WOLKITE UNIVERSITY

COLLEGE OF AGRICULTURE AND NATURAL RESOURCE

DEPARTMENT OF AGRICULTURAL ECONOMICS

ROLE OF WOMEN PARTICIPATION IN INCOME GENERATING ACTIVITY: IN THE CASE OF HARU WOREDA

A SENIOR RESEARCH SUBMITTED TO THE DEPARTMENT OF AGRICULTURAL ECONOMICS IN PARTIALL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BSC IN AGRICULTURAL ECONOMICS

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WOLKITE , ETHIOPI

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LIST OF ACRONYMS

FAO - Food and Agriculture organization

GDP - Gross domestic product

ILO - International labor organization

MMR - Maternal Mortality Rate

NGO - None government organization

USA-. United State America

UK - United Kingdom

4E - electricity electrics energy and engineering

UN - United Nation

UNDP - United Nation Development Program

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ABSTRACT

This paper aims to examine the major Role of women's participation in income-generating activities in Haru woreda, Oromia region. To carry out this study both primary and secondary data was collected and analyzed. Randomly selected 80 households were the source of primary data for this study. Secondary data was collected from the review of related works of literature. A binary logistic regression econometric model was implemented to identify major Role of women's participation in income-generating activities. The result of the logit model reveals that, Women in the study area are not allowed by their husbands to participate in high income earning activities. They are considered as a housewife and the only husband is expected to participate in high income-generating activities due to the local customs. As a result, some women participate in small business activities like agricultural production, trade and service sectors. The output of the model indicates that women's education and access to credit were positively and significantly affecting the women participation in income generating activities whereas family size, market distance, and age are significantly and negatively affecting the dependent variable. Land ownership and access to extension services also showed positive significant effects. Based on the finding of the study, the researchers have conclusion and recommendations.

Keywords: Income Generating Activities, Role, Women, Logistic Regression Model

1.INTRODUCTION

1.1.Background of the study

Women's economic empowerment is crucial for promoting sustainable and equitable development. One key aspect of this is women's participation in income-generating activities. Income-generating activities refer to any work, business, or enterprise undertaken by women that provides them with an independent source of income and financial autonomy. Traditionally, women's roles in income-generating activities have been shaped by cultural norms and societal expectations. Historically, women have been responsible for unpaid domestic work, including cooking, cleaning, and childcare. consequently over 4.5 billion of the world population are engaged in different economic activities, among those women are estimated as 1.5 billion. In addition to these women make up 40% of the world work force in agriculture, 25% in trade and industry, and 35% in home service. This participation contributed to increase the productivity 20% in Africa and 50% in developed nations, (ILO 2021). Women in developing nations are disproportionately affected by poverty, malnutrition, lack of access to healthcare, clean water, sanitation, and other essential services. They also face barriers in terms of education, formal employment opportunities, and access to social security and government employment programs, (UNDP 2022)

It is generally true that, women in economically developed countries are in a better condition than those in less developed one. Through the third world, the position of women relative to men is lower on all of the main of schooling and level of income. The typical woman in the third world has a triple burden of work in child rearing, in maintaining the home and in food production. Relative to men, women work much longer hours for smaller payment (ITUC,2018). Women and girls compared to their male counterparts are still more likely to be unemployed, engaged in informal employment, paid less, responsible for much of unpaid care and domestic work. In 2022, over two third (68%) of Ethiopian female youth aged 20 to 24 were not in Employment, Education and Training (NEET) compared to 47% of male youth in the same age group. The female unemployment rate in 2021 stood at 11.7 percent; more than double the male (5.0 percent) at national level ; much worse in urban context where the overall unemployment in

urban areas is 17.9 percent and stood at 25.4 percent amongst females and 12.2 for male. (LMS CSA 2021)Women constitute proportionally a large group as the labor force in various economic activities. Women poverty is directly related to the absence of economic opportunities, lack of access to economic resources including: credit, land ownership and inheritance, lack of access to education and to support services (Beijing PFA 2016)).

In Ethiopia woman are invisible in the development process. Because, much of their work was not paid and undervalued compare to man and when it was woman contribution it was reflected in process at national level, in donor agencies, in NGOs, at the community level and often inside families. In any society and time period, what woman and man do and what are seen as male female characteristics vary enormously. Yet woman work usually is valued as less than men's If woman are trader, trading will be seen as menial and simple. If man are traders, it will be viewed as difficult and important. This lower valuation of perceived female characteristics and activities results in woman being viewed as subordinate to men economically and in terms of power and status(Almaz 2016)

Haru woreda is one of the woreda that found in Oromia region and have densely populated woman population and consequently have large number of women engaged in different types of income generating activities in order to ensure food security. It is important to realize the critical role woman play and to include them in all development process towards the achievement of food security.

1.2 Statement of the problem

Women in Ethiopia are engaged in various Economic sectors. Their participation is divided into three main sectors, from the total labor force of women 40% are engaged in agriculture, 25% in service sector and 20% in trade and industry and the last 15% are participated in different formal and informal sectors (Matandare 2018). It must be noted that micro and small-scale enterprise sector is the backbone of Ethiopian economy in terms of its potential for economic growth, employment, and wealth creation. The role of women plays in this sector and their contribution to their national economy it's imperative that women entrepreneurship is promoted

because it is fundamental to their economic empowerment as well as necessary for the economic growth and development of the country (EWAB 2019)

Ethiopian women are involved in all aspects of society life. Women are both producer and procreators and they are also active participants in social, political and economic activities of their communities. However, the varied and important roles they play have not always been recognized. The discriminatory political, economic and social rules and regulations prevailing in some parts of country have berried women from enjoying the fruits of their labor without equal opportunities, they have lagged behind in all fields of self-advancement. (Girma, 2021)

This study attempts to bring in to focus some of the factors which determine the role of women's participation in income generating activity. This study tries to find out the role of women participation in income generating activities in which women participate with a view of evaluating how level of education, marital status, demographic characteristics and others to mention a few that affect their ability to generate income.

Some of studies have been already conducted on the roles of women participation in income generating activity of Ethiopia. (Kasahun 2017)studied the role of women participation in income generating activities, the finding of the study shows that women participation in income generating activities significant roles in household wealth and countries economy. (Gashaw 2015)studied about the assessment of women participation in economic development. The finding of the study shows that, the role of women participation in income generating activity can be improved through gender empowerment measures and as the role of women rises, economic development will increase.

Beside on their finding, this study will try to fulfill other important gaps in the previous research work on the role of women participation in income generating activities by modifying and updating previous research works. Therefore, the constraints that limit role of female participation in economic activity so far was not well assessed. Now this study will carry out to investigate the constraints that limit females' participation in economic activity The findings can be used to design the relevant program and strategy for encouraging women's labor force participation in economic activity in the study area. Even if this research has been done in other

place ,it is new for Haru woreda; thus this research has assessed and investigated constraints that limits women's role in income generating activities in Haru woreda.

1.3. Objective of the study

1.3.1. General Objectives

The general objective of the study is to examine the role of women participation in income generating activities in case of Haru woreda.

1.3.2 Specific Objectives

1 To evaluate the role of women participation in income generating activity at the household level

2 To identity constraints that limit effective women participation in the income generating activity.

1.4 Research question

The study was attempted to find answers for the following 3 basic questions.

- What is the role of women participation in income generating activity at the household level?

- What are the constraints that limit active women participation in income generating activities?

- What is the role of the government to enhance the participation of women in income generating activities?

1.5 Significance of the study

The study was conducted and designed to give an overall view about the role of women participation in income generating activities. Furthermore, it can be relevant to planners and policy makers in identifying the overall condition of women participation in the income generating activities in Haru woreda. The finding of this study will also having immense benefit to social workers in quantifying the magnitude of Women contribution towards growth and development of the countries. The study also uses as a base for otherwise who is interested to conduct detail study on the same topic of the research.

1.6. The scope of the study

The study was limited to women participation in the income generating activities in Haru woreda and the main issues focused was agriculture, industry and trade and service sector. This study covered the period between July, September, October November, January February and 2016 E.C-2017 E.C to collect information on woman's role in economy and relating data, to organize, to present, to analyze and report research paper.

CHAPTER TWO

2. LITERATURE REVIEWS

2.1 Theoretical Literature

2.1.1 Economic Empowerment of Women

In the 21st century, women enjoy more freedom and power than ever before. However, they are still disadvantaged when compared to men in virtually all aspects of life. Women are deprived of equal access to education, health care, capital, and decision-making powers in the political, social, and business sectors. Whereas men are credited with performing three quarters of all economic activities in developing countries, women actually perform 53 percent of the work, according to the United Nations. The 2016 UN Human Development Report, states that "an estimated $16 trillion in global output is currently 'invisible,' of which $11 trillion is estimated to be produced by women (Almaz 2016)

2.1.2 Women Education as Global Trends

The ample evidence available suggests that, educating women has much more social return. In view of this, increasing equal access education has been major policy and goal for most developing countries. Despite all this, women participation in education and development still lags behind in many countries. The World Bank report also indicates that, low literacy rate still prevails more among women than men. Out of the 51 developing countries, 14 are considered by bank as countries whose female literacy rate is less than 20%and even less than 10% for 5 countries including Nepal, Afghanistan, Burkina Faso, Somalia and Sudan. On the other hand, men's literacy rate is 3 to 4 times higher (Hill 2011)

2.1.3 Gender and Agriculture

Women are key participants in Ethiopian agricultural production. According to the EHRS data, the percentage of female households in the rural area was about 27.7%. From the same data, the average household size was estimated to be 5.9% individual under a single roof. Interestingly,

female headed household had smaller family size than male headed household this shows that the dominance of men over women on key intra households decisions including number of births, the use of contraceptive and other family planning issues. The call for effective family planning programs should also give weight for creating awareness and other means of family planning which are not only targeting women but also oriented towards men.

2.1.4 Women Role in Economic Development

In most low-income developing countries household, women have a triple role. Women's roles include reproductive work mat is required to guarantee, to maintains and reproduction of the labor force, productive work and community managing work. In rural areas, their productive role usually takes informal sector and small enterprises located either in the home or neighbor hoods. Women's community managing work involves the provision of items for collective consumption under taken in the local community in both urban and rural contexts (Moser 2015)

A development planning whether national or international has traditionally been gender neutral or even gender blind. This was partly and that aid organization were followed with very little in sight in to gender because until recently lacked information about women and their contribution to their regions. As a result, there was a tendency to marginalize women by development planners who have often seen them only as passive beneficiary of social and health services. Development must be a human centered process, because people are both the means and end of development. Planners must also realize that development. Goals will only be reached by securing the active involvement of women's as well as men and by bringing women's in to the main stream of economic development so that each gender plays it respective role in the processes. (Ibid)

2.1.5 Women in Ethiopia

Ethiopia remains one of the world's poorest countries of population exceeding 110million people, 78% live on less than and per day. Ethiopia is struggle with poverty and slow development degradation. This situation is further complicated by deep traditional social and economic patterns that place powerful constraints on the right of women and their opportunities ties to direct their own lives or participate in and contribute to community and national development.

Women in Ethiopia like many other developing countries have access to economic resources and education for them is very low therefore women participation in economic activities generally and in self-employment specifically is limited the major problem of women to be self-employed was the lack of capital. Many women in Ethiopia dependent on their husband's salary coupled with low-income levels do not even satisfy their monthly expenses which force them to be engage in work. The second obstacles for women entrepreneurs is lack skill of awareness about institution like WISE, which helps women participation of in economic activity. The other obstacle for women participation in economic activities is access to working and shortage of raw materials (WEE, 2017).

2.2. Empirical review

Women are more likely to work in inferior jobs, be underemployed, work part-time and long hours for low pay, be involved in engaging in dangerous work, or have only short-term and/or informal employment arrangements. Women's inefficient employment situations of women have resulted in household impoverishment and fall to fostering economic growth (organization 2017)

In the world, over 4.5 billion of the population are engaged in numerous economic activities among those women are estimated as 1.5 billion; in addition to this woman make up 40% of the world workforce in agriculture, Quarter in trade, and third in service. This participation added to extend the output 20% in Africa, 50% in developed nations (Matandare 2018)

Throughout Asia, women make a significant contribution to the overall economy in agriculture in Bangladesh, Bhutan, Cambodia, China, India, Myanmar, Nepal, Pakistan, and Vietnam have particularly high percentages of female's agricultural workers, with estimates ranging between 60 and 98 percent (FAO 2013). Among the Asian countries, only 59 percent of Bangladeshi females work in agriculture, compared to over 74 percent of Indian, 64 percent Pakistani, and 85 percent Nepali women are employed in agriculture.

(Roy 2017)) investigated the contribution of women to household income and decision making in a few areas of Mymensingh in Bangladesh. Women in the study area were involved in various

income generating activities such as crop production, post-harvest activities, poultry rearing, management of livestock and fisheries, etc. Male and female workers participated in income-generating activities for 220 man-days and 204 man-days per annum, respectively. The average annual contribution of women to household income was estimated at Tk. 42000 per year which was about 43.52 percent of the total household income. The investigation showed that females' income was absolutely related to women's education and farm size but negatively associated with age, family size, and indebtedness. Logistic regression analysis showed that women's participation in the decision-making process was negatively connected with family size, however positively correlated with respondent's age, education, farm size income, and occupation. Women rendered a wonderful deal of contribution in deciding on post-harvest operation, management of production activities, marketing of crops, rearing poultry, goat, and cows, buying of agricultural inputs, etc.

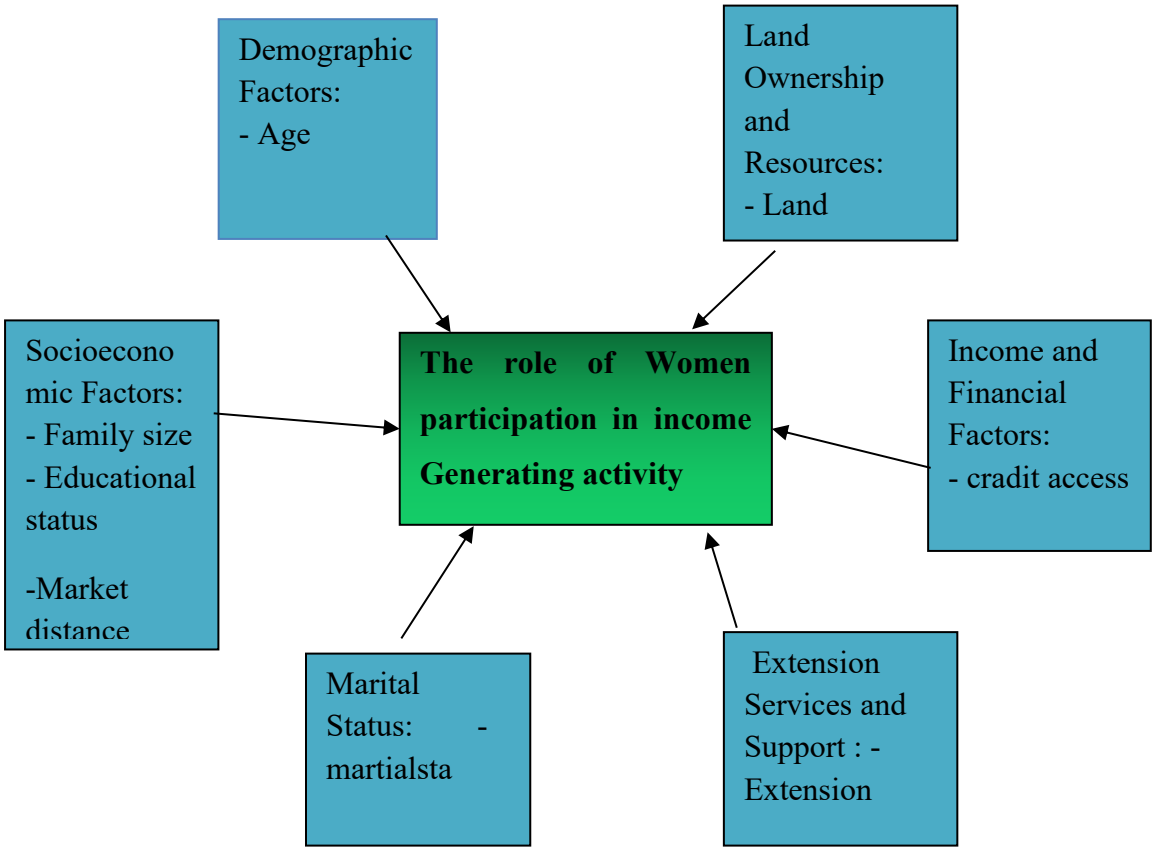
(Chowdhury 2018)found that women are vital partners in the socioeconomic change of the country in general and thus the family in specially. They can contribute considerably to the socio-economic improvement of the family if a good environment with facilities can be ensured.

By tradition, women have traditionally been involved in productive, reproductive, and participatory roles. Several studies show that women do concerning 50-60% of the agricultural work in farming households. Women are the backbone of any society and are dynamic in the micro and informal sector, which are given little consideration. Their contribution is neither worth nor reported Because of the deep-rooted socio-cultural practices and their low education status; women have restricted access to an economic resource like land, property, credit, financial services, and so on and are usually engaged in informal activities (Hadas 2016).

According to (Wondimu 2013), females in Ambo town in the federal democratic republic of Ethiopia play an important role in the town's economic development from the three perspectives. These are saving roles, correct use or utilization of resources, and family planning role. Women have an excellent role in saving what they earn both in kind and in cash. They are active members of a traditional saving institution such as Equib, Edir, and others. during this case, women are not only the active participants in these traditional saving institutions but also play a

crucial role in leading, coordinating, managing, and organizing these traditional saving institutions.

2.3 Conceptual framework



CHAPTER THREE

METHODOLOGY

3.1 Description of the study area

The study was conducted in Oromia regional state of Gimbi zone Haru woreda. **Haru** is one of the 180 woreda in Oromia Region of Ethiopia. Part of the West Welega Zone, Haru is bordered on the south by Nole Kaba, on the southwest by Dale Lalo, on the west by Yubdo, on the north by Gimbi, on the east by an exclave of the Benishangul-Gumuz Region, and on the southeast by the Illubabor Zone. Towns in Haru include Guyi , Chonge and Guyi Abo. It is located at the distance of 668 kilometers away from Addis Ababa. Coffee is an important cash crop of this woreda. Over 50 square kilometers are planted with this crop.

The 2007 national census reported a total population for this woreda of 67,262 in 13,332 households, of whom 33,178 were men and 34,084 women; 4,870 or 7.24% of its population were urban dwellers.

3.2. Type and source of data

The data for the study was obtained from primary and secondary sources of information. Primary data was collected from the individual sample of the existing populations through using structured questionnaires and interview has implement. Secondary data was collected from different sources of readable material.

3.3 Method of data collection

The primary data was collected by using structured questionnaire from the women who are participating in income generating activities. The questionnaires was prepared in English and the collection and distribution activities was performed by using Afan Oromo language. The distribute questioners were containing closed ended questions and interview with official of women and child's affairs office, and also contain unstructured form of interview. The reason for the selection of unstructured interview is because of the greatest value lies in the deep and vitals

of information that we get from personal interview. And also, the we will use closed end types of questioners because the closed ended question is favored over open-ended questions for their efficiency and specificity, they are easier to measure recorded coded and analyzed.

3.4. Sampling methods and sample size

In order to obtain relevant and reliable information, then stratified sampling technique which is the best sampling techniques was implemented. The reason for the use of this technique is in urban Haru woreda there are different economic activities those are agriculture, trade and small business, service and other activities performed. Those economic sectors were divided into more homogeneous group into three strata. The first strata was included the women who participate in agriculture sectors, the second strata consist industry and trade sectors and the third strata includes service sectors. Then, after the population was divided into these strata that are more homogeneous than that of the total population, item was selected from each stratum to constitute a sample then simple random sampling was applied to draw the sample from each stratum. The number of items drawn in each stratum was by using the method of proportion allocation. The total number of the women in three kebele (keki, Jitu 01 and deri) are 1830 i.e. 690, 605, 535 from agriculture sector, trade and small business, service sector respectively.

For those kebele the total size of sample was determined by using the following sample size (Israel, 1992) formula to calculate sample size.

the sample size to 80.

N_1=690, P_3=(N_1/N) =690/ 1830, hence n_1=nP_1=80(0.38) =30.4, ≈ 30sample from keki

N_2=605, P3=N_2/N=605/1830, hence n_2=np_2=80(0.33) =26.4, ≈ 27sample from jitu 01

N_3=535, P3=N_3/N=535/1830=hence n_3=np_3=80(0.29) =23.2, ≈ 23sample from deri

3.5 Operational definitions of variables

In order to identify the determinate of participation was used dummy variable be hypothesis based on economic theory and the finding of different empirical studies.

Dependent variable

Women Participation in economic activity: it is dummy variable it represents participant or non-participant.

Independent variable: the explanatory variable expects to influence the dependent variable.

Age; age is defined as the number of completed years of the respondents at the time of data collection. Different empirical analyses have pointed out that the probabilities of labor force participation of women differ by age. Literature shows that as age progresses women acquire experience in knowledge in work and as age increases participation in the labor force increases. In this regard, the assumption in this study is this variable taken as positively influences woman labor force participation (Girma, 2021).

Educational level: Lack of education impedes them from obtaining capital since they are not able to collect reliable information on financial issues, and impedes them from utilizing their potential. Lack of adequate training has created lots of hardships for females when it comes to entrepreneurship (Osama et al, 2020).

Availability of credit: Credit facilities accessibility, Credit services are viewed as tools for effective empowerment of women in terms of development. Accessibility of the credit services has resulted to growth of self-help groups which is fundamental for women development (Rukiach et Al, 2018). It takes a value 1 for those get credit and 0 otherwise. Credit availability is important for women participation in economic activity and variable is dummy if get credit 1othewise 0

Family Size: Family size refers to the number of individuals living in a household, including the head of the household, their spouse, and any dependent children or other relatives (Bekele & Worku, 2021).

Land: Land refers to the physical area of the Earth's surface, including natural resources such as soil, minerals, and water, that can be used for various purposes, such as agriculture, development, or conservation (Abebe & Assefa, 2022).

Extension: Extension refers to the outreach and engagement efforts of educational, research, or community-based organizations to disseminate information, provide services, or facilitate interactions with target populations (Woldehanna & Negash, 2022).

Marital Status: Marital status refers to the legal and social relationship between two individuals, such as being single, married, widowed, divorced, or in a domestic partnership (Yohannes & Mekonnen, 2021).

Credit: Credit refers to the ability of an individual or entity to obtain goods, services, or a loan from another party based on the promise of future payment (Mitikie & Ebrahim, 2020).

3.6 Method of data Analysis

In order to achieve the objective of the study, descriptive method had data to describe and interpret the details of women participation in income generating activity and its constraints depending on the type and nature of data gather from the structured and unstructured questionnaires. To analysis the data, the information was grouped into qualitative data analysis is used for organizing, describing and systematic interpreting the collected data while quantitative data analysis was used the descriptive tools such as percentage and tables was used to present the data; So that meaningful interpretation of the result was made to draw conclusion and recommendation.

3.5.1 Econometric Analysis

Log it model

To estimate the dependent variables the researcher used the log it model. The dependent variable is women participation in economic activities which has two out comes; either participate or not participate. Arbitrary values of 1 and 0 are assigned for participate and not participate respectively. For a dummy dependent variable, binary responses' models such as log it and probity model are found to be pertinent for analysis. The research has employed the log it model for its simplicity in this research (Gujarat, 2007 4th edition).

The dependent variable of a log it model takes a binary response. That means Yi= 1 if participate and Yi= 0 if not participate.

$pi = \Sigma\left(y = \frac{1}{xi}\right) = \beta_0 + \beta_{1x1} + \beta_{2x2} + \beta_{3x3} + \ldots\ldots\ldots + \beta_{ixi}$ Where Yi = means women participation.

$pi = \Sigma\left(y = \frac{1}{xi}\right) = \frac{1}{1+e^{-(\beta 0+\beta 1x1+\beta 2x2+\beta 3x3+\ldots+\beta ixi)}} = \frac{e^{(\beta 0+\beta 1x1+\beta 2x2+\beta 3x3\ldots\ldots+\beta ixi)}}{1+e^{(\beta 0+\beta 1x1+\beta 2x2+\beta 3x3+\ldots+\beta ixi)}}$ in which x is explanatory variables.

If Pi is the probability of being participate, then (1-Pi) will be the probability of not participate.

$1 - p = \frac{1}{1+e^{\beta 0+\Sigma\beta ixi}}$, therefore we can write $\frac{pi}{1-pi} = \frac{1+e^{zi}}{1+e^{-zi}} = e^{zi}$

Where Zi= $\beta_0 + \beta_{1x1} + \beta_{2x2} + \beta_{3x3+\ldots+\beta_{ixi}, then \frac{pi}{1-pi}}$ are simply the odds in favor of being in participating. The ratio of women will be participating to the probability that is not participating. The above equation can be written in linear form by taking the natural logarithm as:

$$li = ln\left(\frac{pi}{1-pi}\right) = ln(e^{zi}) = zi = \beta_0 + \beta_{1x1} + \beta_{2x2} + \beta_{3x3} + \ldots + \beta_{ixi+Ei}$$

Where; L is the log of the odds ratio ($\frac{pi}{1-pi}, isnotonlylinear \in x,$ but also linear in parameters is called log it and hence the name log it model for models in the above equation.

Ei =the error term.

In addition, since the above equation $zi = \beta_0 + \beta_{1x1} + \beta_{2x2} + \beta_{3x3} + ... + \beta_{ixi} + E_i$ from the above model let as substitute Zi with DP (dummy of participation of women) as the dependent variable.

Model specification

$$Y= \beta_0 + \beta_1 age + \beta_2 status + \beta_3 educ + \beta_4 incom + \beta_5 credit + \beta_6 extention + \beta_7 famlysize + \beta_8 land + \beta_9 \text{mkt} + ei$$

4. Results and Discussion

4.1. Descriptive Data Analysis

In this chapter, the researcher discuss the collected data and results through both descriptive and econometric methods of analysis. The descriptive analysis employs techniques such as means, T-test, standard deviations, frequencies, percentages, and qualitative data analysis methods, including statements.

Table 1. Summary of descriptive statistics (continuous Variable).

Variable	**Participants**		**non participant**			
	Mean	S/dev	mean	S/dev	Mean deff	T-test
age	35.34286	5.562177	44.6	6.733228	9.257143	6.5721
eduHH	10.02857	2.915332	5.444444	1.686249	-4.584127	-8.8279
mktdist	2.562857	1.778976	5.644444	1.074615	3.081587	9.5945
famly	3.628571	.9727376	5.444444	1.197641	1.815873	2.31178
land	1.07	.3680633	.4106667	.2404579	-.6593333	-9.6626
eduwife	10.14286	2.427088	4.733333	2.027089	-5.409524	-4.417764

Source: own survey 2024

The average age of people doing income activities was 35.34 years, but for those not doing them it was 44.60 years. A t-test score of 6.57 shows a big difference at the 1% level, meaning those not participating are much older. The household heads in participants' homes had an average education of 10.03 years, while for non-participants it was 5.44 years. The t-test score of -8.83

points to a big gap at the 1% level, showing participants' household heads are more educated. Participants were about 2.56 km away from markets on average, while non-participants were about 5.64 km away. A significant t-test score of 9.59 shows that participants live much closer to markets than non-participants

The average age of people doing income activities was 35.34 years, but for those not doing them it was 44.60 years. A t-test score of 6.57 shows a big difference at the 1% level, meaning those not participating are much older. The main person in participants' homes had an average education of 10.03 years, while for non-participants it was 5.44 years. The t-test score of -8.83 points to a big gap at the 1% level, showing participants' household heads are more educated. Participants were about 2.56 km away from markets on average, while non-participants were about 5.64 km away. A significant t-test score of 9.59 shows that participants live much closer to markets than non-participants. On average, families of those involved have 3.63 people, while those not involved have 5.44 people. A t-test score of 2.31 shows a big difference, pointing out that involved families are smaller. Those who took part own about 1.07 hectares of land, whereas those who didn't own about 0.41 hectares. The t-test score of -9.66 shows a big difference, meaning that involved people own a lot more land. The wives of those involved have gone to school for an average of 10.14 years, but for those not involved, it's 4.73 years. The t-test of -4.42 shows this difference is big and important, which tells us that the wives of involved people are more educated.

4.1.2. Descriptive Analysis for Dummy Variables

Table 2: Summary of Descriptive Statistics for Dummy Variables

Variable	Participants (Freq/%)	Non-participants (Freq/%)	Chi-squared (X^2)
Marital Status			
Yes	34 (65.38%)	18 (34.62%)	32.18***
No	0 (0.00%)	27 (100.00%)	
Other	1 (100.00%)	0 (0.00%)	
Credit			
Yes	4 (11.43%)	31 (88.57%)	50.79***
No	41 (91.11%)	4 (8.89%)	
Extension			
Yes	17 (36.17%)	30 (63.83%)	18.67***
No	28 (84.85%)	5 (15.15%)	

Source: own survey 2024

From the table, about 65.38% of people who participate in income generating activities were married, while 34.62% of people who did not participate were also married. Everyone labeled as "Other" in marital status took part, showing a clear trend. The Chi-squared value of 32.18 points out a strong link between being married and joining in money-making activities, especially significant at the 1% level. This means that being married might influence whether someone will engage in these activities, with married people more likely to join.

From the table, about 11.43% of people who participate in income activities had access to credit, while 88.57% of those who did not participate had no credit. This shows that most of the people

not taking part had no access to credit, which could hold them back from investing in ways to make money. The Chi-squared value of 50.79 shows a strong link between having access to credit and taking part in activities that generate income. This means that being able to get credit is key for people to engage in such activities.

About 36.17% of people who took part received extension services, while 63.83% did not. Among those who did not take part, 84.85% did not get extension services, and only 15.15% did. The Chi-squared value of 18.67 shows a strong link between getting extension services and taking part in income-generating activities. This tells us that extension services help people get involved in these activities, making it more likely for those who get this support to participate.

4.1.3. Status of Participation in Income Generating Activities

Table 3. Participation distribution.

Participation	Frequency	percentage
Participant	35	43.75
Non participant	45	56.25

Source: own survey 2024

The table shows how many women are involved in making money within the study area. It shows more women (56.25%) do not take part in these activities than those who do (43.75%). Most women are not involved in earning money for their families. The data suggests the lower number of participating women could be for many reasons. Childcare is a big challenge, especially when there are more kids. Women may also face challenges in accessing credit, resources, or markets, making it difficult to start or sustain businesses.Additionally, the results show that local norms and family roles greatly affect whether women take part. Often, husbands may not want their wives to work in jobs that make money, which limits women's chances to help with family finances.

4.2. Econometric Result of Regression

4.2.1. Overall Level of Significant Test

The overall effect of the regression model is examined using the The Likelihood Ratio (LR) to ascertain whether or not there exists at least one significant predictor of the dependent variable (PART) among the explanatory variables. The Likelihood Ratio (LR) chi-square is estimated to be 69.30 with a corresponding p-value of 0.0000. This means that the model is statistically significant because the independent variables, collectively, explain a significant amount of variation in participation. Pseudo-R^2 is 0.6435, and this means that the independent variables in the model can explain approximately 64.35% of the variation in participation.

Table 4. The role of women participation in income generating activities.

Variable	Odds Ratio	Coefficient	Std. Error	z-value	p-value
age	0.9605	-0.0404	0.0804	-0.48	0.030
eduHH	1.1674	0.1544	0.2333	0.77	0.439
mktdist	0.5344	-0.6288	0.1814	-1.85	0.045
famly	0.7923	-0.2307	0.3377	-0.55	0.050
land	1.5920	2.5654	17.5388	1.91	0.056
mrtalstatus	0.1451	-1.9192	0.1207	-2.32	0.420
eduwife	1.2556	0.2283	0.2125	1.34	0.019
credit	1.7973	2.0678	7.2738	2.20	0.028
exten	1.4947	3.2382	31.7278	2.60	0.009
_cons	0.1453	-1.9220	0.4894	-0.57	0.567

*p<0.1, **p<0.05, ***p<0.01

Source:Own Survey, 2024

Role of Women's Participation in Income Generating Activities

The logistic regression results presented in the table reveal that there are different variables that influence women's decisions to participate in income-generating activities at various statistical significance levels. ten variables were hypothesized to determine women's participation in income-generating activities. Among them, six were found to be significant in influencing

women's participation either positively or negatively, while the remaining four variables were not significant in explaining the variations in the dependent variable. Women's education, market distance, family size, land ownership, access to credit, and access to extension services were identified by the logistic regression model as key factors that influence women's decisions to participate in different income-generating activities. They are explained as follows:

Educational Level of Women

Looking into the output of the logistic regression, it was found that the educational level of women plays a significant role in their participation in income-generating activities, with a significance level of 5% ($p = 0.019$). The odds ratio indicates that for each additional year of education, the likelihood of women engaging in income-generating activities increases by approximately 25.56%. The possible reason for this positive effect is that as women's educational attainment increases, their confidence and critical thinking skills improve, enabling them to better navigate economic opportunities. Additionally, education enhances their ability to manage income-generating activities, such as conducting cost-benefit analyses and profit calculations, which helps them make informed decisions regarding participation in various economic ventures.This finding aligns with the study by Adeniran & Ajibade (2018), who found that higher educational attainment enhances women's ability to access information, manage businesses, and make informed decisions. Education improves confidence, critical thinking, and entrepreneurial skills, all of which are essential for effective participation in economic ventures

Market Distance

The results further indicate that market distance negatively affects women's participation in income-generating activities at a significance level of 5% ($p = 0.045$). The odds ratio analysis shows that for every additional kilometer from the market, the odds of participation decrease by approximately 46.56%. This negative relationship suggests that longer distances create barriers for women, as traveling such distances can be time-consuming and physically demanding. Women often bear significant household responsibilities, making them less inclined to invest time in traveling long distances to access markets for buying inputs or selling products related to their economic activities.This result is consistent with Fletschner & Kenney (2014), who

observed that long distances to markets create logistical and time-related barriers, particularly for women with caregiving responsibilities. Limited mobility and lack of transportation further exacerbate the challenge, discouraging participation in economic activities far from home.

Family Size

Family size negatively impacts women's participation in income-generating activities at a significant levelb 0f 10% ($p = 0.050$). The odds ratio indicates that each additional family member decreases the odds of participation by about 20.77%. This relationship can be attributed to the increased domestic responsibilities that come with larger family sizes, such as childcare and household chores. As the workload increases, women may have less time and energy available for engaging in income-generating activities, thereby reducing their likelihood of participation.This result supports findings by Yusuf et al. (2015), who noted that larger family sizes often increase women's domestic burden, leaving them with less time and energy to engage in economic activities. The dual responsibility of caregiving and earning makes income generation increasingly difficult as family size grows.

Land Ownership

The results indicate that land ownership positively influences participation, with a significance level of 10% ($p = 0.056$). The odds ratio suggests that owning land increases the odds of women participating in income-generating activities by approximately 59.2%. This indicates that land ownership empowers women economically, providing them with essential resources for agricultural production or business ventures. Moreover, having access to land can enhance their status within the community, allowing them to negotiate better terms in markets and access additional resources that facilitate economic engagement.This finding is supported by Meinzen-Dick et al. (2011), who argue that land is a critical productive asset for women, enabling them to engage in agriculture or use it as collateral for credit. Land ownership improves women's economic standing and bargaining power, both within the household and in the community.

Access to Credit

Access to credit significantly enhances women's participation in income-generating activities at a significance level of 5% ($p = 0.028$). The odds ratio reveals that access to financial resources increases the odds of participation by about 79.73%. This finding underscores the critical role that financial resources play in enabling women's economic engagement. Access to credit allows women to overcome barriers related to startup capital, empowering them to invest in their businesses and manage cash flow effectively. This financial support can lead to increased economic independence and encourage women to actively participate in income-generating activities.This aligns with the findings of Yusuf et al. (2015) in Nigeria, where access to credit was found to be significant at the 10% level, enabling women to invest in income-generating activities. Credit alleviates capital constraints, allowing for business expansion, purchase of inputs, and improved cash flow management—all of which boost participation

Access to Extension Services

Finally, access to extension services positively influences participation significantly at a 1% significance level ($p = 0.009$). The odds ratio shows that access to extension services increases the odds of women participating in income-generating activities by approximately 49.47%. This suggests that the support and resources provided through these services empower women to engage in various economic activities. Extension services often offer training, resources, and information that enhance women's skills and knowledge, improving their productivity and profitability, which is crucial for encouraging greater participation in income-generating activities.This result is validated by Doss (2001), who found that extension services provide vital training and access to information that improve women's agricultural productivity and business acumen. Such services build technical capacity and support innovation, encouraging active economic involvement.

In conclusion, the findings emphasize the importance of education, market access, family dynamics, land ownership, financial resources, and support services in shaping women's participation in income-generating activities. The significant variables identified highlight the need for targeted interventions to support women's economic empowerment. Addressing

challenges related to market distance and family size can further facilitate greater participation in economic activities, ultimately contributing to women's empowerment and community development.

5. Conclusion and Recommendations

5.1. Conclusions

The study establishes the key role of women's participation in income-generating activities in Haru Woreda, with a clear indication that economic empowerment of women is essential for sustainable development. Despite their crucial contributions, women face numerous challenges, including limited access to education, credit, and resources. The findings show that age, family size, land ownership, and access to extension services have a significant impact on influencing women's participation in economic activities. Overall, the research highlights the persistent gender gaps in economic activity, particularly in rural Ethiopia, where socio-economic constraints and cultural practices restrict women's full involvement. Initiatives to overcome such barriers are necessary for enhancing women's contribution to economic development and household welfare.

RECOMMENDATION

Based on this study's findings on women's involvement in income-generating activities in Haru Woreda, the following are the critical recommendations made with a view to enhancing their engagement and economic empowerment:

- It is important to establish education programs that enhance women's access to vocational training and adult education. By equipping women with the necessary skills, we can enhance their ability to participate in income-generating activities efficiently.
- The establishment of financial institutions specifically targeting women's requirements is a must. Affordable credit facilities combined with supporting financial literacy programs will allow women to invest in their businesses and enhance their economic participation.
- Policy advocacy to facilitate women's access to land and property rights is crucial. Land ownership being a key determinant of women's economic participation can be a significant contributing factor to their empowerment and stability.

- Extension services need to be made more accessible and available for women's unique needs. This will not only increase productivity but also increase active participation by women in various income-generating activities.
- There is a need for the government and NGOs to develop and implement gender-sensitive policies that promote women's economic participation. The elimination of cultural restrictions hindering women's participation is critical in realizing gender equality in economic development.
- Organizing community awareness campaigns to alter the attitudes of society towards women's involvement in economic activities is advisable. By emphasizing the importance of women's contributions to family income and community growth, we can create a more inclusive environment for economic growth.
- These recommendations, when enacted, will not only enhance the economic empowerment of women but also facilitate broader economic growth in Haru Woreda. It is highly critical that policymakers, leaders in communities, and stakeholders collaborate on these interventions to ensure sustainable developments and equitable opportunities for women in the region.

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APPENDEX

QUESTIONNARY

Dear respondents

This questionnaire is prepared for the purpose of gathering relevant information to examine the role of women participation in the income generating activity in Haru woreda. The information you are going to provide will be used purely for the study only. Therefore, you are kindly requested to give genuine responses.

With best regard!

Instruction

Don't write your name

Circle or tick the answer of your choice for close ended question

Fill in the space provided for open ended question

Leave the question which is not relevant.

1. What is the highest level of education you have completed? (Please specify the number of years of formal education)_____

2. What is the highest level of education your husband completed_____

3. Do you have access to credit A. Yes B. No

4. What is your age?_____

5. Market distance in km_____

6. How many individuals live in your household? (Please specify the total number of individuals)_____

7. How much land do you own? (Please specify in hectares)_____

8. Have you received any agricultural extension services or training in the past year? A. Yes B. No

9. What is your marital status? (Please select one: A. Single B. Married C. Divorced

10. Do you participate in income generating activity A. Yes B. No

11. Are there any other factors you believe influence your participation in economic activities? (Please specify_____)

12. What do you think is role of women participation in income generating activities in the Economy?

A. promoting growth B. promoting efficiency

C. reducing poverty D. helping future generation

E. promoting sustainable development F. food security G. others

13. Is there tangible role of women in income generating activity? A. Yes B. No

14. Is there any role of government that encourage or strength women participation in income generating activity?

A. Yes B. No

15. If your answer for question No 14 is yes, what is the role of government for active participation of women in the income generating activity?

A. Facilitate credit B. Educate the mother C. Promote income generating activity

D. Giving land right E Others

16. If your answer for question No 15 is others mention it

_____

_____

_____

_____ _____

17. Why most of the time the participation of women in income generating activities is not recognized?

_____

_____

_____

_____

18. Is there any problem that hinders your participation in income generating activity?

A. yes B. no

19. If your answer for question No 18 is yes, what kind of problem do you face?

(Multiple responses is possible)

A. lack of access to credit C. lack of incentive

B. financial problem D. legal and regulatory barriers

E. social problem

20. What do you recommend to solve the problem that hinders your participation in income generating activity?

A. By saving before and deposit of money C. By lending based on plan

B. By working during leisure time D. By discussing with others E. Other

21. If your answer for question No. 20 is others mention it (i.e. if you have other suggestions solution for the problem that limit your participation please mention it)

_____

_____

_____

_____

Thank you for your cooperation

```
logistic PART age eduHH mktdist famly land eduwife mrtalstatus credit exten

.ogistic regression                                   Number of obs     =         80
                                                      LR chi2(9)        =      69.30
                                                      Prob > chi2       =     0.0000
.og likelihood = -19.193089                           Pseudo R2         =     0.6435

------------------------------------------------------------------------------
        PART | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |  0.9605  -0.0404 0.0804   -0.48  0.030     0.927       0.995
       eduHH |  1.1674  0.1544  0.2333   0.77   0.439     0.7890648   1.72727
     mktdist |  0.5344  -0.6288 0.1814   -1.85  0.045     0.2889      0.9887
       famly |  0.7923  -0.2307 0.3377   -0.55  0.050     0.6280      0.9999
        land |  1.5920  2.5654  17.5388  1.91   0.056     0.9891      2.5650
     eduwife |  1.2556  0.2283  0.2125   1.34   0.019     1.0380      1.5189
 mrtalstatus |  0.1451  -1.9192 0.1207   -2.32  0.420     0.0284      2.0412
      credit |  1.7973  2.0678  7.2738   2.20   0.028     1.0651      3.0325
       exten |  1.4947  3.2382  31.7278  2.60   0.009     1.1063      2.0195
       _cons | .1453327 -1.9220 .489392  -0.57  0.567     .0001977    106.8296
------------------------------------------------------------------------------
lote: _cons estimates baseline odds.
```

. vif

Variable	VIF	1/VIF
credit	**2.48**	**0.402908**
mktdist	**2.26**	**0.442769**
eduHH	**2.19**	**0.457138**
land	**2.15**	**0.464812**
eduwife	**2.10**	**0.475138**
famly	**1.64**	**0.608051**
age	**1.62**	**0.617758**
mrtalstatus	**1.47**	**0.680789**
exten	**1.40**	**0.713905**
Mean VIF	**1.92**	