

IMPACT OF WOMEN EMPOWERMENT IN AGRICULTURE ON CHILD LABOUR IN NARSINGDI DISTRICT OF BANGLADESH

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**IMPACT OF WOMEN EMPOWERMENT IN AGRICULTURE ON CHILD
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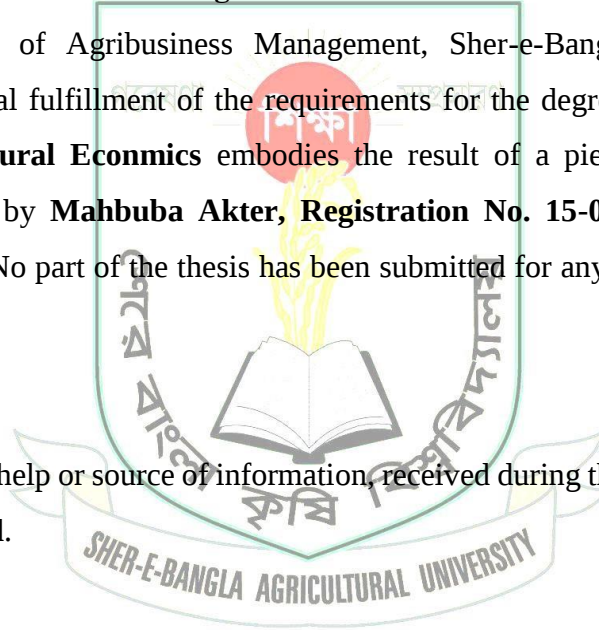
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CERTIFICATE

This is to certify that the thesis entitled '**Impact of Women Empowerment in Agriculture on Child Labour in Narsingdi district of Bangladesh**'

submitted to the Faculty of Agribusiness Management, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of **Master of Science (MS) in Agricultural Economics** embodies the result of a piece of bona-fide research work carried out by **Mahbuba Akter, Registration No. 15-06825** under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

I further certify that any help or source of information, received during this investigation has been duly acknowledged.



Dated: June 2022
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DEDICATED TO
MY BELOVED PARENTS
AND MY HUSBAND FOR THE
UNCONDITIONAL SUPPORT
AND EXTREME HELP

Abstract

One of the most effective strategies for reducing child labour is women empowerment. The key purpose of the present study is to investigate the impact of women empowerment through agriculture and reduction of child labour in some villages at Narsingdi district in Bangladesh. A pre-structured questionnaire was used to collect data through face to face interview from randomly selected sample size of 100 respondents from some villages. The logistic regression model is used here to assess the impact of women's empowerment on child labour. The main findings indicated that about 98% respondents had child helping hand who don't use to go to school, but after starting work of the women of that family the education, nutrition of the children increases. Agriculture as well as livestock rearing was the main occupation among the respondents. Most of the respondents were found owner and labour of their work. Their main source of income provided from some occupation like- business, service, fish farming, livestock rearing, and day laboring. The respondents have overall good farming experience. Most of the respondents (99%) have Leadership quality and were able to make their own decision. The economic participation rate in family of the respondents was very high (100%), on the other hand they (18%) had little loan opportunities. The study suggests that there needs a lot of work for empowering women to eradicate child labour. Government and nongovernment organizations should take proper step to increase women empowerment as well as ensure women's fundamental rights make their life easy and make them more empowered so that women can generate income and be provided with greater access to finance then families can be lifted out of poverty and children are more likely to stay in school. Because the additional income helps families to mitigate the need to rely on children for labour. As a result, it is apparent that as women empowerment rises the problem of child labour decreases.

Keywords: Women Empowerment, Agriculture, Lessen poverty, Child labour.

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TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	ACKNOWLEDGEMENTS	
	TABLE OF CONTENTS	
	LIST OF TABLES	
	LIST OF FIGURES	
	LIST OF ACCRONYMS AND ABBREVIATIONS	
	ABSTRACT	

CHAPTER I	INTRODUCTION	1-10
1.1	Background	1-2
1.2	The need for women empowerment	2
1.3	Contribution of major 3 sectors in Bangladesh economy	2
1.4	The role of agriculture in the economy of Bangladesh	3
1.5	Women empowerment in agriculture	4
1.6	Women in diverse agricultural production	4
1.6.1	Role of women in field crops production	4-5
1.6.2	Role of women in poultry and livestock rearing	5
1.6.3	Role of women in fisheries management	6
1.7	Child labour and its problem	6-8
1.8	Sector wise child employee	8-9
1.9	Justification of the study	9
1.10	Objectives of the study	10
1.11	Organisation of the report	10

CHAPTER II	REVIEW of LITERATURE	11-15
2.1	Research Gap of the Study	15

CHAPTER III	METHODOLOGY	16-29
3.1	Measuring women's empowerment using WEAI	16-17
3.2	Selection of the study area	18-19
3.3	Selection of the respondent	20
3.4	Sampling technique	20
3.5	Preparation of survey schedule and pre-testing	20
3.6	Finalization of the questionnaire and method of data collection	20-21

3.7	Method of data collection	21
3.8	Period of survey and collection of data	21
3.9	Data collection	21
3.9.1	Primary data collection	21-22
3.9.2	Secondary data collection	22
3.10	Data editing and coding	22
3.11	Variables and their measurement	23
3.11.1	Measurement of dependent variable	23-24
3.11.2	Measurement of independent variable	24-25
3.12	Analytical technique	26-29

CHAPTER IV	SOCIO DEMOGRAPHIC PROFILE OF THE RESPONDENTS	30-37
4.1	Introduction	30
4.2	Age distribution of the respondents	30-31
4.3	Education level	31
4.4	Main source of household income	31-32
4.5	Agricultural farming experience	32
4.6	Number of household members	32-33
4.7	Percentage of earning member	33-34
4.8	Membership on societal organisations	34
4.9	Access to credit	35
4.10	Farm size	35
4.11	Farm profit of the respondent	36-37
4.12	Conclusion	37

CHAPTER V	RESULT AND DISCUSSION	38-49
5.1	Interpretation of the binary logistic regression	38

CHAPTER VI	CONCLUSIONS, OBSTACLES AND IMPLICATIONS	50-51
6.1	Conclusion	50-51
6.2	Policy implications	51

REFERENCES	52-56
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LIST OF TABLES

TABLE	TITLE	PAGE
1.1	Sector wise working children	8
3.1	Five domains of empowerment in the WEAI	17
4.1	Types and size of farm	35
4.2	Farm profit	36
5.1	Women empowerment and child labour (Total)	39
5.2	Women empowerment and child labour (Production)	41
5.3	Women empowerment and child labour (Ownership)	43
5.4	Women empowerment and child labour (Income)	45
5.5	Women empowerment and child labour (Leadership)	47
5.6	Women empowerment and child labour (Time)	49

LIST OF FIGURES

FIGURE	TITLE	PAGE
1.1	Sector and gender wise child employment	9
3.1	Map of Bangladesh showing study area	19
3.2	Map of Narsingdi district	19
4.1	Distribution of respondents based on their age	30
4.2	Education level of the respondents	31
4.3	Main source of household income	32
4.4	Agricultural farming experience	32
4.5	Number of household members	33
4.6	Percentage of earning member	34
4.7	Percentage of membership on societal organization	34
4.8	Status of access to credit	35
4.9	Categorization of the farmer according to the profit	37

LIST OF ACCRONYMS AND ABBREVIATIONS

BBS: BANGLADESH BUREAU OF STATISTICS

DE: DOMAIN OF EMPOWERMENT

Et al: AND OTHERS (at elli)

ESRI: ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE

GoB: GOVERNMENT OF BANGLADESH

HIES: HOUSEHOLD INCOME AND EXPENDITURE SURVEY

ILO: INTERNATIONAL LABOUR ORGANIZATION.

ISWR: INSTITUTE OF SOCIAL WELFARE AND RESEARCH.

LDC: LESS DEVELOPED COUNTRIES.

WEAI: WOMEN'S EMPOWERMENT IN AGRICULTURAL INDEX

CHAPTER I

INTRODUCTION

1.1 Background

Empowerment is the process by which people gain control over society, their communities, and their own lives. When options are available to people without any constraints or limits, be it in their education, job, or way of life, they feel empowered. Empowerment encompasses the endeavor to improve the position of women via literacy, awareness-building, education, and self-defense training. Empowering women is a continual development approach that enhances the inner power of women to become economically solvent, participate in many social organisations, speak in front of others, and acquire the power, energy, and voice to advocate for their rights (Anwar et al., 2013;).

Women make a substantial contribution to agricultural output, domestic tasks, and the care of their families and children (Bhagowalia et al., 2010; Debnath and Bhattacharje, 2016; Hossain, 2020). reported that women's participation in the workforce is increasing day by day in Bangladesh. According to Alkire et al. (2013), all five dimensions of women empowerment along with the ten indicators make women powerful.

However, there are a lot of factors that can influence women empowerment. The indicators of women empowerment are originating from five dimensions like- production, income, asset ownership, leadership, and time allocation (Melesse, 2021). There are ten indicators of women empowerment which combinedly forms the aggregate women empowerment score (Alkire et al., 2013)

Currently, there is ongoing concern over child labor everywhere in the world. It is typical for all youngsters, depending on the economic structure as well as the degree and rate of growth. Of the 22.8 million families polled in Bangladesh between 1995 and 1996, 21.2% reported having children between the ages of 5 and 14 who were employed. The comparable percentages for rural and urban regions were 22.5% and 16.8%, respectively. In the battle against child labor, women may make a significant contribution.

The goal of the current study was to determine how women's empowerment influences their involvement in child labor. Here, we examine the degree of female empowerment attained through agricultural pursuits as well as its effects. Economically engaged people who work in the

agriculture industry in a few Bangladeshi communities in the Narsingdi area. The majority of Narsingdi's women are experiencing some degree of home empowerment. This woman has the potential to be very effective in the battle against child labor in the Narsingdi district.

Lastly, a few policy suggestions were made in light of the findings.

1.2 The need for women empowerment

Women's empowerment involves encouraging them they can do everything they set their minds to, in an effort to give them confidence and strength. Because empowerment encourages and values women, it contributes to a decrease in domestic violence. For families, communities, and nations to thrive socially and health-wise, women's empowerment is crucial. Nowadays, there are a lot of women involved in politics, the economy, and education. Women may realize their greatest potential when they lead lives that are secure, rewarding, and fruitful. Bringing their abilities to the workforce and being able to raise children who are happier and healthier. Women who work help families become less impoverished and less likely to have problems with child labor. Their level of knowledge rises as a result, and their health gets better. It may result in a better country for us later on.

1.3 Contribution of the major 3 sectors in Bangladesh economy

The economy of Bangladesh is mainly supported by three sectors. But mostly the services sector is the main driver of the Bangladeshi economy. In FY2022, it made up 51.04% of GDP, with industry coming in second at 33.92% and agriculture at 11.22%. Readymade clothing (RMG) will be the industry sector with the most growth, driven mainly by increased external demand and improved safety and compliance norms. Millions of individuals enter the labor market each year, and two-thirds of the population of the nation reside in rural regions and are either directly or indirectly dependent on the agricultural industry. Because of this, the expansion of manufacturing is essential to creating jobs and diverting laborers from low-productivity informal economic activity.

Source: BBS, 2022

1.4 The Role of agriculture in the economy of Bangladesh

The expansion of agriculture is Bangladesh's main source of economic growth and stability. Approximately 75% of the population resides in rural regions and works in a variety of agricultural capacities, either directly or indirectly. Following independence, Bangladesh's primary economic engine was the agricultural sector. It made almost sixty percent of the GDP. In Bangladesh, agriculture is essential to people's livelihoods, jobs, and GDP. Over the past ten years, its contribution has decreased, falling from 17% in 2010 to 12.6% in 2020. When people began moving from the rural to the metropolis, the GDP contribution from mainstream farming decreased while the GDP contribution from the service and industrial sectors soared. The farming sector was expanded to include the service industry. The only industry recognized as the primary driver of economic development was the conventional agricultural sector. The agricultural subsectors followed. Food grain output was increasing, largely as a result of rice varietal advancements, but fisheries, poultry, cattle, and dairy also became significant sources of income. All of these subsectors began to take shape as professional farms run by young, forward-thinking women entrepreneurs, rather than as side projects. The GDP decreased in relation to the traditional agricultural sector, but farming as a whole—including its subsectors, service, and industrial sectors—has grown significantly in importance. Vegetables and high-value fruit orchards contributed significantly to the economic development as well. In addition to the farms, the agricultural services industry benefited from the value addition of the agricultural goods. Consider PRAN and ACI, two enormous agricultural industrial conglomerates that were also instrumental. Moreover, value addition was aided by the small-scale agro-dependent and agro-processed enterprises. Over the past 20 years, the value of agricultural production has expanded at a rate of 3.54 percent year (1999-2019). As I previously stated, the industry continues to be the primary employer, supporting 40% of the labor force. Thus, in terms of employment, agriculture continues to be the largest industry. In addition to employing the majority of the labor force in the country, this industry provides raw materials for industrial production, food for human and animal use, supports the rural economy, and maintains the natural equilibrium. In terms of both acreage and output, the food grain subsector—and specifically the rice crop—dominated the nation's agricultural landscape. The production of cereals has increased by 3% annually during the long run. Reducing land area and producing pulses and oil seeds—which are significant sources of protein and micronutrients—helped to facilitate the quick increase in grain output.

1.5 Women empowerment in agriculture

Because women form the backbone of the rural economy, particularly in emerging nations, women's empowerment in agriculture is necessary. Stronger rural livelihoods, greater income, and a greater ability to provide food security are all possible for empowered women farmers. They now account for about half of all farmers worldwide, and they have expanded their agribusiness over the past few decades. In emerging nations, women account for around 43% of the labor force employed in agriculture. It comprised economic operations such as raising cattle, raising poultry, husking rice, boiling and drying food, processing, and food preservation. In the villages, women handle these jobs the majority of the time. As more males have moved to the city, there are also more homes led by women. As more males have moved to the city, there are also more homes led by women.

According to Alkire et al. (2013), decisions made on agricultural output, productive resources, income usage, community leadership, leisure, and other topics are the key areas of measurement for women's empowerment in agriculture in rural areas. In addition to employing the majority of the labor force in the country, this industry provides raw materials for industrial production, food for human and animal use, supports the rural economy, and maintains the natural equilibrium.

1.6 Women in diverse agricultural production

Bangladeshi women have historically participated in a variety of agricultural pursuits in addition to household duties. In Bangladesh, women make up 65% of the agricultural labor force, and over 70% of all female workers are employed in the agribusiness, which includes forestry and fisheries. Women make up the workforce and contribute directly to agricultural growth and development via their management of varied resources, livestock raising, crops, and fisheries. As a result, they meet the demand for agricultural products and services on a commercial and livelihood basis.

1.6.1 Role of women in field crops production

In addition to hired laborers and household workers, female farmers contribute significantly to agricultural operations. In order to provide for their families' basic necessities, increase their income, and take on new duties, women engaged in agricultural operations. Crop diversity rises as a result of greater female empowerment. Bangladesh produces a large amount of field crops

year-round, including sugarcane, jute, and rice. In Bangladesh, rice is the main staple crop that is grown for consumption by the majority of farm households. As a result, household gardening, seedling planting, threshing, harvesting, and rice processing are routine tasks for rural women in Bangladesh. Farming rice and jute is labor-intensive, and women's presence helps with household labor. The agricultural industry has experienced an increase in productivity and technological efficiency due to the noteworthy involvement of women in agricultural work. Investing in education, crop diversification, creating a hired labor market for women, and altering the tenancy market are all necessary to improve women's access to and efficiency in agriculture.

1.6.2 Role of women in poultry and livestock rearing

Bangladesh's primary agricultural industries, aside from crops, are cattle and poultry. Among agricultural households, raising cows, sheep, chickens, goats, and ducks is most common; these animals are the main source of protein. Although Bangladeshi farm women have a direct hand in raising animals, socioeconomic considerations have an impact on their involvement. There is a strong correlation between income, food security, family status, and children's health and animal husbandry participation. Women engaged in cattle farming mainly to boost their income and social status, which had a good impact on their families and lives and provided them greater control over their finances and choices. In order to overcome socioeconomic limitations, prejudice, and poverty, Bangladeshi women actively participate in the cattle raising industry and ultimately achieve complete empowerment. According to our recent study, women played a significant role in the decision-making process related to raising livestock and poultry as well as practices involving these animals, such as the care, handling, transformation, and sale of particular livestock products in a few chosen areas of Narsingdi, Bangladesh. Women were heavily involved in the keeping of chickens; they helped with feeding, caring for the birds, cleaning the shed, collecting eggs, selling the eggs, and other tasks. Their cattle and poultry not only provide revenue but also meet the protein needs of their family.

1.6.3 Role of women in fisheries management

Bangladesh's fishing industry has contributed significantly to the country's food output. By carrying out socioeconomic duties both inside and outside the family, women make a substantial contribution to the management of fishing resources, increasing family assets. Growing numbers of women working in agriculture are a positive and respectable sign of socioeconomic development, economic expansion, and nutritional progression. Participation by women in pond fishing activities improves the family's socioeconomic status, sources of nourishment, money for the family, and prospects for self-employment. Even though a sizable portion of women work in the fishing industry part-time, they see positivity in fish processing, fish culture, and the use of scientific approaches in fish production. Women are heavily involved in many aspects of fish cultivation, including cleaning aquatic vegetation, preparing feed, fertilizing, harvesting, selling, and trading, as well as pond preparation, supervision, and management. In the field of fish polyculture, women are employed in liming, pond drying, medicine administration, seed supply, marketing, and trade, among other roles. In order to encourage women to participate in pond fish farming, there should be more institutional and policy support, financial assistance, and extension help available for women.

1.7 Child labour and its problem

Around the world, there is a lot of worry about child labor. Child labor has traditionally been seen as primarily a concern facing developing nations, along with other issues like poverty, rapid population expansion, growing unemployment, natural disasters, and so forth. In every part of the nation, there are occasional reports of child rights violations. The mistreatment of child laborers is a burden on the rural area. The children who labor do so both to support their family and to ensure their own survival. The family's head decided to send their young children to work since she was finding it tough to provide for all of them on a daily basis, including the kids. Children in rural regions labor as housekeepers, bricklayers, shop assistants, rickshaw/van pullers, boat rowers, and other jobs. According to Halim M.A. and Sadeque Mohammed, 50% of the population resides in rural regions and may be termed absolute impoverished children. Child labor is an issue in rural regions due to poverty, women's disempowerment, landlessness, unemployment, natural disasters, and a lack of work possibilities. Additionally, the issue of child labor hinders the education of the local children.

Since almost 60% of Bangladesh's population is estimated to fall below the national poverty line based on living standards, children starting at age 6 engage in a variety of income-generating activities to help support their family. The use of child labor is widespread in Bangladesh's rural areas. The majority of youngsters who work come from lower socioeconomic levels. In Bangladesh, the rural regions lack the contemporary amenities that the metropolitan areas do. Compared to Bangladesh's metropolitan districts, the country's rural areas lack access to gas, electricity, a functional transportation network, and a sophisticated educational system. In addition to working in agriculture, children in rural communities.

According to government estimates, 6.6 million youngsters in Bangladesh between the ages of 5 and 14 are working. There are 200 different kinds of activities that working children participate in, 49 of which are thought to be detrimental to their physical and emotional health. 6.13 million of the 31 million children between the ages of 5 and 14 are engaged in economic activity; 1.9 million of these children are in the 5–9 age range. Approximately 12% of the labor force in the nation is made up of child laborers. 27.7% of this age group is between the ages of 10 and 14. During the third SAARC Ministerial conference on children in 1996, official figures revealed that the total number of children aged 5-14 was only around 6 million. Based on the Base Line Survey conducted in 1996, the projected total number of child laborers in Bangladesh between the ages of 5 and 14 was 6.3 million, with 3.8 million being males and 2.5 million being girls. 42.39 millions of children in Bangladesh between the ages of 5 and 17 were employed in 2003; of these, 7.42 million were engaged in some form of economic activity, 3.18 million of whom were deemed to be child laborers, accounting for 7.5 percent of all children in this age group. 33.45 million Children are those who are 5 to 15 years old. Human rights monitors report that child abduction and trafficking for labor bondage prostitution remain serious and pervasive issues. Every year, over 9,000 girls are trafficked from Nepal and Bangladesh into bondage in India and Pakistan, frequently with the consent or cooperation of state officials. Conditions for children employed in domestic service may be similar to those of prostitution and slavery. It is estimated that in 2001, 295 children were abducted, 369 went missing, and 168 children were victims of human trafficking. According to Human Rights Monitors, every year more than 20,000 women and children are transported out of the nation to be forced prostitutes (ISWR, 2009–10). 35,000–45,000 kids are thought to be involved in drug and weapon dealing with criminal organizations. A study involving sixteen juvenile offenders revealed that the majority of

them were armed with handguns, revolvers, rifles, ammunition, pipe guns, short guns, hand bombs, knives, swords, and razors. 42.39 million children in Bangladesh are between the ages of 5 and 17. 3.18 million of the 7.42 million economically engaged children in this age group are regarded as child laborers, making about 7.5 percent of all children in this age group. The majority of Bangladesh's working-age children are employed in industries including manufacturing (14.6%), trading (14.2%), and agriculture and forestry (52.7%). (2005, Baseline Survey)

Rural child laborers have to deal with a variety of dangerous circumstances, such as poor health, a lack of education, abuse, violence, and drug addiction. Since poverty is a fundamental aspect of rural life, parents frequently encourage their children to work in order to support the family. As a result, parents in these regions believe that children should work rather than attend school in order to obtain an education. Child labor is a major problem in developing nations like Bangladesh and has to be addressed immediately.

1.8 Sector wise child employee

The agriculture sector employs 35.5% of male and 39.1% of female working children aged 5 to 17, followed by the industrial sector, which employs 29.6% of male and 27% of female working children, and the service sector, which employs the remaining 34.9% and 23.9% of working children.

Table 1.1: Sector wise working children aged 5-17.

Sectors	Male	Female	Total
Agriculture	35.5	39.1	39.9
Industry	29.6	27.0	32.5
Service	34.9	23.9	30.6

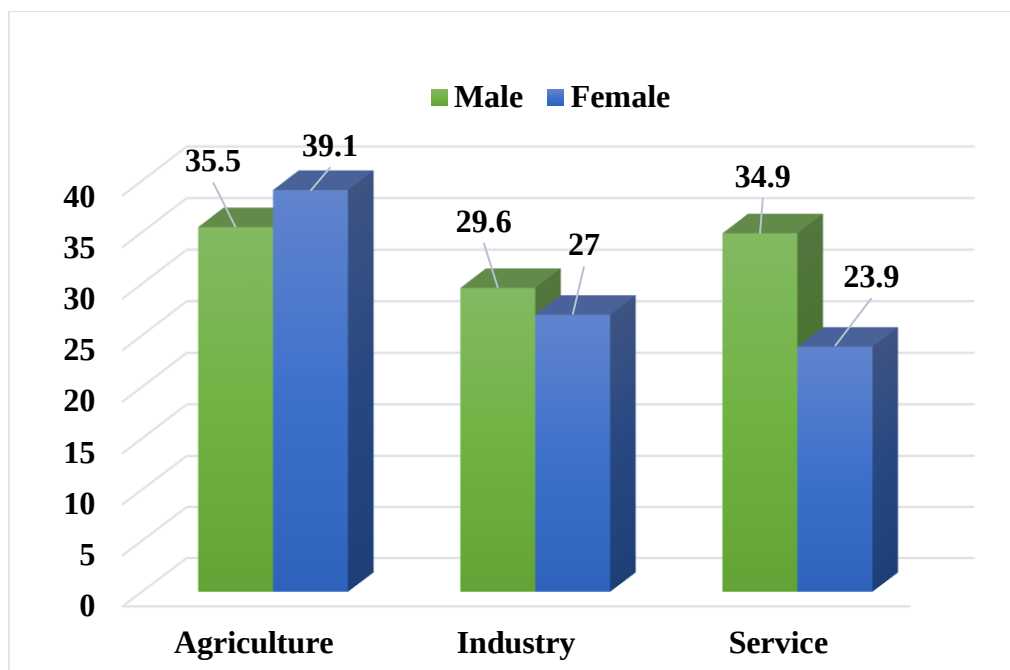


Figure 1.1: Sector and gender wise children employment

Source: BBS, 2020

1.9 Justification of the study

This study will provide core information on socio-demographic characteristics and socio-economic status of some empowered women, reduced child labor and increased education. The women empowerment decreases the child labor and increases the child education. The factors that affects the child labor problem is generally associated with empowerment of women in a family and also with poverty.

This study will help in finding problems of child labor, impact of women empowerment on child labor. In this study some economic investigations have conducted on the respondents and their resources. The findings of the study will generate awareness for women empowerment for reducing child labor.

1.10 Objectives of the study

Given the above-mentioned challenge, the following particular goals were developed to provide the study with the appropriate direction:

- a.** To know the socio-economic status of the respondents.
- b.** To estimate the impact of women empowerment on child labor.

1.11. Organization of the report

In this paper, the first chapter described the background, women empowerment, child labour problem, justification and objectives. The literature review is included in the second chapter. Chapter 3 discusses the methodology. The sociodemographic profile of the respondents in the research region is described in Chapter 4. In chapter five we will show the results and discussions. Chapter six contains conclusions and policy implications of this study.

Chapter II

REVIEW OF LITERATURE

The main purpose of this chapter is to review some related studies in connection with the present study. Only a few studies have so far conducted related to Women Empowerment and child labour in Bangladesh.

Roy et al. (2017) conducted a research to determine how much money women contribute to their households, to look at how involved they are in decision-making, how they perceive their income, and how this influences the process of making decisions. The Mymensingh sadar upazila's three villages were the study's locations. Using a standardized questionnaire and a random sample approach, data were gathered from 50 rural families. Women were engaged in a range of income-generating activities in the research region, including farming, raising poultry, managing fisheries and livestock, and post-harvest activities. The results of the research indicated that the involvement of women in decision-making was favorably correlated with respondent age, education, farm size, income, and occupation, but negatively correlated with family size.

Vlassak (1993) noted that women played a critical role in agricultural productivity in third-world countries. Due to the fact that money is becoming more and more important in developing nations, women's roles in agricultural and food distribution also give them a source of income. Although there were several barriers preventing women from increasing agricultural productivity, they nevertheless preferred to do so.

Akhter (1989) said that in order to provide food for the family and boost income, women were active in household agricultural production activities such as growing vegetables, fruits, lumber, and small animals (goats, sheep, and chickens).

Hossain (1985) claimed that the majority of vegetable production's postharvest activities were performed by women. Additionally, he promotes a number of actions that the government, legislators, planners, development workers, and researchers should take to successfully integrate participation in various homestead production and management activities, such as raising

livestock, cultivating fish, growing vegetables, operating the home after harvest, and making decisions as a family.

MOWCA (2008) discovered that differences between men and women are well-known in a variety of domains, including decision-making in family matters, work, education, health, and influence over resources. Compared to males, women are mistreated in both social and economic contexts. The women become less powerful and deprived as a result. Thus, empowering women is the primary goal of all emerging nations.

Khatun et al. (2014) ascertained the degree to which rural women participated in the homestead regions' vegetable and fruit tree farming. Married women from four chosen villages in Raumari upazilla, which is part of Kurigram district, participated in the study. Data were gathered from 103 women who were chosen at random. Only 10.68 percent of rural women showed limited engagement in the cultivation of fruit trees, compared to around 59 percent who were highly involved in the growing of vegetables. Vegetable gardening has a good link with agricultural knowledge, attitude, and inventiveness. Conversely, there was a positive correlation between the planting of fruit trees and factors such as education, family wealth, and cosmopolitan behavior and attitude.

Chaudhary and Nousheen (2009) noted that women's empowerment is a major focus of contemporary development initiatives in many less developed nations. Different socioeconomic circumstances influence women's empowerment in different ways. Furthermore, **Kim and Zepeda (2004)** study makes a similar argument about the explicit exploitation of child labor in rural civilizations where parents may coerce their kids into working on farms. These studies also assert that some families attempt to grow in order to provide the necessary labor.

Since mothers have a significant impact on their children's wellbeing when they participate in some capacity in household decision-making, some studies concentrate primarily on the relationship between an empowered mother and the welfare of her child (**Shahnaz and Kizilbash 2002; Khan and Raza 2014; Impicciatore and Dalla Zuanna 2017**).

The first possible connection between women's empowerment and children's wellbeing is based on the "theory of bargaining power," which contends that having a voice in domestic affairs gives mothers more leverage to negotiate for their children's welfare and reduces child labor.

Evidence for this may be found in the Mexican example, where a mother's increased negotiating power results in a kid doing less labor around the house (**Reggio 2011**).

Because we can do it on our own, we can very effectively preserve our home resources in small-scale farming and the rearing of animals and poultry. Other family members' help is not required. (**Personal correspondence with Salma Begum, December 4, 2017**)

These qualities include self-strength, control over resources, freedom of choice, a life of dignity, access to basic human necessities, the ability to fight for rights, autonomy, and the capacity to make decisions, according to the **World Bank (2002)**. However, **Yunus (2007)** contended that empowerment may be characterized as a rise in women's authority and responsibility in a variety of areas that impact their quality of life.

In their study on women's economic empowerment in South Asia, **Carr Chan, and Jabvala (1996)** defined empowerment as structural reform and financial development that increased bargaining power and allowed women to continuously benefit financially.

According to **Batliwala (1994)**, empowerment is a strategy for altering current power dynamics and gaining more control over resources. She concludes, at the age of 19, that women's empowerment causes her to challenge the idea of male domination, give her access to and control over resources, and alter the institutions that uphold the norms and values of subordination.

In his research, **Kumar (2013)** defined empowerment as the capacity to make decisions, develop in social and physical contexts, and have control over one's environment, including systems and resources for sustenance.

Women's empowerment, according to **Rao and Kelleher (1995)**, is the capacity for women to make decisions that affect their own lives, exercise their right to self-determination, and become financially independent.

Parveen and Ingrid (2004) came to the conclusion that effective initiatives started by the relevant authorities to improve women's access to education and information can boost empowerment.

Similarly, **Nawaz et al. (2012)** discovered that using microcredit for various revenue-generating activities empowers women on an economic, familial, and personal level in Bahawalpur, Pakistan. Women who are economically empowered are also powerful on other fronts.

According to **Zaman (2001)**, microfinance has a major impact on alleviating poverty by generating money and empowering women by granting them control over resources, which raises their integrity and consciousness.

According to **Malik and Luqman (2005)**, empowerment include having respect, self-assurance, access to resources, the ability to make decisions, control over compensation, and an enhanced quality of life. They are able to take charge of their life via this process of transformation.

Islam et al. (2018) evaluated how much rural women participated in homestead vegetable cultivation at Monirampur Upazila in the Jessore district and investigated the connections between each of the rural women's chosen characteristics and how much they participated in homestead vegetable cultivation. Data were gathered from sixty respondents who were chosen at random. The study's variables were measured using appropriate scales. When examining a broad selection of six farmhouse vegetable production features, rural women were most involved in seedbed preparation and seedling rearing, and least involved in intercultural operation. Out of the eleven factors that were chosen, only age showed a statistically significant positive correlation with their involvement in farmhouse vegetable gardening.

Based on a survey conducted by the Dhaka City Corporation, **Kalam (2007)** examined a range of child labor-related topics and found significant differences in the work, such as the reasons for child labor. He finds that poverty alleviation is a prerequisite to eliminating or at least minimising child labour, and that child labour cannot be totally abolished unless Bangladesh's economy develops to the point where the great majority of its adult labor force has access to employment options. Child labor is a persistent economic problem in Bangladesh that cannot be resolved with laws alone. Rather, the only way to eradicate it is through the implementation of appropriate, long-term economic policies that do away with the necessity of child labor.

Mamun et al. (2008) gather primary data from a few chosen districts in Bangladesh's Rangpur district in order to investigate the factors that impact the health difficulties of child laborers. The

results of their logistic regression study indicate that the chance of experiencing health difficulties was most significantly influenced by age at the time of entry to work, site of employment, and number of hours worked each day. They discover that: (i) longer workdays increase the risk of health issues; (ii) kids who work in more dangerous industries have more health issues than kids who work in relatively less hazardous industries; and (iii) kids who start working early have more health issues than kids who start working later in life.

J. Norpoth et al. (2014) carried out a research. The study finds that youngsters in Bangladesh's rural and urban areas had comparable odds of working. It is not unexpected that, overall, the majority of working children reside in rural regions given that the majority of the population does. Nonetheless, the proportion of youngsters employed in both urban and rural settings is comparable. The survey found that youngsters are more likely to work as they become older, with 20% of fourteen-year-old children now employed .24. In a similar vein, job hour increases with age.25. In general, the study found a higher percentage of boys working than girls.

2.1 Research gaps

From the foregoing study, it is obvious that many studies were done regarding women empowerment in agriculture in the different areas in our nation and the worrying child labour problem is explored in many studies. To the best of the researcher's knowledge, no research on women's empowerment in agriculture has been done in the field of my study. Furthermore, no direct research has been done on how women's empowerment in agriculture affects child labor. This prompted me to do my studies in this field.

CHAPTER III

Methodology

An explanation of a researcher's intended research approach may be found here. It is a methodical and logical strategy to address a research issue. It grants research legitimacy and yields reliable scientific results. A strong research methodology gives researchers a clear strategy to work from start to finish. A researcher should take great effort to choose the best approach for achieving the goals while developing research procedures and methodologies. This chapter's goal is to provide an overview of the research design, study area, and data collection and analysis procedures in order to address the research questions. The goal of the study will determine the data gathering strategy. The primary data used in this investigation are primary sources. As a result, the farm survey approach was used in the study. Because it offers benefits over other approaches, the survey method is recommended. The investigator's dependence on respondents' memories is a methodological constraint, though. To address this shortcoming, survey schedules were established methodically, and questions were written to ensure that they fully covered the necessary opinions.

3.1 Measuring women's empowerment using the WEAI

The WEAI is a national or regional aggregate index derived from individual-level data on men and women living in the same family. The Gender Parity Index (GPI) and the five domains of women's empowerment (5DE) are the two sub-indices that make up the weighted average of the Women's Empowerment Index (WEAI). The 5DE sub-index demonstrates the degree of women's empowerment by enumerating the roles and activities of women in the agricultural sector across five domains: (1) control over agricultural production; (2) access to and decision-making authority over productive resources; (3) control over income utilization; (4) community leadership; and (5) time management. The 10 indications that correspond with each of the five domains are listed in Table 3.1. We used autonomy in production and input in productive decision-making to gauge the first domain, "production." A responder receives 20 points if she answers both (table 3.1). In this manner, we evaluated each domain using one or more of the indications listed in Table 3.1, assigning varying scores to each indicator. When all of the markers are met, a total of 110 points are awarded. A responder is considered empowered if she receives 90 up scores.

Table 3.1: The five domains of empowerment in the WEAI

Domain	Indicator	Definition of indicator	Weight
Production	Input in productive decisions	Sole or joint decisionmaking over food and cash-crop farming, livestock, and fisheries	1 / 10
	Autonomy in production	Autonomy in agricultural production (e.g., what inputs to buy, crops to grow, what livestock to raise, etc.). Reflects the extent to which the respondent's motivation for decisionmaking reflects his/her values rather than a desire to please others or avoid harm.	1 / 10
Resources	Ownership of assets	Sole or joint ownership of major household assets	1 / 15
	Purchase, sale, or transfer of assets	Whether respondent participates in decision to buy, sell, or transfer his/her owned assets	1 / 15
	Access to and decisions on credit	Access to and participation in decisionmaking concerning credit	1 / 15
Income	Control over use of income	Sole or joint control over income and expenditures	1 / 5
Leadership	Group member	Whether respondent is an active member in at least one economic or social group (e.g., agricultural marketing, credit, water users' groups)	1 / 10
	Speaking in public	Whether the respondent is comfortable speaking in public concerning various issues such as intervening in a family dispute, ensure proper payment of wages for public work programs, etc.	1 / 10
Time	Workload	Allocation of time to productive and domestic tasks	1 / 10
	Leisure	Satisfaction with the available time for leisure activities	1 / 10

Source: Alkire et al. (2013)

3.2 Selection of the study area

The district of Narsingdi is located in central Bangladesh. It is included in the Division of Dhaka. It is situated 50 kilometers northeast of Bangladesh's capital, Dhaka. The Narsingdi district spans approximately 1140.76 square kilometers and is situated between latitudes 23'46' and 24'15' north and longitudes 90'34' and 90'59' east. Kishoreganj district borders it on the north, Brahmanbaria and Narayanganj districts border it on the south, Kishoreganj district borders it on the east, and Gazipur district borders it on the west. The primary source of income for 42.73% of the population in this district is agriculture.

The Narsingdi district has 2,224,944 people living there in 2011 according to the Bangladesh census, with 1,102,943 men and 1,122,001 women. The population of the rural areas was 1,777,299 (79.88%), and the urban areas were 447,645 (20.12%). For those aged seven and older, the literacy rate in Narsingdi district was 49.60%: 50.56% for men and 48.86% for women.

The specific goal of the survey and the respondent's potential cooperation will determine the scope of the agricultural business survey. Also, it is dependent upon the following:

- What type and quantity of information is needed and
- The general atmosphere of the region where the anticipated responders were likely to reside.

In general, farm owners are reluctant to divulge details about their personal financial transactions and private business dealings to outsiders. The Narsingdi district was purposefully chosen with the aforementioned considerations in mind, as a significant proportion of women are employed in agriculture. In addition to this, the following factors have a role in the area's selection:

- i) There is no published data in the research field.
- ii) The study was conducted in this area since it was less expensive and time-consuming due to the convenient communication facilities from the researcher's apartment.
- iii) The investigator anticipated enhanced collaboration from the participant.
- iv) The research area's female population is becoming more powerful everyday.



Figure 3.1: Map of Bangladesh Displaying Study Area (Maps were altered after being collected from the internet)



Source: Wikipedia

Figure 3.2 Map of Narsingdi District

3.3 Selection of the respondent

I have selected the women of Narsingdi district because I came to know from my husband who is an animal doctor in Narsingdi district that there are large amount of empowered women who are associated with poultry business. Also for convenience of talking to women and being in Narsingdi area I have selected that respondents.

3.4 Sampling technique

Due to time constraints and resource scarcity, it was not possible to enroll every woman in the Narsingdi district in this research. To achieve the study's objectives, a representative sample survey that was feasible was necessary. In this investigation, a simple random sample approach was used. Following the deliberate selection of the Narsingdi district, many villages were chosen from the four upazilas of Shibpur, Monohardi, Raipura, and Palash. Due to the same socioeconomic, environmental, and climatic conditions that all of the farmers in the region work in, they constitute a very homogenous group, which supports the use of a small sample size that can be representative of the whole population. Therefore, rather than using a statistical formula, the sample size is purposefully set based on the situation. In this study, 100 families headed by women were selected as a sample. Randomly chosen respondents were chosen from among the communities. This was supposed to depict the farming traits of all women in the communities.

3.5 Preparation of survey schedule and pre-testing

The survey schedule was meticulously crafted to get the necessary data for every facet of the investigation. Initially, a draft survey schedule that aligned with the study's objectives was meticulously crafted to gather the necessary data. Next, a pre-test of the draft schedule was conducted in the research region with a few group members. A logical sequence was constructed for the final schedule based on the real and practical experiences acquired during pre-testing, which allowed respondents to provide correct information in a sequential manner. Several elements of the draft schedules were enhanced, changed, and updated accordingly.

3.6 Finalization of the questionnaire and method of data collection

My supervisor received the questionnaire once all the modifications had been made in accordance with the suggestions derived from the pre-test. The questionnaire was eventually approved and finished. A face-to-face interview was conducted after completing the questionnaire.

3.7 Method of data collection

The current study collected its data using the survey approach. For the survey, both qualitative and quantitative data were gathered according to the variable's nature. Data was gathered using both open-ended and structured questions. The chosen individuals were put through structured interviews to get information on various social and economic circumstances. Data from primary and secondary sources were gathered. Respondents were interviewed in-person to get primary data. Secondary data were gathered from a range of sources, including books, journals, newspapers, online articles, and more.

3.8 Period of survey and collection of data

Data collection for the study began in July 2022 and was finished in 60 days. It is not a simple undertaking to get adequate and trustworthy field data for the study. Following the schedule's completion, the researcher conducted in-person interviews with each rural woman to gather the essential primary data. Each respondent received a brief explanation of the nature and objectives of the study prior to the interview. The questions were then posed simply, with precise clarification provided as needed. The women's information was instantly entered into the interview schedules. Before leaving the research region, the material was thoroughly verified, and any discrepancies were clearly explained and fixed by comparing them to both local and national norms.

3.9 Data collection

3.9.1 Primary data collection

The term "primary data" describes information obtained directly from the source by the researcher. Primary data sources include questionnaires, interviews, observations, surveys, and more. Researcher herself performed face-to-face interview of the selected respondents with a

prepared and pre-tested questionnaire for gathering primary data. Interviews took place at the home of the responder.

3.9.2 Gathering secondary data

A thorough investigation to gather all the facts required for a research topic is essential to conducting a worthwhile study. Secondary data were gathered from many agricultural colleges, research institutes, libraries, conferences, papers, and reports in order to improve the caliber of the study and expand its scope. Examples of these sources include: Different Books, Journals, Publications, etc.

- Libraries of -
 - Sher-e-Bangla Agricultural University (SAU)
 - Bangladesh Agricultural University (BAU)
 - Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU)
- Bangladesh Agricultural Research Council (BARC)
- Bangladesh Agriculture Research Institute (BARI)
- Bangladesh Bank
- BBS
- MS and PhD thesis papers
- Internet browsing, etc.
- BBS

3.10 Data editing and coding

Additional crucial survey phases that were essential for data processing were data editing and coding. It needs to be finished before processing the data. In this instance, coding was completed in tandem with the creation of the questionnaire to enable the enumerator to quickly and precisely mark the correct responses. Data editing is the process of verifying and sanitizing information that has previously been gathered from the field.

3.11 Variables and their measurement

In the context of research, a variable is anything, concept, or attribute that can have any value that you are attempting to quantify. Two categories of variables are often used in analytical research. We anticipate that independent factors will have an impact on dependent variables. What occurs as a result of the Independent variable is known as the Dependent variable. To gain a comprehensive grasp of the types and ranges of potential dependent and independent variables that are relevant and chosen for this study, the researcher extensively examined and read the literature. The study will employ age, education, family experience, household size, and farm size as independent factors. Five domains and child labor were the study's dependent variables. The following presents the techniques and methods used to measure the study's variables.

3.11.1 Measurement of dependent variable

The five categories of child labor and women's empowerment were chosen to be the study's dependent variables. We'll track the variables that influence a family's use of child labor.

Production

Two indicators are used to quantify this area of women's empowerment: a) Input into productive decision-making & b) Autonomy in production. The primary indicator is determined by making decisions alone or in concert on cattle, fisheries, and the growing of food and cash crops. The autonomy in agricultural production is shown by the second indicator (e.g., what inputs to buy, what crops to plant, what animals to rear, etc.). It shows how much the respondent's decision-making is driven by his or her ideals rather than by a desire to win over people or stay safe. If she was in charge of production, she would receive a 20.

Ownership

Three variables are used to measure this area of women's empowerment: a) ownership of assets; b) acquisition, sale, or transfer of assets; and c) credit availability and decision-making. a) Asset ownership denotes either single or shared possession of significant household assets. b) The purchase, sale, or transfer of assets is indicated if the respondent takes part in the decision to acquire, sell, or transfer his or her owned assets. c) Lastly, having access to credit and making judgments about it entails having decision-making authority over any activity pertaining to

credit. Possession of possessions is a sign of an empowered woman. Given a score of 45, if she was the owner of the assets.

Income

Here, income denotes either exclusive or shared control over earnings and outlays. In this case, the family's money-using authority figure was recognized. We classified the responder woman as empowered and gathered information from her if she had control over how her income was spent. If she been in charge of her income, she would have received a 5.

Leadership

Speaking in public and belonging to a group are the two indicators used to measure this area of women's empowerment. a) The first indication will be satisfied if the responder actively participates in at least one economic or social organization (such as those involved in credit, water users' associations, or agricultural marketing). b) The respondent's comfort level speaking in public on a range of topics, such as mediating a family conflict or making sure that public work programs pay their employees fairly, is a sign of leadership. If she was a speaker in public or a member of any organization, we presumed she has leadership qualities. Had leadership qualities, the score would have been 20.

Time

This domain of women empowerment is measured by two indicators- a) Workload, b) Leisure. If the woman had workload she had less leisure time. Here time indicates amount of workload and the leisure time enjoyed by the women. If women enjoys leisure time then given score was 10.

3.11.2 Measurement of the independent variables

Age

Age was calculated based on the respondents' vocal responses and the number of actual years since birth at the time of the interview. One continuous variable that was used was age.

Education

The class (year of education) that the powerful women in those locations passed served as a proxy for their level of education. The respondent's education was reported in terms of the number of years they had attended any type of educational institution, including accredited colleges, universities, and schools. Every responder was found to be literate.

Farming Experience

The total number of years that the respondents engaged in farming activities was used to evaluate their level of farming experience. For every year she had experience farming in her own sector, she received a score of one.

Household size

House hold size was determined by the members lived in the house. We find lowest 3 members and highest 14 members in a single family among our respondents.

Farm size

The total number of birds, cows, or goats under a single respondent's farm was used to calculate the size of the farm.

Table 3.2: Variables used in this models

Variable	Description
Production	Control over productive decision. If had control score 20
Ownership	Ownership of the assets. If had ownership score 45
Income (yes/no)	Control over the use of income. If had control score 5
Leadership	Whether respondent is comfortable speaking in public. If had leadership quality score 20
Time (yes/no)	Score 10 if women have leisure time and for workload given score is 10.
Age (years)	Age of the respondent
Education (years)	Total numbers of years the respondent attended school

Experience (years)	Total numbers of years involved in farming activities
Household size	Members lived in a single house hold
Farm size	Total numbers of birds or cows or goats under a single respondent

3.12 Analytical techniques:

The study employs both descriptive and econometric analytical approaches. To characterise the features of data, descriptive statistics are used. Here we use binary logistic model because the dependent variables are in binary form (0, 1). This analysis was done by (STATA 15). By separating the first and second order conditions, we were able to estimate the marginal effect of each variable in the logit model.

Empirical model:

The method of binary logistic regression model is deployed to calculate the correlation between child labor and women's empowerment.

A binary logistic model is as follows:

$$\text{Log [P/1-P]} = \beta_0 + \beta_i X_i + \varepsilon_i \dots \dots \dots (a)$$

Where,

P = Probability of outcome

β_0 = intercept

β_i = coefficients

x_i = independent variables (5DE, age, education, farming experience, household size, farm size etc.) **ε_i** = error term

The following models are used in this study is

$$\text{Log [P/1-P]} = \alpha_0 + \alpha_1 A_1 + \alpha_2 A_2 + \alpha_3 A_3 + \alpha_4 A_4 + \alpha_5 A_5 + \alpha_6 A_6 \dots \dots \dots (1)$$

Where,

P = Probability of reduction in child labour

α_0 = Intercept

A_1 = Total effect by calculating the sum of 5 domains

A_2 = Age

A_3 = Education

A_4 = Farming Experience

A_5 = Household size

A_6 = Farm size

α_1 to α_6 = Co-efficient of total, age, education, farming experience, household size, farm size

$$\text{Log } [P/1-P] = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 C_5 + \beta_6 C_6 \dots\dots\dots (2)$$

Where,

P = Probability of reduction in child labour

β_0 = Intercept

C_1 = Production

C_2 = Age

C_3 = Education

C_4 = Farming Experience

C_5 = Household size

C_6 = Farm size

β_1 to β_6 = Co-efficient of production, age, education, farming experience, household size, farm size

$$\text{Log } [P/1-P] = \gamma_0 + \gamma_1 D_1 + \gamma_2 D_2 + \gamma_3 D_3 + \gamma_4 D_4 + \gamma_5 D_5 + \gamma_6 D_6 \dots\dots\dots (3)$$

Where,

P = Probability of reduction in child labour

γ_0 = Intercept

D_1 = Ownership

D_2 = Age

D_3 = Education

D_4 = Farming Experience

D_5 = Household size

D_6 = Farm size

γ_1 to γ_6 = Co-efficient of ownership, age, education, farming experience, household size, farm size

$$\text{Log } [P/1-P] = \delta_0 + \delta_1 E_1 + \delta_2 E_2 + \delta_3 E_3 + \delta_4 E_4 + \delta_5 E_5 + \delta_6 E_6 \dots\dots\dots (4)$$

Where,

P = Probability of reduction in child labour

δ₀ = Intercept

E₁ = Income

E₂ = Age

E₃ = Education

E₄ = Farming Experience

E₅ = Household size

E₆ = Farm size

δ₁ to δ₆ = Co-efficient of income, age, education, farming experience, household size, farm size

$$\text{Log } [P/1-P] = \eta_0 + \eta_1 X_1 + \eta_2 X_2 + \eta_3 X_3 + \eta_4 X_4 + \eta_5 X_5 + \eta_6 X_6 \dots\dots\dots (5)$$

Where,

P = Probability of reduction in child labour

η₀ = Intercept

X₁ = Leadership

X₂ = Age

X₃ = Education

X₄ = Farming Experience

X₅ = Household size

X₆ = Farm size

η₁ to η₆ = Co-efficient of leadership, age, education, farming experience, household size, farm size

$$\text{Log } [P/1-P] = \lambda_0 + \lambda_1 Y_1 + \lambda_1 Y_1 + \lambda_1 Y_1 + \lambda_1 Y_1 + \lambda_1 Y_1 + \lambda_1 Y_1 \dots\dots\dots (6)$$

Where,

P = Probability of reduction in child labour

λ_0 = Intercept

Y_1 = Time

Y_2 = Age

Y_3 = Education

Y_4 = Farming Experience

Y_5 = Household size

Y_6 = Farm size

λ_1 to λ_6 = Co-efficient of time, age, education, farming experience, household size, farm size

CHAPTER IV

Socio-demographic Profile of the Respondents

4.1 Introduction

In this study, we choose our socioeconomic analysis section based on (Shetu, 2022) and our prior research experiences. In accordance with the goals of the study, the observations were methodically documented, and a potential discussion of the results was held in light of their legitimate and pertinent research. This chapter addresses the sample respondents' socioeconomic characteristics. Plans for manufacturing are influenced by the sociodemographic characteristics of farmers. An individual's general attitude or conduct may be significantly influenced by a variety of characteristics. The sociodemographic profile of the responding women can be explained by a number of these traits. Nonetheless, some attributes of the participants were selected for this investigation, such as their age, educational attainment, family size, number of wage earners, farm dimensions, yearly earnings, and experience. A brief examination of these variables is conducted.

4.2 Age distribution of the respondents

The respondents' age plays a significant role in their involvement in any activity that generates cash. The respondents' ages ranged from 23 to 65, with a mean age of 35. The respondents were divided into three age groups based on their recorded ages: "young," "middle," and "old." Figure 4.1 displays the distribution of respondents based on their age.

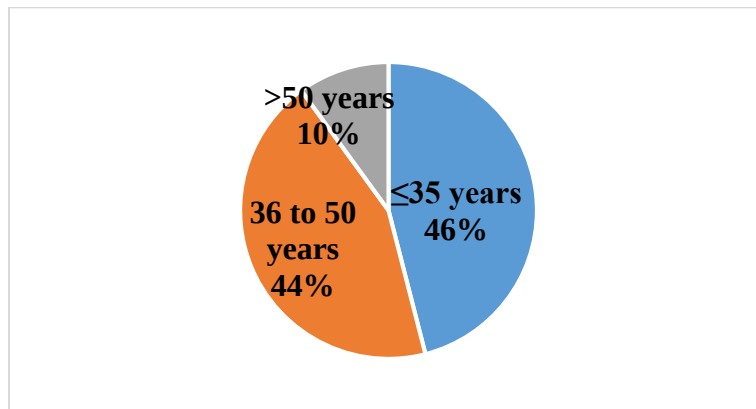


Figure 4.1: Distribution of the respondents based on their age

Source: Field survey, 2022

According to Figure 4.1, the youngest farmers made up the largest percentage (46%) and were followed by middle-aged farmers (44%) and elderly farmers (10%). The results also show that 90% of all respondents are in the young and middle-aged categories. The conclusion seems to be that younger and middle-aged women participated in cattle keeping activities at a higher rate overall.

4.3 Education level

The respondents' average length of schooling was eight years, with a range of 0 to 14 years. The responses were randomly divided into three categories based on years of schooling. Table 4.2 shows the farmers' distribution based on educational attainment.

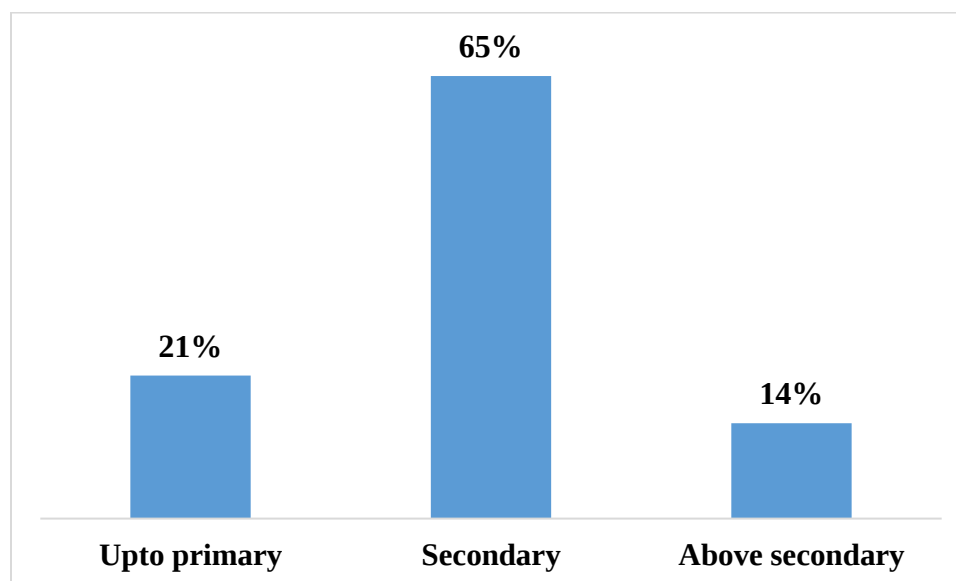


Figure 4.2: Education level of respondents

Source: Field survey, 2022

The percentages in this statistic indicate that 21% of people are in elementary school, 65% are in secondary school, and 14% are in higher school. Thus, the up to secondary sector has a greater share of almost 65%.

4.4 Main source of household income

Figure 4.1 reveals that the main source of income of the highest respondent is business (41%) Others are Livestock rearing 38%, Day labour 6%, service 3% and others are 12%.

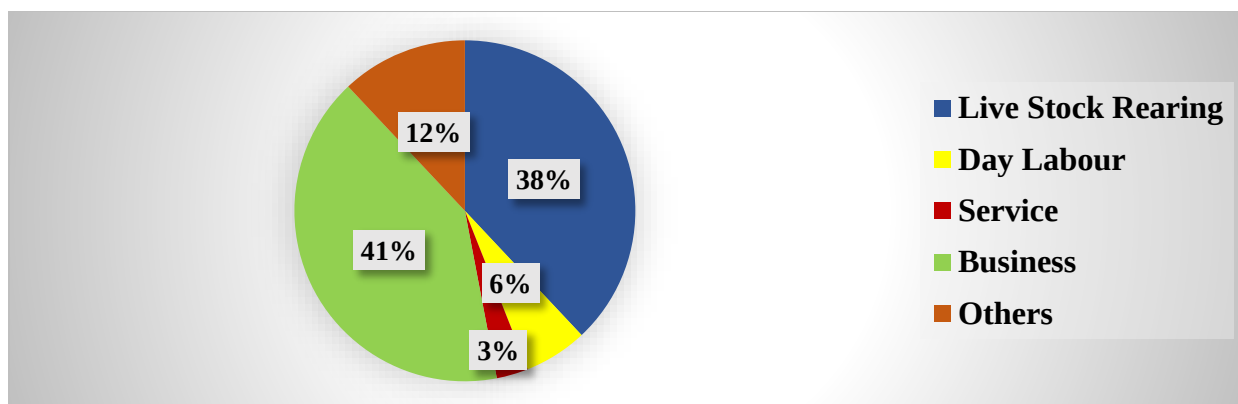


Figure 4.3 : Main source of household income

Source: Field Survey, 2022

Based on the respondent's household main income they are characterized into 5 types- Business, livestock rearing, service, day labour and others.

4.5 Agricultural farming Experience

The respondents' lengths of agricultural experience varied from one to forty years. Five categories are used to classify farming experience. Table 4.4 shows the respondents' distribution based on their level of agricultural experience.

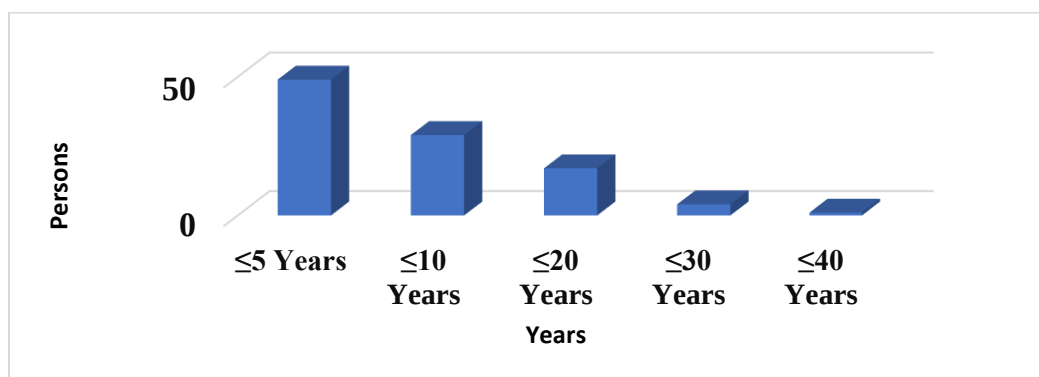


Figure 4.4: Agricultural farming Experience

Source: Field survey, 2022

4.6 Number of household members

In the current study, a family was defined as a group of people who shared a kitchen, lived under one head of household authority, and lived together. The size of the farmer's family fell into

three groups. 40% of families have four or less people, 51% have five to seven members, and 9% have eight or more members. In Bangladesh, the average size of a national household was estimated to be 4.060 persons in 2016. This figure is lower than the 4.50 persons who were registered for 2010 (Bangladesh HIES, 2016). According to recent estimates, the average national household size in 2022 will be 4.3 people (ESRI).

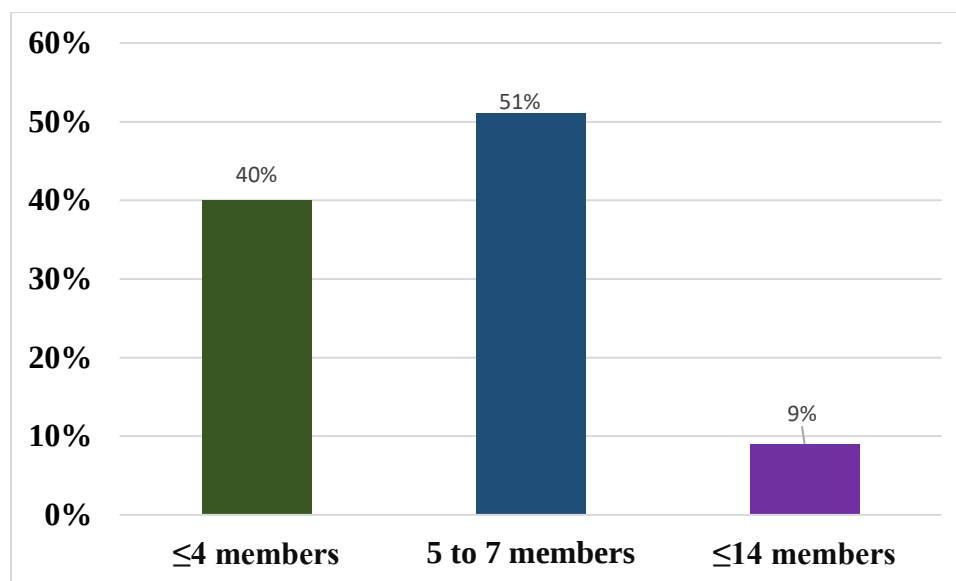


Figure 4.5: Number of household members

Source: Field survey, 2022

This figure reveals that most of the household have the number of five to seven members (51%). Family consist with one to four members and above eight members has the percentage is 40% and 9% respectively. So, among the 100 respondents 65% family have 5 to 7 members.

4.7 Percentage of earning member

The earning members of the family are one of the important factors in their socio-demographic profile. The whole family depends on the earning person. The earning member of the study area was divided into 2 subgroups.

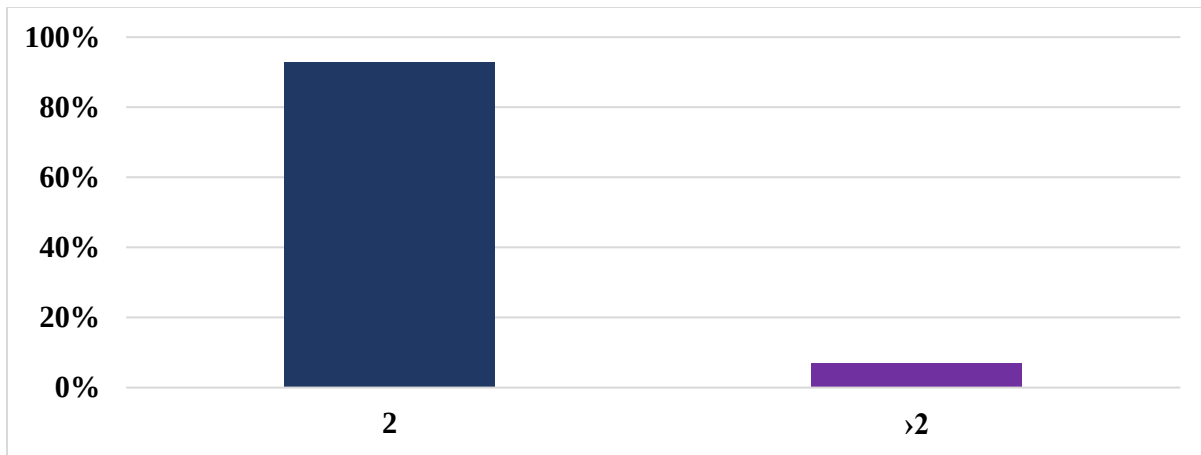


Figure 4.6: Percentage of earning member

Source: Field survey, 2022

From the figure 4.5 this is clear that most of the family household have two earning person (93%). The whole family depends on that income. And above two members the percentage is 7%.

4.8 Membership on societal organizations

Figure 4.7 displays the sample respondents' distribution based on their affiliation with various organizations. It shows that among the respondent women 19% have membership in different organization and 81% have no membership in any organization.

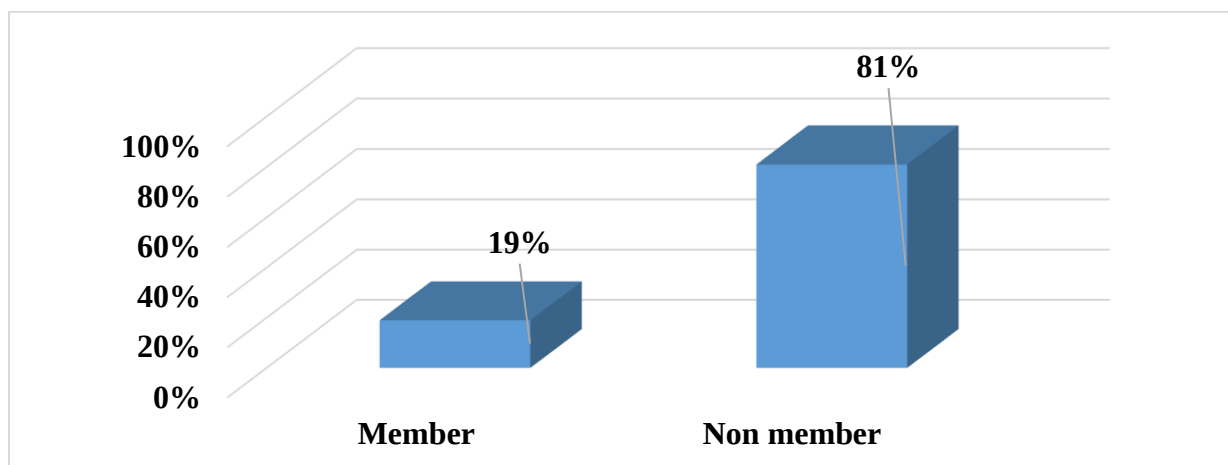


Figure 4.7: Percentage of membership on societal organizations

Source: Field survey, 2022

4.9 Access to credit

Figure 4.8 shows that among the respondent farmers 18% women have taken credit for their livestock production and 82% women have not taken credit for their farm.

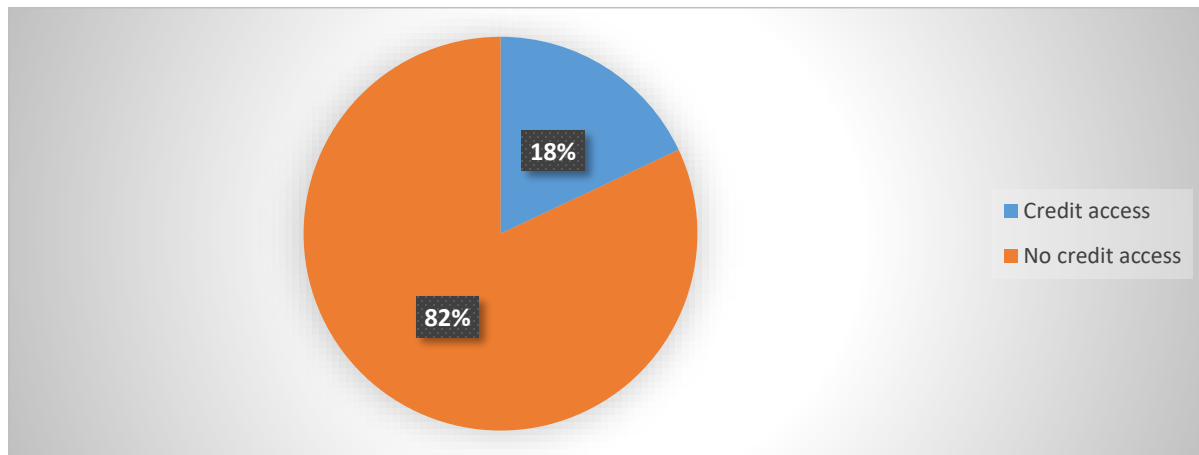


Figure 4.8: Status of Access to credit

Source: Field survey, 2022

4.10 Farm Size

Table 4.1 describes about the type of the farm and the size of the farm of the respondents. Among the respondent we find that 42% have poultry farm, 52% have cow and 19% have goat. Among them some have both cow and poultry farm, some have both cow and goat farm and some have both goat and poultry farm. The size of the farm varies from respondent to respondents.

Table 4.1: Types and size of farm

Type of Farm	No. of Specific Farm	Total no. of Livestocks
Poultry	42	85,030
Cow	40	94
Goat	18	58

Source: Field survey, 2022

4.11: Farm Profit of the respondent

The respondent's annual profit varies from different sources like poultry farm, dairy cows and goats, business, services, foreign remittances, and others. The profit from farmers are categorized into three division; low profit, medium profit and high profit.

Table 4.2: Farm profit

Category	Basis of categorization (thousand Tk.)	Observed Range (thousand Tk.)	No. of Farmers	Average (thousand Tk.)
Low profit	≤50	10 - 300	39%	35.110
Medium profit	50-100		30%	
High profit	>100		31%	
Total			100%	

Source: Field survey, 2022

According to table, the farmers total annual profit ranges from 10,000-3,00,000 taka/year. The farmers of the study area, about 39% people in the low profit category whose annual profit per year is below 50,000 taka/year. While medium profit and high profit farmers made up 30% and 31% respectively.

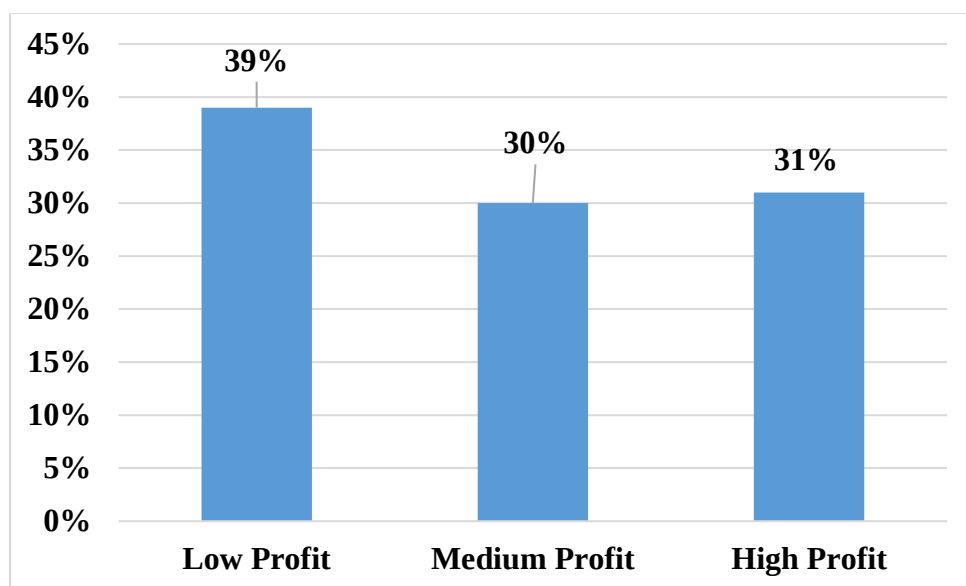


Figure 4.9: Categorization of the farmer according to the profit

Source: Field survey, 2022

Figure 4.9 shows the distribution of empowered women based on their profit from their production. The respondents were arbitrarily divided into three groups based on their annual profit from the farm- low, medium and high. The average annual profit from the farms is tk 35,110.

4.12 Conclusion

This chapter examined the empowered women's socioeconomic traits. The socioeconomic qualities of a woman influence her decision-making behavior. A person is made up of many interconnected and component characteristics, and these have a significant impact on how they grow as a person. The socioeconomic traits of the producers have an impact on how they use technology and conduct their business. Due to time and resource constraints, gathering all the pertinent data about the socioeconomic traits of the sample farmers is, however, a difficult undertaking.

CHAPTER V

Results & Discussion

Production, resources, income, leadership and time are the major five indicators by which we measured how much a woman is empowered. Here age, education, family income, farming experience, household size, farm size and time are the major inputs in measuring the increasing or decreasing in child labour in the household. This inputs were used as explanatory factors to clarify the results.

5.1 Binary logistic regression's Interpretation

To determine the factors influencing child labour, binary logistic regression analysis was carried out using the variables listed in Tables 5.1 to 5.6.

Table 5.1 shows the negative correlation between child labour and total effect indicating that women empowerment reduces the child labour. The co-efficient of total effect was -0.0124. Which was negative but statistically significant at 1% level. If the total effect increased by one unit then the child labour will be decreased by 0.012 unit. Here minimal impact of total was 0.0068. Respondents who had fulfill all the five domains had 0.68 percent higher chance of having no child labour in their family. We got the expected value of age. Which was not statistically significant. There was no effect of age on child labour. The co-efficient of education under total effect was 0.0167. This, at the 1% level, was both statistically significant and positive. If education increased by one unit then the total effect will be increased by 0.0167 unit. Here minimal impact on education was 0.0291. That average respondents who had higher education had 2.91 percent higher chance of having no child labour in their family. We got the expected value of experience. Which was not statistically significant. There was no effect of experience on child labour. The co-efficient of household size under total effect was 0.0238 with a 5% threshold of statistical significance and a good outcome. If household size increased by one unit then the total effect will be increased by 0.0238 unit. Here marginal effect of household size was 0.0249. That means respondents who had higher household size had 2.91 percent higher chance of having child labour in their family. The co-efficient of farm size under total effect was 0.0631. Which was positive and statistically significant at 10% level. If farm size increased by

one unit then the total effect will be increased by 0.0167 unit. Here marginal effect of farm size was 0.0388. That average respondents who had higher farm size had 3.88 percent higher chance of having child labour in their family. In table 5.1 the pseudo R^2 (0.3577) of the difference in the respondents observed the possibility of reducing child labour can be attributed 35.77% to their respondent's total effect and each of the predictor may explain some of the variance in respondent's having child labour. Besides the χ^2 (20.09) was also significant (Table 5.1). These findings indicate that, the model is valid.

Table 5.1: Women empowerment and child labour (Total)

Variables	Coefficient	Co-efficient (Marginal Effect)
Total	-0.2069 (0.0819)	-0.0124*** (0.0068)
Age	0.279 (0.1179)	0.0167 (0.0084)
Education	0.236 (0.4637)	0.0141*** (0.0291)
Experience	- 0.177 (0.1055)	- 0.0106 (0.0064)
Household size	0.398 (0.4458)	0.0238** (0.0249)
Farm size	1.06 (0.57)	0.0631* (0.0388)
Pseudo R^2	0.3577	
LR Chi-squared	20.09	

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

Table 5.2 shows the negative correlation between production and child labour indicating that the production- a domain of women empowerment reduces the child labour. The co-efficient of production was 0.0194. Which was negative and statistically significant at 1% level. If the production increased by one unit then the child labour will be decreased by 0.0194 unit. Here marginal effect of production was 0.0589. Respondents who had control over production had 5.89 percent higher chance of having no child labour in their family. We got the expected value of age. Which was not statistically significant. There was no effect of age on child labour. The co-efficient of education under production was 0.0687. Which was positive and statistically significant at 10% level. If education increased by one unit then the production will be increased by 0.0687 unit. Here marginal effect of education was 0.0554. That means respondents who had higher education had 5.54 percent higher chance of having no child labour in their family. We got the expected value of experience. Which was not statistically significant. There was no effect of experience on child labour. The co-efficient of household size under production was 0.0321. Which was positive and statistically significant at 5% level. If household size increased by one unit then the child labour will be increased by 0.0321 unit. Here marginal effect of household size was 0.0435. That means respondents who had higher household size had 4.35 percent higher chance of having child labour in their family. The co-efficient of farm size under production was 0.0773. Which was positive and statistically significant at 10% level. If farm size increased by one unit then the child labour will be increased by 0.0773 unit. Here marginal effect of farm size was 0.0482. That means respondents who had higher farm size had 4.82 percent higher chance of having child labour in their family. In table 5.2 the pseudo R^2 (0.1799) of the variation in the respondents showed the probability of reducing child labour can be attributed 17.99% to their respondent's production and each of the predictor may explain some of the variance in respondent's having child labour. Besides the χ^2 (17.99) was also significant (Table 5.2). These findings indicate that, the model is valid.

Table 5.2: Women empowerment and child labour (Production)

Variables	Coefficient	Co-efficient (Marginal Effect)
Production	-0.1469 (0.4447)	-0.0194*** (0.0589)
Age	0.1362 (0.0662)	0.0179 (0.0081)
Education	0.5203 (0.4259)	0.0687* (0.0554)
Experience	-0.0642 (0.0740)	-0.0085 (0.0095)
Household size	0.2431 (0.3463)	0.0321** (0.0435)
Farm size	0.5855 (0.3966)	0.0773* (0.0482)
Pseudo R²	0.1799	
LR Chi-squared	10.11	

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

Table 5.3 shows the negative correlation between ownership and child labour indicating that the ownership- a domain of women empowerment reduces the child labour. The co-efficient of ownership was -0.0396. Which was negative but statistically significant at 5% level. If the ownership increased by one unit then the child labour will be decreased by 0.0396 unit. Here marginal effect of ownership was 0.0225. Respondents who had ownership of assets had 2.25 percent higher chance of having no child labour in their family. We got the expected value of age. Which was not statistically significant. There was no effect of age on child labour. The co-efficient of education under production was 0.0666. Which was positive and statistically significant at 10% level. If education increased by one unit then the ownership of assets will be increased by 0.0666 unit. Here marginal effect of education was 0.0517. That means respondents who had higher education had 5.17 percent higher chance of having no child labour in their family. We got the expected value of experience. Which was not statistically significant. There was no effect of experience on child labour. The co-efficient of household size under ownership was 0.0404. Which was positive and statistically significant at 5% level. If household size increased by one unit then the child labour will be increased by 0.0404 unit. Here marginal effect of household size was 0.0404. That means respondents who had higher household size had 4.04 percent higher chance of having child labour in their family. The co-efficient of farm size under ownership was 0.0538. Which was positive and statistically significant 5% level. If farm size increased by one unit then child labour will be increased by 0.0538 unit. Here marginal effect of farm size was 0.0449. That means respondents who had higher farm size had 4.49 percent higher chance of having child labour in their family. In table 5.3 the pseudo R^2 (0.2414) of the variation in the respondents showed the probability of reducing child labour can be attributed 24.14% to their respondent's ownership and each of the predictor may explain some of the variance in respondent's having child labour. Besides the χ^2 (13.56) is also significant (Table 5.3). These findings indicate that, the model is valid.

Table 5.3: Women empowerment and child labour (Ownership)

Variables	Coefficient	Co-efficient (Marginal Effect)
Ownership	-0.3422 (0.1968)	-0.0396** (0.0225)
Age	0.1416 (0.0667)	0.0164 (0.0074)
Education	0.5750 (0.4493)	0.0666* (0.0517)
Experience	-0.0423 (0.0761)	-0.0049 (0.0088)
Household size	0.3488 (0.3903)	0.0404** (0.0404)
Farm size	0.4653 (0.3976)	0.0538** (0.0449)
Pseudo R²	0.2414	
LR Chi-squared	13.56	

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

Table 5.4 shows the negative correlation between income and child labour indicating that the income- a domain of women empowerment reduces the child labour. The co-efficient of income was -0.0413. Which was negative but statistically significant at 5% level. If the income increased by one unit then the child labour will be decreased by 0.0413 unit. Here marginal effect of production was 0.0222. Respondents who had control over production had 2.22 percent higher chance of having no child labour in their family. We got the expected value of age. Which was not statistically significant. There was no effect of age on child labour. The co-efficient of education under income was 0.0619. Which was positive and statistically significant at 10% level. If education increased by one unit then the income will be increased by 0.0619 unit. Here marginal effect of education was 0.0490. That means respondents who had higher education had 4.90 percent higher chance of having no child labour in their family. We got the expected value of experience. Which was not statistically significant. There was no effect of experience on child labour. The co-efficient of household size under income was 0.0347. Which was positive and statistically significant 5 % level. If household size increased by one unit then the child labour will be increased by 0.0347 unit. Here marginal effect of household size was 0.0399. That means respondents who had higher household size had 3.99 percent higher chance of having child labour in their family. The co-efficient of farm size under income was 0.0633. Which was positive and statistically significant at 10% level. If farm size increased by one unit then child labour will be increased by 0.0633 unit. Here marginal effect of farm size was 0.0468. That means respondents who had higher farm size had 4.68 percent higher chance of having child labour in their family. In table 5.4 the pseudo R^2 (0.2466) of the variation in the respondents showed the probability of reducing child labour can be attributed 24.66% to their respondent's income and each of the predictor may explain some of the variance in respondent's having child labour. Besides the χ^2 (13.86) is also significant (Table 5.4). These findings indicate that, the model is valid.

Table 5.4: Women empowerment and child labour (Income)

Variables	Coefficient	Co-efficient (Marginal Effect)
Income	-0.3915 (0.2339)	-0.0413** (0.0222)
Age	0.1234 (0.0628)	0.0130 (0.0070)
Education	0.5858 (0.4534)	0.0619* (0.0490)
Experience	-0.5223 (0.0733)	-0.0055 (0.0078)
Household size	0.3288 (0.4043)	0.0347** (0.0399)
Farm size	0.6001 (0.4781)	0.0633* (0.0468)
Pseudo R²	0.2466	
LR Chi-squared	13.86	

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

Table 5.5 represents the negative correlation between leadership and child labour indicating that the leadership- a domain of women empowerment reduces the child labour. The co-efficient of leadership was -0.0171. Which was negative but statistically significant at 1% level. If the leadership increased by one unit then the child labour will be decreased by 0.0171 unit. Here marginal effect of leadership was 0.0087. Respondents who had leadership quality had 0.87 percent higher chance of having no child labour in their family. We got the expected value of age. Which was not statistically significant. There was no effect of age on child labour. The co-efficient of education under leadership was 0.0609. Which was positive and statistically significant at 10% level. If education increased by one unit then the leadership quality will be increased by 0.0609 unit. Here marginal effect of education was 0.0501. That means respondents who had higher education had 5.01 percent higher chance of having no child labour in their family. We got the expected value of experience. Which was not statistically significant. There was no effect of experience on child labour. The co-efficient of household size under leadership was 0.0333. Which was positive and statistically significant at 5% level. If household size increased by one unit then the child labour will be increased by 0.0333 unit. Here marginal effect of household size was 0.0363. That means respondents who had higher household size had 3.63 percent higher chance of having child labour in their family. The co-efficient of farm size under leadership was 0.0576. Which was positive and statistically significant at 10% level. If farm size increased by one unit then the child labour will be increased by 0.0576 unit. Here marginal effect of farm size was 0.0425 That means respondents who had higher farm size had 4.25 percent higher chance of having child labour in their family. In table 5.5 the pseudo R^2 (0.2704) of the variation in the respondents showed the probability of reducing child labour can be attributed 27.04% to their respondent's leadership and each of the predictor may explain some of the variance in respondent's having child labour. Besides the χ^2 (15.19) is also significant (Table 5.5). These findings indicate that, the validity of the model.

Table 5.5: Women empowerment and child labour (Leadership)

Variables	Coefficient	Co-efficient (Marginal Effect)
Leadership	-0.1598 (0.0934)	-0.0171*** (0.0087)
Age	0.1549 (0.0729)	0.0166 (0.0078)
Education	0.5686 (0.4781)	0.0609* (0.0501)
Experience	-0.0964 (0.0792)	-0.0103 (0.0088)
Household size	0.3109 (0.3488)	0.0333** (0.0363)
Farm size	0.5382 (0.3823)	0.0576* (0.0425)
Pseudo R²	0.2704	
LR Chi-squared	15.19	

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

Table 5.6 represents the correlation between time and child labour. We got the expected value of time which was not significant. There was no effect of time on child labour if that leisure time can't produce extra income. So time had no significant impact on reducing child labour. We got the expected value of age. Which was not statistically significant. There was no effect of age on child labour. The co-efficient of education under time was 0.0633. Which was positive and statistically significant 10% level. If education increased by one unit then the leisure time will be increased by 0.0609 unit. Here marginal effect of education was 0.0568. That means respondents who had higher education had 5.68 percent higher chance of having no child labour in their family. We got the expected value of experience. Which was not statistically significant. There was no effect of experience on child labour. The co-efficient of household size under time was 0.0343. Which was positive and statistically significant at 5% level. If household size increased by one unit then the child labour will be increased by 0.0343 unit. Here marginal effect of household size was 0.0423. That means respondents who had higher household size had 4.23 percent higher chance of having child labour in their family. The co-efficient of farm size under time was 0.0852. Which was positive and statistically significant at 10% level. If farm size increased by one unit then the child labour will be increased by 0.0852 unit. Here marginal effect of farm size was 0.0497. That means respondents who had higher farm size had 4.97 percent higher chance of having child labour in their family. In table 5.6 the pseudo R^2 (0.1805) of the variation in the respondents showed the probability of reducing child labour can be attributed 18.05% to their respondent's time and each of the predictor may explain some of the variance in respondent's having child labour. Besides the χ^2 (10.14) is also significant (Table 5.6). These findings indicate that, the model is valid.

Table 5.6: Women empowerment and child labour (Time)

Variables	Coefficient	Co-efficient (Marginal Effect)
Time	0.3989 (1.06)	0.0522** (0.1378)
Age	0.1294 (0.0609)	0.0169 (0.0074)
Education	0.4837 (0.4401)	0.0633* (0.0568)
Experience	-0.0577 (0.0710)	-0.0076 (0.0091)
Household size	0.2623 (0.3399)	0.0343** (0.0423)
Farm size	0.6508 (0.4162)	0.0852* (0.0497)
Pseudo R²	0.1805	
LR Chi-squared	10.14	

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

CHAPTER VI

Conclusions and Policy implications

6.1 Conclusions

Women empowerment and child labour are indispensable to each other. This paper sought to assess how women's empowerment influences child labour in Bangladesh. It is manifested from the findings of the research that the aggregate women empowerment score is the most significant indicator that can influence the child labour in Bangladesh. Besides, asset ownership by woman, control over the use of their income and speaking in the public is the most influential indicators and significant instrument that have a positive impact on aggregate women empowerment score. It is evident that as much as the women are empowered, the ratio of child labour would be lower. Thus, women empowerment is playing a tremendous role in reducing child labour in Bangladesh. Due to male dominated society, a lack of women's power to engage themselves in productive activities, a lack of speaking power and voices for their rights and societal obstacles hinder the growth of women empowerment in Bangladesh (Sen and Begum 2015). Worldwide, the prevalence of child labor continues to be a cause for worry since it involves economic practices that are harmful to children's welfare and impede human development. The quality of life for children has not gotten much attention in the 21st century, despite modernity and advancements, and child labor is still a societal scourge that exists all over the world. Because it involves economic activities that are detrimental to children's wellbeing and obstruct human development, the problem of child labor has continued to be of concern on a national and worldwide level. Throughout history, child labor has played a significant role in the economic lives of many different regions of the world the primary cause of child labor is poverty. In the battle against child labor, women may make a significant contribution. Communities, particularly those involving children, can undergo profound changes when women are able to earn a living and have easier access to funding for the establishment or expansion of small enterprises. Families can escape poverty and children are more likely to complete their education when mothers are able to earn extra money. Because of this, mothers may significantly improve the quality of life for their children by raising household incomes and decreasing poverty. The study has determined that the most viable areas for decreasing child labor are those related to women's empowerment in the community. We

have also shown that empowering women to make decisions about production, manage resources, and exercise leadership qualities significantly contributes to the decrease of child labor within families.

6.2 Policy implications

The report makes the following recommendations for policy:

- a) The government may actively assist moms in order to decrease child work, since our research indicates that improving the development of human capital among mothers can contribute to a decrease in child labor in society.
- b) The government may make a significant contribution to the fight against child labor by emphasizing women's work and education.
- c) Women's access to credit and simple lending options should be improved.
- d) The government may provide family facilities that village women can't easily membership on any societal organisation
- e) Most of the parents did not have any prior experience in running business and therefore, they went for very traditional business and could not succeed. They need training for running a business.

The goal of all these strategies ought to be to enable women to take the lead in bringing about change in their homes and communities. Children are less likely to drop out of school and engage in child labor when mothers are given the resources and support to make decisions on behalf of their family. Thus it can be suggested that different awareness programs and community involved participatory training programs should be provided by the local government authority to ensure higher participation of women in productive activities, making the society concerned about the benefits of women empowerment which generally enhances child schooling and decreases child labour. It is evident from the findings showing women's empowerment has a major impact on diminishing the child labour in Bangladesh.

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