IMPACT OF MICROCREDIT ON INCOME GENERATION FOR POVERTY ALLEVIATION AND EMPOWERMENT OF RURAL WOMEN: A STUDY IN SOME SELECTED AREAS OF MEHERPUR DISTRICT

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CERTIFICATE

This is to certify that the research work entitled, **"IMPACT OF MICROCREDIT ON INCOME GENERATION FOR POVERTY ALLEVIATION AND EMPOWERMENT OF RURAL WOMEN : A STUDY IN SOME SELECTED AREAS OF MEHERPUR DISTRICT"** conducted by **MST. AFSANA MIMI** bearing Registration No. **12-04742 (July-December/2018)** under my supervision and guidance in the partial fulfillment of the requirements for the degree of **MASTER OF SCIENCE (MS) IN DEVELOPMENT AND POVERTY STUDIES** in the Faculty of Agribusiness Management, Sher-e-Bangla Agricultural University, Dhaka 1207, Bangladesh. No part of this thesis has been submitted for any other degree or diploma.

I further certify that any help or source of information received during this study has been dully acknowledgement by her/him.

Dated: December, 2019
Dhaka, Bangladesh.

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DEDICATED

TO

MY BELOVED PARENTS

ABSTRACT

The present study was designed to evaluate impact of microcredit on income generation for poverty alleviation and empowerment of rural women. The study is based on data generated through face to face interviews of selected women borrowers numbering 90 under three microcredit organization such as ASA, BRAC and DBS programming areas of Meherpur district. In this study descriptive analysis was used to identify the socio-economic conditions of women and to measure the women empowerment through microcredit programs. Logistic regression analysis used to assess the impact of microcredit programs on income generation for poverty alleviation of women at household level. The socio-economic conditions of women are essential to assess the effectiveness of microcredit programs. The univariate technique is used first to study the variation of poverty alleviation on several covariates. The multivariate technique viz., multiple logistic regression model is used to identify the determinants of income generation for poverty alleviation. The finding of the analysis shows that, the total household members were negatively influencing the poverty alleviation of women at household level whereas household earning members have positive impact on income generation which leads to poverty alleviation, the reason behind this is earning members are more than one to, increase the level of income of the household and then they live in better life and their poverty also reduced. So, household's monthly income also positively affect on income generation for poverty alleviation. Respondent's education, occupation, amount of loan and savings have also positive impact on the poverty alleviation of women at household level. The microcredit programs on empowerment of women have been measured by ten household decision making factors of women. The empowerment index reflects that employed women get more empowerment facilities than the unemployed women and most of the women were housewife mainly. The empowerment index shows that the empowerment index for employed women is 0.77 and for unemployed women 0.28 whereas the average empowerment index for all respondents is 0.53. Women who were employed enable to take more decisions than their husband due to associated with the microcredit organizations.

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BBS	:	Bangladesh Bureau of Statistic
HIES	:	Household Income and Expenditure Survey
SDG	:	Sustainable Development Goals
HCR	:	Head Count Ratio
CBN	:	Cost of Basic Needs
BER	:	Bangladesh Economic Review
GDP	:	Gross Domestic Product
BDT	:	Bangladeshi Taka
IGTI	:	Inequality-Growth Trade-off Index
PRS	:	Poverty Reduction Strategy
TK.	:	Taka
US	:	United States
USDA	:	United States Department of Agriculture
$	:	Dollar
DBS	:	Daridra Bimachan Songstha
ASA	:	Association for Social Advancement
BRAC	:	Bangladesh Rural Advancement Committee

CHAPTER ONE

INTRODUCTION

1.1 General Overview

Poverty, unemployment, below average economic conditions etc. are those type of words that most of the country wants to avoid or fight with. Bangladesh is one of them and there are various types of initiatives, tasks, actions are taking by the Government to prevent these situations. Access to microcredit should allow poor entrepreneurs to avoid reliance on moneylenders and grow their businesses, thus increasing their business expenditures, revenues and ultimately profits.

Women-empowerment is known as the process of equipping women to be economically independent, self-reliant, having positive esteem which allows them to defend any challenging circumstances and to contribute to various development activities (Kapila et al., 2016). Women empowerment has been one of the top priorities of development agencies and governments around the world and it has been recognized that, even in the developed countries, women continue to experience various forms of discrimination in one way or another. Empowerment of women capacitates sustainable rural and urban development by the uplifting the economic, social and political status of women in Bangladesh. According to the gender gap index of the world economic forum in 2018, Bangladesh has been ranked 48th out of 149 countries. Bangladesh has held its top most position among the countries of south Asia in ensuring gender equality (WEF 2018). Microfinance institutes are putting their efforts to minimize the poverty level through various financial as well as non-financial services (Al-Shami et al., 2016). Financial services include credit, saving and insurance opportunities, non-financial services include training plans or skill development programs and social capital development. The facility of credit may be an important instrument for the poor to safeguard their food security and poverty. Traditional banks and other financial institutions fail to meet the difficulties in general of poor and of women in particular. The microcredit institutes change by building a set of comprehensive financial institutions, which has elevated the expectation that plentiful poverty can be alleviated.

Moreover, microcredit programs have become an increasingly important component of women development strategies to create an employment, reduce poverty or promote micro entrepreneurial development. These credit programs are mostly on targeted groups of women, as they have minimum access to economic resources and made a field impact on social, economic and political position of women they serve. Improved access to credit by women could lead to two developments: increased employment in income-generating activities and an incentive to adopt improved technology. The role of women could be enhanced if their resource base were expanded by the addition to complementary resources. From this aspects credit become important when women had improved access to credit, they could expand the "expenditure savings" activities of the habitation into "income-generating" ones and in the process improve their livelihood an economic status in society and success to alleviate their poverty. Yet households may benefit from microcredit in other ways, such as increased total consumption, shifting to spending on consumer durables, or decreasing spending on "temptation" goods due to greater hope for the future (Banerjee, 2013).

Increased employment will lead to increased income which again will lead to increased spending. Therefore, economic development should start with creating opportunities for increasing income which leads to poverty alleviation and empowerment of women.

1.2 Background Information

1.2.1 Microcredit:

Microcredit is one of the major products of microfinance institutes which comprises of a small loan to poor people that help improve their small-scale businesses or start a new one (Kessy et al., 2016). Microcredit programs extend small loans to the very poor people for self-employment projects that generate income, allowing them to care for themselves and their families. Microcredit also called "microfinance" and "micro lending" means providing small working capital loans to the self-employed people. Micro-credit refers to programs that are poverty focused and that provide financial and business services to the very poor people for generation of self-employment and income. Credit is a powerful instrument to fight against poverty. The universal objective of microcredit is to make it possible for large numbers of low-income people to access institutional financial services,

hence the potential benefits of microcredit has accounted for its widespread adoption as an economic development, job creation and poverty reduction strategy. There is an on-going debate whether credit alone or credit plus is needed for poverty reduction. There are views that credit alone on its own is inadequate to fight against poverty. The need for other services is also important in this respect.

1.2.2 Microcredit and Poverty alleviation-an overview

As microfinance institutions (MFIs) grow in many countries worldwide, debate continues over whether such programs truly benefit the poor. Proponents emphasize the need for innovative ways to provide poor populations access to financial services. Critics argue any successes may be temporary because microfinance programs require training and entrepreneurship skills, which many poor populations lack. In addition, some fear that beneficiaries may be charged high interest rates or become dependent on MFIs, borrowing more than they can pay back and becoming further trapped in poverty.

Moreover, debate in the context of Bangladesh, finding that microfinance institutions there have had sustained benefits over two decades in reducing poverty and increasing incomes. When Bangladesh's microfinance sector was first established in the 1970s, its main goal was reducing rural poverty by providing microcredit loans for non-crop activities such as trading, and raising livestock and poultry. These loans were funded mainly by the government of Bangladesh and bilateral donors through group-based savings and lending programs. Today, Bangladesh's MFIs cover some 32 million members and give out more than $7.2 billion annually. Modern microfinance in Bangladesh has expanded its scope from home-based activities and self-employment to include savings and insurance, microenterprises, and productive employment. Microcredit also helped to diversify borrowers' economic activities, boosting incomes in the process. Household income grew driven by rising non-farm income. The reduction in moderate and extreme poverty for this group was almost 8 percent higher. MFIs, despite their traditional focus on non-farm activities, have also aided farmers. Borrowing from an MFI raised farm income and reduced reliance on wage income, producing significant positive effects for women and marginal farmers.

1.2.3 Importance of Women Participation to Microcredit Programs

The Constitution of Bangladesh guarantees equal right for men and women [Article-28(2)] and sanctions affirmative action in favor of women [Article-28(4)]. The government in all its policies & declarations ensured women's right & privileges and several steps were taken to establish the same in all walks of life. Different Micro Finance Institutions (MFIs)/Non-Government Organizations (NGOs) have come forward for upgrading the financial and social position of the women folk and it is asserted that these institutions have played substantial role in women development, which is literally called "Women Empowerment". Most of the borrowers in microcredit programs are women because of their higher repayment rates. The adoption of training and new technology by women increased accumulation of capital. The study will be focused on the participation of women in the microcredit program and how it can help to the expansion of income earned by women increased to facilitate the adoption of improved technology, proper training, education and more empowerment of women.

1.2.4 Extent of Women Access to Microcredit Programs

Women have shown themselves to be reliable borrowers in microcredit scheme. For this reason, most of the microcredit borrowers are mainly women. The Grameen Bank of Bangladesh is perhaps the best-known example of these small-scale production credit programs for the poor, and over 90% of its clients are women. Earlier work has found that the effects of program participation differ importantly by the gender of program participant. For example, the flow of consumption expenditure increases 18 taka for every 100 taka borrowed by women, but only 11 taka for every 100 taka borrowed by men (Pitt et al.2003). Using a totally different approach to parameter identification, find that credit provided women importantly improves measures of health and nutrition for both boys and girls, while credit provided men has no significant effect (Pitt et al. 1999).

1.2.5 Performance of Different Microcredit Organizations in Bangladesh

A microcredit program extends small loans to poor people, mainly women, for self-employment activities thus allowing clients an opportunity to achieve a better quality of life. In the past 25 years, microfinance service has been considered as one of the most

significant innovations in development policy around the world (Elahi and Rahman, 2006). Microfinance service offers not only the microcredit but also the allied services such as consulting and training for the microenterprises as well as market information and access to wider market which is very often not in reach of micro-entrepreneurs due to their lack of knowledge and bureaucratic hurdles. The experience of the poverty alleviation projects of the BRAC, ASA and DBS, as well as the government organization like BRDB, which are the success part for past two decades. The NGOs in Bangladesh have been organized for a long time and performance of them in poverty alleviation efforts has created a unique opportunity to eliminate the poverty through microcredit agenda.

Microcredit programs like ASA, BRAC, and DBS are also provided different type of facilities including credit to improve livelihood of the poor. Government organizations mainly BRDB have been implementing such socio-economic and socio-cultural programs in the field of rural development; especially, in rural poverty alleviation through forming co-operatives and non-formal group network throughout the country with the financial and technical support of the government development partners.

1.3 Significance of the Study

This research explores the impact of microcredit organizations in the Bangladesh economy. It is one of the first comprehensive studies that analyses the impact of microcredit in a broader spectrum. This is an original study not only in terms of use of a new data set but also in terms of use of econometric techniques. The study has analyzed the impact of microcredit programs on the borrowers of three large microcredit institutions in Bangladesh – ASA, BRAC and DBS. Microcredit programs have created a revolution not only in Bangladesh but also throughout the world for their novelty. Microcredit is a unique innovation in credit delivery techniques that enhances income generating activities. Its uniqueness is reflected in its collateral-free group-based lending strategies, high repayment rates and also a special focus on women.

Microcredit is an effective tool for income generation which leads to poverty alleviation of poor women and their household. So that, the study is conduct on three different microcredit organizations exist in Meherpur district, with a view to assess the income generation for poverty alleviation of poor women at household level through microcredit.

This study may help to know about the effectiveness of microcredit offered by different organizations to alleviate poverty of the borrowers; on the contrary this study may be helpful for the microcredit organizations to adopt effective policies for providing better services to their borrowers. The expected outcome of the study can measure the impact of microcredit on income generation for alleviate poverty of poor women at household level in the selected programming areas. The study reveals the household condition of the poor women borrowers after receiving microcredit. This study also reflects on education and occupation status of women. Simultaneously, it also expresses the actual condition of women empowerment under different microcredit program areas. However, this study may help the future researchers who will be interested to work in this field.

1.4 Rationale of the study

Although there have been quite a number of studies on various aspects of microcredit, none of those studies has comprehensively analyzed whether programs are successful in bringing about an improvement in the quality of life of the borrowers. This study, therefore, analyses the impact of microcredit on various household outcomes. It examines the consumption patterns of borrowers compared to non-borrowers and assesses the impact of microcredit on women's empowerment.

This study raises a number of critical questions that need to be addressed.
1. Do microcredit programs in Bangladesh improve various household outcomes such as income and asset accumulation?
2. Do microcredit programs in Bangladesh provide improved consumption for borrowers compared to that of the non-borrowers?
3. Do microcredit programs in Bangladesh empower women?

In the existing literature there are two general hypotheses about the impact of microcredit programs.
First Hypothesis: Microcredit programs are successful in improving the standard of living of the rural people and improving their consumption behavior.
Second Hypothesis: Microcredit programs are successful for empowering women.

This study incorporates the major issues such as impact assessment and conducts a thorough analysis of the impact on women's empowerment. It uses a new approach to measure consumption and integrates some new explanatory variables in the general model specification. In particular this study looks at the impact of microcredit on income generation which leads to poverty reduction in Meherpur district not Bangladesh overall.

1.5 Objectives of the Study

The broad objective of the proposed study is to make a comparative study on the different microcredit programs exist in Meherpur. However, the following are the specific objectives:

1. To assess the socio-economic characteristics of women who receives microcredit in study area;

2. To assess the impact of microcredit programs on raising income for poverty alleviation of women at the household level;

3. To measure the women empowerment through microcredit programs;

4. To identify the constrains and suggest the policy guideline for improving the activities of microcredit programs

1.6 Organization of the Study

The study organized by nine chapters. The present chapter proceeds with general overview, background information, significance of the study, objectives of the study, hypothesis of the study and also with definition and conceptual framework. Chapter two presents a discussion about all the pioneer works already done by previous researcher and their opinion in the proposed field of research. Chapter three focused on methodology of the study. Chapter four provided socio-economic approachable analysis of women of different microcredit programs. Chapter five assesses the impact of microcredit on poverty alleviation of the poor women at household level. Chapter six discuss about the women empowerment. Identify the constraints and policy recommendations suggest for better implementation of the microcredit programs discussed in chapter seven.

Lastly, chapter eight provides summary, concluding remarks and limitations of the study.

CHAPTER TWO
REVIEW OF LITERATURE

The main purpose of this chapter is to review some related studies in connection with the present study. Relevant scholarly works in the field of microcredit vast empirical literatures have been studied to evaluate the nature and effects of microcredit on livelihood of poor women borrowers. Despite, the role of microcredit in poverty reduction is infrequently conflicting between positive, no impact and even negative, till today, microcredit is recognized as the most effective tool to fight against the poverty. Numerous studies on the impact of microcredit revealed the positive impact of microcredit on poverty alleviation and in improvement of livelihood of poor women. These previous studies however can provide only some insight about various microcredit programs and their impact on the poor household, especially for women in case of their empowerment. Some of those studies are being reviewed in this chapter.

Rahaman (2007) provides an example that the ministry of Finance and Specialized Financial Institutions, Commercial and Specialized banks, Bangladesh Krishi Bank, and MF-NGOs which has created micro-entrepreneurship in Bangladesh, composed mostly of women. Throughout the country, there are many successful shops and firms owned and managed by women. Women mainly start business in the struggle for survival, but with a little support from MF-NGOs they can go beyond the subsistence level and make profits from their business activities. These women innovate and change the production function the fundamental attributes of an entrepreneurship in Bangladesh

Kondo (2007) found no significant impact on household assets as well as on human capital investments, such as health and education and mild impact on income and expenditures.

Infantado (2008) carried out an impact evaluation study on the Rural Microenterprise Finance Project (RMFP) in the Philippines using the difference-in-difference estimation technique and outcomes of the study showed a mildly significant positive impact on per capita income, per capita total expenditure and per capita food expenditure.

Abed (2008) stated that girls in a poor household as young as four would look after their younger siblings. A little older, they would collect fuel, take the goats out to the pastures, do household work. When they were grown and married, they would also manage poverty, because, especially if they were married to daylaborers who did not find work and so could not make an income every day, it was the women who borrowed from others, they managed the lack of resources. If they could do this, they should able to manage everything else, but often, women are not given the chance to manage everything's. But women have experience in running things, they are disciplined and they have foresight.

Islam et al., (2009) developed a model examining the relation between microcredit and child labour. We then empirically examine the impact of access to microcredit on children 's education and child labourusing a new and large data set from rural Bangladesh. We address the selection bias using the instrumental variable method where the instrument relies on an exogenous variation in treatment intensity among households in different villages. The results show that household participation in a microcredit program may increase child labour and reduce school enrolment. The adverse effects were more pronounced for girls than boys. Younger children are more adversely affected than their older siblings and the children of poorer andless educated households are affected most adversely. Our findings remain robust to different specifications and methods, and when corrected for various sources of selection bias.

Rahman *et al.,* (2013) studied women's Economic Empowerment through Micro-credit Program. The study revealed that different factors of household and community level e.g. ability of establishing rural cooperative banks, control of own poultry farm and its utilization, control of own jewelry and enjoyment, decision-making in land or equipment selling in an emergency and independent savings have been found significantly associated with the women's economic empowerment in the studied area.

Uddin (2014) examined Microcredit towards Achieving Women Empowerment from the perspective of Rural Areas of Bangladesh. Development agencies, non-government

Organizations (NGOs) and government organizations around the world aim for the betterment of women in all spheres of their life, i.e. family life, social life and so on. Empowerment has been considered the main focal point towards the achievement of the wellbeing of women. Different donor agencies working in Bangladesh and the government of Bangladesh also have given priority to microcredit as a means to reach women through involving them in social and development activities. In Bangladesh, as a developing country, gender discrimination is an obstacle to its development.

Islam *et al.,*(2014) examined the impact of microcredit on poverty reduction from 100 microcredit recipients of Grameen Bank, BRAC and ASA using structured questionnaire and found that these MFIs play important role to reduce poverty by generating employment and improving living standard by better education, health facilities and higher health expenditure.

Terano*et al.,* (2015) conducted a survey on 100 credit recipients and illustrated the impact of microcredit on total income level by using descriptive analysis, factor analysis and multiple regression analysis

Khandker*et al.,* (2015) documented interesting results on the longer term effects of microcredit on household welfare, utilizing a panel data of households covering 87 villages of rural Bangladesh and they estimated long run effects of microcredit on household per capita income, expenditures, poverty, non-land assets, household net-worth, male & female labor supply and schooling of children.

Khan and Karim (2016) described that one third of the borrowers were able to increase their household income found from the survey conducted on BRAC and Grameen Bank which also revealed that 5.5 percent borrower of Grameen Bank and 2.99 percent borrowers of BRAC were able to raise poverty level and about 68 percent borrowers of Grameen Bank were found to cross the poverty line.

Adonsou and Kevin (2016) studied Financial Development and Poverty reduction in developing countries. The results indicated that banks reduce poverty when poverty is measured by the headcount ratio and poverty gap. As for the squared poverty gap, there is no significant effect of banks. On the other hand MFIs did not appear to have any impact on poverty regardless of the measure of poverty employed. These results implied that while banks have some ability to reduce poverty, MFIs did not, at least at the aggregate level. Their results were robust to the use of assets to GDP as an alternative measure of financial development.

Siddik (2017) studied does financial inclusion promote women empowerment? Study revealed that financial inclusion increases women income, purchasing power, living standard and position in the family. Study also reveals that after availing financial inclusion programs, rural women become able to meet their emergencies, give child better education, get better medical facility, reduce dependency on local money lenders which means that financial inclusion programs promotes women's economic empowerment. Findings of the study was of greater importance to the academicians, practitioners and policy makers of the country to design such packages as to foster financial inclusion which will lead to more women empowerment which in turn will lead to the inclusive development of the country.

Roy *et al.,* (2017) measured contribution of NGOs for Socio-Economic Development in Bangladesh. The study found that the main tasks are to organize these people, create awareness in them and make them development oriented. These organizations were working based on the assessed need and demand of the grass root level farmers and women. By involving the beneficiaries directly, they are working within the context of overall national planning for development.

Mia (2017) studied an overview of the Microfinance Sector in Bangladesh. This study found that Bangladesh has made remarkable progress in her socio-economic and economic development in the last few decades. It was also generally perceived that microfinance has placed significant contribution on such socio-economic

development. While microfinance observed unprecedented growth domestically, however, the regulatory framework is still rather weak, and a majority of the MFIs are found to be concentrated in the well-off areas (e.g., Dhaka, Chittagong etc.). The findings were significantly important for the parties who are interested to know the microfinance sector in Bangladesh.

Godwin (2017) studied impact of Microfinance on Poverty Reduction in Nigeria. The result showed the expected negative relationship between micro finance ending and poverty. However, the regression result and analysis have shown that there was a lot of room for improvement. The impact of micro financing on poverty reduction is still low and not significant in wiping out poverty from our land. Therefore, there was need to increase infrastructural and basic services provision for the citizens of Nigeria; and to create a friendly investment environment that will enable and attract micro enterprises and small and medium scale establishments.

Fenton and Paavola (2017) studied the role of Microfinance in Household livelihood adaptation in Satkhira District, Southeast Bangladesh. They found evidence that microfinance facilitates coping by reducing sensitivity to environmental and climate hazards. Credit is especially important because its availability is uncorrelated with the occurrence of flooding, unlike many other traditional coping responses. They also found evidence that microfinance facilitates adaptation by helping households to overcome financial barriers of adopting adaptation options which reduce exposure or sensitivity. However, credit limits were likely to restrict its role to incremental adaptations, which may not meaningfully reduce vulnerability.

Choudhury *et al.,* (2017) measured the effectiveness of micro-credit programs focusing on Household Income, Expenditure and Savings. The paper revealed that the level of education plays an important and statistically significant role in increasing the household income, expenditure and savings. Hence, the ASA microcredit program had a positive impact on reducing poverty in Bangladesh and enhancing the competitiveness of deprived rural and urban households in improving their standard of living.

Hameed *et.al.* (2018) studied Microfinance institute's non-financial services and women-empowerment: The role of vulnerability. This study contributed in the body of literature by investigating vulnerability as moderating variable. Hence, this study was beneficial for microfinance institutes to enhance women empowerment through training/skill development and social capital development.

Khanam*et al.*, (2018) measured Financing micro-entrepreneurs for poverty alleviation: performance analysis of microfinance services offered by BRAC, ASA, and Proshika from Bangladesh. This study evaluated the impact of micro-finance services provided by MFIs on poverty alleviation. In this vein, we examine whether microfinance services contribute to poverty alleviation, and also identified bottlenecks in micro-finance programs and operations. The results indicated that the micro-loans have a statistically significant positive impact on the poverty alleviation index and consequently improve the living standard of borrowers by increasing their level of income.

Mia *et al.*, (2019) studied history of microfinance in Bangladesh. A life cycle theory approach. This study aimed to conceptualize and document the historical evolution of microfinance in Bangladesh using the life cycle theory (LCT). Based on the LCT nomenclature, the microfinance sector in Bangladesh showed characteristics broadly consistent with the saturation phase (2006–2015) – which potentially had adverse impacts on both microfinance clients and institutions. The maturity phase (1996–2005) of microfinance had corresponded with competition and several innovations (financial and non-financial).

Debnath*et.al.* (2019) studied empowering Women through Microcredit in Bangladesh. The empirical results indicated that borrowers of microcredit had greater control over their own savings. The regression outcome also exposed that microcredit has a positive and significant impact on enhancing participation in household decision making process and women's legal awareness. The study suggested that microcredit providers in Bangladesh should be encouraged to review their program planning and redesign loan products by putting more emphasis on higher income group women.

CHAPTER THREE
METHODOLOGY OF THE STUDY

Methodology is an indispensable and integral part of any study. The reliability of a specific study finding depends to a great extent on the appropriate methodology used in the study. Improper methodology very often leads to misleading result. The main objectives of the study are to assess the impact of microcredit programs on income generation for poverty alleviation of women; besides these other objectives are also considered. The survey method is selected to achieve the objectives of the study. The study based on review of empirical literatures, computation of primary information and to support this collected primary data some of secondary information was also collected from various sources. The descriptive analysis by the simple tabular method and multiple regression analysis are carried out to find out the result. Therefore, the study was adopted in the following methodology which focuses on this chapter.

3.1 Basic Design

The study is an exploratory study of different microcredit programs exists in Meherpur along with analytical approach. Therefore, the study was covering with sample survey technique.

3.2 Selection of the Sample and Area of the Study

The study area was selected purposively and all of the participants were selected randomly. The study was conducted upon three different microcredit programs namely: Association for Social Advancement (ASA), Bangladesh Rural Advancement Committee (BRAC), and Daridra Bimochon Sangstha (DBS) existing different area of Meherpur district with a view to collect information from the most disadvantaged group of women about their livelihood and socio-economic condition after received loan from these microcredit programs.

3.3 Sources of Data

Data were collected from primary source for the study. The primary data were collected through a questionnaire asking. The sources of data were three different microcredit organizations (non-government organizations) existing in different area of Meherpur.

3.4 Method of Sampling

This study was performed to assess the impact of microcredit programs on poverty alleviation of women at household level, under three microcredit programming areas. The data were collected for this study on the month of May to June 2019. The researcher herself conducted the formal survey for data collection.

3.4.1 Justification for Sampling

The research study was completed within a limited period of time. The large number of sample was considered here. The study was followed in a simple random sampling technique to select an appropriate sample for reliable representation of the population.

3.4.2 Sample Size

Total sample size 90 were collected on random basis, 30 respondents were interviewed from the DBS's microcredit program areas, 29 respondents from the ASA, and another 31 from the BRAC were selected for this purpose. All of the respondents were women and received loan from one or more than one existing microcredit programs in Meherpur.

3.4.3 Sampling Technique

This study focuses on microcredit operations in Meherpur, 90 women borrowers have been interviewed using a pre-designing questionnaire. The sampling procedure followed was to select three microcredit program areas under different organizations. The purposive sampling technique was adopted because, collecting data from each respondent of every microcredit programs exists in Meherpur was more expensive and most time consuming. The 90 respondents were selected in the study areas. Table: 3.1 focus on the three leading sources of microcredit programs (in Meherpur) from which the respondents have mainly borrowed. The total numbers of borrowers of the microcredit programs are distributed as:

ASA (37.5 percent), BRAC (41.67 percent), and DBA (20.83 percent respectively (Table 3.1).

Table 3.1: Distribution of Borrowers by Three Microcredit Programs

Sources	Number of Borrowers	Percentage
ASA	29	32.2
BRAC	31	34.5
DBS	30	33.3
Total	90	100.0

Source: Field survey, 2019

3.5 Method of Data Collection

Simple sample survey technique was used for collecting data. A preliminary survey was considered by pre-tested structured interview schedule. Pre-tested interview schedule were used to collect information from the five respondents of three selected microcredit program areas. After this pre-test rearranged the questionnaire and prepared it for final survey. To collect accurate and reliable information for the research study, respondents were interviewed face to face by the researcher. The researcher herself randomly interviewed the relevant respondents to fill-up the questionnaire. Though collecting data from respondents was difficult to do because of their (respondent's) regional language and illiteracy. Therefore, to collect reliable data the researcher herself has to made intimacy with respondents and made all possible way to collect the accurate information from respondents. However, observation and analytical technique was followed for collecting data. In some cases answer given by the respondents was of memory recall in nature then the researcher encouraged them to memorized and become successful. When interview of respondents were taken over, the researcher again checked all of the collect information for its accuracy and reliability.

3.6 Pattern of the Questionnaire

A questionnaire is an important part of the research. After pre-testing the researcher herself improved and updated information of the questionnaire, and then selected respondents were requested by the researcher to answer the questions. All of the questions were set according to the objectives of the study. To get the accurate answer from the respondent the researcher formulated the questionnaire very carefully. The questionnaire comprised the following parts:

1. General Information of Respondent
2. Respondents Socio-economic Information
3. Respondents Microcredit Information
4. Information about Women Empowerment
5. Respondents Opinion

The first part was contained respondents' identification, age, religion, household members, earning members and village name. Second part of the questionnaire presented questions about respondent's socio-economic conditions. Respondents answered about their household's monthly income and information about household members according to their sex, age, marital status, education, occupation etc. Different code was used for this purpose. This part also contained questions about respondent's sources of income, expenditure for food and non-food item, asset information, involvement of socio-economic programs and recreation facilities of the respondents. The third part of the questionnaire providing information on respondents' microcredit programs, such as: programs name, total amount of loan received, training experience, interest rate, amount of installments, purpose of credit expenditure and different uses of credit etc. Moreover, respondents asking about their improvement of credit expenditure, savings amount after received loan, disbursement of savings, another sources of credit and received amount, problems faced when received loan and respondents expected opportunities from microcredit programs. In fourth part respondents asked some questions about their importance in household decision making, which focused on empowerment condition of women. In this section respondents answered in yes or no. Last part of the questionnaire contained respondent's opinion about

impact of microcredit programs on their poverty alleviation, whether their expectation had been fulfilled or not.

3.7 Data Processing and Statistical Packages for Analysis

The collected data was processed through editing, coding, tabulating and classifying on the base of the characteristics. These data were verified to eliminate errors, inconsistency or omission in data collection and to avoid irrelevant information, thus completing the pre tabulation task. In tabulation task processed data were transferred to a master sheet with a view to facilitating tabulation. In this study, the tabulated data were analyzed by using average, sum and percentage etc., with the help of software packages: MS Word, MS Excel, and SPSS to evaluate the collected data.

3.8 Analytical Technique

The present study used both univariate and multivariate techniques to explore the poverty alleviation scenario. The univariate technique is used first to study the variation of poverty alleviation on several covariates. The multivariate technique viz., multiple logistic regression model is used to identify the determinants of poverty alleviation. The reason behind the use of logistic regression model is that the outcome variable - poverty alleviation is dichotomous in nature. Such model is helpful to predict the probability of selected microcredit programs to success in alleviating poverty of women at household level.

3.8.1 Multiple Logistic Regression Model

Regression methods have become an integral component to describe the relationship between a response variable and one or more explanatory variables. Like contingency table analyses and 2 tests, logistic regression allows the analysis of dichotomous or binary outcomes with 2 mutually exclusive levels. However, logistic regression permits the use of continuous or categorical predictors and provides the ability to adjust for multiple predictors. This makes logistic regression especially useful for analysis of observational data when adjustment is needed to reduce the potential bias resulting from differences in the groups being compared. (kirewood and Sterne 2003)

Since the logistic regression model does not require any distributional assumption, unlike many other multivariate techniques (i.e., the variables are normally distributed with equal variance), it can appropriately handle situations in which the independent variables are qualitative or measured in nominal or ordinal scale. The logistic regression model can be used not only to identify risk factors but also to predict the probability of successes. Predicted values for some covariate values are likely to be either above the upper level (usually 1) or below the lower level of the outcome (usually 0) . This model expresses a qualitative dependent variable as a function of several independent variables - both qualitative and quantitative.

Let Y_i denote the dichotomous outcome variable (dependent variable) for the i-th observation and

$Y_i = y_i = 1$,   if the i - th individual is success to alleviate poverty

      $= 0$,   if the i - th individual is a failure

In order to simple notation, we use the quantity $\pi(x) = E(y_i \mid x)$ to represent the conditional mean of Y given X when the logistic distribution is used. The method is to model the response using the logistic function given by

$$\pi(x_i) = \frac{e^{\beta_0 + \beta_1 X_i}}{1 + e^{\beta_0 + \beta_1 X_i}} \quad \text{-----------------------------(1)}$$

where, X_i is an explanatory variable and β_i's are the regression coefficients.

$$\therefore E(y_i = 1 \mid X_i) = \pi(X_i) = \frac{e^{\beta_0 + \beta_1 X_i}}{1 + e^{\beta_0 + \beta_1 X_i}} \quad \text{--------------------(2)}$$

and $E(y_i = 0 \mid X_i) = 1 - \pi(X_i) = \dfrac{1}{1 + e^{\beta_0 + \beta_1 X_i}}$ -----------------(3)

Therefore, we can write

$$\frac{\pi(X_i)}{1 - \pi(X_i)} = e^{\beta_0 + \beta_1 X_i} \quad \text{--(4)}$$

Now if we take natural logarithm of the equation (4), we get

$$L_i = \log_e \left[\frac{\pi(X_i)}{1 - \pi(X_i)} \right] = \beta_0 + \beta_1 X_i \quad ------------------------(5)$$

The equation (5) is known as simple logit regression model. Here $\dfrac{\pi(X_i)}{1 - \pi(X_i)}$ given in (4) is simply the odds ratio and the term L_i given in (5) is known as log-odds.

3.8.1.1 Estimation of parameters

The general linear logit model is defined as

$$\log_e \left[\frac{\pi_i}{1 - \pi_i} \right] = X_i' B \quad (6)$$

where, $X_{n \times K}$ is a matrix of full column and $B_{K \times 1}$ be a vector of parameters. Since y_i takes on the values one or zero with probabilities π_i and $1 - \pi_i$, and if the observations are independent, the joint probability for the observations is given by

$$p(y_1, y_2, ..., y_n) = \prod_{i=1}^{n} \pi_i^{y_i} \left(1 - \pi_i\right)^{(1 - y_i)}$$

$$= \prod_{i=1}^{n} \left(\frac{\pi_i}{1 - \pi_i}\right)^{y_i} \times (1 - \pi_i)$$

$$= \prod_{i=1}^{n} (e^{X_i'B})^{y_i} \left(\frac{1}{1 + e^{X_i'B}}\right) ....(7)$$

and the log likelihood function is

$$\log L(B) = \sum_{i=1}^{n} Y_i X_i' B - \sum_{i=1}^{n} \log_e (1 + e^{X_i'B})$$

The partial derivatives of the log likelihood with respect to B is

$$\frac{\partial \log L(B)}{\partial B} = \sum_{i=1}^{n} Y_i X_i - \sum_{i=1}^{n} \left(\frac{e^{X_i'B}}{1 + e^{X_i'B}}\right) X_i$$

$$= \sum_{i=1}^{n} Y_i X_i - \sum_{i=1}^{n} \left(\frac{1}{1 + e^{-X_i'B}}\right) X_i .... (8)$$

Expressing the equation (8) equal to zero, we get the estimating equation, which can be written in matrix form as

$$X'P = X'Y, \quad \text{where } P = (P_1, P_2, ----- Pn) \text{ and } \pi_i \square \ P = \left[\frac{1}{1 + \exp(-X_i'b)} \right] \text{ is the fitted value of}$$

π_i.

3.8.1.2 Wald Statistic for Testing the Significance of the Coefficients

For large sample size, the hypothesis "a co-efficient is zero" can be tested based on the Wald statistic, which has chi-square distribution. When a variable has single degrees of freedom, the Wald statistic is just the square of the ratio of the co-efficient to its standard error i.e.

$$W = \left[\frac{\hat{\beta}_i}{\hat{S.E.}(\hat{\beta}_i)} \right]^2$$

which follows chi-square distribution with 1 degrees of freedom.

3.8.1.3 Interpretation of the Parameters

It is important to present a discussion about the interpretation of the parameters in logistic model, since it is not so straight forward as in linear regression model. Since the logit transformation, $L_i = \log_e \left(\frac{\pi_i}{1 - \pi_i} \right)$, is linear in parameters, we can interpret the parameters using arguments of linear regression. Thus, the interpretation may be described as follows:

We have, $\pi_i = \dfrac{e^{\beta_0 + \beta_1 x_1 + \square + \beta_k x_k}}{1 + e^{\beta_0 + \beta_1 x_1 + + \beta_k x_k}}$ is a linear in parameter,

i.e., $\log_e \left(\dfrac{\pi_i}{1 - \pi_i} \right) = \beta_0 + \beta_1 X_1 + ... + \beta_k X_k \quad ----------- (9)$

So, as in the case of linear regression model we can say that $\beta_j \ (j=1,2,......,k)$ represent the rate of change in $\log_e\left(\dfrac{p_i}{1-p^i}\right)$ for one unit change in X_j remaining other variables constant.

The interpretation of the parameters in logistic regression has another interesting aspect when the explanatory variable is qualitative. To describe this, we first consider that the independent variable (X_j) is a dichotomous. This case is not only simplest but also it gives the conceptual foundation for all other situations. The description is given below.

We have $\text{Log}_e\left(\dfrac{\pi_i}{1-\pi^i}\right) = \beta_0 + \beta_1 X_1 + ... + \beta_j X_j + \square \beta_k X_k$

Now if X_j is a dichotomous variable taking values 0 and 1, then the odds ratio 'OR' (say) for $X_j=1$ against $X_j=0$ is (keeping all other X_i's fixed)

$$\text{OR} = \dfrac{p_i\left(y_i = 1\middle|x,x_j = 1\right)\Big/\left\{1-p_i\left(y_i = 1\middle|x,x_j = 1\right)\right\}}{p_i\left(y_i = 1\middle|x,x_j = 0\right)\Big/\left\{1-p_i\left(y_i = 1\middle|x,x_j =0\right)\right\}} = \dfrac{e^{\beta_0 + \beta_1 X_1 + ...+1.\beta_j +.......+\beta_k X_k}}{e^{\beta_0 + \beta_1 X_1 + ...+0.\beta_j +\square +\beta_k X_k}}$$

$$= e^{\beta_j}$$

$$\Rightarrow \log \text{OR} = \beta_j$$

So, we can directly estimate the coefficients of a logistic regression model as log of odds ratio (OR) and hence can interpret. If a qualitative independent variable has m categories, we introduce (m-1) dummy variables and the remaining one is taken as reference category.

3.8.2 Study Variables

- **Dependent Variable**

This study based on dichotomous dependent variable poverty alleviation of women. Table 3.2 shows the dependent variable with its categories. The women borrowers' answered

'yes' if they are able to alleviate their poverty by received microcredit or answered 'no' if they are not able to alleviate their poverty.

Table 3.2: Dependent Variable with Categories

Name of the dependent variable	Category
Raise income for Poverty Alleviation	'yes'(1)
	'no'(0)

- **Independent Variables**

The construction of variables and their categories are discussed below:

Total Household Members: Total household member was determined by the members who were taking meals from the same pot.

Earning Members: Earning member of respondents household was determined by the total number of members in her family engaged in income earning activities and 15 years old in age.

Monthly Income: Monthly income was determined on the basis of monthly earnings obtain by respondents household from any sources, it was measured in Taka.

Education: Respondents education status was measured by able to reading and writing capacity of women or in terms of years of schooling completed by the women.

Occupation: The occupation status of respondents was measured by the income earning activities of women and they are considered as employed. Respondents who do not engage in any income earning activities are decided as unemployed.

Amount of Loan: Amount of loan was measured in Taka on the basis of the total amount of loan taken by a borrower from any microcredit organization.

Savings Amount: Respondents savings amount was determined by the amount she saved in any microcredit organization or the amount she save in herself, this was measured in Taka.

Lists of independent variables with categories are expressed by the following Table 3.3.

Table 3.3: Lists of Independent Variables with Categories

Name of the Independent variables	Category
Total Members (in number)	'1-5'
	'6-7'
Earning Members (in number)	'1'
	'2'
	'3'
Monthly Income (in Tk.)	'<8000'
	'≥8000'
Education	'Illiterate'
	'Educated'
	'Higher Educated'
Occupation	'Unemployed'
	'Employed'
Amount of Loan (in Tk.)	'5000-10000'
	'>11000'
Savings Amount (in Tk.)	'≥5000'
	'<5000'

3.9 Women Empowerment Index (WEI)

Microcredit programs, the largest development program in Bangladesh today and one that is believed to have strong conceptual links to 'Women Empowerment'. In general,

women's empowerment can be considered in two ways: on an individual level – a woman achieves more control in family decision-making; and, on collective level – women as a group work together for changing social structures not in favor of them (Young 1997). Nevertheless, even gender literature of donor agencies imposing the financial sustainability approach itself anticipates that programs will:

- significantly increase incomes from women's own activities;
- enable women to control (have a choice over use of) income from loans and activities generated by loans;
- enable women to negotiate improvements in their well-being within the household;
- give women access to support networks which enable them to protect their individual and collective interests at the local and macro-levels.

The present study finds that, the measurement of women empowerment through microcredit programs, where credit program participation on women's have yielded contrary result for 'unemployed women' and have positive result for 'employed women'.

The assessment of women empowerment is determined by the ten-household decision making questions answered by the respondents, and also considered does providing micro credit by the selected microcredit programs enhance them to influence in household decision making. The respondents' responses affirmative (yes) or negative (no) for all of the decision-making questions asked them. All of the affirmative answer is ranked by 1 (one) and negative answer is ranked by 0 (zero). If all of the questions answered by the respondents are 1 then it indicates the fully empowerment of women are existing and if all of the questions answered by the respondents are 0 then it considered that the fully empowerment of women are collapse. The ranking measures the degrees of empowerment based on selected decision-making factors. The construction of 'Women Empowerment Index' is based on this ranking procedure.

In this study, the decision-making power of women was considered to constructing a women empowerment index. To measure the decision-making power, respondents in

decision making process was divided into two categories: by women herself and by her husband or male counterparts.

The ranking of empowerment of women is considered as follows:

Decision Making Process	Respondents Responses	Rank of Empowerment
By women herself	Yes (affirmative)	1
By her husband or male counterparts	No (negative)	0

Let, K_i=the ranking value of each decision-making indicator, $(0…1)$.

X_i=the decision-making indicator, $(1…10)$.

where, X_i denoted as:

X_1= Education for Children

X_2= To accumulate savings in their (women's) own name

X_3= Marriage of children

X_4= Birth of children

X_5= Family planning

X_6= Disbursement of credit income

X_7= Spending income

X_8= Buying asset

X_9= Participate any occasion

X_{10}= Others

Consider as, $X_i = \overline{K_i}$ (I)

i.e., the average scoring value of Xi(the indicator) for all household would be the average of the value K_i .

The given value of ten decision making indicators for each woman often used to construct the women empowerment index (WEI). To constructing the women empowerment index

(WEI), the values of decision making indicators X_is are summed and measured individual women empowerment index (WEI$_i$)for each interviewee by following formula:

$$WEI_i = \sum_{i=1}^{10} X_i \Big/ 10 \qquad (II)$$

So that, the total WEI stands for an i-th individual as

$$WEI = \sum_{i=1}^{90} WEI_i \Big/ 90 \qquad (III)$$

From the total sample of respondents the employed women was 38 and unemployed women was 52. For this reason, the empowerment index of employed group of women and unemployed group of women is constructed as follows:

$$WEIem = \sum_{i=1}^{38} WEI_i \Big/ 38 \qquad (IV)$$

$$WEIunem = \sum_{i=1}^{52} WEI_i \Big/ 52 \qquad (V)$$

The assessment of the condition for empowerment of women is defined by ranges such as:

- **Least Empowered**:   0 to less than 0.50
- **Highly Empowered**: 0.50 to 1

Where, belongs to the range 0 to less than 0.50 is considered as lower empowerment condition of women and 0.50 to 1 is denoted as highly empowered condition of women. The impact of microcredit program to influence the empowerment of women assessed by comparing observed differences between employed group and unemployed group of women in chapter seven respectively.

CHAPTER FOUR

SOCIO-ECONOMIC PROFILE OF WOMEN UNDER DIFFERENT MICROCREDIT PROGRAMS

The socio-economic characteristics of the borrowers are also differentiated in different microcredit programs. To know about the socio-economic information of women some socio-economic indicators are used for this study as: profile of the household head's, distribution of households according to income group, religion, marital status, education level and occupation status of women, household's annual sources of income, monthly expenditure, holding assets and other facilities of household.

4.1 Respondents Household Head Profile

The household heads in participating households under three microcredit programming areas were mainly male but it was different in some cases where household heads were the women herself.

Table 4.1: Profile of Respondents Household Head

Organization	HH Head					
	Father	Husband	Son	Women Herself	Others	Total Member
ASA	4(13.79)	24(82.75)	0	0(0)	1(3.45)	29
BRAC	9(32.25)	21(67.74)	0	1(3.22)	0	31
DBS	7(23.33)	19(63.33)	3(10)	1(3.33)	0	30
Total	20(22.22)	64(71.11)	3(3.33	2(2.22)	1(1.11)	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

It was being observed that most of the women's household head in the study areas were her husband mainly 71 percent, from Table 4.1. Women herself as household heads were 2.22 percent and 1.1 percent household heads were women's father or other relative respectively. Only 3.3 percent household heads were son of women.

Fig: 4.1 represents that most of the household head under three microcredit programming areas were respondents husband. In the ASA's microcredit programming area 82.75 percent HH heads were women's husband and women herself as HH head was 0 percent, women's father as HH head was 13.79 percent and others 3.45percent respectively. In the BRAC's programming area women's husband as HH head reached highest rate i.e. 67.74 percent compared with the other programming areas, women herself 3.22 percent, women's father as HH head was 32.25 percent. Again in the DBS's programming areas 63.33 percent HH heads were women's husband and 3.33 percent were women herself and women's son as HH head was 10 percent respectively.

Fig 4.1 Profile of respondent household head
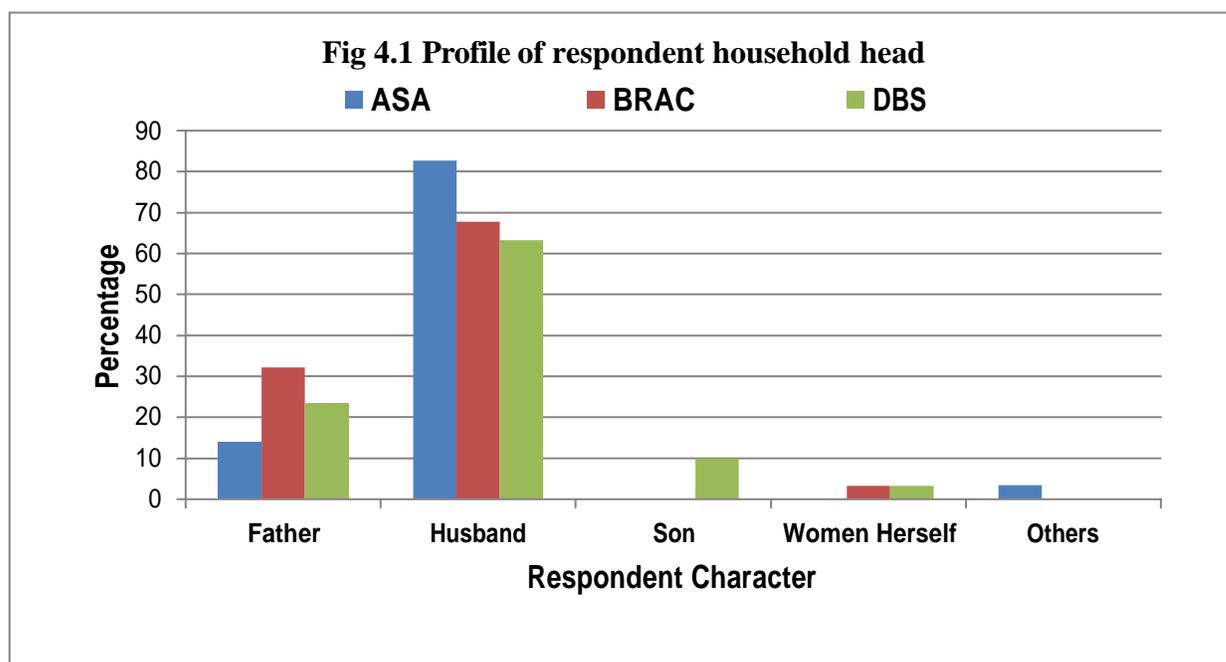
4.2 Distribution of Respondents According to Religion

The respondents among the three microcredit programming areas were both of Muslim and Hindu mixed religion. Though majority of total respondents interviewed from different

microcredit programs was Muslim. Table 4.2 presented the distribution of respondents according to their religion. This table reflects that about half of the respondents in total 93.33 percent were Muslims, and total 6.67 percent were of Hindu religion.

Table 4.2: Distribution of Respondents According to Religion

Organization	Religion		
	Muslim	**Hindu**	**All Member**
ASA	27(93.10)	2(6.89)	29
BRAC	28(90.32)	3(9.61)	31
DBS	29(96.67)	1(3.33)	30
Total	84(93.33)	6(6.67)	90

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig: 4.2 also represent the percentage of the respondents according to religion. In the context of microcredit programming area of ASA 93.10 percent respondents were Muslim and only 6.89 percent respondents were Hindu, 90.32 percent BRAC's respondents were Muslim and 9.61 percent are Hindu, where 96.67 percent respondents of DBS were

Muslim and only 6 percent are Hindu in study area.

Fig 4.2 Distribution of respondents according to religion
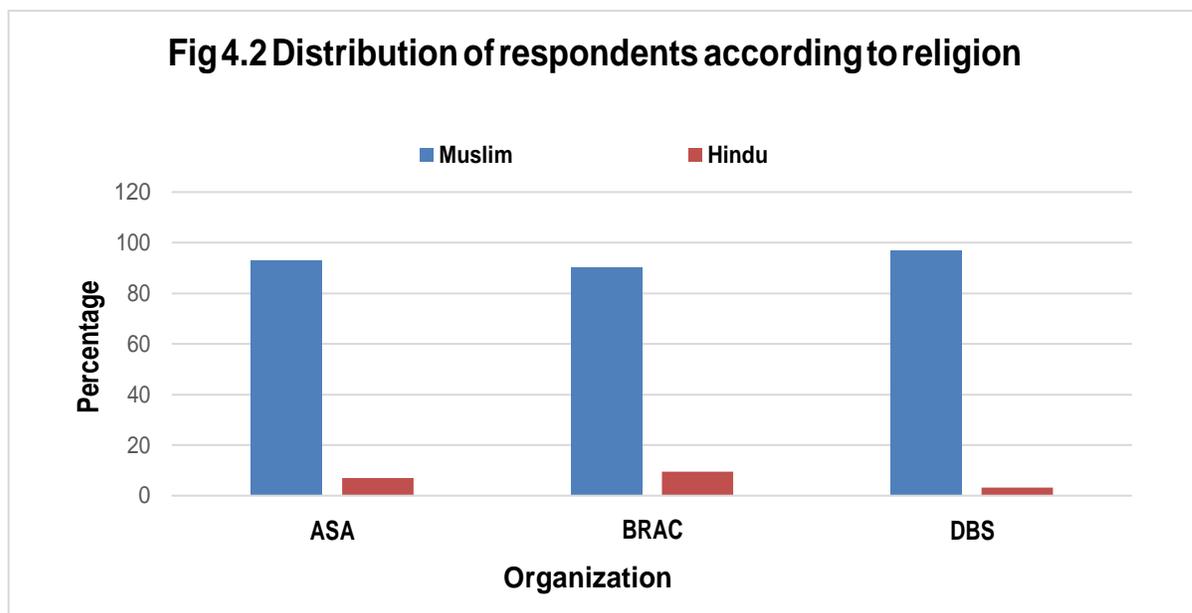
4.3 Marital Status of Respondents

For this study, marital status of the women is being divided in three parts such as: single, married and widow. A respondent to their marital status is distributed in the following Table 4.3.

Table 4.3: Respondents According to their Marital Status

Organization	Single	Married	Divorced	Total Member
ASA	1(3.45)	28(96.55)	0	29
BRAC	3(9.61)	28(90.32)	0	31
DBS	2(6.67)	26(86.67)	2(6.67)	30
Total	6(6.67)	82(91.11)	2(2.22)	90

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

From Table 4.3 gives the idea about the marital status of women borrowers under three different microcredit programming areas, where total 91 percent women borrowers were married and only 6.67 percent under different microcredit program areas were single and the 2 percent were divorced, respectively. 3 percent borrowers' of BRAC were single which is lowest among the existing program areas.

Fig 4.3 Distribution of respondents according to their marital status
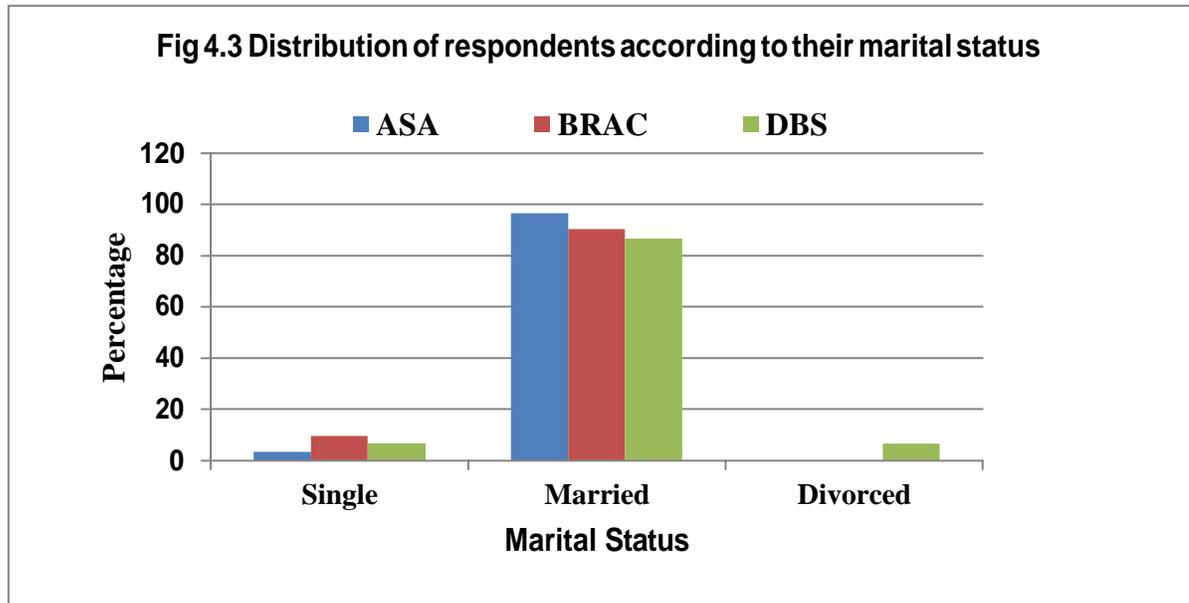
Again, in Fig: 4.3 reflects that, 90 percent BRAC's participants were married while among the participants of ASA and DBS 90 or more than 90 percent were married. This figure represented that; highest 96 percent women under the ASA's microcredit programming area were married.

4.4. Education Levels of Respondents

Education of women enhances choice by increasing access to new knowledge and information. It was observed from the study that education level of women borrowers' were not so well .The education levels of respondents in Table 4.4 shows that total illiterate members among all of the organizations were 20 percent respectively, total 24.44 percent women can only able to read and write, 26.67 percent in total women have received primary education. In case of secondary education level this value was overall 24.44 percent, 2.2 percent, and 2.2 percent respondents got the degree of SSC, HSC and higher education respectively.

Table 4.4: Education Levels of Respondents

Education	Name of the Organization			
	ASA	**BRAC**	**DBS**	**All member**
Illiterate	6(20.68)	5(16.13)	7(23.33)	18(20)
Able to Read and Write	7(24.14)	7(22.58)	8(26.67)	22(24.44)
Primary	12(34.8)	5(16.12)	7(2)	24(26.67)
Secondary	4(13.79)	11(35.48)	7(23.33)	22(24.44)
SSC	0(0)	1(3.23)	1(3.33)	2(2.22)
HSC	0(0)	2(6.45)	0(0)	2(2.22)
Total	29	31	30	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.4 Education level of respondents
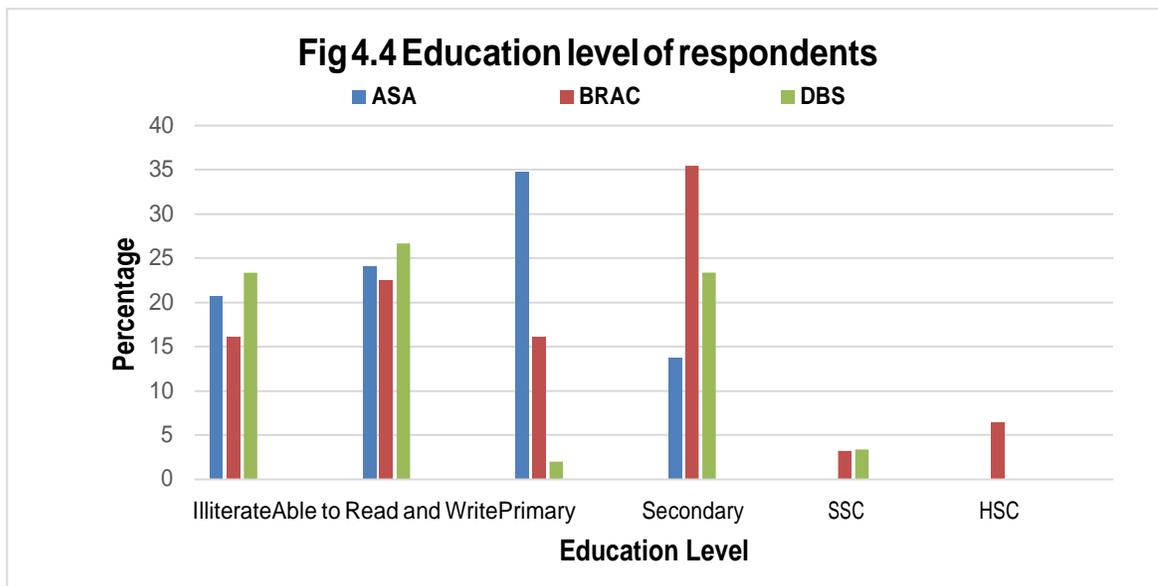
Fig: 4.4 represent the educational status of respondents under different microcredit programs. It shows that 20 percent respondents of ASA was illiterate, where in BRAC it was 16.13 percent and in DBS it was about 23.33 percent. However, few women under the BRACs programming area were well educated.

4.5. Respondents by Occupation

The occupation status of women and their employment opportunity enhances choice by increasing access to cash income. It was found from the study that, most of the participants in the selected areas were poor and vulnerable in nature; most of them were housewife,

65.55 percent in total, 1 percent of them engaged in various services, where total 4.44 percent of them were unemployed petty trader, student and tailor were the 2.2 and 21.1 percent respectively. It is worth mentioning here that, the numbers of women engaged in tailor are much higher in ASA 27.58 percent. Most of the respondents of BRAC were housewife 67.74 percent, in DBS this rate is 63.33 percent and in BRAC, DBS and in ASA the rate of day labor was 3.22 percent, 6.67 percent and 3.4 percent respectively. All of this explanation is represented by the Table 4.5.

Table 4.5: Respondents by Occupation

Organization	Occupation							
	Unemployed	Petty Trader	House Wife	Day Labor	Service	Student	Tailor	Total
ASA	0	1(3.4)	19(65.51)	1(3.4)	0	0	8(27.58)	29
BRAC	1(3.22)	2(6.45)	21(67.74)	1(3.22)	0	0	6(19.35)	31
DBS	0	1(3.33)	19(63.33)	2(6.67)	1(3.33)	2(6.67)	5(16.67)	30
Total	1(1.11)	4(4.44)	59(65.55)	4(4.4)	1(1.1)	2(2.2)	19(21.1)	90

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig: 4.5 also presented the distribution of respondents according to their occupation. In this context of the occupation of women, among the respondents more than half of them were mainly housewife and unemployed and few of them were employed women.

Figure 4.5: Distribution of respondents by occupation
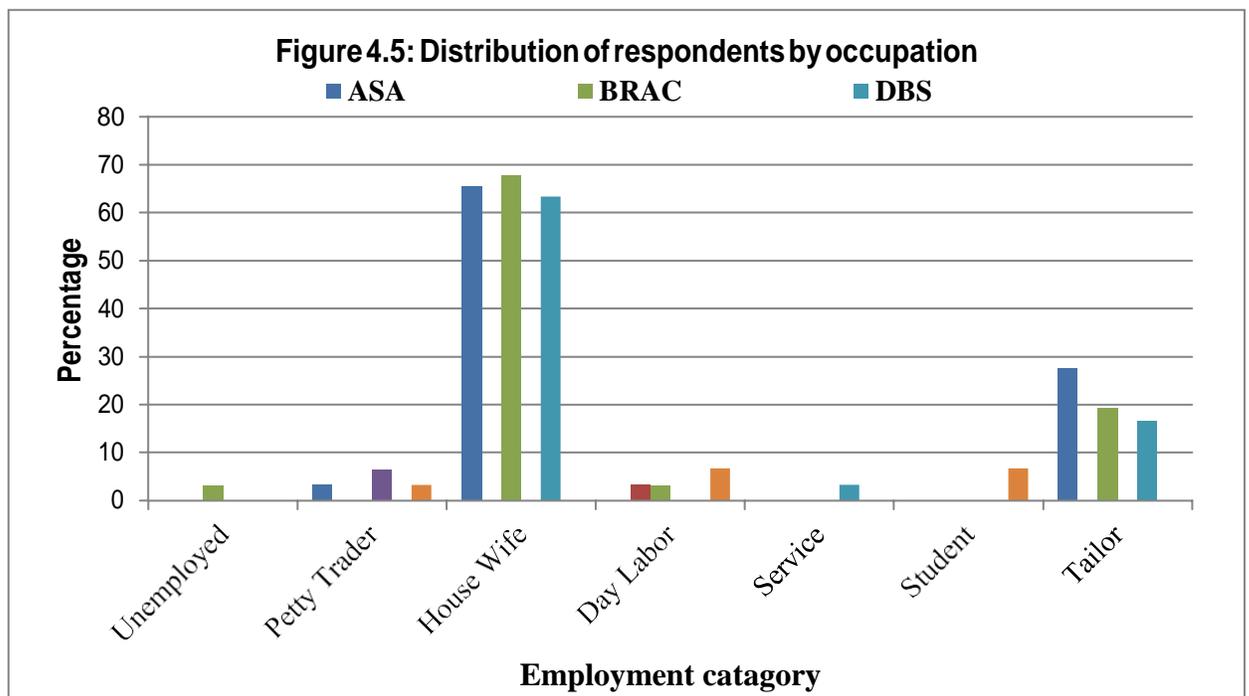
4.6 Income Shares from Different Sources

Household income is depending on different type of income activities: agriculture, trade and business and other services. From the Fig: 4.6 it is observed that, total annual income shares from different sources of income.

Table 4.6: Income Shares from Different Sources

Organization	Agriculture	Ag. and allied activities	Industry /labor	Employment	Business	Rent	Others	All members
ASA	8(27.6)	5(17.2)	5(17.2)	2(6.9)	4(13.9)	3(10.3)	2(6.9)	29
BRAC	7(22.6)	5(16.1)	5(16.1)	0	8(25.81)	3(9.7)	3(9.7)	31
DBS	15(50)	3(10)	4(13.3)	2(6.7)	2(6.7)	1(3.3)	3(10)	30
Total	30(33.3)	13(14.4)	14(15.5)	4(4.4)	14(15.5)	7(7.7)	8(8.9)	90

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

In the context of agriculture and business activities the income share of household is relatively higher 33.3 percent compared to the other activities income share, where 15 percent income comes from industry labor, 8.9 percent income comes from others, 7.7 percent income comes from the rent, 14.4 percent income comes from agriculture and allied activities, 4.4 percent from employment.

Fig 4.6 : Income shares from different sources
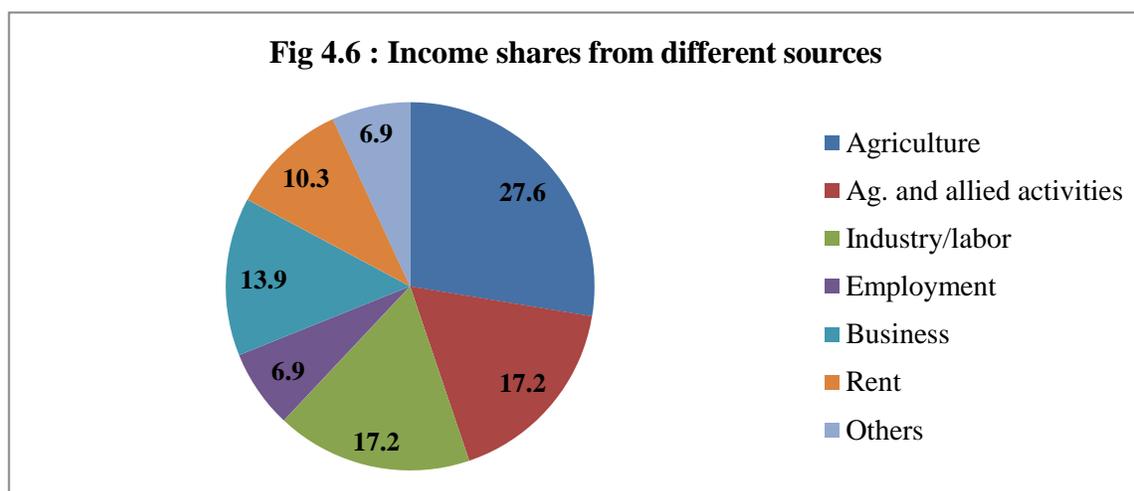
4.7 Distribution of Respondents According to Household's Income

Respondents' economic wellbeing also influences respondent's poverty alleviating conditions. For this, reason respondents overall household monthly income is an important indicator of poverty alleviation Table 4.7 indicates the distribution of respondents according to their household's monthly income groups. The highest of monthly income is Tk. 16001 and above. About 6.9 percent household of the ASA and 25.81 BRAC belong to this group. This rate was 13.33 percent in the DBS which is the also belong this program. On the other hand the 58.62 percent household of the ASA have 8000-12000 than the other microcredit programs, where BRAC have 29.03 percent of 12000-1600 range of income.

Table 4.7: Distribution of Respondents According to Household's Monthly Income

Monthly Income	ASA	BRAC	DBS	Total Member
Tk. 2000 < Tk. 4000	0(0)	3(9.67)	5(16.66)	8
Tk. 4001 < Tk. 8000	5(17.24)	3(9.67)	7(23.33)	15
Tk. 8001 < Tk. 12000	17(58.62)	8(25.81)	11(22.0)	36
Tk. 12001 < Tk. 16000	5(17.24)	9(29.03)	3(36.67)	17
Tk. 16001 & above	2(6.89)	8(25.81)	4(13.33)	14
Total	29(100)	31(100)	30(100)	90

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig: 4.7 express that, the lower income group of household was found in the DBS's programming at 16.66 percent but 0 percent respondents of the ASA's programming area includes in this group. The average monthly income for three different microcredit programs is denoted by the range belongs to Tk. 8001to less than Tk. 12000.It is observed that, 58.62 percent respondents of the ASAs programming area are included in this group. Both 25.81 percent respondents of the BRAC's and 22 percent of DBS's programming area are distributed under this group.

Fig 4.7 Distribution of respondents according to households monthly income
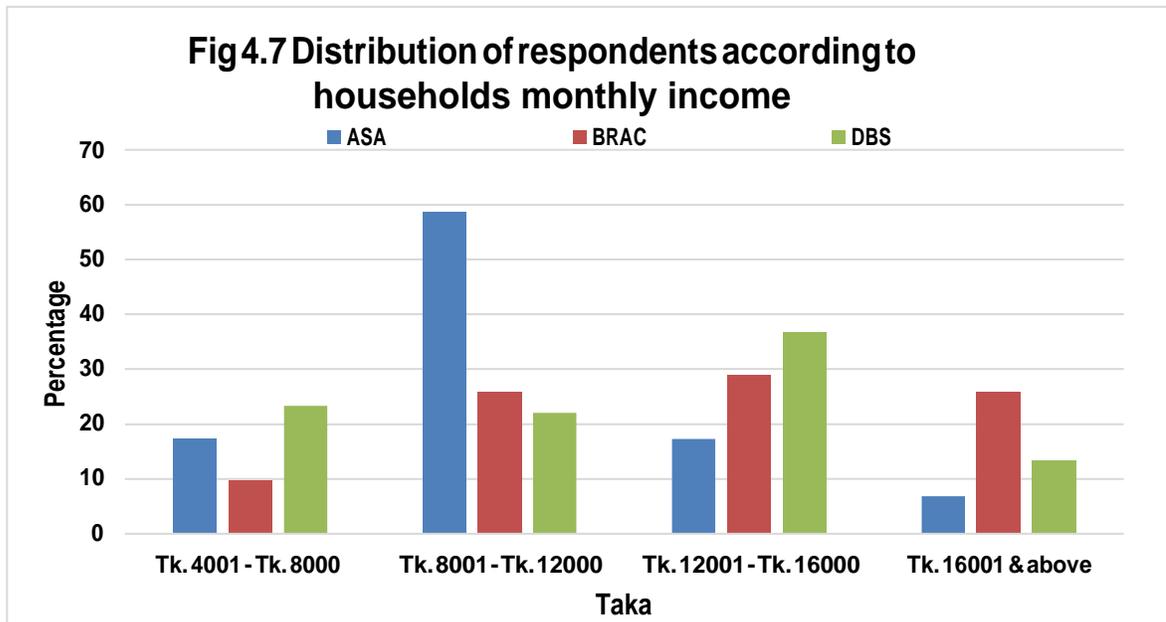
4.8 Household's Average Monthly Expenditure

In the present study the average household monthly expenditure is divided in to two categories such as: expenditure for food item and expenditure for non-food item. The expenditure for non-food item is considered as healthcare, education, cloth, shelter and other household expenditure considered as loan repayment, fuel, electricity, poultry/dairy feed, and traveling and festivals etc. The difference between expenditure (non-food item) and consumption expenditure (food item) is that expenditure which includes purchase of durable goods which is not included in consumption expenditure (BBS, 2018). In the present study it is being observed that the monthly average expenditure (including food and non-food item) of the household is higher than the estimated value, because of global food crises and increased market prices of goods. Table: 4.8 also reveal that, the monthly food item expenditure for the borrowers of the ASA was 42.69 percent where the monthly non-food item expenditure was 57.31 percent. The food item expenditure for the BRAC's participants was 44.71 and non-food item expenditure was 55.29 percent. In the context of the DBS's respondents 42.15 percent was food item expenditure and 57.85 percent was non-food item expenditure. From this study it is observed that most of borrowers' expenditure for food item was lower than their non-food item expenditures including the borrowers of the ASA and the BRAC's and DBSs programming area.

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Table 4.8: Household's Average Monthly Expenditure for Food and Non-food Item (in Tk.)

Organization	Food Item Expenditure	Non-food Item Expenditure	Monthly Average Expenditure
ASA	7328(42.69)	9834 (57.31)	17162
BRAC	8456 (44.71)	10456 (55.29)	18912
DBS	4678 (42.15)	6420.00 (57.85)	11098

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.8: Hosehold's average monthly expenditure
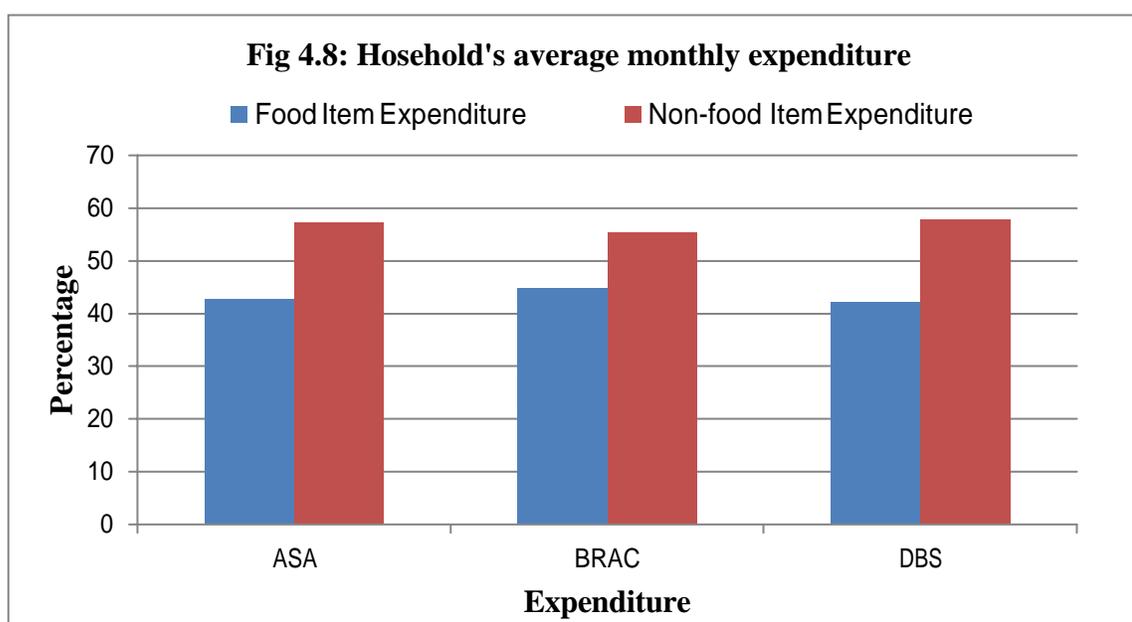
4.9 Household's Asset Information

The household's asset information can be assessed by the quality of life of the household members. For this study, holding assets of household is divided into two categories: land and non-land assets.

Distribution of Household by Agricultural Land Ownership

Fig: 4.9a reflects that, owner of 1 to 30 decimals of agricultural land were found 44.82 percent, 22.5 percent, 9 percent at ASA, BRAC and DBS programming areas respectively. Household having more than 30 decimal lands were found at ASA's programming area that was 6.89 percent, where the household in this group was 54.8 percent in BRAC, 6.67 percent in DBS and on the other hand 48.27 percent in ASA, 22.5 percent in BRAC, 63.3percent in DBS household were landless in microcredit programming areas respectively. It is observed that most of the household were landless in the study areas.

Table 4.9: Distribution of Household by Agricultural Land Ownership

Organization	1 to 30 decimals	More than 30 decimals	landless	Total
ASA	13(44.82)	2 (6.89)	14(48.27)	29
BRAC	7(22.5)	17(54.8)	7(22.5)	31
DBS	9 (30)	2(6.67)	19(63.3)	30
Total	29(32.22)	21(23.33)	40(44.4)	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.9 :Distribution of household by agricultural land ownership
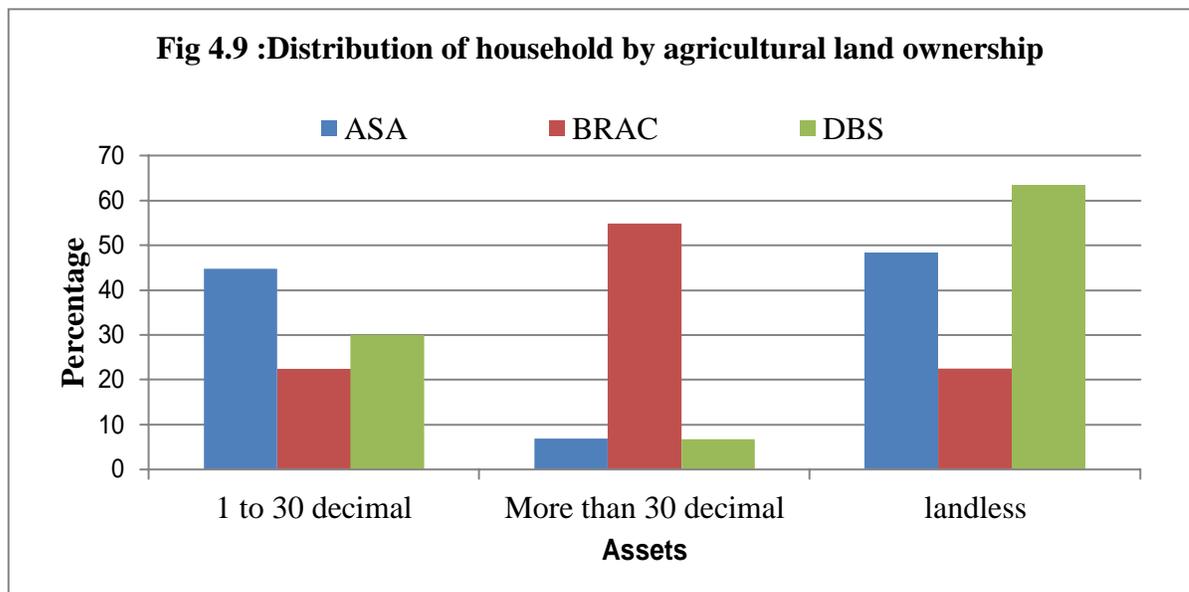
4.10 Distribution of Household by Non Land Asset Ownership

In the microcredit programming area of ASA, 14 percent households have poultry, 38 percent have livestock, and 10 percent have TV/radio, 13.8 percent uses mobile phone whereas in BRAC's programming area 12.9 percent household have poultry, 22.6 percent have rickshaw/van and 3.2 percent have mobile phone and 14 percent have rickshaw. In case of DBS's household 26.7 percent have livestock, 10 percent have TV/radio and 16.6 percent have mobile phone.

Table 4.10: Distribution of Household by Non-Land Asset Ownership

s	Poultry	Livestock	Rickshaw	Radio	Mobile phone	others	Total
ASA	4(13.8)	12(38.7)	2(6.9))	3(10.3)	4(13.8)	4(13.8)	29
BRAC	4(12.90)	14(45.16)	7(22.6)	5(16.1)	1(3.2)	0(0)	31
DBS	8(26.7)	9(30)	3(10)	3(10)	5(16.6)	0(0)	30
Total	16(17.8)	35(38.9)	12(13.3)	11(12,2)	10(11.1)	4(4.4)	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.10 : Houehold by non-land asset ownerwship
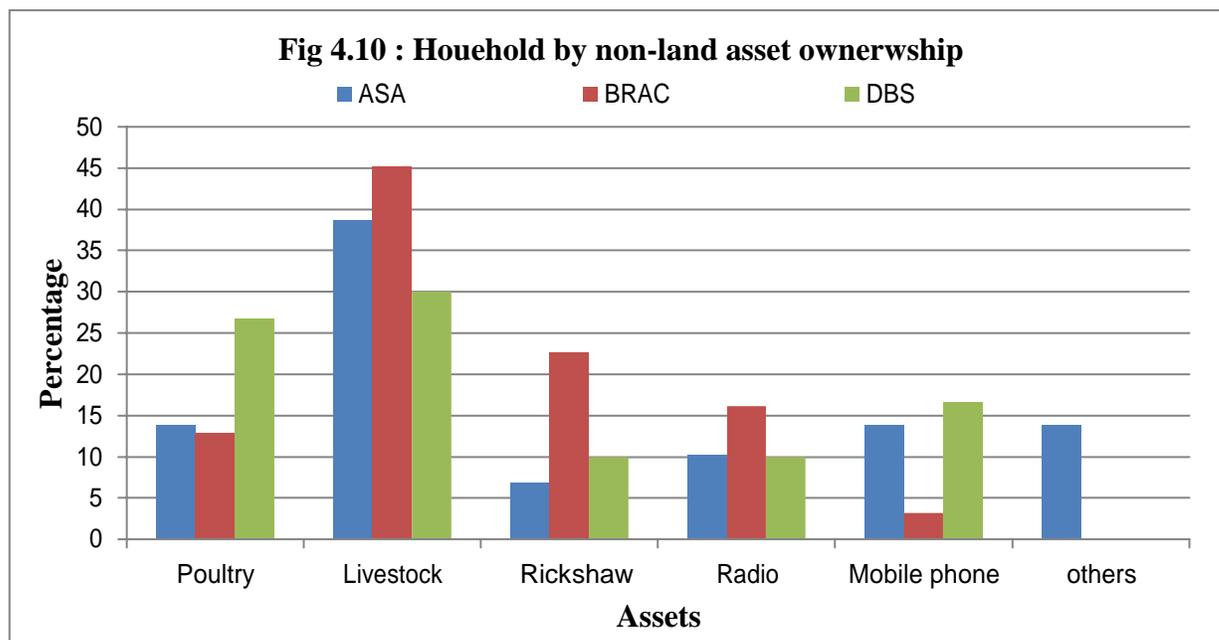
4.10a Household's other Facilities

The household other facilities included education for children, healthcare facility, pure drinking water facility, gas/electricity facility. This facility can be assessed by three conditions: good, medium and not so well.

Education for children

In order to improve living standard education get more priority. In this context education for children is necessary. Among the microcredit programming areas the ASA's households has 51.7 percent good facility for children education, 90.3 percent households has good facility for children education under the BRAC's programming area, on the other hand 26.7 percent DBS's households has this facility. (Fig: 4.10a).

Table 4.10a: Education for children

Organization	Good	Medium	Not so well	Total
ASA	15(51.7)	8(27.6)	6(20.7)	29
BRAC	28(90.3)	1(3.2)	2(6.5)	31
DBS	8 (26.7)	11(36.7)	11(36.7)	30
Total	51(56.7)	20(22.2)	19(21.1)	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.10a: Education for children
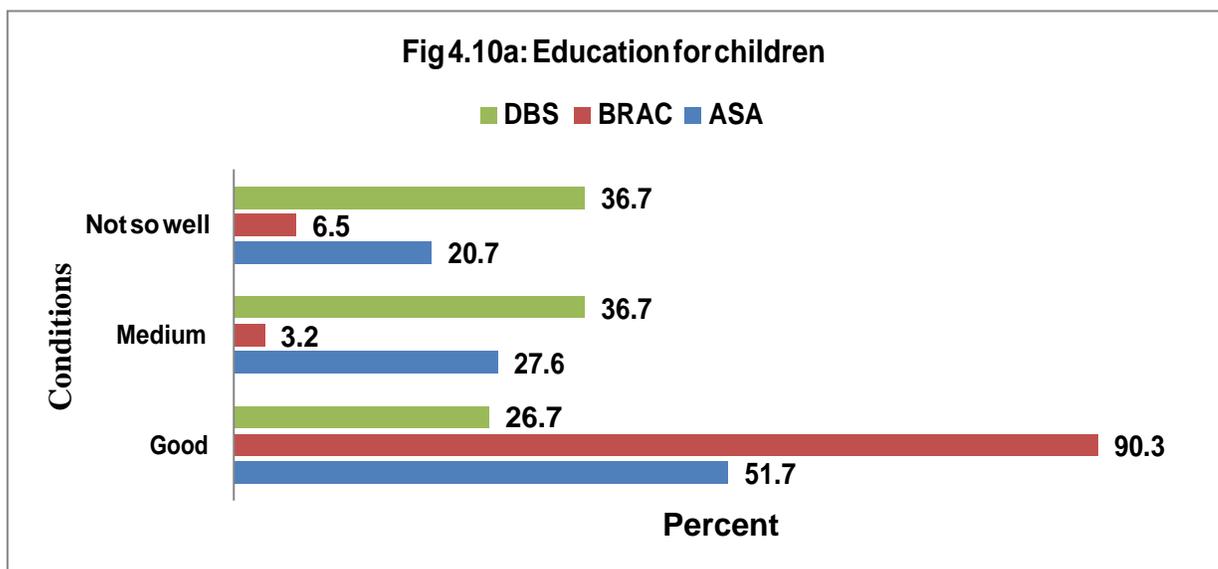
Healthcare Facility

The health status of household members can be taken as important indicator of well-being. Fig: 4.10b reflects this. The figure indicates that, the highest 48 percent of households in ASA's programming area get good healthcare facility and of them 10 percent get no healthcare facility whereas 6.45 percent household's healthcare facility in BRAC is medium type. 93.5 percent BRAC household get good healthcare facility and 25.8 percent households of DBS get good facility of healthcare.

Table 4.10b: Healthcare Facility

Organization	Good	Medium	Not so well	Total
ASA	14(48.3)	11(37.9)	3(10.34)	29
BRAC	29(93.5)	2(6.45)	0(0)	31
DBS	8 (25.80)	21(70)	1(3.3)	30
Total	51(56.7)	20(37.8)	4(4.44)	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.10b: Healthcare facility
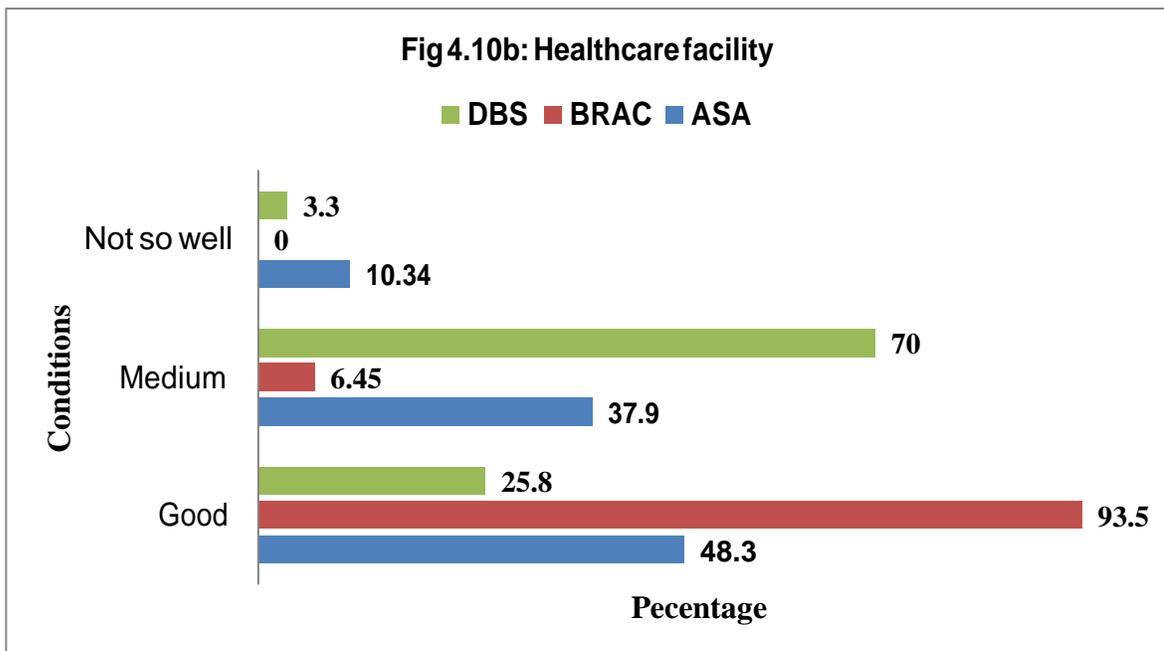
Safe and Pure Drinking Water Facility

The safe and pure drinking water is necessary for human well-being.Diarrhoea and other water born diseases are caused by lack of pure drinking water. So that sources of drinking water is necessary for every household. Fig: 4.10c express this condition.

Table 4.10c: Safe and Pure Drinking Water Facility

Organization	Good	Medium	Not so well	Total
ASA	16(55.17)	11(37.9)	2(6.9)	29
BRAC	31(100)	0(0)	0(0)	31
DBS	12(40)	17(56.7)	1(3.3)	30
Total	59(65.6)	28(31.1)	3(3.3)	90(100)

Figure in the parenthesis indicate percentages

Source: Field Survey, 2019

Fig 4.10c: Safe and pure drinking water facility
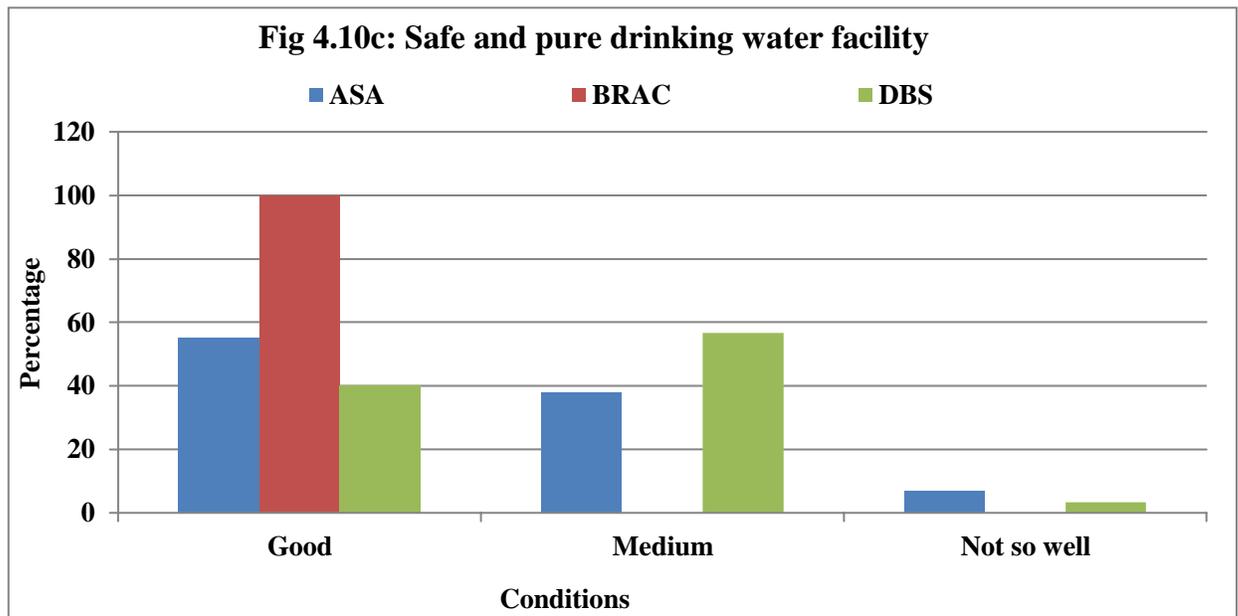
The Fig: 4.10c reveals that, 55.17 percent household of ASAs programming area get more facility of pure drinking water, whereas both 100 percent household of BRAC and 40 percent of DBS get good facility for safe and pure drinking water. Only 7 percent households of ASA do not get good facility for drinking water. On the contrary, 0 percent households both in BRAC's they have no facility to get safe and pure drinking water.

Gas and Electricity Facilities

Gas and electricity made available is intended to use for all possible applications which improved living condition of poor household. Both of these induce to economic growth, poverty reduction and overall human development.

Table 4.10d: Gas and electricity facilities

Organization	Good	Medium	Not so well	Total
ASA	4(13.8)	0(0)	25(86.2)	29
BRAC	19(61.29)	4(12.9)	8(25.80)	31
DBS	2(6.7)	2(6.7)	26(86.7)	30
Total	25(27.7)	6(6.67)	59(65.6)	90(100)

Fig 4.10d: Gas and electricity facilities
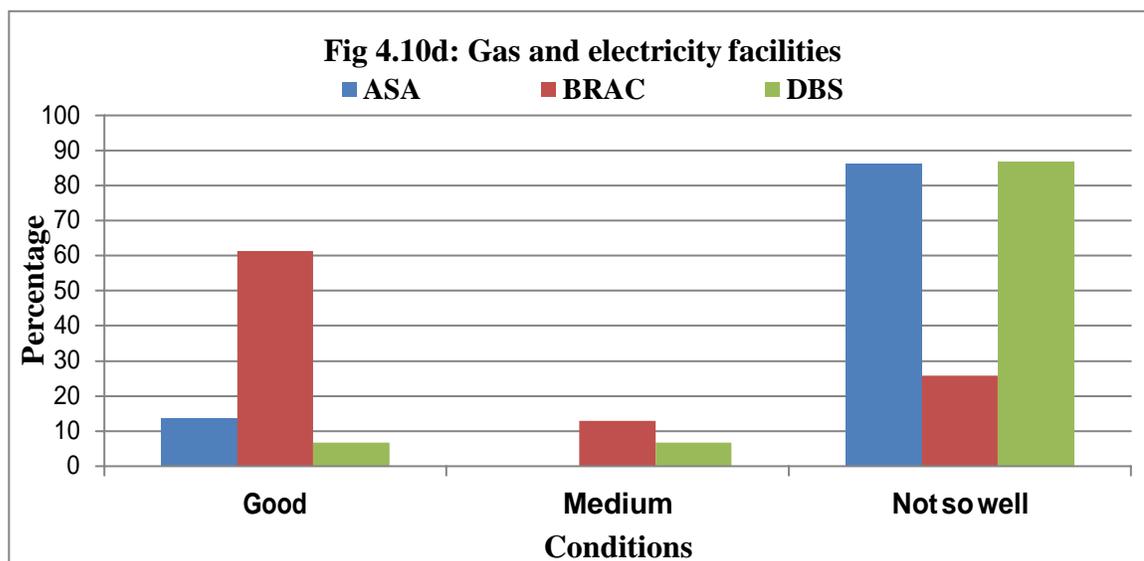
The household access to get the facility of gas and electricity is expresses by the Fig: 4.10d where 13.8 percent households of ASA have good facility in case of using gas and electricity in their house and 86.2 percent of them have no facility to using gas and electricity. Again, in BRAC's program area 61 percent households have better access to gas and electricity compare with the households of DBS (6.7 percent. It also shows that, the higher 86.7 percent households of DBS have no access to gas and electricity. So gas and electricity facilities are not more available for the poor households of women in the selected programming areas.

In conclusion, the women borrowers and their households have no better advantages to improving their socio-economic conditions in the existing credit programming areas.

CHAPTER FIVE
IMPACT OF MICROCREDIT PROGRAMS ON INCOME GENERATION FOR POVERTY ALLEVIATION OF WOMEN

To assess the impact of microcredit on alleviating poverty of poor women is the purpose of this chapter. For this reason, it is important to identify the appropriate variables that are related to poverty alleviation through microcredit. In addition, it is also important to explore the impact of socio-economic characteristics of the women borrowers of selected microcredit programs. The univariate technique is used first to study the variation of poverty alleviation on several covariates. The credit organizations have beneficial impact on alleviating poverty and it may be a useful explanatory variable. The household's monthly income, are also expected to have impact on poverty alleviation so that, household's earning members are also influenced this model. The education and occupation of the women borrowers' who have received the loan are obvious candidates for inclusion in the regression model. Though poverty alleviation of poor women related with microcredit program then amount of loan received by the borrowers and amount of savings may also have influence the poverty alleviation. Therefore, in order to develop a model that explains the impact of microcredit on alleviating poverty could depend on many potential explanatory variables such as: total household members, household earning members, household's monthly income, women's educational and occupation status, amount of loan and savings amount. To examine the relative importance of all the independent variables simultaneously, multivariate technique has been employed. The multivariate technique viz., multiple logistic regression model is used to identify the determinants of poverty alleviation.

5.1 Differentials of Income Generation leads to Poverty Alleviation

5.1.1 Income Generation for Poverty Alleviation through Microcredit Organization

Many, microcredit organizations help the women to increase income and reduce their poverty. Table 5.1 presents the poverty alleviation scenario according to the organization who provided credit to the women under three different microcredit program exist in Meherpur. Respondents of these programs asked about their poverty condition after

receiving loan from the microcredit organization whether they have any improvement or not. It is observed that, highest 87 percent respondents of the BRAC answered in "no", i.e. providing credit does not alleviating their poverty condition. On the other hand, 58.6 percent respondents of the ASA answered in favor of positive poverty alleviation, which proportion was found as highest among the other selected organizations. It is observed from the study, providing microcredit facilities in the study areas were not fruitful up to the mark.

Table 5.1: Income Generation for Poverty Alleviation Situation on the Basis of Microcredit Organization

Name of the Organization	Status of Income generation for Poverty Alleviation		Total
	No	**Yes**	
ASA	12(41.37)	17(58.6)	29
BRAC	27(87.09)	4(12.9)	31
DBS	23(76.7)	7(23.3)	30
Total	62(68.9)	28(31.1)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.2 Increases the level of Income by Household Members

The distribution of total household members according to increase income for poverty alleviation indicates with the increase of household members the proportion of households, which alleviate poverty, reduces. 35 in 45 households having family members 1-5 were found in favor of poverty alleviation while the proportion was only 28 in 45 for the large households. In other sense it is observed that the large families failed (37.8 percent) to bring poverty alleviation after receiving the loan from the microcredit organization in comparison with small families (Table:5.2).

Table 5.2: Status of income generation according to Household Members

Total HH Member (in number)	Status of Poverty Alleviation		Total
	No	Yes	
1-5	10(22.2)	35(77.5)	45
6-7	17(37.8)	28(62.2)	45
Total	27(30)	63(70)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.3 Household Earning Members and Income Generation for Poverty Alleviation

The household having larger number of earning members reduces poverty more. Table 5.3 indicates that the status of poverty alleviation for the selected households according to their earning members. With the increase of household earning members more than one the proportion of poverty alleviated households increased 78.9 percent and 88.9 percent respectively. The table 5.3 depicts that the about 78.9 percent households having single earning member responded against the poverty alleviation though they received loan from the programs. The picture was found almost same for the households having more than single earning members. This result indicates the less influence of microcredit programs on poverty alleviation.

Table 5.3: Status of Income Generation for Poverty Alleviation according to Household Earning Members

HH Earning Member (in Number)	Status of Poverty Alleviation		Total
	No	Yes	
1	12(21.05)	45(78.9)	57
2	2(11.1)	16(88.9)	18
3	1(6.6)	14(93.3)	15
Total	28(31.1)	62(68.9)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.4   Household Monthly Income and Poverty Alleviation

The monthly household nominal income was estimated at Tk. 13353 in the rural area of Bangladesh (HIES 2016). Household's monthly income to alleviate poverty of poor women reflects by the Table: 5.4. This indicate that, household's monthly income less than Tk. 8000 respondents answered in negative of their poverty alleviation i.e. highest the 81.01 percent on the contrary positive effect of credit in poverty alleviation of the household's monthly income is belongs to Tk.8000 & above and this group answered in favor of poverty alleviation, which is 34.13 percent and higher than the previous group. So, higher income of household has better facility of poverty alleviation.

Table 5.4: Household's Monthly Income to Alleviate Poverty

Monthly Income (in Tk.)	Status of Poverty Alleviation		Total
	No	Yes	
< 8000	17(53.1)	15(46.9)	32
≥ 8000	11(18.9)	47(81.03)	58
Total	28(31.3)	62(68.9)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.5 Women Education to Raise income and Alleviate Poverty

In almost all countries, women's education is strongly related to their domestic economic power. Table 5.5 shows that the illiterate women responses 72.2 percent against poverty alleviation and 27.8 percent of them answered in positive in favor of poverty alleviation. On the other hand educated women respondents 61.1 percent answered in yes and highest 38.9 percent answered in negative. In this case higher educated responses highest positive answered in favor of poverty alleviation after received credit.

Table 5.5: Education Status of Women to Raise Income and Alleviate Poverty

Education Status of Respondents	Status of Poverty Alleviation		Total
	No	**Yes**	
Illiterate	13(72.2)	5(27.8)	18
Educated	21(38.9)	38(61.1)	59
Higher Educated	3(23.07)	10(76.93)	13
Total	37(41.1)	53(58.9)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.6 Occupation of Women and Poverty Alleviation

Occupation status of women borrowers' indicates whether they are employed or unemployed. Microcredit organizations provided credit mainly for women to raise their status through independent income generation and thereby alleviate poverty. Table 5.6 shows that 81.6 percent unemployed women were answered in negative about their poverty alleviation while 18.4 percent unemployed women were answered about positive poverty alleviation. Among the employed women, 17.3 percent replied about negative poverty alleviation and 82.6 percent answered in favor of microcredit which alleviate their poverty.

Table 5.6: Occupation Status of Women to Alleviate Poverty

Occupation	Status of Poverty Alleviation		Total
	No	**Yes**	
Unemployed	31(81.6)	7(18.4)	38
Employed	9(17.3)	43(82.6)	52
Total	40(44.4)	50(55.5)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.7 Received Amount of Loan and Poverty Alleviation

The amount of loan of respondents in a study is an important factor to alleviate poverty conditions of women. In Table: 5.7, the amount of loan indicates that the highest 64.7 percent people who took tk5000-1000 loan, answered about negative poverty alleviation; on the other hand 13.7 percent respondents whose received amount of loan more than Tk.11000 answered about negative poverty alleviation. Among the respondents who answered about positive poverty alleviation for the received amount of loan the highest 86.3 percent were received amount Tk.11000 on the other hand 35.3 percent belongs to the range Tk.5000 to 10000 were answered about their positive poverty alleviation. It is observed that, women who received larger amount of loan from any microcredit programs alleviate their poverty more than those women who received lower amount of loan.

Table 5.7: Status of Poverty Alleviation according to Received Amount of Loan

Amount of Loan (in Tk.)	Status of Poverty Alleviation		Total
	No	Yes	
5000-10000	11(64.7)	6(35.3)	17
> 11000	10(13.7)	63(86.3)	73
Total	21(23.3)	69(76.7)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.1.7 Amount of Savings and Poverty Alleviation by

Savings amount of women is another important variable to measure the poverty alleviation of women. Table 6.8 reveals that about 36.8 percent women had answered about their positive poverty alleviation whose amount of savings was more than or equal toTk.5000 and among this group 63.2 percent answered against poverty alleviation, 75.9 percent of women whose savings amount was less than Tk.5000 answered about negative poverty alleviation and only 24.1 percent of women in this group answered about their positive poverty alleviation. So, larger savings amount have more facility to alleviate poverty of women.

Table 5.8: Savings Amount of Women to Alleviate Poverty

Savings Amount (in Tk.)	Status of Poverty Alleviation		Total
	No	Yes	
<5000	54(75.9)	9(24.1)	63
≥5000	10(63.2)	17(36.8)	27
Total	64(71.1)	26(28.9)	90

Note: Figures in the parentheses indicate percentage

Source: Field Survey, 2019

5.2 Determinants of Poverty Alleviation

It is necessary to adopt a multivariate technique that includes all the explanatory variables which may provide the refined estimates of all the explanatory variables under study. The logistic regression model seems to be the most appropriate multivariate technique to explain the situation since the dependent variable - poverty alleviation, is binary. Therefore, the study develops a multiple linear logistic regression model by considering household-members, earning members, monthly income, education and occupation of respondents, amount of loan, savings amount as explanatory variables.

It is more important to examine whether the data fits the model adequately or not. For this purpose Hosmer and Lemeshow test of goodness of fit was conducted. The test results show that, the chi-square value is 3.70 with 7 df and the chi-square value is also non-significant. It indicates that data fitted the model adequately (Table 5.9).

Table 5.9: Hosmer and Lemeshow Test

Chi-square	df	Sig.
3.70	7	.814

The result of the logistic regression model is shown in Table 5.10. Total household members of women borrowers' influence their level of poverty. The results indicated that the risk of poverty alleviation is increased with the increase of the household members Poverty alleviation using microcredit program will be 2.45 times lower if the household member is more than 5. e. poverty alleviation is higher 77.5 percent for the household's having family members (1-5) and 62.2 percent less for household having members (6-

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7).So that, the number of household members was negatively related with the dependent variable, indicates that the total household's members more than 5 could not alleviate the poverty of women at household level. The relationship between probability and odds ratio is shown in the footnote.

Household earning members is another important determinant of poverty alleviation. The results indicated that the success of poverty alleviation was 88.9 percent for the households with two earning members, which is higher in comparison to households with single earning member. Further the success of poverty alleviation was found 93.3 percent for the households with three earning members and this rate is higher than household having one or two members, indicates that the household having more earning members reduces poverty through their income. And the household member more than single or two represents 5% level of significance that indicates poverty alleviation through microcredit is 12.06 times higher than before.

The economic well-being of women borrowers' is largely determined by their household's monthly income. The binary logistic regression analysis indicates that the success of poverty alleviation was 81.03 percent for the households with monthly income more than Tk.8000 which is higher in comparison to the households with monthly income less than Tk 8000.The p-value for monthly household income was 0.07 that indicates the 10 % level of significance. It also indicates that the rate of poverty alleviation by microcredit is .310 times higher in case of greater than tk 8000 than less than Tk 8000.

Educational status plays a vital role to alleviate poverty of women. While considering the education of women borrowers, the findings indicated that the probability of poverty alleviation through women's education was 76.93 percent by higher educated women, 61.1 percent by educated women and 27.8 percent by illiterate women, the reason behind lower rate of poverty alleviation of educated women is, most of the women in this group was housewife and unemployed who were only able to read and write. The p-value for higher educated women was found 0.05 which indicates the 5% level of significance that means the rate of poverty alleviation by microcredit is 5.17 times higher in higher education than the other.

The risk of poverty reduction was found higher for the employed and lower for unemployed women but the success of poverty alleviation is higher for employed women than the unemployed one. The p-value for employed women was found 0.01 which indicates the 5% level of significance that means the rate of poverty alleviation by microcredit is 14.07 times higher for employed women than the unemployed women.

Amount of loan is an indicator of the assessment of poverty reduction. Poverty performance monitoring using loan size radically overstates a poverty focus. So that amount of loan is another factor of poverty alleviation. Compared to the women having loan belongs to the range Tk.5000-10000 and more than Tk. 11000, the success of poverty reduction was found 35.3 percent and 86.3 percent which is more than the women whose amount of loan belongs less than Tk.5000-10000. The reason for that the woman having more loan can properly utilize the loan in poverty alleviation.

Microcredit programs influence borrowers' to create savings in their organization which can help them in times of emergency or need otherwise. The logistic regression model indicate that, the savings amount of women belongs to less than tk.5000 the risk to be failure in poverty reduction was found higher and for the women whose amount of savings belongs to above Tk.5000 and above the rate of poverty alleviation is 36.8 percent which is higher than the first one. So, it can be realized that women have larger amount of savings have greater facility on poverty alleviation and reducing vulnerability of them at household level. With the p-value of 0.03, the level of significance at 5% indicates the 4.79 times higher of odd ratio in case of above tk 5000 savings holder can alleviate poverty through microcredit.

From this result it is observed that, total household members have negative effect on poverty alleviation, household earning members have positive effect on poverty alleviation. The result also suggests that, women's improved education, employment opportunity and monthly income of their household have the greatest impact on their positive poverty alleviation. For an example: higher education level of women as opposed to lower level of education or illiteracy of women, has greatest impact on their poverty alleviation. Our results also suggest that larger received amount of loan and accumulation of savings of the poor women have also greater advantages to alleviate poverty.

Table 5.10: Determinants of Income Generation for Poverty Alleviation: Logistic Regression Analysis

Variables	B	Standard Error	Wald	p-value	Odds Ratio
Household Members					
1-5 [RC]	-	-	-		1.000
6-7	-0.89	.71	1.62	.20	2.45
Household Earning Members					
1 [RC]	-	-	-	.097	1
2	1.96	1.06	3.39	0.06	7.193*
3	.2.490	1.185	4.417	0.036	12.062**
Household Income (in Tk.)					
<8000	-	-	-		1.000
≥ 8000	1.172	.667	3.088	0.07	.310*
Education					
Illiterate[RC]	-	-	-	.081	1.000
Educated	.443	.997	.197	0.65	1.557
Higher Educated	1.64	.844	3.79	0.051	5.176**
Occupation					
Unemployed [RC]	-	-	-		1.000
Employed	2.50	1.95	4.76	0.01	14.075**
Loan (in Tk.)					
5000-10000 [RC]	-	-	-		1.000
>11000	.870	1.035	.706	0.40	2.38
Savings (in Tk.)					
<5000[RC]	-	-	-		1.000
≥5000	1.56	.73	4.54	0.033	4.79**
Constant	-2.99	1.26	5.61	0.018	.050**

Source: Field Survey, 2019
Note: 1.RC: Reference Category 2. **=p<0.05.

CHAPTER SIX

MICROCREDIT PROGRAMS AND WOMEN EMPOWERMENT

The Microcredit Summit Campaign focuses on loans for self-employment and entrepreneurship development for poor women in the informal economy. In this context, there is need to complement credit-delivery with social awareness raising, building confidence and self-esteem among women. Various types of skills training also need to go hand-in-hand with credit-delivery. Women need advice about how to utilize public, private, natural and other resources and services. Microcredit, thus, is not sufficient in the process of empowering income poor women, but it is of the very important ingredients in that process. Furthermore, although microcredit schemes in many parts of the world have been, perhaps particularly in Bangladesh, access to small and medium-size loans, on their own, is not sufficient to mitigate social exclusion. In order to the empowerment of poor women, reduce poverty, and work against forces of social exclusion.

Microcredit is extensively used as a tool of poverty reduction and to enhance economic development among poor sections of society by making them self-reliant (Quibria, 2012). Microcredit has not only made women more productive, it has also empowered them. As a result women are now integrated into socio-economic activities, contributing to family income and decision making and exercising more control over their fertility, which allows them to take better care of their children.

Recently the concern with the "empowering" effect of credit program participation has gained prominence, not only in view of the overwhelming female bias of program membership, but because of rapid scaling-up of credit operations. The main targets of microcredit program are poor households who are unable to gain a loan from banks because they cannot offer physical collateral credit. Most of microfinance institutions (MFIs) target women because the majority of the poor in the world are women and they are subjected under the control of males (Kabeer, 2012).

The route to empowerment is the means for translating choice-enhancing resources into greater welfare of women and reduces subordination to men. In this dimension

empowerment takes place through the women's active participation and exercise of agency.

Microcredit has broadly documented to be an important tool for women empowerment, it has less impact on women who share their husband the business (Islam et al., 2015).The critics of NGO activities argue that because of the patriarchal social structure of rural Bangladesh microcredit does not necessarily lead to women's empowerment, it might even worsen their situation. Women's lack of education, their triple role, institutional and culturally constructed discrimination along with structural economic constraints add up to women's vulnerability which makes it difficult for microcredit to be effective in addressing women's empowerment. There are some other issues which need to take into account that deal with women's position as well as their condition, that microcredit cannot singly handle.

Increasingly, female microcredit borrowers are participating in local politics and development activities. Microcredit is not merely an instrument for credit extension to the poor borrowers. It is a movement to emancipate the poor-especially women to alleviate their poverty, should have to improve their quality of life, and build their capacity and awareness and to integrate them economically and socially into the mainstream of the economy. The benefits of microcredit go beyond the quantifiable ones, there are other benefits, which are not seen, but are evident in the socio-economic conditions transformation of rural Bangladesh.

In the existing socio-cultural milieu of Bangladesh, embodied within the phrase of 'empowerment' is the concept of change. The development activities of Government Organizations (GOs) and Non-Government Organizations (NGOs) in Bangladesh lead empowerment in its social as well as economic dimensions. GOs-NGOs have made their microcredit program accessible to women because they are more poor and vulnerable in society.

The findings of the study reveal that women were still depended on their male counterparts. Even though they did not use their credit money by themselves, women

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stated that they enjoyed a greater role in familial affairs as they brought the working capital into the households. This chapter conceptualized 'women empowerment' as the capacity of women to reduce their socio-economic vulnerability and their dependency on their husbands or other male counterparts, in terms of their ability to become involved in income generating activities and freely spend the income thus generated; to accumulate assets over which they can have right of sale and profit; increase their contribution to household expenditure and thereby acquire a greater role in household decision-making and finally, increase their self-confidence and awareness of social issues.

6.1 Capacity and Women's Development

A survey conducted by the researcher among 90 women credit borrowers in Meherpur City, conclusively shows that the employed women borrowers' capacity has increased; their awareness has improved and they are more empowered than the unemployed women borrowers' (Fig:6.1 below).In the following figure 6.1 the difference between employed and unemployed women respondents are expressed by some main issues of decision making process, i.e. in education for children employed women have greater facility 74.14 percent and unemployed women get only 25.8 percent facility in this case. Again, to accumulate savings employed women get more facility 77.4 percent than unemployed women 22.6 percent. To take decision about family planning employed women get priority more 84 percent and 16 percent unemployed women get facility to made-up their decision in birth control method.

Fig 6.1 : Capacity & women development
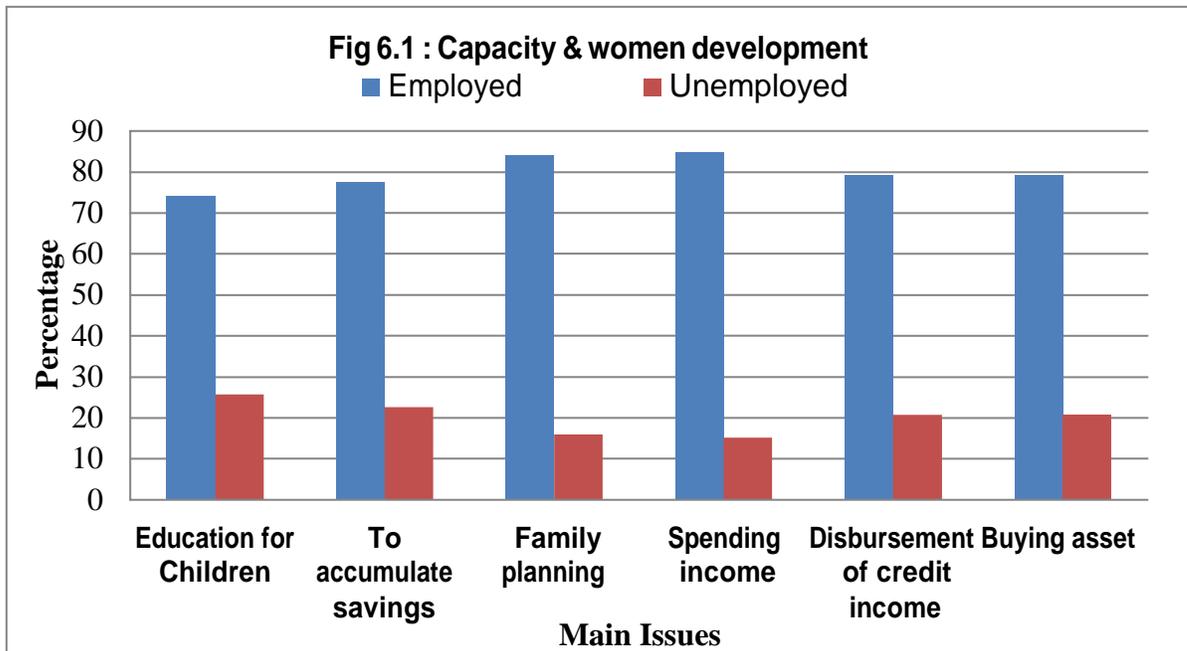
Spending income facility of respondents gives the idea that employed women get more facility in this case i.e., 84.8 percent but unemployed women get only 15.2 percent facility in spending income. On the other hand in case of disbursement of credit income 79.2 percent of employed women get more facility of disbursement of credit money than the unemployed women (20.8 percent).Fig:6.1.also shows that, employed women get 79.2 percent facility for buying asset on the contrary unemployed women get 20.7 percent facility under different microcredit programming areas. All of this issue indicates that employed women borrowers are more empowered in household decision making issues than unemployed women borrowers, in the programming areas.

6.2 Women Status Related in Different Microcredit Organizations

Traditionally, rural Bangladeshi women are conditioned to consider family interests as their own well-being interests (Kabeer, 2016). If women received credit and properly utilized this to become self-dependent then they are able to enjoy an improved status due to their monetary contribution to household expenditure.

This study focuses on the impact of three different microcredit programs on poor women. Women status under three different microcredit programs is shown by the figure 6.2.

Fig 6.2: Women status in different microcredit oganizations
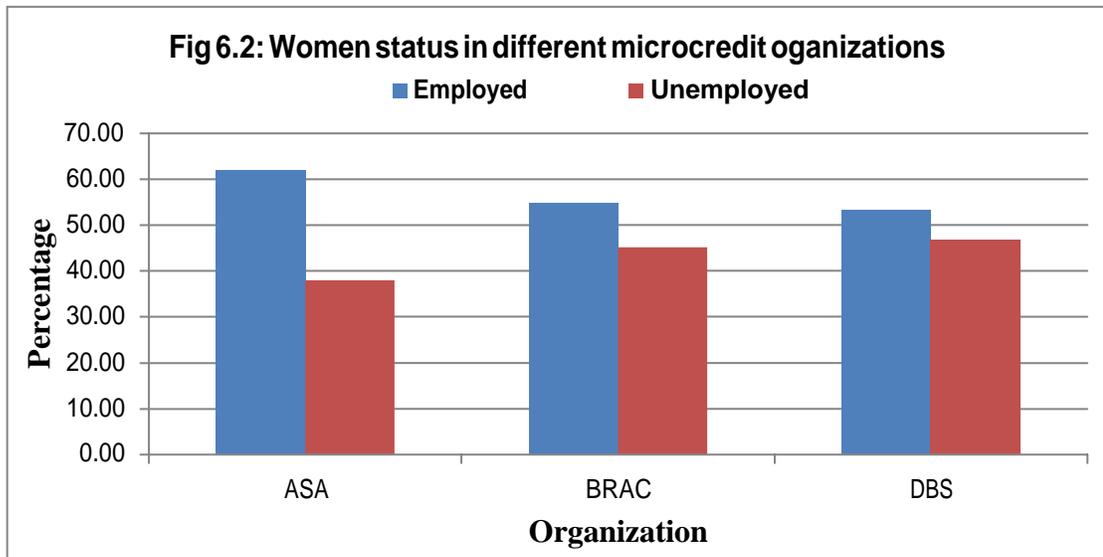
Fig: 6.2 shows that, the highest rate 62.07 percent of women are employed in ASA's programming area which is higher to compare with other organizations programming areas and 37.93 percent of unemployed women also remain in this area. Again in BRAC's programming area, employed women are 54.84 percent where unemployed women are 45.16 percent. In case of DBS's programming area 53.33 percent are employed women where a 46.67 percent remain unemployed. So that, by measuring overall women status in different microcredit organizations it can be said that most of the women borrowers' are employed and they have higher empowerment status.

6.3 User of the Loan

The institutions and norms are generally not favorable for women's independent use of loans, the term 'who uses the loan' cannot meaningfully assess women's control over loans unless this is situated in the actual decisions about which member of household will use the loan. So that, user of the loan indicates that actually by whom received amount of loan will be disbursed**.**

Fig 6.3: User of loan
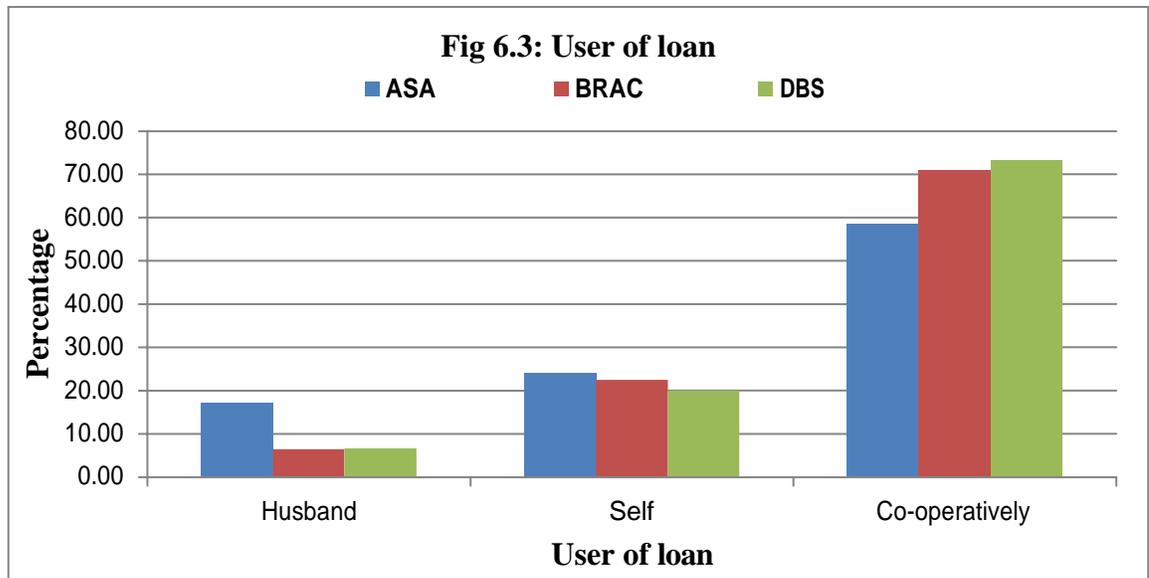
In the context of user of the loan in Fig: 6.3 shows that 17.24 percent respondents in the ASA's programming area were responded that the user of the loan was their husband and 58.62 percent responded that they use the loan by co-operatively where women herself get 24.14 percent scope to use the loan which they received from the microcredit programs. In the BRAC programming area only 22.58 percent of women were being asked about their own uses of loan which is the highest rate among the others organization participants where women by co-operatively using the loan is only 70.97 percent in the BRAC's programming area which is the second highest rate among the organizations. The women under the DBS's programming area get facility to use their loan at 22.58 percent; the user of the loan was their husband 6.67 percent and highest 73.33 percent use their loan co-operatively. From the information of respondents as the user of the loan it is being clearly find out that, in this issue women empowerment condition is not so better off but cooperative effort is well.

6.4 Respondents Training for Experiences

Training helps in acquiring proper knowledge to develop income generating activities of the women. It also plays an important role in raising the living-standard of the women borrowers. Different microcredit programs provide training to the borrowers in order to improve their level of skills in performing their income generating activities. Training was provided on different aspects such as: agriculture, livestock and poultry, trading and

business, handicrafts, healthcare and credit management. The Fig: 6.4 express the training facilities provide by different credit programs for women. It is being observed that, 25.81 percent borrowers under BRAC credit programs get the training facilities and the rate is highest than the percent of the other credit programs. On the contrary, 74.19 percent borrowers in BRAC credit programs responded that they have no training experiences and only 25 percent of them get the training facilities. On the other hand, among the borrowers of ASA, 93 percent of them get no training facilities and 6.90 percent women have training experiences in different aspects.

Fig 6.4: Respondent training for experience
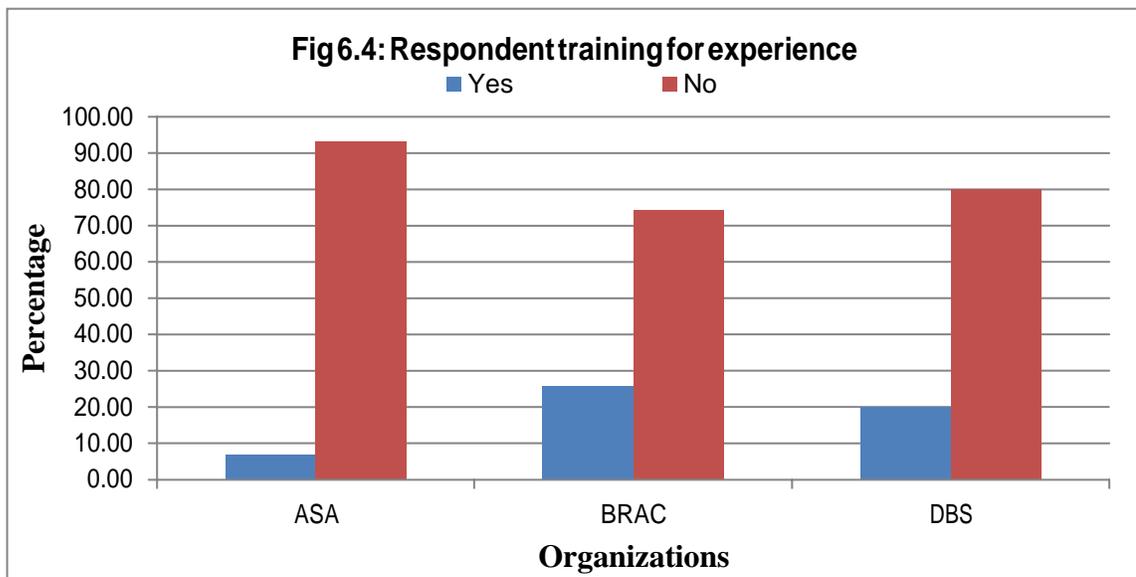
6.5 Women Empowerment Index (WEI)

In this paper, the Empowerment Index is an assessment of empowerment of women borrowers of five different microcredit programming areas in Meherpur. To identify the empowerment condition of female borrowers of these three GO-NGOs microcredit programming areas ten decision making indicators are selected to develop the Women Empowerment Index (WEI). To find out respondents empowerment condition the decision making questions answered by"1" standing for a "yes" answer and "0" standing for a "no" answer, and every "yes" answer indicate that the decision taken by women herself, while every "no" answer indicates the women have no rights to take the decision. Using the method to measure empowerment index, the average empowerment index is 0.53. The empowerment index of employed women is found to be 0.77 in other hand the unemployed

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women's empowerment index is measured by 0.28. Table:7.1 provides the result that, women respondents who are employed and received credit from different microcredit programs is more empowered and this empowerment level (0.77) is greater than the average level of empowerment which previously measured by 0.50, while the empowerment level (0.28) of unemployed women remain below the average level of empowerment (0.50). It reflects that the total women empowerment level (0.53) which is considered as both employed and unemployed women is also above the average level of empowerment (0.50).

Table 6.1: The Average Women Empowerment Index

Group	Average Empowerment
Employed	0.77
Unemployed	0.28
Average	0.53

Source: Field Survey, 2019

From employed group index the highest value is considered as 1 which indicates the strong empowerment of women (Appendix A), the lowest index for an individual woman of employed group is 0.2 (Appendix A) which indicates weakly empowered woman but the overall index of employed group of women shows the higher empowerment status of women compared with the unemployed group of women.

In case of unemployed women most of the decisions is taken by their husband or male counterparts. So, for unemployed women the lowest index value is 0 (Appendix B) i.e. they are not empowered, though there are some individual empowerment index value which is greater than the average value but the overall average index value of unemployed women indicates 0.28 which remain lower than the average level of empowerment 0.50. Again, in the case of employed women they take their decision more independently than the unemployed group of women. Form this discussion we find that; the employed women were highly empowered and better off than the unemployed women in the study areas.

The frequency of the values in ten decision making indicators and percentage value are presented in the following Table 6.2.

Table 6.2: Frequency of the Values of Decision-making Indicators

Decision making indicators	Values	
	By women herself	By husband or male counterpart
X_1 (Education for Children)	58 (64.40)	32(35.60)
X_2 (Savings in Women's name)	53(58.90)	37(41.10)
X_3 (Marriage of Children)	53(58.90)	37(41.10)
X_4 (Birth of Children)	46(51.10)	44(48.90)
X_5 (Family planning)	50(55.60)	40(44.40)
X_6 (Disbursement of credit income)	48(53.30)	42(46.70)
X_7 (Spending income)	46(51.10)	44(48.90)
X_8 (Buying Asset)	53(58.90)	37(41.10)
X_9 (Participate Any Occasion)	50(55.60)	40(44.40)
X_{10} (others)	56(62.20)	34(37.80)

Note: Figures in the parentheses indicate percentages
Source: Field Survey, 2019

The table shows that, for X_1 decision making indicator which is considered as, children education and in this case women's decision get (64.40 percent) more priority than her husband's decision (35.60 percent), it also reflects that women get more priority in case of accumulate savings (58.90 percent), family planning (55.60 percent), birth of children (51.10 percent), marriage of children (58.90 percent), participation in any occasion (55.60 percent) and in other decision making cases of household (62.20 percent) than their male counterparts. On the other hand decisions made by women's on disbursement of credit income, spending income and buying assets for household, get more priority than husbands decision. It is clear that women empowerment helps to get more priority in assets and income related activities at their household. If the women acquire the degree of self-confidence then they take decisions of household's income related activities in alone and become much more empowered in every sphere of life.

The concept of women empowerment have define point of view, but the basic thing involves the freedom of women from the norms and values imposed by the society in general and the male household members in particular. Freedom of women can only be achieved through ensuring their economic, social and political emancipation. It goes without saying that these emancipation process to be started from the very family level. In this study women have full empowerment in many of their household decision making process but not in the case of their financial improvement.

It is quite clear that poor women will not be able to bring about more substantial changes in their lives by receiving microcredit form different organizations but those women who are engaged in different income earning activity throughout the year is better-off than the women who are totally unemployed and they do not get better facilities in this case. In terms of user of the loan, women get no scope to uses their loan independently. The employed women use their income for a variety of personal and household uses, though they have yet to reach a stage where they can take independent decisions in household. So, the more employment opportunities of women have begun to acquire higher empowerment facility.

Finally, it has been pointed out that woman in entitlement of assets, spending income, participation in the decision making process at household and gathered education, employment opportunity act as an important determinant of women empowerment.

CHAPTER SEVEN
CONSTRAINTS AND POLICY RECOMMENDATIONS

Microcredit programs can play a vital role to alleviate poverty of women at household level. Microcredit programs have no meaning if the poor remained poor. But it is true that microcredit interventions for poverty alleviation of poor are not without challenges and constraints.

For proper implementation of microcredit programs at first the constraints of credit organizations should be identified and thereafter necessary policy action should be taken.

7.1 Borrowers Opinions about Microcredit Programs

The borrower's opinions should get priority to strengthen the role of microcredit programs for their poverty alleviation. The success of the current credit depends on borrowers own opinion such as: which type of problems women was faced when they received loan from any microcredit organizations, borrowers expected opportunities from microcredit programs and borrowers opinion of poverty alleviation.

7.1.1 Problems of Borrowers in Received Loan

The findings of the study show that most of the borrowers asked about the problem of high rate of interest charges by credit organizations. About 41.18 percent borrowers of both ASA and DBS, 17.65 percent from BRAC asked about the problem of high rate of interest charges by the organizations. On the other hand 54.55 percent of the DBS's respondents said that they have no assets or human collateral so that they are disable to receive loan when they need. On the contrary 42.86 percent borrowers of ASA asked that, the received amount of loan is not sufficient for their requirements. Weekly repayment rate is another major problem faced by the poor borrowers 50 percent borrowers of BRAC and ASA answered of this problem. It is interesting that 41.86 percent respondents of BRAC claimed out that they face different problems when they receive loan. (Table 7.1)

Table 7.1: Problems of Borrowers in Received Loan

Types of problems	ASA	BRAC	DBS	Total
High Interest Rate	7 (41.18)	3 (17.65)	7 (41.18)	17
Insecurity	1 (16.67)	2 (33.33)	3 (50.00)	6
Lack of Collateral	2 (18.18)	3 (27.27)	6 (54.55)	11
Lack of Sufficient Credit	3 (42.86)	2 (28.57)	2 (28.57)	7
Weekly Installment	3 (50.00)	3 (50.00)		6
Others	13 (30.23)	18 (41.86)	12 (27.91)	43
Total	29 (32.22)	31 (34.44)	30 (33.33)	90

Figure in the parenthesis indicate percentages
Source: Field Survey, 2019

7.1.2 Borrowers Expected Opportunities from Microcredit Programs

Borrowers expect some facility from the credit organizations. Microcredit programs charges high rate of interest from its borrowers which is beyond of their ability because most of the borrowers were poor in the study areas. So that, 35.71 percent borrowers of ASA, 46.43 percent of BRAC and 17.86 percent of DBS demand for lower rate of interest facility from the organizations. In case of received collateral free loan the higher 14.29 percent respondents of both BRAC and ASA want to get collateral free loan facility. The highest 40 percent respondents of BRAC complained about their received amount of loan. They want to get a desirable size of loan by which they can improve their condition and develop their income generating activities. The highest 50 percent respondents of DBS wish to get the facility for simple procedure of the respective organization when they received loan. It was observed that only ASA got more financing on women activities. 83.33 percent borrowers of DBS expected that they should get more financing facility from their credit organization by which they can improve their conditions and get more priority of household decision making process.(Table 7.2)

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Table 7.2: Borrowers Expected Opportunities from Microcredit Programs

Expected opportunities from MC program	ASA	BRAC	DBS	Total
Low Interest Rate	20 (35.71)	26 (46.43)	10 (17.86)	56
Collateral Free loan	1 (14.29)	1 (14.29)	5 (71.43)	7
Desirable Size of Loan	4 (40.00)	3 (30.00)	3 (30.00)	10
Simple Procedure of Loan	1 (25.00)	1 (25.00)	2 (50.00)	4
More Financing in Woman Activities	1 (100.00)	-	-	1
Othres	2 (16.67)	-	10 (83.33)	12
Total	29 (32.22)	31 (34.44)	30 (33.33)	90

Figure in the parenthesis indicate percentages
Source: Field Survey, 2019

7.1.3 Borrowers Opinion of Poverty Alleviation at Household Level

In the microcredit program areas, borrowers were being asked about their recent poverty condition and want to know about the success of microcredit programs in case of their poverty alleviation. Respondents' responses in affirmative or in negative and among the total 90 respondents . Table 7.3 reflects that, 19.35 percent respondents of the ASA in affirmative about their poverty alleviation whereas 43.55 percent in the BRAC, 37.10 percent in the DBS answered in favor of poverty alleviation. On the contrary 60.71 percent respondents of ASA, 14.29 percent respondents of the BRAC, 25 percent respondents of DBS answered in 'no', i.e. negative impact of the existing microcredit programs on their poverty alleviation.

Table 7.3: Borrowers Opinion of Poverty Alleviation

Opinions	ASA	BRAC	DBS	Total
Yes	12 (19.35)	27 (43.55)	23 (37.10)	62
NO	17 (60.71)	4 (14.29)	7 (25.00)	28
Total	29	31	30	90

Figure in the parenthesis indicate percentages
Source: Field Survey, 2019

7.2 Constraints of Microcredit Programs

Both the GO's and the NGO's microcredit programs is not free from their constraints which focus on this section.

7.2.1 Constraints of Government Credit Organization

Amount of Credit: Most of the women borrowers claimed out that the amount of money they borrowed from the microcredit programs are not sufficient to improve their livelihood.

Expensive: Compared to the NGO's microcredit programs, the success of Government-backed microcredit programs has been relatively expensive for alleviation of poverty.

High Rate of Interest: The high rate of interest has discouraged the borrowers to received loan from government credit organizations.

Funds: The government organization involved only a small portion of their own funds in their microcredit programs.

Group Lending Approach: GO's microcredit programs have no group lending facility, for this reason its microcredit programs faced to problems of screening, incentives and enforcement which can be better solve by NGO's.

Delinquency: The Delinquency rate is higher among the lenders of the GO's microcredit programs.

Low Repayment Rate: The borrower's repayment rate under GO's microcredit programs is relatively lower than other microcredit programs.

Women Empowerment: Women have no facility to actively participating in any economic activities under the GO's microcredit programs area.

Bindings: Respondents have no chance for stopping to receive credit when she wishes. If any amount of loan was being received by the borrower then she stuck herself in a circle of credit cycle.

Training: There have no better training facility for the borrowers in these microcredit program areas as observed very closely.

7.2.2 Constraints of Non-Government Credit Organization

Availability: Some of the NGO's microcredit programs in the study areas have not been very successful in including the hard core poor because quite often, the destitute themselves feel they are not credit worthy and microcredit programs also do not judge them to have the entrepreneurial ability necessary to invest the credit properly.

Service Charge: Findings from the study areas are also is that, some borrowers of the NGO's credit programs think that the interest rate charges on the received amount of loan is too high. The reason behind this is for the sake of competitiveness and provision of quality services some of the NGOs wants to capture the rate of service charge.

Bribe: In the study areas some of the NGO's borrowers claimed out that, they are forced for bribes when they received loan.

Women Empowerment: NGO's programs have no remarkable contribution to enhance women's decision making power at household level for raising empowerment of women.

Training: NGO's microcredit programs provide no frequent training programs for women in the study areas.

Collateral: In some NGO's human collateral is required for receiving amounts of loan. For this reason widow and separated women have suffering lack of human collateral facility when she wants to borrow from any microcredit organizations.

Education: Education problem was higher in the NGO's program areas and existing NGO's have no contribution to raising awareness of education among the women.

Supervision: From the NGO's program areas it was being observed that the lack of supervision of the field supervisors were very frequent.

Weekly Repayment: There is strict weekly repayment schedule in every NGO based microcredit programs which is not always possible to maintain by the poor women.

Flexibility: It was observed that, sometimes the interaction between the borrowers and employees of organizations was not so flexible in the study areas which hampered the proper implementation of microcredit programs.

7.3 Policy Recommendations

As a proper implementation of microcredit programs policy recommendations are necessary for both the government and the non-government microcredit organizations in the study areas to create more dynamism of their credit activities for alleviating poverty of women at household level. Some of the policy recommendations have been considered are as follows:

Increase in Loan Size: The size of loan of the microcredit programs should be increased in the program areas.

Group Lending: It was being observed that microcredit programs which is based on 'group lending' criteria have shown good results. So each of the microcredit programs should follow the criteria for further improvement

Savings Facility: Savings is a security of the poor in case of their need. So that the taboo against withdrawal of savings should be relaxed in time to need of the borrowers.

Insurance: Microcredit programs should provide the insurance facility for its borrowers.

High Rate of Interest and Low Repayment: The government owned microcredit program has been reduced because of a high rate of interest and low repayment rates. To solve these problems, the central bank may take the initiative to establish linkage scheme with the NGOs.

National Model Program: An appropriate national model program for poverty alleviation should be implemented, in which all credit organizations could participate within the similar framework of microcredit approach.

More Concentration to Poor: The existing microcredit programs require more concentration for reaching the poor people through various credit schemes.

Hard core Poor: Microcredit programs should provide their microcredit facilities also to the hard core poor for their development.

Sources of Fund: Donor funding and enthusiasm for microcredit will diminish in the near future .So that microcredit organizations have to look for new avenues to fund their activities.

Regulatory Framework: For the current outreach of microcredit, it may be necessary to develop a rational regulatory framework through consensus for both GO's and NGO's microcredit programs.

Service Charge: NGO's microcredit program charge on its loans disbursed to the borrowers has received attention that the rate should not be too high to the poor.

Training Facility: All of the credit programs (GO's & NGO's) needs to be linked with training activities, skill development and other means of social as well as human capital development, so that the poor household can make the best use of it.

Social Process: The current microcredit organizations contend that poverty is created through social process. So the fundamental goal of these organizations should be to help rectified for these social process of old favism.

Collateral Free Loan: All of the selected microcredit programs should provide their credit facilities to the borrowers by offering them collateral free loan.

Flexibility: Flexibility must be remaining in every stage of the credit organizations for their borrowers. The interaction between the borrowers and employees of the credit organizations must be flexible and also some flexibility in the loan repayment schedule should exist.

Weekly Installments: The weekly installments for the poor women are not better off, so that the duration installments must be extended and also reduce the cost of operation per unit of loan.

Counseling: For better implementation of microcredit programs, strong supervision and more counseling with borrowers to solve their problems are needed.

Media Campaign: Microcredit programs could arrange media campaign for raising awareness of education, healthcare, sanitation, safe and pure drinking water.

Good Governance: Good governance in a country is a primary means of eradicating poverty. Microcredit programs should empower the borrowers in demanding better governance.

These are all the policy recommendations suggestions for the selected government and non-government microcredit programs to their further improvement of credit schemes for poverty alleviation of the poor women borrowers at household level.

CHAPTER EIGHT
SUMMARY AND CONCLUSION

8.1 Summary

An effective poverty alleviation program requires a successful design that can confront all dimensions of the poverty problem simultaneously. As a strategy of alleviating poverty, different type of policy measures have been considered such as: increase of income, creation of employment opportunity, more schooling facility, better consumption for food and non-food items, awareness of children education, healthcare, safe and pure drinking water, sanitation, gas-electricity facility, savings through credit facility for the women and empowerment of women have given due emphasis.

Microcredit programs allow women to invest in income-generating projects. Only the poorest women can join. These schemes are intended to help women and their families work their way out of poverty.

To get a loan, women join financial groups that meet weekly. The groups guarantee the loans. The required weekly meetings provide opportunities for socializing and sharing information. This is true that such gatherings can promote the spread of novel behaviors and attitudes, such as: awareness of women's education, empowerment, develop income generating activities for more employment opportunities, healthcare facility of women and using modern contraceptives or wanting fewer children. Finally, by providing these information's the programs might also lead to fundamental changes in the status of women's.

The data were collected by the pre tested questionnaire. Total sample size was selected 90 women borrowers from three different credit organizations existing in Meherpur. The study was conducted upon three different microcredit programs namely: ASA, BRAC, and DBS existing different area of Meherpur district with a view to collect information from the most disadvantaged group of women about their livelihood and socio-economic condition after received loan from these microcredit programs.

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The study took place on the month of May to June 2019. The researcher herself conducted the formal survey for data collection.

In this study descriptive analysis was used to identify the socio-economic conditions of women and to measure the women empowerment through microcredit programs. Logistic regression analysis used to assess the impact of microcredit programs on poverty alleviation of women at household level. In this study, the tabulated data were analyzed by using average, sum and percentage etc., with the help of software packages: MS Word, MS Excel, SPSS to evaluate the collected data.

The socio-economic conditions of women are essential to assess the effectiveness of microcredit programs towards improve economic conditions of the women at household shows that, the education status and employment opportunity of women in the study areas was not so good. The food item expenditure at household level is less than the non-food item expenditure among the microcredit programming areas both the programming areas of ASA, BRAC and DBS. Most of the household were landless and poor. Their main sources of income were agriculture and business. The household monthly income on an average belongs to the range Tk.8000 to more than Tk.8000.The other facilities of household's were also not so good in the study areas.

To assess the impact of microcredit programs on poverty alleviation of women at household level the logistic regression model was used for this purpose to describe the relationship between a response variable and explanatory variables. The univariate technique is used first to study the variation of poverty alleviation on several covariates. The multivariate technique viz., multiple logistic regression model is used to identify the determinants of poverty alleviation. The finding of the analysis shows that, the total household members were negatively influencing the poverty alleviation of women at household level whereas household earning members have positive impact on poverty alleviation, the reason behind this is earning members are more than one to, increase the level of income of the household and then they live in better life and their poverty also reduced. So, household's monthly income also positively affect on poverty alleviation.

Respondent's education, occupation, amount of loan and savings have also positive impact on the poverty alleviation of women at household level.

The microcredit programs on empowerment of women have been measured by ten household decision making factors of women. An empowerment index of women was constructed to measure the women empowerment status in the study areas. The empowerment index reflects that employed women get more empowerment facilities than the unemployed women and most of the women were housewife mainly. The empowerment index shows that the empowerment index for employed women is 0.77 and for unemployed women 0.28 whereas the average empowerment index for all respondents is 0.53.So it is observed that, the overall empowerment condition of women was quite well in the study areas and women was more empowered for taking decisions at household level by taking microcredit. Women who is employed take more decisions than their husband in the study area..

Lastly, it can be said that poverty is the crudest form of denial of opportunities and choices to development of women at household level. So, the microcredit programs have proven to be an effective instrument in poverty alleviation of women at household level.

8.2 Concluding Remarks

The performance of microcredit programs in the study areas was not much hopeful. So, for further development of microcredit programs are being indicated by the existence of some pertinent issues, plans and policies for their proper implementations. The present study areas are some of the chronic issues to be solved immediately. It is also believed that the solution to the problems of study areas will bring about a tremendous change toward economic development of poor household in the study areas. Since the majority of household's members are still illiterate (including women borrowers), the first and foremost effort is to eradicated illiteracy among the members of household, provided that an educated workforce is being accelerated to enhance development of their status and alleviate their poverty. From the programs perspectives improving the condition for

empowerment of women and raising awareness among them should be urgent. The feature of microcredit programs strategy would be to promote the expansion of women's access to resource allocation, making decisions for household, accumulate their own savings, disbursement of credit income. This is possible by providing microcredit services that equip women to be active in decisions about disbursement of credit income, control over their income and expenditures, buying assets, savings and to achieve their empowerment which is more essential to alleviate their poverty.

It is concluded that, Bangladesh government can emphasize on the points: women's role in development and progress, law enforcement of women rights, increased education facility for women, better opportunity for employment and enhance a favorable situation for women empowerment. It is also necessary for monitoring proper implementation of existing microcredit programs and recommended them to publish their annual report on their activities in every year.

8.3 Limitations of the Study

This is a comparative study based on the effectiveness of microcredit programs to alleviate poverty of poor women. Though awareness has taken to eliminate the errors and inconsistency of the study but the study is not free from its limitations which are as follows:

- o It was too much difficult and more time consuming to collect the primary data from three different microcredit programming areas existing in Meherpur, though timing for this study was limited.
- o This was quite impossible to manage and organized the women borrowers under different microcredit programming areas and to comprehend their regional language.
- o Most of the women borrowers' were illiterate or quite ignorant. So, sometime it was difficult to collect information's. In some cases respondents depended on their memories to answer the questions.

o The present study defines the relationships of some selected variables, but there are other variables that may have influence on poverty alleviation of women at household level.

o The findings of the study were being carried out with three selected microcredit organizations existing in Meherpur. Such findings, should, therefore be carried out throughout the whole Bangladesh including other microcredit programming organizations.

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APPENDICES

APPENDIX (A)

Women Empowerment Index (Employed Group)

Women Interviewee	Empowerment Index
1	0.8
2	0.9
3	0.8
4	0.7
5	0.8
6	0.9
7	0.9
8	0.9
9	1
10	0.9
11	0.9
12	0.7
13	0.9
14	0.9
15	0.9
16	1
17	0.9
18	1
19	1
20	1
21	1
22	1
23	1
24	0.8
25	0.7
26	0.9
27	0.9
28	0.9
29	0.9
30	0.8
31	0.9
32	0.9
33	1
34	0.8
35	1
36	1
37	0.8
38	0.8

APPENDIX (B)

Women Empowerment Index (Unemployed Group)

Women Interviewee	Empowerment Index
1	0.4
2	0.2
3	0.4
4	0.2
5	0.5
6	0.2
7	0.6
8	0.3
9	0.2
10	0.2
11	0.5
12	0.1
13	0.5
14	0.5
15	0.2
16	0.6
17	0.6
18	0.4
19	0.3
20	0
21	0.2
22	0.1
23	0.2
24	0.2
25	0
26	0.3
27	0.2
28	0.4
29	0.5
30	0
31	0.6
32	0.2
33	0.6
34	0.4
35	0.2
36	0.4
37	0.5
38	0.5
39	0.1
40	0.6
41	0.5

42	0.3
43	0.5
44	0
45	0.3
46	0.4
47	0.5
48	0.2
49	0.4
50	0.6
51	0.6
52	0