the farmers (40 percent) watched television program for one to two hours.

Rahman (2002_b) in his study found that among the 15 selected information sources, neighbour, radio, experienced farmers, television, farm labourer, input dealer, Block Supervisors were the major sources preferred by majority of the farmers for getting agricultural information. The major reasons of such preferences were competency of information, adequacy of information, timeliness of information, personal liking, attractiveness of source, incentive from source (seed, fertilizer etc.), credibility of source (safety, dynamisms, qualification etc) were opined by the farmers.

Anisuzzaman (2003) in his study concluded that neighbours, friends and relatives, and mass medium was used by 13.64, 15.60 and 16.01 percent of the farmers for getting information about recommended variety of rice, recommended dose of fertilized and plant protection measures respectively. Radio was used as a powerful medium for getting information. Progressive farmers and contact farmers were found as frequently used communication media. TV, result demonstration and printed materials were also use as important media for communicating agricultural information. But the least used media were newspaper and field tour.

Bordoloi *et al.*, (2003) in their study observed that farmers in the progressive district perceived the agricultural scientist, radio and television as the most credible information sources; while farmers in the non-progressive district placed highest credibility to the agricultural scientist, demonstration and radio.

Mazher (2003) in a study in Pakistan reported that pamphlet, magazines and newspaper were suitable for dissemination of sugar cane production technologies.

Nuruzzaman *et al.*, (2003) reported that in respect of using different mass media television securing highest score followed by radio, folk song, agricultural fair, poster, newspaper, and leaflet/bulletin.

Ponnusamy (2003) observed that personal localite channels such as friends and neighbour farmers (74.47 percent) and input dealers (89.36 percent) were the major source of information.

Alam (2004) in his study concluded that majority (48 percent) of the farmers belonged to moderately effective category, while 37 percent to very effective category and rest 15 percent less effective category in respect of timeliness and scope of application. Thus about 85 percent of the farmers opined that farm information received from printed materials as effective to very effective.

Haque *et al.*, (2004) in their study 24 information sources were arranged in rank order on the basis on their Source Use Index (SUI) and observed neighbours were identified as the highest used information source (SUI=524), and it was closely followed by result demonstration, BS, Bangladesh Beter, tea stall, TV, friends, AEO and UAO, relatives, progressive farmers, training and so on. The least use information source was documentary movies (SUI=18). Ullah (1996) found that BS was the highest use information source and it was followed by radio, neighbours and friends. But, Rahman (1996) reported that friends and relatives were used to the highest extent and it was followed by neighbours, radio and BSs. They also observed in their study that the use of individual sources ranked as first followed by group sources and mass sources.

Farouque (2004) in his study observed that the farmers had the highest contact with the neighbours, friends and relatives, and ideal farmers. Little less than three-fourths (58 percent) of the farmers had medium contact while 32 percent had low and only 10 percent had high contact.

Kamran *et al.*, (2004) in their study observed that more than four-fifths (80 percent) of the farmers reported that interpersonal localite sources like feed and other input dealers were the major sources of information for all technical matters. About three-fourths (73.33 percent) of the farmers indicated that personal localite sources like fellow farmers were their information sources. Among the information sources available Brakishwater Fish Farmers' Development Agency (BFDA) and Marine Product Expert Development Authority (MPEDA) were the better utilized sources (65 percent) of the respondents. More than one-third (36.97 percent) of the respondents revealed that mass media were their sources of information. About one-fifth of the respondents (23 percent and 20 percent) reported that consultants and research institutions were their information sources.

Mortoza *et al.*, (2004) in their study found that the highest proportion (51.7 percent) of the group members had low use of information sources. The rest (48.3 percent) of the group member had very low and medium use of information sources. In order to quantify the extent of use of information by the respondents, they have been arranged according to the frequency of their use of selected 15 information source. Most of the respondents used the sources of information from 0 to 2 frequency except BS or inspector or input dealer. Majority of the group members had very low contact with the upazila agricultural officer, upazila co-operative officer, demonstration meeting, training meeting, TV, newspaper and agricultural bulletins. However, most of them used the fertilized and pesticide dealers two times per month. They also observed that maximum frequency of use of sources of information by group members was with the fertilizer and pesticide dealers and minimum use of demonstration meeting.

Robert and Dennis (2004) found that modern models of information transfer based on textual media and ICT exhibit less impact on the entrepreneurs' information needs and use at macro levels because of poverty, illiteracy and poor information infrastructure. It is however noted that most 'elite' models share a platform with information behaviour of entrepreneurs at the micro levels. The study concludes that an appropriate model for information behaviour for the information poor community must be grounded on oral traditions and indigenous knowledge and be sensitive to poverty, infrastructure and illiteracy. Recognition is also made of the need for information repackaging and the use of appropriate media for information provision.

Prameela and Ravichandran (2004) in their study found that majority of the farm women regularly contacted Assistant Agricultural Officers (75.33 percent) and Agricultural Officers (67.33 percent). They also found that neighbours (78.67 percent), friends (73.33 percent), progressive farmers/farm women (23.33 percent), contact farmers (13.33 percent) and input dealers (13.33 percent) were the popular channels of communication. On the other hand, 28.37 percent of the respondents frequently listen to radio programme and 51.34 percent of them had utilized it sometimes. Television was found to be utilized by 28.33 percent of the farm women for getting agricultural information regularly and 44.66 percent of them utilized sometimes only. Printed materials were frequently used among the respondents as a channel of communication which is evident from the fact that nearly one-fifth (19.33 percent) had utilized these frequently and 24.00 and 23.00 percent of the respondents reported their use sometimes and rarely respectively.

Islam (2005) in his study concluded that 40.77 percent of the respondents had no use, 35.92 percent had low use, 18.44 percent had medium use and only 4.85 percent had high use of printed materials in receiving farm information.

Orin *et al.*, (2005) conducted a study on impact of information and communication technologies on agriculture Estonia and found that 95.8 percent of the farmers use mobile phone in receiving farm information.

Saha *et al.*, (2005) in their study observed that 'prani-bandhu' was the most frequently used information source for resource-poor farmers. In case of resource-rich farmers, veterinary officers ranked first. Extensionists stated that direct contact with farmers was the most important method for disseminating information. Some of them used to maintain regular contact with veterinary personnel to get information on improved dairy practices. Dairy researchers indicated their preference for print media in disseminating research results and they found extension programmes as the most important source of information on dairying as a base for research.

Daboral *et al.*, (2006) found that personal localite (Peers), personal cosmopolite (formal) and impersonal cosmopolite (Mass media) were their order of performed communication sources. Information received were processed with peers, stored in classified notebooks and share with fellow farmers.

Irfan *et al.*, (2006) observed in their study that 97.5 percent, 91.7 percent, 64.2 percent and 51.7 percent farmers regarded their fellow farmers, pesticide agencies, television, and extension field staff, respectively as their major sources of agricultural information. Among the mass media, the farmers ranked television, radio and print media as 1st, 2nd, and 3rd respectively in terms of effectiveness. Majority of the farmers did not listen/watch agricultural shows on radio/television regularly. It is suggested that majority of the respondents do not get much information through television and radio.

Prathap and Ponnusamy (2006) found that all of the respondents had gained 'adequate' knowledge after exposure to television, newspaper and Internet, while 97% of those exposed to radio had gained adequate knowledge after exposure. Traditional media were found to have a slight edge over new media in terms of influencing knowledge gain. Television was found to be the most effective treatment, followed by newspaper, internet and radio.

Singh and Dhillon (2006) reported that the majority of the respondents attended training programs, consulted farm literature, attended expert lectures and farmer fairs, and consulted university scientists to obtain the latest agricultural information. Very few respondents frequently listen to farm radio broadcasts and view farm telecasts. Majority of the respondents evaluated the information before dissemination to farmers, compared it against their past experience and discussed it with colleagues and specialists, laid out demonstrations, and considered the socio-economic conditions of the area. The various information transformation methods used by the respondents included translating information into local languages, writing features for newspaper/magazines, preparing leaflets/handouts for distribution among farmers and writing success stories of progressive farmers. In terms of information output, it is revealed that, on the average, one ADO met 305 farmers, attended 65 office calls, organized 32 group meetings, 74 field visits, one exhibition, four method demonstrations, two result demonstrations, and six field days and training camps; and delivered 22 lectures.

Deribe (2007) observed that knowledge of dairy farming practice of women farmers was significantly influenced by communication skill, interpersonal trust, social participation, total annual income, extension participation, empathy of respondents and access to credit. The major constraints identified in agricultural information network of farm women were low participation of women in extension programs; poor access to credit; absence of market information and alternative market for products; extension methods contribute less as source of information.

Okwu *et al.*, (2007) in their study observed that 66 percent of the respondents listen to agricultural programmes offered on radio Benue and 42 percent of the listeners indicated that the programmes were relevant to their agricultural information needs. Majority of the respondents admitted that they gained some new knowledge through listening to the programs.

Adam (2011) found that information seeking behavior of the rural women was mainly informal. They align more to information gotten from friends, relatives, husbands, sons and daughters, and market women.

Hossain *et al.*, (2011) found that the highest proportion (66.67%) of the rice growers were occasional user and 33.33% were frequent user of communication media while none was

found as a regular user of communication media in receiving information on improved rice production technologies. They also revealed that progressive farmers were used as the communication media to the highest extent and it was closely followed by the neighbor, friend, Sub Assistant Agriculture Officer, relative, seed dealer, fertilizer dealer and pesticide dealer.

Sneha *et al.*, (2012) found that, forty four percent of the variation in listening behaviour was due to media participation. Media participation and material possession contributed for 54.60 percent variation, media participation, material possession and extension participation together contributed for 60.30 percent of variation. Finally, all the three aforesaid variables and the media utilization together contributed 61.7 per cent of variation in listening behavior.

2.2 Information Related to Independent Variables

2.2.1 Age and use of communication sources

Miah (2002) found that the age of the respondents had positive and significant relationship with the flow of agricultural information.

The age of the respondents had negatively significant relationship with (i) use of mass media (Nuruzzaman, 2003), (ii) opinion of the farmers on effectiveness of farm information received from printed materials (Alam, 2004), (iii) use of communication sources (Karim, 2005) and (iv) communication behavior (Hossain *et al.*, 2011).

The age of the farmers had no significant relationship with (i) communication behaviour (Giri, 2002), (ii) use of different extension media in receiving information for livestock management (Farouque, 2004) and (iii) use of printed materials (Islam, 2005).

2.2.2 Educational qualification and use of communication sources

The educational qualification of the respondents had positive and highly significant relationship with (i) use of different extension media in receiving information for livestock management (Farouque, 2004), (ii) extent of use of information sources in producing MV rice (Haque *et al.*, 2004), (iii) use of communication sources (Karim, 2005) and (iv) communication behavior (Hossain *et al.*, 2011).

The educational qualification of the farmers had positive and significant relationship with (i) TV viewing behaviour (Rahman, 2002) and (ii) use of communication media (Anisuzzaman, 2003 and Alam, 2004).

The educational qualification of the farmers had negative relationship with impact of communication media (Barik, 2001).

2.2.3 Family size and use of communication sources

The family size of the farmers had no significant relationship with the (i) communication behaviour (Giri, 2002), (ii) TV viewing behaviour (Rahman, 2002), (iii) adoption of selected technologies by using television (Rahman, 2003), (iv) use of communication media (Anisuzzaman, 2003 and Alam, 2004), (v) use of different extension media in receiving information for livestock management (Farouque, 2004), (vi) use of communication sources (Karim, 2005) and (vii) communication behavior (Hossain *et al.*, 2011).

2.2.4 Farm size and use of communication sources

The farm size of the farmers had positive and highly significant relationship with (i) impact of communication media (Barik, 2001), (ii) communication behaviour (Giri, 2002), (iii) impact of mass media (Pradhan, 2003), (iv) opinion of the farmers on effectiveness of farm information received from printed materials (Alam, 2004) and (v) extent of use of information sources (Haque *et al.*, 2004).

The farm size of the respondents had a positive and significant relationship with adoption of selected technologies by using television (Rahman, 2003).

The farm size of the farmers had no significant relationship with the (i) flow of agricultural information (Miah, 2002), (ii) TV viewing behaviour (Rahman, 2002), (iii) use of mass media in receiving agricultural information (Nuruzzaman, 2003), (iv) use of communication sources (Karim, 2005) and (v) communication behavior (Hossain *et al.*, 2011).

2.2.5 Family income and use of communication sources

The family income of the farmers had positive and highly significant relationship with (i) flow of agricultural information (Miah, 2002), (ii) impact of mass media (Pradhan, 2003), (iii) adoption of selected technologies by using television (Rahman, 2003), (iv) opinion of the farmers on effectiveness of farm information received from printed materials (Alam, 2004) and (v) extent of use of information sources in producing MV rice (Haque *et al.*, 2004).

The family income of the farmers had a positive and significant relationship with (i) TV viewing behaviour (Rahman, 2002), (ii) use of different extension media in receiving information for livestock management (Farouque, 2004) and (iii) use of communication sources (Karim, 2005).

The family income of the farmers had no significant relationship with the (i) communication behaviour (Giri, 2002), (ii) use of communication media (Anisuzzaman, 2003), (iii) use of mass media in receiving agricultural information (Nuruzzaman, 2003), (iv) use of printed materials (Islam, 2005) and (v) communication behavior (Hossain *et al.*, 2011).

2.2.6 Daily time use and use of communication sources

After through searching of literature, both home and abroad, no findings were found on this aspect. Hence, it was not possible on the part of research to put relationship in this context.

2.2.7 Credit received and use of communication source

Sarkar (2005) in his study indicates that the credit availability of women beneficiaries had positive significant relationship with their use of communication media.

2.2.8 Dependency and use of communication sources

Giri (2002) in his study mentions that dependency had no relationship with use of communication source.

2.2.9 Fatalism and use of communication sources

Mondol (1995) in his study indicates that fatalism had negative relationship with use of communication source.

2.2.10 Participation in IGAs and use of communication sources

After through searching of literature, both home and abroad, no findings were also found on this aspect. Hence, it was not possible on the part of research to put relationship in this context.

2.3 Conceptual Framework

Conceptual framework is the foundation for understanding the research issue and linkage among the different variables. It helps as a guiding principle for analyzing the research issues. In this chapter presents a brief description on concept of use of communication sources and establishes its cause-effect relationship with the selected characteristics of the respondents.

It is evident from the past studies that every occurrence of phenomenon is the outcome of a number of variables which may or may not be interdependent or interrelated with each other. In other words, no single variable can contribute wholly to a phenomenon. Variables together are the causes and the phenomenon is effect and thus, there are cause-effect relationships everywhere in the universe.

The conceptual framework was kept in mind forming the structural arrangement for the dependent and independent variables. This study was concerned with the use of communication sources by the women beneficiaries of RDRS forms as a dependent variable and the 10 selected characteristics of the women beneficiaries as independent variables. The use of communication sources was measured three dimensions (attitude, contact and application), on the other hand, 10 communication sources namely husband, neighbours, relatives, RDRs workers, RDRS officers, inputs dealer, SAAOs, mobile phone, RDRS group meeting and television were included in this study. Opinion of an individual may be influenced and affected through interacting forces of many characteristics in her surroundings. It is impossible to deal with all characteristics in a single study. Based on these discussion and review of literature, the conceptual framework of this study has been formulated (Figure 2.1).

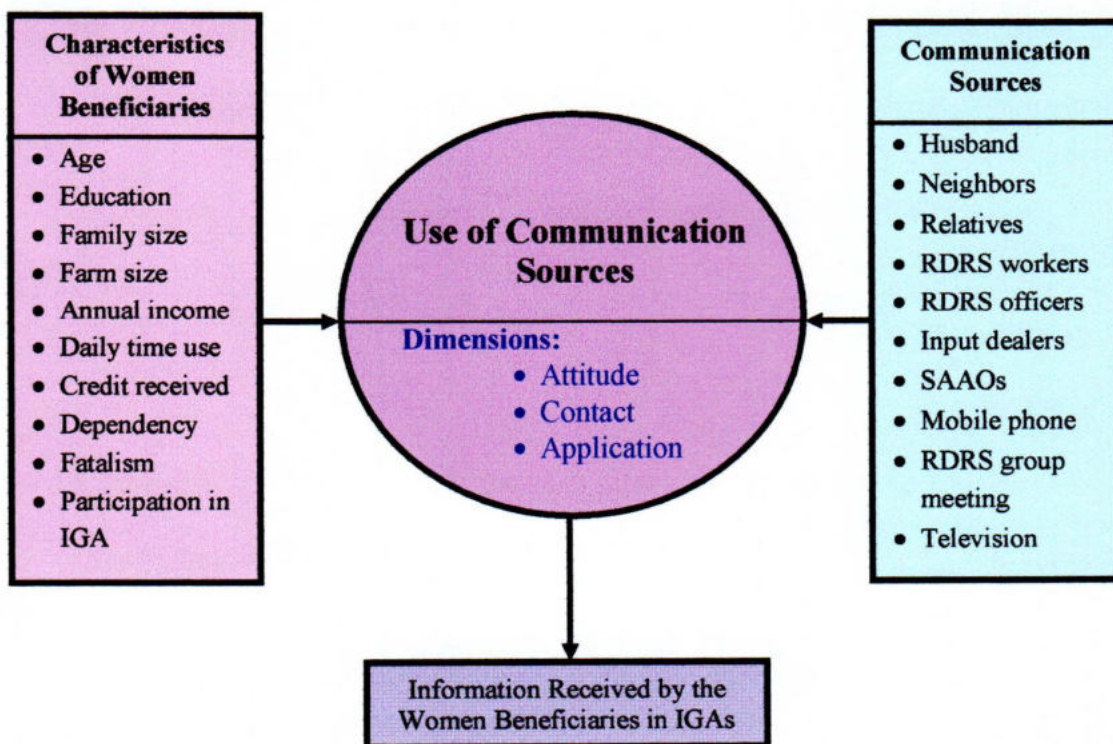


Figure 2.1 Conceptual framework of the study

CHAPTER 3

METHODOLOGY

Methodology deserves a very careful consideration in any scientific research. Importance of methodology in considering any research cannot be neglected. Methodology should be such as would enable the researcher to collect decisions. Keeping this point in view, the researcher took utmost care for using proper methods in all aspects of this investigation. This chapter contains the methods and procedures in the present study in accordance with the objectives.

3.1 Locale of the Study

The present study was conducted in one union of Rangpur sadar upazila under Rangpur district where RDRS Bangladesh has been working since 40 years. There are eight upazilas in Rangpur district, among these, Rangpur sadar is very much closest with RDRS main field office and its microfinance program is functioning there from the initial stage. The geographical location of the study area is at 25°45' N and 89°14' E. A map of Rangpur district including its upazilas as well as Bangladesh (inset) and a map of Rangpur sadar upazila show the sampling area (Figure 3.1 and Figure 3.2 respectively).

3.2 Sampling Procedure

The poor women who are the beneficiaries of RDRS microfinance program were the population of the study. Eight districts of Rangpur division were covered by RDRS microfinance program. Rangpur district was at first purposively selected due to investigators familiarity, language and culture of the women. Secondly, Rangpur sadar upazila was selected randomly. Rangpur sadar upazila consist of 12 unions out of which RDRS working eight unions, in which one union namely Rajendrapur was selected randomly. RDRS was working in 10 villages out of 12 under this union. As 50 percent of working village, 05 villages were again selected randomly. There were 30 groups in the selected villages of these unions. Fifty percent of the total groups were randomly selected as strata containing 15 groups. The selected 15 groups included 280 women beneficiaries considered as the population for the present study (Table 3.1).

After selection of the group, list of women beneficiaries of the selected villages were prepared with the help of respective RDRS office records. In the final stage a total number of 112 women (40 percent of the sampling population) were selected as the sample of the present study following stratified random sampling method

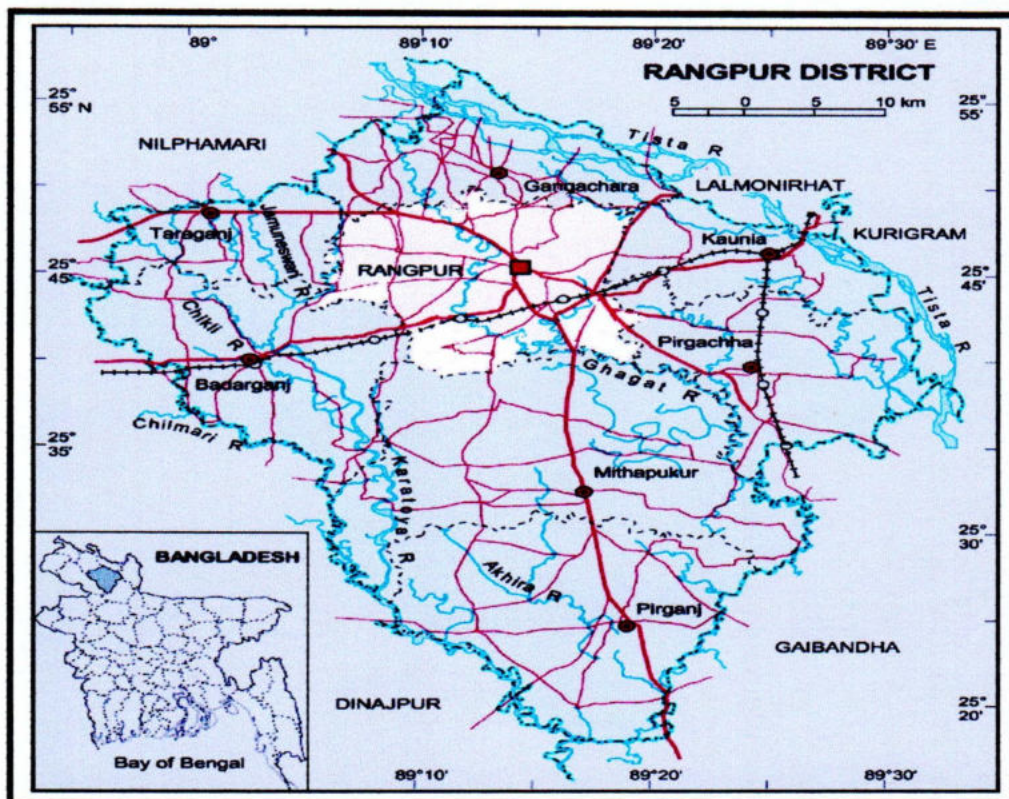


Figure 3.1 Map of Rangpur district including its upazilas (Bangladesh inset)

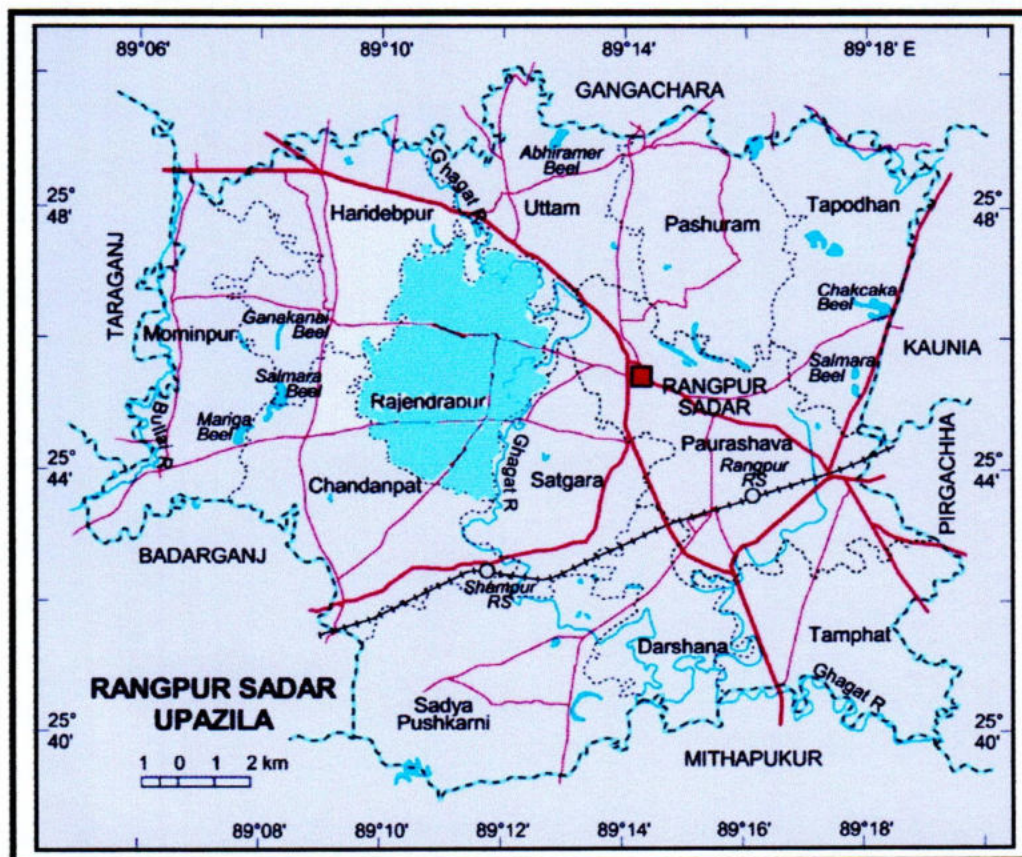


Figure 3.2 Map of Rangpur sadar upazila showing the study area

Table 3.1 Sampling plan for the study area

Sl. No.	Village	Union	Group	Population	Sample	Reserve list
01	Poschim Gillabari	Rajendrapur	2	42	17	2
02	Binnatari	Rajendrapur	2	38	15	2
03	Rajndrapur	Rajendrapur	3	58	23	2
04	Boktiarpur	Rajendrapur	4	65	26	3
05	Zagodishpur	Rajendrapur	4	77	31	3
Total			15	280	112	12

Due to the possibility of unavailability of the selected respondents, a reserve list of 12 women (about 11 percent) was made to substitute the missing respondents in the original list (Table 3.1). All possible measures were taken to avoid bias in data collection.

3.3 Variables of the Study and their Measurement

A well-organized piece of research usually contains at least two important elements, viz. an independent variable and a dependent variable. An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationships to an observed phenomenon. A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variables (Townsend, 1953). In any scientific research, the selection and measurement of variables constitutes a significant task. In this connection, the researcher reviewed the literature to widen his understanding about the nature and scope of the variables relevant to this piece of research.

3.3.1 Measurement of independent variables

The ten selected characteristics of the women beneficiaries of RDRS constitute the independent variables have been operationalized as follows.

3.3.1.1 Age

The age of the respondents was measured in terms of actual years from his birth to the time of interview. The respondents were asked to mention their age in terms of completed years. One score was given for one completed year of age (item no. 1, Appendix-A).

3.3.1.2 Education

Education was measured in terms of one's year of schooling. One score was given for passing each level in an educational institution (Mondol, 2009). For example, if a respondent passed the final examination of class V his level of educational score was taken as five. If a

respondent did not know how to read and write, her educational score was given as '0' (item no. 2, Appendix-A).

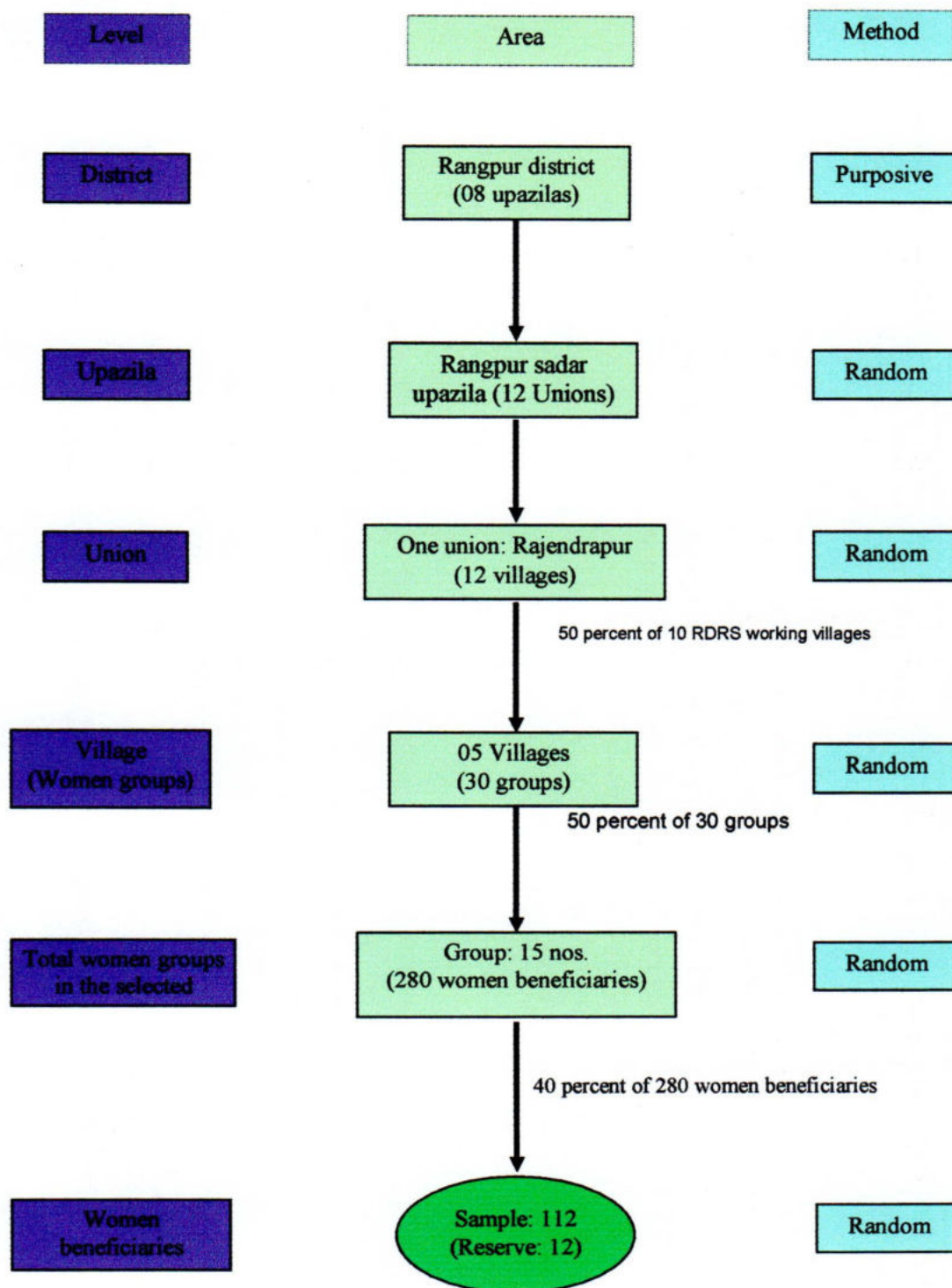


Figure 3.3 Layout of the sampling procedure of the study area

3.3.1.3 Family size

The family size of the respondent was determined on the basis of the number of members in her family including himself, husband, children and other dependents, living in a nuclear family. A unit score was assigned for each member of the family. If a respondent had five members in her family, her family size score was given as 5 (Fakir, 2008). The variable has been presented in item no. 3, Appendix-A.

3.3.1.4 Farm size

The farm size was measured by the area of the raised land in which the household of the women had its entire dwelling unit including homestead, area under cultivation and others. It was expressed in hectare. The total area of land thus obtained has been considered as farm size of the woman (item no. 4, Appendix-A). It was measured using the following formula (Fakir, 2008):

$$\text{Farm size} = A + B + C$$

Where,

A = Homestead area

B = Area under cultivation

C = Others (if any)

3.3.1.5 Annual income

The annual income of a respondent was measured on the basis of his family's yearly earnings from crop, vegetable, dairy and poultry, tailoring, small business, *Katha* sewing, mat making, and others. The family income was expressed in Taka. In measuring the variable, total earning in Taka of a respondent was converted into unit score. A score of one (1) was assigned for each '1000' Taka of the annual income of a respondent (item no. 5, Appendix-A).

3.3.1.6 Daily time use

Time use of a respondent was measured by a 4-point rating scale including the extent of use of time in respect of different activities in a day. Each respondent was asked to indicate the extent of time use by checking only one of the responses. The responses were quantified as 'sufficiently'=3, 'occasionally'=2, 'partially'=1, and 'nil'=0 (Fakir, 2008). The score obtained by a woman for all the items were added together to determine her time use in different activities. The daily time use score of a woman could vary from 0 to 24 while 0 indicated no time use and 24 indicated sufficient time use (item no. 6, Appendix-A).

3.3.1.7 Credit received

Credit received by the respondent was measured in terms of the amount of money received by her as loan from RDRS and other organizations under their specific terms and conditions. It was expressed in taka. A score of one (1) was given for one thousand taka (Akter, 2003). This variable appears in the item no. 7 in the interview schedule (Appendix-A).

3.3.1.8 Dependency

Dependency of a woman beneficiary was measured by a 5-point rating scale. The statements were given scores for 'strongly agree'=5, 'agree'=4, 'undecided'=3, 'disagree'=2 and 'strongly disagree'=1 (Giri, 2002). The range of scores for the scale could range from 1 to 20 where 1 indicated low dependency and 20 indicated very high dependency. The dependency score of an individual was the sum of scores for all the statements in the scale (item no. 8, Appendix-A).

3.3.1.9 Fatalism

The fatalism of a woman was measured by computing a 'fatalism score' on the basis of four item measuring scale, two of the items being stated positively and other two negatively. For computing the fatalism of the respondent against each item, a 5-point Likert scale was used as follows: 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'. The weights assigned were 5, 4, 3, 2 and 1 respectively for positive statements and the order was reversed for negative statements (Fakir, 2008). Each woman indicated their agreement on the weighting scale and from these responses the total fatalism score of the women were determined by adding the four weights. Fatalism of the women beneficiaries could range from 1 to 20, 1 indicated very poor fatalism, whereas 20 indicated a very high level of fatalism (item no. 9, Appendix-A).

3.3.1.10 Participation in IGA

In the study area women beneficiaries of RDRS has been participated in ten items of income generating activities (IGAs). Each woman had to respond in pattern of her participation in each of ten items of IGAs. It was done by responding to any one of the four responses such as frequently, occasionally, seldom and not at all against each activity. Weights assigned to the type of responses were 3, 2, 1 and 0 for frequently, occasionally, seldom and not at all respectively. The scores obtained by an individual respondent in different IGAs were added together to constitute personal participation score, which could range from 0 to 30, where 0 indicated no participation and 30 indicated high participation in IGAs (Islam, 2011). This variable appears in the item no. 10 in the interview schedule (Appendix-A).

3.3.2 Measurement of dependent variable

Use of communication sources by the women beneficiaries of RDRS was the dependent variable of this study. At first 12 communication sources were identified through literature review, frequent visit of the study area, discussion with the RDRS field workers and respective extension personnel, consultation with the supervisory committee members and finally 10 sources were selected for the study. On the other hand, information included information related to agricultural and non-agricultural sectors. To measure the use of communication sources by RDRS women beneficiaries' four dimensions were identified first and after consulting with the supervisory committee, three dimensions were selected for measuring the use of communication sources by the RDRS women beneficiaries. These three dimensions namely, (1) attitude towards the communication sources, (2) contact with the communication sources and (3) application of the received information constituted the dependent variable.

3.3.2.1 Attitude towards the selected communication source

Attitude towards the ten selected communication source of the women beneficiaries of RDRS was measured by computing the attitude sub-score (ASS). The women were requested to indicate their opinion towards the communication sources. A 4-point scale such as 'highly favourable', 'favourable', 'less favourable' and 'not favourable' were used in this purpose and weights were assigned to each of the scale responses as 3 for 'highly favourable', 2 for 'favourable', 1 for 'less favourable' and 0 for 'not favourable'. The Attitude towards the selected communication source of a respondent was therefore determined by adding the score against the 10 communication sources. Thus, the ASS of a woman in receiving information could range from 0 to 30, where 0 indicated unfavourable attitude and 30 indicated highly favourable attitude towards the 10 communication source of the women beneficiaries of RDRS.

3.3.2.2 Contact with communication source

The women beneficiaries contact with the communication source was measured by computing the contact sub-score (CSS). The respondents were requested to indicate their contact with each of the selected communication sources. A 4-point scale such as 'high', 'moderate', 'low' and 'none' were used in this purpose and weights were assigned to each of the scale responses as 3 for 'high', 2 for 'moderate', 1 for 'low' and 0 for 'none' contact. The contact of a respondent was therefore determined by adding the score against the 10 selected communication sources. Thus, the CSS of a respondent in receiving information could range from 0 to 30, where 0 indicated none contact and 30 indicated high contact with the 10 communication sources.

3.3.2.3 Application of received information

The application of received information obtained from the respective contact sources were calculated by application sub-score (ASS) for each of the respondent. The respondents were asked to mention their nature of application of the received information after contact with communication sources. The ASS was also determined by 4-point scale. The weights assigned to the scale were 3 for 'high', 2 for 'moderate', 1 for 'low' and 0 for 'none' application. The ASS of a farmer was obtained by adding the score against the ten sources. Thus, the ASS of a respondent could range from 0 to 30, where 0 indicating none application and 30 indicating high application.

3.3.2.4 Development of indices

For making comparative analysis of the 10 communication sources with respect to attitude towards, contact and application an overall Use of Communication Sources (UCS) was calculated. Use of Communication Sources Index (UCSI) was calculated by adopting the following formula (Mondol, 2009):

$$UCSI = \frac{P_h \times 3 + P_m \times 2 + P_l \times 1}{3}$$

Where,

P_h = Percentage of women beneficiaries for high use

P_m = Percentage of women beneficiaries for moderate use

P_l = Percentage of women beneficiaries for low use

For making comparative analysis of the 10 communication sources in respect of attitude towards, contact and application a comparative index was calculated. Thus, the value of attitude index (AI) for each of the 10 communication sources could range from 0 to 100, where 0 indicated unfavorable attitude towards communication sources and 100 indicated favorable towards the communication sources. A similar procedure was followed to calculate the contact index (CI) and application index (ApI). Use of Communication Sources Index (UCSI) for the selected sources was the summation of AI, CI and ApI value. Thus the possible value of UCSI could range from 0 to 300, where 0 indicated none use of communication sources and 300 indicated high use of communication sources.

3.4 Instrument for Data Collection

A structured interview schedule originally written in Bengali phonics (English version of the interview schedule is enclosed in Appendix A) was prepared to collect necessary and relevant information in accordance with the objectives of the study. Simple and direct questions were

included to ascertain the opinion of the farmers regarding a number of aspects. Though different scales were employed, mainly the rated scale was developed to determine the use of communication source by the RDRS women beneficiaries. The interview schedule was pre-tested with 20 farmers of 5 sample villages before the final interview of data collection. Necessary corrections, additions and modifications were made in the interview schedule based on the pre-test results. The modified and corrected interview schedule was finalized for the data collection.

The researcher made all possible efforts to establish rapport with the respondents so that they could feel free to respond to the questions and their answers were recorded sincerely. The respondents did not keep records of annual or daily transaction of many of their activities. Hence, it was very difficult to collect actual data and the researcher had to rely on the memory of the farmers.

3.5 Data Collection

The prime task in materializing objectives of the study was collecting data interviewing 112 women beneficiaries in the locale of research. Data for this study were collected by the researcher himself. To build rapport and motivation in the interview situations, the researcher endeavored to provide conditions that maximum trust maintained each respondent interest and minimized status differences. However, it was not possible to collect data from seven women in the original sample due to their non-availability in the time of interview despite of several attempts to contact them. Therefore, the researcher collected data from seven women from the reserve list. Data were collected during 15 February to 16 March 2012.

3.6 Analysis of Data

Data were systematically recorded, edited, compiled, arranged, tabulated and computerized for statistical analysis. The soft-wares SPSS were used to analyze the data. Descriptive statistical measures such as range, mean and percentage were used to categorize the farmers. Pearson's product moment correlation co-efficient was used to examine the relationships of characteristics (independent variables) of the respondents with their use of communication sources (dependent variables).

3.7 Hypothesis

According to Kerlinger (1973) a hypothesis is a conjectural statement of the relation between or more variables. Hypotheses are always in declarative sentence form and they are related, either generally or specifically from variables to variables. In broad sense hypothesis are divided into two categories: (a) Research hypothesis, and (b) Null-hypothesis.

3.7.1 Research hypothesis

Research hypothesis (H_a) states anticipated relationships between concerned variables. Based on review of literature, the research hypothesis was 'there were relationships between 10 selected characteristics of the RDRS women beneficiaries with their use of communication sources'.

3.7.2 Null hypothesis: Null hypothesis (H_o) states that there is no relationship between the concerned variables. Therefore, the null hypothesis developed for this study was 'there were no relationships between 10 selected characteristics of the RDRS women beneficiaries with their use of communication sources'.

CHAPTER 4

RESULTS AND DISCUSSION

The results of the study are presented in this chapter with the help of proper statistical analysis along with their logical interpretations. This study has been conveniently presented in three sections according to the objectives. The first section deals with categories and describes the profile characteristics of the women beneficiaries of RDRS. The second section deals with determine the use of communication sources by the women beneficiaries and the third section deals with the relationship between the profile characteristics of the women beneficiaries with their use of communication sources.

4.1 Characteristics of the Women Beneficiaries of RDRS

Women play an important role in the development process. Use of communication source by an individual woman is determined to a large extent by her characteristics. Many characteristics of women may have influence to their use of communication sources. However, only 10 characteristics namely age, education, family size, farm size, annual income, daily time use, credit received, dependency, fatalism and participation in income generating activities (IGAs) are included in this study. It was assumed that use of communication sources in IGAs would vary according to their various characteristics. The salient features of the different characteristics have been presented in Table 4.1

4.1.1 Age

According to Smith and Zope (1970) an individual's age is one of the most important factors pertaining to his personality makeup, since his need and the way in which she thinks and behaves are all closely related to the number of years she has lived. It is a norm in most traditional (especially Muslim) cultures that people respect the elder people, seek advice from them and obey their decisions. The elders are important in many ways they have long experience in many spheres of life.

The age of the women beneficiaries of RDRS ranged from 20 to 60 years with a mean of 33.61 years and standard deviation of 8.67. For the purpose of analysis, respondents were classified into three categories as shown in Table 4.1.

Data contained in Table 4.1 indicate that the highest proportions (66.07 percent) of the respondents were young aged compared to 30.36 percent middle aged and only 3.57 percent were old aged. It was found that functional participation of old women with regard to percentage was lower than the middle or young aged women.

A close look into the data indicates that participation in IGAs with RDRS was mostly in the hands of the young and middle aged women beneficiaries. This is because the young and middle aged women are more active, energetic and enthusiastic in performing IGAs and working with group. Moreover, the norms, values and customs in rural areas of Bangladesh are favorable for middle and young women to engage in IGAs with various organizations.

Table 4.1 Main features and categorization of the women beneficiaries (N=112)

Characteristics	Scoring method	Range		Categories	Respondents		Mean	SD
		Possible	Observed		No.	%		
Age	No. of year	Unknown	20-60	Young(up to 35)	74	66.07	33.61	8.67
				Middle aged (36-50)	34	30.36		
				Old(>50)	4	3.57		
Education	Year of schooling	Unknown	1-14	Primary level (0-5)	72	64.28	4.53	3.52
				Secondary level (6-10)	38	33.92		
				Above secondary (>10)	2	1.80		
Family size	No. of members	Unknown	3-8	Small (up to 4)	53	47.32	4.65	1.16
				Medium (5-6)	51	45.54		
				Large (above 6)	8	7.14		
Farm size	Hectare	Unknown	0.03-0.86	Marginal (0.02-0.20)	46	41.07	0.28	0.19
				Small (0.21-1.00)	66	58.93		
Annual income	('000' Tk.)	Unknown	42-435	Low (up to 85)	35	31.25	123.09	71.36
				Medium (86-155)	54	48.21		
				High (above 155)	23	20.54		
Daily time use	Score	0-24	11-23	Medium (9-16)	55	49.10	16.81	2.71
				Long (>16)	57	50.90		
Credit received	('000' Tk.)	Unknown	5-93	Small (up to 15)	29	25.90	25.81	16.90
				Medium (16-35)	61	54.46		
				High (above 35)	22	19.64		
Dependency	Score	1-20	5-16	Low level (5-8)	4	3.57	12.11	1.86
				Moderate level (9-12)	63	56.25		
				Higher level (13-16)	17	40.18		
Fatalism	Score	1-20	4-8	Slight (Up to 4)	35	31.25	5.07	0.96
				Moderate (5-6)	68	60.71		
				High (7-8)	9	8.04		
Participation in IGAs	Score	0-30	4-22	Low (Up to 10)	49	43.75	11.51	4.28
				Medium (11-20)	62	55.35		
				High (>20)	1	0.90		

4.1.2 Education

Exposure to formal education is very important for shaping-up the behavior of an individual. Education compels an individual to seek, accumulate as well as assimilate knowledge for appropriate uses. Education always plays an important role for participation in decision-making process (Rahman, 2008). Moreover, educational qualification of the women beneficiaries influences their use of communication sources.

The level of education of the respondent ranged from 1 to 14 years of schooling having a mean of 4.53 with a standard deviation of 3.52. Islam (2011) in his study found that the

education level of women beneficiaries of RDRS ranged from 1 to 10 having a mean of 4.45 with a standard deviation of 1.56. On the basis of their education, women were classified into three categories (Table 4.1).

Data furnished in the Table 4.1 reveal that majority (64.28 percent) of the respondents education level were in primary level whereas 33.92 percent in secondary level and only 1.80 percent above secondary level. There was a striking and noticeable incidence that no one was found illiterate in the study. The reasons behind were that putting signature in weekly meeting register and on loan disbursement sheet was mandatory.

4.1.3 Family size

High population density is a normal feature of Bangladesh. However, the range of family size according to the number of family members of the respondents were found to be 3 to 8, the mean being 4.65, standard deviation 1.16. According to the mean and standard deviation, greater fluctuation of family size was apparent within 3 to 6 approximately. The women were classified into three categories viz. 'small family' (up to 4), 'medium family' (5 to 6) and 'large family' (above 6) on the basis of family size scores (Table 4.1).

Computed data indicate that 47.32 percent of the women had small family size, 45.54 percent of them had medium family size and only 7.14 of the respondents had large family size. The data creation in Table 4.1 also indicate that the average family size (4.65 percent) of the women were very close with the national average of 4.4 percent (BBS, 2011). Islam (2011) drawn a similar classification where the majority 42 percent of women beneficiaries of RDRS had small family size compared to 33 percent of them having medium and 25 percent had large family.

4.1.4 Farm size

The most important production factor of a farmer is the land. It is a scarce resource in Bangladesh. The farm size is the main indicator of holding farming status by the farmers. It is assumed that use of communication sources by the respondents usually related with possession of farm size.

The farm size of the respondents varied from 0.03 to 0.86 hectare. The average farm size is 0.28 with a standard deviation of 0.19. According to Agricultural Extension Manual, (DAE 1999), the women beneficiaries were classified into four categories viz. marginal farm, small farm, medium and large farm but as in the study, there were no medium and large farm category. The farmers were classified into two categories as 'marginal farm' (0.02 to 0.20 hectare) and 'small farm' (0.21 to 1.00 hectare) as shown in Table 4.1.

The study revealed that the highest proportion (58.93 percent) of the women beneficiaries had small farm size, while 41.07 percent women beneficiaries had marginal farm size. This is because that RDRS works with poor people of rural areas. Yesmin (2007) found similar finding in her study that the farm size had an average of 0.27 ha and standard deviation of 0.32. Habib (2007) observed that the average farm size of women family 0.35 ha and Fakir (2008) found that the average farm size was 0.38 ha.

4.1.5 Annual income

Family income of the women beneficiaries was measured in 'thousand taka' per year and in the present study the variable ranged from 42 to 435 thousand taka with an average of 123.09 and standard deviation of 71.36. The respondents were classified into three categories depending on the annual income (Table 4.1).

Data presented in Table 4.1 indicate that the highest proportion (48.21 percent) of the respondents had medium income, while 31.25 percent had low income and rest of them (20.54 percent) had high income.

The findings indicate that majority of the respondents had medium income. It is due to the fact that all family members are involved in microfinance activities under RDRS. They received credit from RDRS and mostly utilized this amount for different income generating activities. According to Anonymous (2010) monthly household income per household in rural area was Tk 9648 i.e annual income of rural household was 115.78 in 'thousand taka' which is very close with findings (123.09) of the study.

4.1.6 Daily time use

The daily time use scores of the respondents could range from 0 to 24, while the observed scores ranged from 11 to 23. The average score was 16.81 with having standard deviation 2.71. According to time use scores, the respondents were classified into three categories, such as short time use (up to 8), medium time use (9 to 16) and long time use (>16) but there were no short time use (Table 4.1) .

Data presented in Table 4.1 shows that the highest portion (50.90 percent) of the respondents was in long daily time use category and 49.10 percent were in medium daily time use category. Due to involvement in RDRS, the women not only spent time for performing IGAs, but also they remained engaged in maternal duties, washing, cleaning, cooking and other household works. Therefore, the time use of the respondents had long and medium. The women really get less opportunity to spend enough time to actively participation in IGAs. Aktaruzzaman (2006) and Fakir (2008) found the same observation in their study.

4.1.7 Credit received

The credit received sources of the respondents ranged from 5 to 93 thousand taka and average was 25.81 with a standard deviation of 16.90. Based on the credit received, the women beneficiaries were classified into three categories such as small, medium and high. However, it was observed that the respondents obtained credit from mostly RDRS at 12.50 percent interest.

Data presented in the Table 4.1 indicate that highest proportion (54.46 percent) of the respondents received medium amount of credit, while slightly more than one-fourths (25.90 percent) received small amount of credit and 19.64 percent received high amount of credit. According to RDRS policy, amount of credit depends on savings, duration of involvement in RDRS and loan repayment performance. In this study, respondents received medium amount of credit because mostly they met RDRS policy.

4.1.8 Dependency

The scores of dependency of respondents ranged from 5 to 16 against the possible range of 1-20 and average was 12.11 with a standard deviation of 1.86. On the basis of scores, dependency was classified into three categories as low level, moderate level and higher level (Table 4.1).

Table 4.1 shows that majority of the respondents (56.25 percent) had moderate level of dependency on others while 40.18 percent of the respondents had high level of dependency. Only 3.57 percent of the respondents had low level of dependency. Giri (2002) found almost similar types of finding in his study.

4.1.9 Fatalism

The fatalism scores of the respondents ranged from 4 to 8 against the possible range 1 to 20 with the average being 5.07 and standard deviation 0.96. It denoted that the respondents had slightly fatalistic attitude (4 to 8), so this was classified as slight (up to 4), moderate (5 to 6) and high (7 to 8) in Table 4.1.

The highest proportion (60.71 percent) of the respondents had moderate fatalism, while 31.25 percent had slightly and only 8.04 percent had highly fatalism (Table 4.1). When the women depend on fatalism, they do not interest to participate in IGAs, even they do not want to gather knowledge by participating training or issue based discussion. As a result, they cannot be a self-confident. Fatalistic persons lack necessary knowledge and skill to make satisfactory adjustment with their environment. They think that all the events are predetermined. They will not feel encourage to actively participate in IGAs aimed at improving the conditions

because of their knowledge, skill and abilities. Since the fatalistic attitude of the respondents was slight, the women participated in IGAs and the time use of the respondents had medium and long. As a result, the women contribute to their family and the community to be empowered. The findings indicated the favorable situation for RDRS activities in the study area.

4.1.10 Participation in income generating activities

Participation in income generating activities scores of the respondents ranged from 4 to 22 against the possible range 0 to 30. The mean and standard deviation were 11.51 and 4.28 respectively. Based on participation in IGAs, the respondents were classified into three categories namely low, medium and high (Table 4.1).

Data contained in Table indicated that the highest proportion (55.35 percent) of the women had medium participation in IGAs, 43.75 percent had low participation and negligible portion (0.90 percent) had high participation. Similar observation was found by Rahman (2006) and Islam (2011).

4.2 Use of Communication Sources by the Women Beneficiaries of RDRS

Use of communication sources by the women beneficiaries of RDRS was the dependent variable of this study. Three dimensions of communication sources such as attitude, contact and application were considered for ascertaining the dependent variable. An attempt was made to ascertain in receiving information by the respondents from the 10 selected communication sources. The respondents initially pose their attitude towards the communication sources. Afterwards they may or may not be contact with the communication sources. Finally they apply or do not apply the information in their income generating activities (IGAs). The findings of the above discussions have been described in the following sections.

4.2.1 Attitude towards the selected communication sources

The attitude towards any communication source is an indicator of the credibility of that particular source. If someone had a favourable attitude towards a particular communication source, then it may be expected that she may acquire information from that source (Figure 4.1).

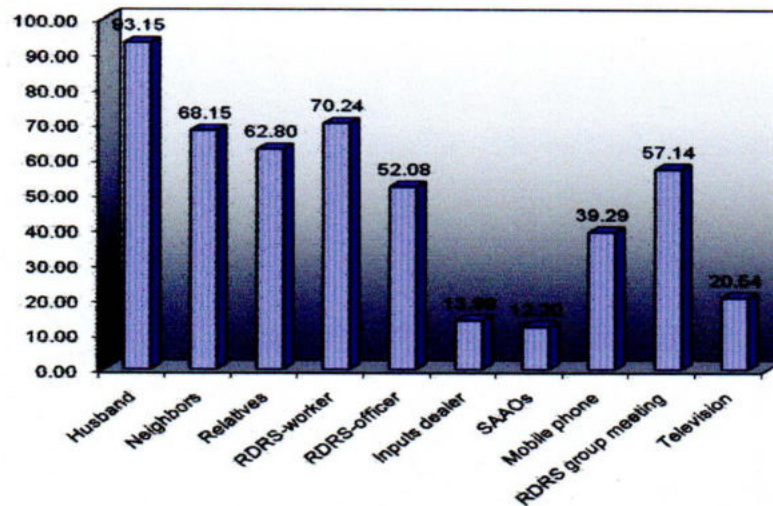


Figure 4.1 Attitude towards selected communication sources

In order to ascertain the importance of different communication sources the attitude index (AI) was computed (cf. Chapter 3). The AI value of the communication scores ranged from 12.20 to 93.15 against the possible range of 0 to 100. The findings indicated that women beneficiaries had the highest attitude towards their husband (AI=93.15) followed by RDRS worker (AI= 70.24), neighbors (AI=68.15), relatives (AI=62.80), RDRS group meeting (AI=57.14), RDRS officer (AI=52.08), mobile phone (AI=39.29), television (AI=20.54), inputs dealer (AI = 13.99) and SAAOs (AI = 12.20).

The attitude towards communication sources was also examined by computing their overall attitude scores. The attitude scores of the women beneficiaries of RDRS ranged from 8 to 25 against the possible range of 0 to 30. The mean and standard deviation were 14.67 and 3.54 respectively. The women beneficiaries were classified into three categories such as 'low attitude' (≤ 12), 'medium attitude' (13 to 16) and 'high attitude' (above 16) on the basis of their attitude score with the communication sources (Table 4.2).

Table 4.2 Distribution of the women beneficiaries according to their overall attitude towards communication sources

Categories	Women beneficiaries		Observed range	Mean	SD
	Number	Percent			
Low attitude(≤ 12)	29	25.89	8 - 25	14.67	3.54
Medium attitude (13-16)	52	46.43			
High attitude(>16)	31	27.68			
Total	112	100.00			

Data presented in Table 4.2 indicate that the highest portion (46.43 percent) of the women beneficiaries had medium attitude towards the communication sources while 25.89 percent had low attitude and 27.68 percent had high attitude. The findings reveal that about three-fourths (74.11 percent) of the women beneficiaries had medium to high attitude towards

communication sources in receiving their IGAs information. This finding implies that women beneficiaries had significant attitude towards communication sources.

4.2.2 Contact with the selected communication sources

The women beneficiaries had contact with 10 selected communication sources with varying degrees for seeking their information in IGAs. The contact of the women beneficiaries with the 10 selected communication sources varied to a great extent. In order to ascertain the importance of different communication sources the contact index (CI) was computed (cf. Chapter 3) as shown in Figure 4.2.

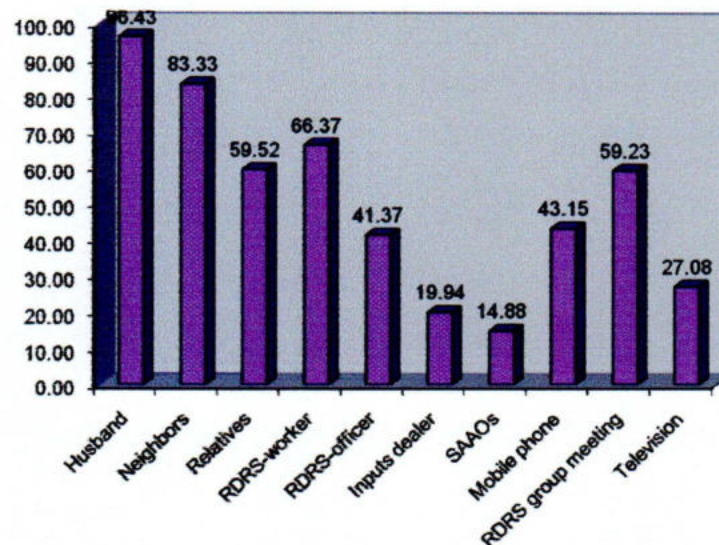


Figure 4.2 Contact with the selected communication sources

The CI value of the communication sources ranged from 14.88 to 96.43 against the possible range of 0 to 100. The findings indicated that women beneficiaries had the highest contact with their husband (CI = 96.43) followed by neighbors (CI = 83.33), RDRS worker (CI = 66.37), relatives (CI=59.52), RDRS group meeting (CI = 59.23), mobile phone (CI = 43.15), RDRS officer (CI= 41.37), television (CI = 27.08), inputs dealer (CI = 19.94), and SAAOs (CI=14.88).

The contact of the women beneficiaries with the communication sources was also examined by computing their overall contact scores. The overall contact scores of the women beneficiaries ranged from 8 to 23 against the possible range of 0 to 30. The mean and standard deviation were 15.32 and 3.48 respectively. The women beneficiaries were classified into three categories such as 'low contact' (≤ 13), 'medium contact' (14 to 17) and 'high contact' (above 17) on the basis of their contact score with the communication sources (Table 4.3).

Table 4.3 Distribution of the respondents according to their overall contact

Categories	Women beneficiaries		Observed range	Mean	SD
	Number	Percent			
Low contact (≤ 13)	36	32.14	8 – 23	15.32	3.48
Medium contact (14-17)	47	41.96			
High contact (>17)	29	25.90			
Total	112	100.00			

Data contained in Table 4.3 indicate that the highest portion (41.96 percent) of the women beneficiaries had medium contact with communication sources while 32.14 percent low and 25.90 percent had high contact. The findings reveal that 67.86 percent of the women beneficiaries had medium to high contact with communication sources in receiving their IGAs information. This finding implies that women beneficiaries had considerable contact with information sources. The high contact of the women beneficiaries may therefore lead to high adoption of technologies and technological information.

4.2.3 Application of received information from the selected communication sources

The women beneficiaries applied the received information to their income generating activities after contacting with different communication sources (Figure 4.3).

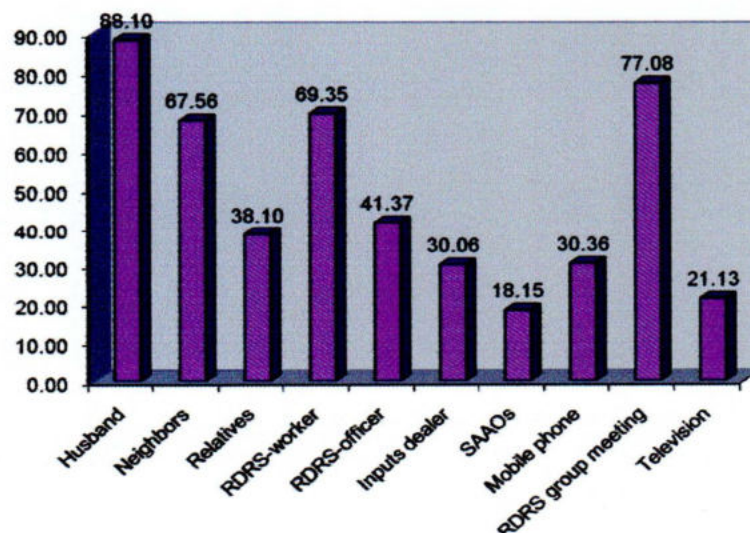


Figure 4.3 Application of information from the selected communication sources

The application index (ApI) values of each of the communication sources ranged from 18.15 to 88.10 against the possible range of 0 to 100. The findings evident from Figure 4.3 that the women beneficiaries had highest application of those information which they received from their husband (ApI=88.10) followed by RDRS group meeting (ApI = 77.08), RDRS worker

(ApI = 69.36), neighbors (ApI = 67.56), RDRS officer (ApI = 41.37), mobile phone (ApI = 30.36), inputs dealer (ApI = 30.06), television (ApI = 21.13) and SAAOs (ApI = 18.15).

The application score of IGA information received from different communication sources by the women beneficiaries of RDRS were also examined by analyzing the overall application scores. The overall application scores of information ranged from 8 to 24, the average being 14.42 and standard deviation 3.66. The women beneficiaries were also classified into three categories namely 'low application' (≤ 12), 'medium application' (13 to 16) and 'high application' (> 16) on the basis of their information application score (Table 4.4).

Table 4.4 Distribution of the respondents according to their application of received information

Categories	Women beneficiaries		Observed range	Mean	SD
	Number	Percent			
Low application (≤ 12)	38	33.93	8 - 24	14.42	3.66
Medium application (13-16)	46	41.07			
High application (> 16)	28	25.00			
Total	112	100.00			

The findings indicated that (Table 4.4) the highest proportion (41.07 percent) of women beneficiaries had medium application of information while 33.93 percent had low application and 25 percent had high application. The finding implies that three-fourths (75 percent) of the women beneficiaries had low to medium application of information. This means that the women beneficiaries' application of information was moderately satisfactory.

4.2.4 The use of communication sources by the women beneficiaries of RDRS

The use of communication sources by women beneficiaries was determined by three dimensions (attitude, contact and application) against the selected 10 communication sources. The use of communication sources index (UCSI) for each of the 10 selected communication sources was the summation of attitude index (AI), contact index (CI) and application index (ApI). The UCSI value of each of the selected communication sources ranged from 45.23 to 277.68 against the possible range of 0 to 300 (Table 4.5).

Table 4.5 Distribution of index value of three dimensions for calculation of use of communication sources index of the selected communication sources

Communication sources	Dimension wise index value			UCSI	Ranking
	AI	CI	ApI		
Husband	93.15	96.43	88.10	277.68	1 st
Neighbors	68.15	83.33	67.56	219.04	2 nd
RDRS-worker	70.24	66.37	69.35	205.96	3 rd
RDRS group meeting	57.14	59.23	77.08	193.45	4 th
Relatives	62.80	59.52	38.10	160.42	5 th
RDRS-officer	52.08	41.37	41.37	134.82	6 th
Mobile phone	39.29	43.15	30.36	112.80	7 th
Television	20.54	27.08	21.13	68.75	8 th
Inputs dealer	13.99	19.94	30.06	63.99	9 th
SAAOs	12.20	14.88	18.15	45.23	10 th

Note: AI= Attitude Index, CI = Contact Index, ApI = Application Index and UCSI = Use of Communication Sources Index

The women beneficiaries acquire information from various information sources. The extent of acquiring information from a particular source depends on how much the respondents rely on that source.

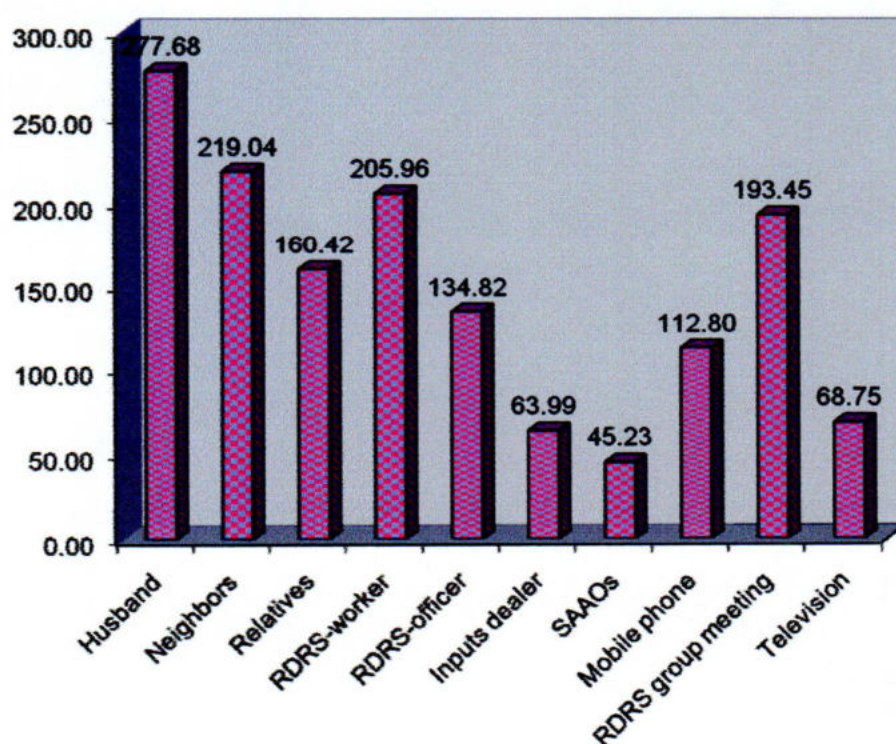


Figure 4.4 Use of communication source index

Data presented in Figure 4.4 show that the women beneficiaries were used their husband (UCSI =277.68) as most important information source in receiving IGAs related information. This might be due to trust and easily availability of the source of the women beneficiaries. The 2nd important information source used by the women beneficiaries on IGAs was neighbors (UCSI=219.04). It might be due to the availability of the source at the doorstep of the women beneficiaries. The 3rd important information source by the respondents was found RDRS worker (UCSI=205.96). This might be due to the fact that the RDRS worker conducted individual home visit of the women beneficiaries as a part of their job. On the other hand, the 4th important information source of the women beneficiaries was found RDRS group meeting (UCSI=193.45). This was found due to regular participation of the respondents to the RDRS group meeting. The 5th important information source of the respondents was found relatives (UCSI=160.42) and it was followed by RDRS officer (UCSI=134.82), mobile phone (UCSI=112.80), Television (UCSI=68.75), Inputs dealer (UCSI=63.99). The lowest communication source used by the women beneficiaries was to SAAO (UCSI=45.23). The findings and above mentioned discussions promoted the researcher to conclude that the women beneficiaries will give importance in receiving IGAs related information of those sources which are close to them, credible, easily available, provide more appropriate as well as need based information.

The use of communication sources by the women beneficiaries in receiving information in IGAs was also examined on the basis of their overall use of communication sources. The use of communication scores of the women beneficiaries ranged from 27 to 69, against the possible score of 0 to 90. The mean and standard deviation were 44.41 and 9.94 respectively. The women beneficiaries were classified into three categories namely 'low use' (27 to 39), 'medium use' (40 to 49) and 'high use' (above 49) on the basis of their use of communication sources (Table 4.6).

Table 4.6 Distribution of the women beneficiaries according to their overall use of communication sources

Categories	Women beneficiaries		Observed range	Mean	SD
	Number	Percent			
Low use (27 to 39)	38	33.93	27-69	44.41	9.94
Medium use (40-49)	43	38.39			
High use (above 49)	31	27.68			
Total	112	100.00			

The highest proportion (38.39 percent) of the women beneficiaries had medium use of communication sources compared to 33.93 percent low use and 27.68 percent high use. The findings revealed that about two-fifths (38.39 percent) women beneficiaries of RDRS had moderate use of communication sources in receiving their information in IGAs. So, it can be said that the communication sources responsible for dissemination of information in IGAs were not satisfactory as it could be.

4.3 Relationship between the Profile Characteristics of the Women Beneficiaries of RDRS and their use of Communication Source

The purpose of this section is to examine the relationship of 10 selected characteristics of the women beneficiaries with their use of communication sources in receiving information to income generating activities (IGAs). The null hypothesis (Ho): to be tested were 'there were no relationships between the 10 selected characteristics namely age, education, family size, farm size, annual income, daily time use, credit received, dependency, fatalism and participation in IGAs of the women beneficiaries with their use of communication sources in IGAs'.

Each of the characteristics constituted an independent variable while use of communication sources was the dependent variable in this study. Significant relationship as determined by co-efficient of correlation test 'r' have been examined. A null hypothesis was rejected when the observed 'r' value was equal or greater than the table value of 'r' at 0.05 level of probability. The relationship between the profile characteristics of the women beneficiaries of RDRS and their use of communication sources have been presented in Table 4.7.

Table 4.7 Relationships between the dependent and independent variables

Dependent variable	Independent variable	Computed values of 'r' with 110 df	Tabulated value of 'r'	
			0.05 level	0.01 level
Use of communication sources	Age	-0.085	± 0.190	±0.248
	Education	0.500**		
	Family size	-0.016		
	Farm size	0.373**		
	Annual income	0.421**		
	Daily time use	0.191*		
	Credit received	0.209*		
	Dependency	0.007		
	Fatalism	-0.326**		
	Participation in IGAs	0.262**		

*Correlation is significant at the 0.05 level and ** Correlation is significant at the 0.01 level

4.3.1 Age and use of communication source by the women beneficiaries

The computed correlation coefficient was found to be $-.085$ (Table 4.7), which led to the following observations:

‘Firstly, the relationship showed negative trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r ($-.085$) with 110 degrees of freedom was not significant even at 5 percent level’.

Based on the observations, the null hypothesis could not be rejected and hence the researcher concluded that the age of the respondents had no significant relationship with their use of communication sources. Thus, it can be said that age of the women beneficiaries of RDRS was not important factor to use of communication sources in IGAs.

4.3.2 Education and use of communication sources by the women beneficiaries

The computed correlation coefficient was found to be 0.500 (Table 4.7), which reflects the following findings:

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was moderate, and thirdly, the value of r ($.500$) with 110 degrees of freedom was significant at 1 percent level of probability’.

Based on the above findings, the null hypothesis was rejected and it implies that the education of the respondents had significant and positive relationship with their use of communication sources. This indicates that the more education of women beneficiaries of RDRS the more will be their use of communication sources in IGAs. The high levels of education induce and facilitate individuals to receive more information for IGAs which helps individuals to increase her understanding and awareness on different aspects of agricultural information.

4.3.3 Family size and use of communication sources by the women beneficiaries

The relationship between family size of women beneficiaries and their use of communication sources shown in Table 4.7, which reflects the following observations:

‘Firstly, the relationship showed negative trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r ($-.016$) with 110 degrees of freedom was not significant even at 5 percent level’.

From the above observations, the null hypothesis could not be rejected and hence, it can be concluded that the family size of the women beneficiaries of RDRS had no significant relationship with their use of communication sources. Thus, it might be said that family size of the respondents was not so important factor for their use of communication sources.

4.3.4 Farm size and use of communication sources by the women beneficiaries

The computed correlation coefficient was found to be 0.373 (Table 4.7), which led to the following findings:

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r (0.373) with 110 degrees of freedom was significant at 1 percent level of probability’.

On the basis of above findings, the null hypothesis was rejected and hence it can be concluded that farm size had a positive significant relationship with their use of communication sources. This implies that women beneficiaries having large farm size were high use of communication sources in receiving information in IGAs.

4.3.5 Annual income and use of communication source by the women beneficiaries

Following observation were made based on the computed correlation coefficient of 0.421 (Table 4.7).

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was moderate, and thirdly, the value of r (.421) with 110 degrees of freedom was significant at 1 percent level of probability’.

Thus, the null hypothesis was rejected and the researcher concluded that annual income had significant positive relationship with their use of communication sources. So, this indicates that high annual income makes strong economic base of family and contributes to increase the use of communication sources in receiving information in IGAs.

4.3.6 Daily time use and use of communication source by the women beneficiaries

The computed ‘ r ’ value was found to be .191 (Table 4.7) which had to the following findings:

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r (.191) with 110 degrees of freedom was significant at 5 percent level of probability’.

Therefore, the null hypothesis was rejected and the researcher concluded that daily time use had a positive and significant relationship with their use of communication sources. This indicates that use of communication sources increased with the increase of daily time use.

4.3.7 Credit received and use of communication sources by the women beneficiaries

The computed correlation coefficient was found to be .209 (Table 4.7), which led to the following observations:

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r (.209) with 110 degrees of freedom was significant at 5 percent level of probability’.

Thus, the null hypothesis was rejected and it implies that credit received of the respondents had significant and positive relationship with their use of communication sources. The finding indicates that use of communication sources by the women beneficiaries of RDRS increased with the increase of credit availability. This seems to be logical, because high amount of credit leads to high involvement in IGAs which influences favorable attitude to communication sources for receiving more information.

4.3.8 Dependency and use of communication sources by the women beneficiaries

The computed correlation coefficient was found to be .007 (Table 4.7), which reflects the following observations:

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r (.007) with 110 degrees of freedom was not significant even at 5 percent level of probability’.

Based on the above findings, the null hypothesis could not be rejected and it implies that dependency of women beneficiaries had no significant relationship with their use of communication sources. The finding indicates that dependency have no influence to use of communication sources.

4.3.9 Fatalism and use of communication sources by the women beneficiaries

The computed correlation coefficient was found to be -.326 (Table 4.7), which led to the following findings:

‘Firstly, the relationship showed negative trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r (-.326) with 110 degrees of freedom was significant at 1 percent level of probability’.

On the basis of above findings, the null hypothesis was rejected and hence it can be concluded that fatalism had a negative significant relationship with their use of communication sources. This implies that women with slight fatalistic attitude are more exposed to communication sources for receiving more information.

4.3.10 Participation in IGAs and use of communication source by the women beneficiaries

The computed ‘ r ’ value was found to be .262 (Table 4.7), which led to the following findings:

‘Firstly, the relationship showed positive trend, secondly the strength of relationship between the variables was very low, and thirdly, the value of r (.262) with 110 degrees of freedom was significant at 1 percent level of probability’.

Therefore, the null hypothesis was rejected and hence it can be concluded that participation in IGAs had a positive significant relationship with their use of communication sources. This finding indicates that women’s participation in IGAs increase the use of communication sources. When women will involve more in IGAs then she will need more information. As a result, her contact and application of information from communication sources will be increased that will contribute to increase the use of communication sources.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of the findings, conclusions and recommendations of the study.

5.1 Introduction

Bangladesh is a developing country of 160 million people of which women constitute almost half of the total population. To ensure economic development of our country, involvement of women in different income generating activities (IGAs) is imperative which will ultimately contribute to increase women empowerment. The proper selection and management of IGAs are crucial for gaining sustainable benefit. In order to achieve this, credit support, information and technology are essential elements. For this purpose, many NGOs are working with women through providing micro-credit support, new technologies and training where use of communication sources by the women is important for their enhancing income as well as livelihood.

For enhancing their information received capacity in IGAs, RDRS organizes the poor women in formation of group and provided credit and training for proper utilization of the credit. As most of the women are chosen agricultural activities along with other activities as an income generating activities. Thus RDRS have taken initiatives to strengthen the existing extension services and putting their emphasis on the dissemination of demand driven information to the women beneficiaries. The communication source provides necessary information for the women beneficiaries to change their pattern and system of income generating activities from existing to developed and sustainable system. Improved and sustainable information and technology for IGAs can be received through various communication sources. In the rural areas, women use different sources of information. Some of them are frequently used while others are used occasionally and rarely. However, very few systematic research studies have so far been conducted to ascertain the use of communication sources by the women beneficiaries of RDRS. The present study was therefore, undertaken with a view to determine the use of communication sources by the women beneficiaries in receiving income generating related information. Keeping in view of the above circumstances, the present study was undertaken the following objectives:

1. To categories and describe the profile characteristics of the women beneficiaries of RDRS. The profile characteristics included: age, education, family size, farm size, annual income, daily time use, credit received, dependency, fatalism and participation in IGAs.
2. To determine the use of communication sources by the women beneficiaries.
3. To explore the relationship between the profile characteristics of the women beneficiaries with their use of communication sources.

5.2 Methodology

One union of sadar upazila of Rangpur district was the locale of the study. Multi-stage random sampling procedure was followed in this study. A total of 112 women beneficiaries of RDRS were selected randomly from a population of 280 from 5 villages. The data were collected during the period of 15 February to 16 March 2012 using interview schedule by the researcher himself. Possible measures were taken to collect reliable and valid data. Both qualitative and quantitative measures were used for data analysis.

Use of communication source was the dependent variable, while 10 characteristics namely (i) age, (ii) education, (iii) family size, (iv) farm size, (v) annual income, (vi) daily time use, (vii) credit received, (viii) dependency, (ix) fatalism and (x) participation in IGAs were considered as independent variables of the study. Most of the independent variables were measured through computing scores based on either some scales or appropriate methodologies were followed maintaining technical soundness for developing different categories.

On the other hand, for measuring the use of communication sources of the women beneficiaries of RDRS, three dimensions namely attitude, contact and application were used. Attitude towards the ten selected communication sources were measured by computing the attitude sub-score (ASS). The women were requested to indicate their opinion towards the communication sources. A 4-point scale such as 'highly favourable', 'favourable', 'less favourable' and 'not favourable' were used in this purpose and weights were assigned to each of the scale responses as 3, 2, 1 and 0 respectively. The Attitude towards the selected communication source of a respondent was therefore determined by adding the score against the 10 communication sources. Thus, the ASS of a respondent towards communication source could range from 0 to 30. The women beneficiaries contact with the communication source was measured by computing the contact sub-score (CSS). The procedure followed to calculate the attitude towards communication source was also used to measure the contact with communication sources. A 4-point scale and a similar way of assigning weights to each

of the scale were used to measure the contact score of the women beneficiaries and it could range from 0 to 30. The application of received information obtained from the respective contacted sources were calculated by application sub-score (ASS) for each of the women beneficiaries. A similar procedure like the measure of attitude toward communication sources and contact with communication sources was followed to calculate the application of the received information scores of the women beneficiaries. A 4-point scale was used to measure ASS scores and it could also range from 0 to 30. For making comparative analysis of the 10 communication sources in respect of the dimensions a comparative index was calculated. The value of attitude index (AI), the contact index (CI) and application index (ApI) for each of the 10 communication sources could range from 0 to 100. Use of Communication Sources Index (UCSI) for the selected sources was the summation of AI, CI and ApI value. Thus the possible value of UCSI could range from 0 to 300.

A structured interview schedule was prepared to collect necessary and relevant information in accordance with the objectives of the study. Data for this study were collected by the researcher himself. The soft-wares SPSS were used to analyze the data. Descriptive statistical measures such as range, mean and percentage were used to categorize the farmers. Pearson's product moment correlation co-efficient (r) was used to examine the relationships of independent variables of the respondents with their dependent variables.

The ten characteristics of the women beneficiaries which were considered as independent variables of the study were tested with the use of communication sources. Therefore, for statistical treatment a null hypothesis was formulated as 'there were no relationships of 10 selected characteristics of the women beneficiaries with their use of communication sources'.

5.3 Summary of the Findings

5.3.1 Profile characteristics of the women beneficiaries

Age of the respondents ranged from 20 to 60 years with an average of 33.61 years. Slightly over two thirds of the respondents (66.07 percent) were young aged, while 30.61 percent were middle and nearly four percent (3.57) old. The level of education of the respondents ranged from 1 to 14 with an average of 4.53. Majority of the respondents (64.28 percent) had primary level education followed by 33.92 percent and only 1.80 percent secondary and above secondary level education respectively. Family size of the respondents ranged from 3 to 8 with an average of 4.65. The highest portions (47.32 percent) of the respondents were found to have small family compared to 45.54 percent medium family and only 7.14 percent

large family size categories. Farm size score of the respondents ranged from 0.03 to 0.86 hectare with an average of 0.28. About three fifths of the respondents (58.93 percent) had small farm size, while 41.07 percent had marginal farm size. Annual income score of the respondents ranged from 42 to 435 thousand taka with an average of 123.09. About half of the respondents (48.21 percent) had medium income followed by 31.25 percent and 20.54 percent low and high income respectively. The daily time use scores of the respondents ranged from 11 to 23 with an average of 16.81. The highest portion (50.90 percent) of the respondents was in long daily time use category and 49.10 percent were in medium daily time use category.

Credit received score of the respondents ranged from 5 to 93 with an average of 25.81. More than half (54.46 percent) of the respondents belonged to medium category followed by 25.90 percent small and 19.64 percent respondents had high category. The dependency scores of the respondents ranged from 5 to 16 with an average of 12.11. Majority of the respondents (56.25 percent) had moderate level of dependency followed by 40.18 percent and 3.57 percent high and low level of dependency respectively. The fatalism scores of the respondents ranged from 4 to 8 with the average being 5.07. The highest proportion (60.71 percent) of the respondents had medium fatalistic, while 31.25 percent had very slightly and only 8.04 percent had slight fatalistic attitude. Participation in income generating activities scores of the respondents ranged from 4 to 22 with average of 11.51. The highest proportion (55.35 percent) of the women had medium participation in IGAs followed by 43.75 percent respondents belonged to low category and only 0.90 percent belonged to high.

5.3.2 Use of communication sources by the women beneficiaries of RDRS

Use of communication sources by the women beneficiaries of RDRS was the dependent variable of this study which was measured by three dimensions of communication sources such as attitude, contact and application. The attitude scores contact scores and application scores of the women beneficiaries ranged from 8 to 25, 8 to 23, and 8 to 24 respectively against the possible range of 0 to 30. On the other hand, the use of communication source scores of the women beneficiaries ranged from 27 to 69 against the possible range of 0 to 90. The highest portion (46.43 percent) of the women beneficiaries had medium attitude towards communication sources while 25.89 percent had low attitude and 27.68 percent had high attitude. About two-fifths (41.96 percent) of the women beneficiaries had medium contact with communication sources while 32.14 percent low and 25.90 percent had high contact. On

the basis of overall contact with communication sources, women beneficiaries of RDRS were classified into three categories like low, medium and high. The highest proportion (41.07 percent) of women beneficiaries had medium application of information while 33.93 percent had low application and 25 percent had high application. On the other hand, the highest proportion (38.39 percent) of the farmers had medium use of communication sources compared to 33.93 percent low and 27.68 percent high.

5.3.3 Relationship between the profile characteristics of the women beneficiaries of RDRS and their use of communication source

According to the computed correlation coefficient (r) among the ten (10) selected characteristics of women beneficiaries, six namely education, farm size, annual income, daily time use, credit received and participation in IGAs showed significant and positive relationships with their use of communication sources while only one character namely fatalism showed negative relationship with their use of communication sources. Age, family size and dependency had no relationship.

5.4 Conclusions

It is very much important to have satisfactory clarification about the findings of the research and to draw a meaningful conclusion. The researcher studied the use of communication sources by the women beneficiaries of RDRS in income generating activities and put forward the following conclusions:

1. The findings indicated that women beneficiaries had the highest attitude towards husband (AI=93.15) followed by RDRS worker (AI= 70.24), neighbors (AI=68.15) and so forth. The women beneficiaries had less favorable attitude towards SAAOs (AI = 12.20) followed by inputs dealer (AI = 13.99), RDRS office (AI=52.08) and so on. These findings lead to conclude that women beneficiary's attitude towards communication sources are influenced by their personal belief and trust.
2. The findings indicated that women beneficiaries had the highest contact with husband (CI = 96.43) followed by neighbors (CI = 83.33), RDRS worker (CI = 66.37) and so forth. The women beneficiaries had the least contact with SAAOs (CI =14.88) and it was followed by inputs dealer (CI = 19.94), television (CI = 27.08) and so on. Therefore, it may conclude that the women beneficiaries have more contact with those sources which are close to them and are easily available.

3. The women beneficiaries had highest application of those information which they received from husband (AI=88.10) followed by RDRS group meeting (CI = 77.08), RDRS worker (CI = 69.36) and so on. The women beneficiaries had lowest application of those information which they received from SAAOs (CI =18.15) followed by television (CI = 21.13), inputs dealer (CI = 30.06) and so on. These findings lead to conclude that more will be the credibility and technical soundness of the sources the more will be the application of their delivered information.
4. The study revealed that highest proportion (38.39 percent) of the women beneficiaries had medium use of communication sources compared to 33.93 percent low use and 27.68 percent high use for receiving their information in IGAs. It is essential to have better communication exposure of the women beneficiaries for successful and effective operation of income generating activities. Therefore, the findings lead to the conclusion that the women had moderate use of communication sources, which might result poor output from income generating activities.
5. The women beneficiaries received their information in IGAs from the selected 10 communication sources; the highest proportion of the women beneficiaries used husband in receiving their information followed by neighbours, RDRS worker, RDRS group meeting, relatives, RDRS officer, mobile phone, Television, Inputs dealer and SAAOs. The findings promote the researcher to conclude that the women beneficiaries will use of those sources which are close to them, credible, easily available, provide more appropriate as well as need based information for their IGAs.
6. Among the selected 10 characteristics of the women beneficiaries, 6 characteristics such as education, farm size, annual income, daily time use, credit received and participation in IGAs had significant positive relationship and fatalism have significant negative relationship with the use of communication sources. The finding leads to conclude that certain attributes of women beneficiaries play an important role in their use of communication sources. Age, family size and dependency of the women beneficiaries had no significant relationship with the use of communication sources by the women beneficiaries. This indicates that use of communication sources and above characteristics of the women beneficiaries are independent to each other. Educational farm size, daily time use, family income, credit received, fatalism and

participation in IGAs were the effective predictors having significant contribution in the use of communication sources in IGAs.

5.5 Recommendations

5.5.1 Recommendations for policy implications

The following recommendations were made on the basis of the findings and their logical interpretations:

1. The women beneficiaries of RDRS had moderate exposure with various communication sources, which might result poor output from income generating activities. Therefore, it may be recommended that the concerned GO and NGOs especially RDRS engaged in extension activities with the women beneficiaries should make necessary arrangements for improving the use of communication sources. Among the frequently used sources, husband and neighbours appeared as the dominant sources. Hence, it may be recommended that arrangement should be made for judicious application of these sources.
2. Young aged women beneficiaries were the majority of the study sample and they are the key operators of income generating activities. They can play very useful role in performing the IGAs for their better livelihood status. It is therefore, recommended that in conducting extension program the concern agencies should involve as many as young aged women in their programs.
3. Credit supply and other support activities provided by RDRS should be taken more effective steps for increasing income of the women by creating greater opportunities for IGAs. However, special care should be taken by RDRS at the time of credit supply and proper credit utilization by the borrowers.

5.5.2 Recommendations for further study

The study having conducted in some specific location could not provide all information for proper understanding about use of communication sources by the women beneficiaries in IGAs. The following recommendations are made for further study:

1. The present study was carried out in a small area of particular district. Similar studies may be conducted in other parts of the country to get a clear picture which will be helpful for effective policy formulation.

2. The study investigated the effects of ten characteristics of the women beneficiaries on their use of communication sources. But there are many other characteristics of the women beneficiaries which may influence them regarding the use of communication sources. Therefore, it is recommended that further study should be conducted involving other variables in these regards.
3. The present study did not reveal the factors that affected the non-use of communication sources. It is therefore, suggested that the factors responsible for non-use of each source be ascertained in further study.
4. In this study the use of communication source have been studied on three dimensions such as (a) attitude (b) contact and (d) application. But in reality there are some important dimensions of communication sources which should be included for further study.

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6. **Daily time use:** Please mention the extent of time use towards the following activities.

Sl. No.	Types of activity	Extent of time use			
		Sufficiently	Occasionally	Partially	Nil
1.	Agricultural product processing				
2.	Homestead plantation and vegetable cultivation				
3.	Child care and education				
4.	Livestock management				
5.	Food processing & cooking				
6.	Cleaning of homestead				
7.	Cloth washing				
8.	Making of handicraft				

7. **Credit received:** Did you receive credit from different organization for income generating activities? If yes, please mention the sources of receiving your credit with amount.

Sl. No.	Sources of credit	Amount (Tk.)	Rate of interest
1.	Village Money Lenders		
2.	RDRS		
3.	BRAC		
4.	ASA		
5.	TMSS		
6.	Grammen Bank		
7.	Other Banks		
8.	Others (if any)		

8. **Dependency:** What is your opinion about the following statements? Please state the degree of your agreement or disagreement to each of the statement.

SL. No.	Statement	Nature of opinion				
		SA	A	U	D	SD
1.	Do anything without the permission of the head of my family					
2.	I do whatever I like					
3.	I want to share both joys and sorrow with my family members, neighbors and relatives					
4.	I am easily persuaded by others					

Note: SA= Strongly Agree, A= Agree, U= Undecided, D= Disagree, SD= Strongly Disagree

9. **Fatalism:** Please mention the extent of your agreement towards the following statement.

SL. No.	Statement	Nature of opinion				
		SA	A	U	D	SD
1. (+)	Food and wealth depends on fate. So it is not possible to change the fate by doing hard labour					
2. (-)	Soil fertility of our country is low. So more cowdung and balanced fertilizer applications are needed to increase soil fertility					
3. (+)	It is not worth of vaccination the children for prevention of disease, because the children may be attached by disease and die even through they are vaccinated					
4. (-)	Mother should not depends on the fate for children's good heath, rather they should feed the children with green vegetables, fruits, meat and fish					

SA= Strongly Agree, A= Agree, U= Undecided, D= Disagree, SD= Strongly Disagree

10. **Participation in IGA:** Mention of your extent of participation in the following income generating activities (IGAs).

generating activities (IGAs):

Sl. No.	IGAs	Extent of participation			
		Frequently	Occasionally	Seldom	Not at all
A. Agricultural					
1.	Crop production				
2.	Vegetable production				
3.	Poultry rearing				
4.	Goat rearing				
5.	Cow rearing				
B. Non-agricultural					
1	Milk business				
2.	Tailoring				
3.	Small business				
4.	Katha sewing				
5.	Mat making				

11.0 **Use of Communication Sources by the Women Beneficiaries of RDRS**

- 11.1 **Attitude towards the information sources:** Indicate your attitude towards the following information sources.

Sl. No.	Communication sources	Level of attitude			
		Highly favourable	Favourable	Less Favourable	Not favourable
1.	Husband				
2.	Neighbors				
3.	Relatives				
4.	RDRS-worker				
5.	RDRS-officer				
6.	Inputs dealer				
7.	SAAOs				
8.	Mobile phone				
9.	RDRS group meeting				
10.	Television				

- 11.2 **Contact with the information sources:** Please mention your extent of contact with the following communication sources.

Sl. No.	Communication sources	High	Moderate	Low	None
1.	Husband (times/month)	(≥21)	(11-20)	(1-10)	(0)
2.	Neighbors (times/month)	(≥10)	(5-9)	(1-4)	(0)
3.	Relatives (times/month)	(≥5)	(3-4)	(1-2)	(0)
4.	RDRS-worker (times/month)	(≥5)	(3-4)	(1-2)	(0)
5.	RDRS-officer (times/month)	(≥5)	(3-4)	(1-2)	(0)
6.	Inputs dealer (times/season)	(≥10)	(5-9)	(1-4)	(0)
7.	SAAOs (times/season)	(≥5)	(3-4)	(1-2)	(0)
8.	Mobile phone (times/season)	(≥11)	(6-10)	(1-5)	(0)
9.	RDRS group meeting (times/month)	(≥10)	(5-9)	(1-4)	(0)
10.	Television (times/month)	(≥5)	(3-4)	(1-2)	(0)

11.3 Application of received information: Do you apply the information received from the communication sources? If yes, please indicate the amount of application (in percentage).

Sl. No.	Communication sources	High (80-100)	Moderate (50-79)	Low (1-49)	None (0)
1.	Husband				
2.	Neighbors				
3.	Relatives				
4.	RDRS-worker				
5.	RDRS-officer				
6.	Inputs dealer				
7.	SAAOs				
8.	Mobile phone				
9.	RDRS group meeting				
10.	Television				

Thanks you for you cooperation.

Signature of the Enumerator

Date:.....

APPENDIX-II

Correlation matrix of the dependent and independent variables

Characteristics	Age	Education	Family size	Farm size	Annual income	Daily time use	Credit received	Dependancy	Fatalism	Participation in IGAs	Use of communication sources
Age	1										
Education	-.469**	1									
Family size	.403**	-.261**	1								
Farm size	.086	.261**	.134	1							
Annual income	-.028	.379**	.125	.567**	1						
Daily time use	-.263**	.382**	-.107	.197*	.169	1					
Credit received	-.004	.145	.010	.069	.240*	.051	1				
Dependancy	-.194*	.027	-.008	.181	-.004	.009	-.088	1			
Fatalism	-.021	-.130	-.074	-.083	-.255**	.050	-.117	-.074	1		
Participation in IGAs	.037	.149	.277**	.215*	.319**	.465*	.140	.003	-.068	1	
Use of communication sources	-.085	.500**	-.016	.373**	.421**	.191*	.209*	.007	-.326**	.262**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).