

SOCIO- DEMOGRAPHIC DETERMINANTS OF FEMALE LABOUR FORCE PARTICIPATION IN ETHIOPIA: EVIDENCE FROM GONDAR CITY, AMHARA REGION

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ABSTRACT

In Ethiopia women constitute a majority of the poor, while at the same time they constitute a larger proportion of the household heads. Even though, regarding the factors that make women's participation of labour force in the different sector are important there is no detailed study focusing on this issue in the area under investigation. Hence, this study investigated socio-demographic determinants of women labour force participation in the labour market in Gondar City of Amhara region. In order to achieve the objective and requirements of the study, the methodology employed here is a multistage sampling design. The study employed both bi-variate and logistic analysis. 390 eligible women were selected using systematic random sampling techniques in four sub cities. The result of the analysis leads to the conclusion that age, marital status, educational status, presence of young children, house hold size and relationship to the household significantly determine female labour force participations in the area under study. On the other hand, migration status, husband's educational status and religion were found insignificant to determine the propensity of women participation to labour market. Finally, from the findings of the study it is recommended that regional state and central government should concentrate on increasing female labour force participation with appropriate policy of providing education and training to all females as well as labour market policies, programs and initiatives need to be developed in order to improve the current situation and promote labour market participation of women's.

KEY WORDS: *female, FLFP, Gondar City, labor force, Socio-demographic*

1. INTRODUCTION

Women constitute about half of any country's population. In most countries women, however, contribute much less than men towards the value of recorded production both quantitatively in labour force participation and qualitatively in educational achievement and skilled manpower (Lawanson, 2008).

The full integration of women into the economy has become one of the most important goals of development efforts. In this regard, the equity and efficiency particularly, eliminating gender disparities in primary and secondary education, improving maternal health, reducing child mortality and in promoting gender equality and empowering women, are desirable goals. Yet, women are still underrepresented in the wage sector in both developed and developing countries (Charles et al., 2009).

Female labor force participation (LFP) is an important driver (and outcome) of growth and development (Verick, 2014). Higher levels of female LFP are an indication of higher returns on human capital and education (World Bank (WB), 2009). The participation of women in the labour force is more important in Africa where women are more active as economic agents than anywhere else in the world. Women contribute significantly in agricultural activities in Africa; they own third agricultural firms and mostly make up to about 70 percent of total employees (Africa Development Bank (AfDB), 2015).

Despite the fact that more opportunities are available to women to enter into labor force (LF) even, female participation is limited in certain occupation and they still find restriction in attaining some managerial jobs and grapple with maternity decision and family tradeoff (Murrally et al., 2007). The main objective of the study is to investigate socio-demographic determinants of female labour force participation in Gondar City of Amhara Region, Ethiopia.

2. LITERATURE REVIEW

Female labor force participation (FLFP) is important for the enhancement and socio-economic development of a nation because it promotes efficiency and equity. Generally, high female participation in the labor market implies two things; advancement in the economic and social position, and empowerment of women. This promotes equity and increases utilization of human potential, which can help in building a higher capacity for economic growth and poverty reduction (Mujahid 2014; Fatima & Sultana 2009). Understanding women's decision to supply labor to the market, as well as the factors that can encourage them to either participate in or opt out from the workforce, is vital for policy makers in order to efficiently help any economy develop and remain healthy. The clear understanding of such factors and their effect on women's propensity to participate plays a very important role in determining prospective growth and development of countries. It might help us come up with new ways to encourage female participation or address those problems that discourage females from participating in the labor market.

Female Labour Participation (FLP) has remained lower than male participation (Elborgh-Woytek et al., 2013). Women are usually engaged in most unpaid work, and when they are employed in paid work, they tend to be overrepresented in the informal sector (Blackden & Hallward-Driemeier 2013; Elborgah-Woytek et al., 2013). Gender gap in labour force participation in paid work is attributable to women's lack of access to productive resources, education and training (Sackey, 2005). (Do et al., 2011), results indicated that gender differentials productivity which tends to hinder progress towards economic empowerment of women and gender equity in development. A reduction of this productivity gap through

equal access to productive resources could yield considerable gains for rural development as well as national economies (WB, 2012).

The economic analysis of FLFP has drawn considerable attention since the pioneering work of (Mincer 1962) as per the “Work-Leisure Theory” developed in the twentieth century. This was followed by several theories in the field including the “Household Production Theory” by Becker and Mincer and “Human Capital Theory” by Schultz and Becker. All of which tried to figure out on a simple basis, the factors that would affect the decision made by a female on whether to participate or not in the labor market. On the basis of those theories, vast amount of international research was conducted to analyze women’s decision to be economically productive. Studies conducted in Pakistan and the United States (Goldin 1994; Psacharopoulos & Tzannatos 1989; Sackey 2005; Schultz 1961) showed that women’s participation is dependent on a country’s level of development. Such a relationship was demonstrated in the U-shaped curve correlating FLFP with the country’s GDP.

Becker (1975), Psacharopoulos & Tzannatos (1989), Schultz (1961) and Khadim & Akram (2013) through studies undertaken in Kuwait, Pakistan, Nigeria and Egypt, South Africa and Ghana illustrated that education is one of the main factors influencing women’s tendency to participate. Most of those studies concluded that education for women maybe the main policy option available, if greater participation of females in the labor force is required. Furthermore, Psacharopoulos & Tzannatos (1989), Faridi, Chaudhry & Anwar (2009), Khadim and Akram (2013), Schultz (1961) and Agüero & Marks (2008), Miracle (2007) added that other demographic factors such as; marital status, age, household size, religion, geographical location (urban/rural residency) do impact women’s participation decision.

A study carried out in Cameroon by Ngeh (2016) stated on the determinants of female labour force participation and sectoral choices , using a multinomial logit model show that females who have tertiary education and who reside in the urban areas more likely to work in the industrial, commerce and service sectors. After examining factors like education, marriage, offspring that affect female participation in jobs positively, Bibi & Afzal (2012) suggests that the prevailing rate of inflation in the economy of a country influences the labour force participation of married women greatly.

Understanding the differing factors in female labor supply is crucial in targeting effective policy interventions to enable all women to participate in the job market, and to achieve the policy goal of increased female labor force participation (FLFP), especially in Sub Sahara countries such as Ethiopia, characterized by low female labor force participation rate.

Women in Ethiopia have not been exposed to the economic opportunities that would enable them participate in alternative income-generating activities. This lack of alternative income sources made women to be very much dependent on their husbands and to have low participation in household decision-making (Haimanot, 2007). The Ethiopian economy has witnessed tremendous improvement in the labor market; however, unemployment remains widespread in urban areas. Policies need to address the poor labor market conditions for women in both the rural and urban areas as well as implement strategies which benefit the rising number of educated youth and women entering the labor market (Broussard & Tekleselassie, 2012).

Similarly, Ethiopian women have been in worse situation compared to other developing countries, even if an increasing trend in female labor participation (FLFP) has been observed in recent years (Central Statistical Agency (CSA), 2012). However, LFP of Ethiopian women remained substantially lower than that men counterparts, such that 56 women per 100 men participate in labor market in 2012, which is lower than 68 women per 100 men in the world in 2012 (UNDP, 2013, CSA, 2012).

According to the 2016 Urban Employment and Unemployment Survey (UEUS) report, FLFP rate of urban Ethiopian women is about 56.8% ,which is relatively lower than the world average of 73% in 2015 (United Nations Development Programme (UNDP),2016) and which is below that of the average of sub-Saharan countries.

Despite the efforts that has been made so far, employment opportunities still scarce for both men and women. As the recent report, the 2018 Urban Employment Unemployment Survey (UEUS) has indicated that, an increasing trend toward unemployment has been observed in urban areas. In connection to this, women suffer much more than men do. Based on the report, women are an important segment of Ethiopian population; make up 52% of the total population and only 40.5% of them were employed both in public and private field of the sector against 61.5% of men (CSA, 2018). These figures show that, the number of males employed far outweighs the number of females during the period under investigation. Several policies have been formulated to further increase female participation in the labour market with the most predominant being the Sustainable Development Goals, Hence the need for empirically informed policy formulation.

Even though, information regarding the factors that make women's participation decisions in the different sector are important, surveys undertaken by CSA (2014, 2015, 2016, 2018), only provided statistical data on the men's and women's magnitude and contribution in the national economy; characteristics and size of the economic activity status i. e. employed, unemployed and non active population of the country at national and regional level. But little is known about the factors that

determine participation decisions in the different sector, especially by women, given that there are alternative sectors in the labour market.

3. METHODOLOGY

3.1 Study Area Description

The study area is located at the northwestern part of the country at a distance of 727 km from the capital city, Addis Ababa. The study area is located in between North latitudes 12° 29' 45" and 12° 31' 29" and East longitudes 37°23' 52" and 37°30' 11". The study area covers 257 km². The city is organized into 6 sub cities and 21 kebeles (the lowest administrative units). (Gondar City Administration, 2018). Based on the 2007 national census conducted by the Central Statistical Agency of Ethiopia (CSA), Gondar had a total population of 207,044, of whom 98,120 were men and 108,924 women (CSA, 2011). The total population of Gondar city in 2018 was 390,644, of which 187,718 male and 202,925 female (Central Gondar Zone Plan Department, 2018).

3.2 Study Design

The study was conducted on women who are aged 15-49 years in the study area. 390 women at the age of 15-49 were selected as sample unit for this study. The selection of eligible women involves three stages; first four sub-cities were selected from the total sub cities of the City Administration. Then randomly ten kebeles were selected from the total four sub cities. Finally Systematic sampling technique was used to select households included in the study population.

3.3 Determination of Sample Size

The sample size was determined by using single proportion formula and its basic assumptions (Kotari, 2004).

$$n = \frac{z^2 pq}{d^2}$$

Where, d = desired precision level (d = 0.05 %)

p = the percentage estimate of the variable of interest

q = 1-p

z = the two-tailed value of the standardized normal deviation associated with the 95 % confidence level = 1.96 ($\alpha = 0.05$).

$$n = \frac{(0.5)(0.5)(1.96)^2}{(0.05)^2} = 384.16 + 5\% \text{ of non-response rate}$$

Assuming the 5 % non-response rate being equal to 19.2, the adjusted sample size becomes $384.16 + 19.2 = 403.36 \simeq 403$ households. Out of 403 participants expected to be included 390 gave their response and included in the study which gives response rate of 96.77%.

3.4 Data Analysis Method

Data were first checked manually for completeness and then coded, entered and analyzed using SPSS version 20. The data were analyzed using both descriptive and inferential statistics. Descriptive statistics such as frequency and percentage was done. Moreover, bivariate (chi-square) statistics were used to see whether there was an association or difference between labor force participation situation and the different independent variables. Logistic regression was done to assess the potential predictors of the outcome variable.

3.4.1 Logistic Regression Model

Logistic regression is modeling approach used when the response variable is qualitative in nature or categorical and independent variables may be either continuous or categorical. Logistic regression allows one to predict a discrete outcome, such as group membership, from a set of predictor variables that may be continuous, discrete, dichotomous, or a mix of any of these (Gellman & Hill, 2007). The logistic regression is preferred to multiple regression and discriminate analysis as it is mathematically flexible and easily used distribution and it requires fewer assumptions (Hosmer & Lemeshow, 2000). Unlike discriminant analysis, the logistic regression does not have the requirements of the independent variables to be normally distributed, linearly related, nor equal variance with in each group (Tabachnick & Fidel, 2007).

Binary logistic regression is a form of logistic regression which is used when the dependent variable is dichotomous and the independent variables are of any type (Hosmer & Lemeshow, 2000).

For simplicity consider a linear probability model

$$\pi(x) = \alpha + \beta x \dots\dots\dots(1)$$

Where, $\pi(x) = P(Y=1)$ is the probability (proportion) of cases for which $y=1$ or 'success', α is an intercept of the line ,and β is it's slope.

Thus, if we ignored the binary nature of Y and fitted the model as usual, the probability $\pi(x)$ may falls between 0 and 1 as the linear function takes value over the entire real line. However, for its extension with multiple predictors, difficulties often occur fitting this model because during fitting process $\hat{\pi}(x)$

fall outside the $[0,1]$ range for some subjects' x values. Moreover, for binary responses, the constant variance condition that makes least squares estimator optimal is not satisfied. Since $\text{var}(Y) = \pi(x)(1-\pi(x))$, the variance depends on x through its influence on $\pi(x)$ values.

In general, the linear probability model has structural defects in various ways in estimating the probability in the range $[0,1]$. In order to avoid the problem of estimating the probability of success directly for binary response from the model(1). Its better instead using the odds: the ratio of the probability of success to failure, i.e. $\frac{\pi(x)}{1-\pi(x)}$, which can assume any value from 0 to infinity. But from theoretical and mathematical point of view, in short we have the relation

$$\frac{\pi(x)}{1-\pi(x)} = e^{\alpha+\beta x} \dots\dots\dots (2)$$

From (2), non linear relationship between $\pi(x)$ and x are often monotonic, with $\pi(x)$ increasing continuously or decreasing continuously as x increases, which depicts S-shaped curve. The most important curve with this shape derived from (2) has form.

$$\pi(x) = \frac{\exp(\alpha + \beta x)}{1 + \exp(\alpha + \beta x)} \dots\dots\dots (3)$$

The appropriate transformation function which changes non linear relation to linear often called *logit* function. The above odds (2) and probability (3) obeys multiplication rather than additive rules but taking the natural logarithm of the odds allow for the simpler, additive model. Since logarithm converts multiplication in to addition and simple exponential transformation allows us for converting log odds back to probability (Agristi,2002). The logistic regression model with linear function of the predictor given as:

$$\text{Logit}(\pi(x)) = \log\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta x$$

3.4.2 Multiple Logistic Regression Model

Suppose we have a sample of n independent observations of the pair (x_i, y_i) , $i= 1, \dots, n$, where y_i denotes the value of the dichotomous outcome variable and x_i is the value of the independent variables for the

i^{th} case. Then, the conditional probability that 172t h individual outcome is success or in our case, a woman was participating in LF for a given x predictor has the form:

$\pi_i(x) = P(y_i = 1)$ on the values $x_{1i}, x_{2i}, \dots, x_{pi}$ of p predictor variables x_1, x_2, \dots, x_p such that, the logit of the multiple logistic regressions for p predictor given by:

$$\text{Logit}(\pi_i(x)) = p(y_i=1/x) = \alpha + \beta_1 x_{1i} + \beta_2 x_{2i} + \dots + \beta_p x_{pi} \dots \dots \dots (4)$$

On some re-arrangement $\pi_i(x)$ is

$$\pi_i(x) = \exp \frac{\exp(\alpha + \beta_1 x_{1i} + \dots + \beta_p x_{pi})}{1 + \exp(\alpha + \beta_1 x_{1i} + \dots + \beta_p x_{pi})} \dots \dots \dots (5)$$

Where, the model parameter β_i interpreted as the change in log odds for every unit increase or decrease of an x_i holding other x_j 's or the effect of x_i on log odds that $y_i = 1$ for success controlling the other x_j and $\exp(\beta_i)$ is multiplicative effect on the odd of 1 unit increase in x_i , at fixed levels of other x_j 's.

In this study, the participation of women in labor force (LFP) considered as a response variable which is dichotomous taking a value 1 if the response of a woman was participating to the LF. That is, the woman response was either participating in paid employment, engaged in self employment activities, being unpaid family worker or being member of cooperative or member of board otherwise zero. The descriptions of the explanatory variables and the response variable with their code of their categories are presented in the following Table 1.

Table 1. Description of Variables in the model

No	Variables	Code	Description
Dependant variable			
1	Labor Force Participation (LFP)	1	If a woman participating to the labor force
		0	otherwise
Explanatory variables			
2	Age(AGE)	1	Aged 15-24
		2	Aged 25-39
		3	Aged 40-49
3	Marital Status (MART_SATUS)		A set of dummy variable capturing women who are

		1	Non-Married
		0	Married
4	Educational Status (EDUC_STATUS)		A set of dummy variables capturing women who are from education level
		1	Illiterate
		2	Primary or Junior school
		3	High school And above
5	Fertility (number of child less than 5 year) (PRES_CHILDREN)		A set of dummy variable capturing women who are from a household with
		1	No child at home
		0	At least one child at home
6	Household Size (HH_SIZE)		A set of dummy variable capturing women who have household size
		1	>5
		0	≤ 5
7	Relation to household Head (RELATION)		A set of dummy variable capturing women who are
		1	Heads
		2	Spouses
		3	Other family members (Daughters, Relatives or non relatives)

4. RESULTS AND DISCUSSION

Out of the total Sample size only 40.1 % of women were participating in the labor market. Table 2 shows that out of the total 390 women 61.28 % are aged 25-39 years. This age group was the largest age group. Furthermore, the same table depicts that woman LFP rates appear to vary between all age groups. Married women (74.87%) were found higher in percentage of LFP than non-married (hence singles, widowed or divorced) women (25.13%). At the time of the survey, 68.97 % were having at least one young child less than 5 years. As can be seen from Table 2, 45.90% were migrants. 55.38% respondents had secondary and above education. Out of the total 390 husbands of the respondents the majority proportion 58.72% have secondary and above school education. It is evident that most of the respondents had household size of ≤ 5 (68.21%) of the sample. Regarding to religion, the majority were Orthodox Christian 85.89 %.

Table 2 Socio-Demographic Characteristics of the Study Population, 2018

Background Variables	Number	%
Age		
15-24	89	22.82
25-39	239	61.28
40-49	62	15.90
Total	390	100
Marital Status		
Married	292	74.87
Non-Married	98	25.13
Total	390	100.00
Presence of Young Children (Less than 5 Years)		
Yes	269	68.97
No	121	31.03
Total	390	100.00
Migration Status		
Migrants	179	45.90
Non-migrants	211	54.10
Total	390	100.00
Education		
Illiterate	112	28.72
Primary and Junior	62	15.90
Secondary and Above	216	55.38
Total	390	100.00
Husband's Education		
Illiterate	89	22.82
Primary and Junior	72	18.46
Secondary and Above	229	58.72
Total	390	100.00
House hold Size		
≤5	266	68.21
>5	124	31.79
Total	390	100.00
Religion		
Orthodox Christian	335	85.89
Muslim	46	11.80
Protestant	9	2.31

Total	390	100.00
Relation to HH Heads		
Heads	67	17.18
Spouses	292	74.87
Other family members	31	7.95
Total	390	100.00

Source: Author's field Survey, 2018.

Model building process was begun with careful preliminary univariate analysis of each predictor variable with dependent variable i.e. women LFP status. In addition, univariate analysis was performed for the city to select a variable which is strongly associated with the response variable, LFP using Pearson chi-square at 5 % level of significance. For each socio- demographic variable a test of association was carried out to select a candidate predictor variable that would serve the purpose for multiple analyses. Pearson chi-square test is asymptotically equivalent to the likelihood ratio chi-square test. Since the likelihood ratio chi-square test with k-1 degree of freedom, where k is the level of the predictor variable, is exactly equal to the value of the likelihood ratio test for the significant of the coefficients for k-1 design variable in univariate logistic regression model that contains a single predictor variable.

Large value of the Pearson chi-square or likelihood ratio chi-square for a given predictor variable can be used as an indication for the existence of strong association between the given predictor variable and the response, keeping the effect of other factors constant. The decision was based on the Pearson chi-square value, p-value and the 5% level of significance. The univariate finding has been shown in Table 3 below.

Table 3 The bivariate association between LFP and each independent variable,

Variables	Pearson chi- square	D.f	P- value
AGE	95.669	2	.000
MART_STATUS	4.064	1	.060
PRES_CHILDREN	45.033	1	.003
MIGR_STATUS	17.365	1	.921
EDUC_STATUS	63.374	2	.000
HEDUC_STATUS	23.659	2	.328
HH_SIZE	55.509	1	.000
RELIGION	12.624	2	.792

RELATION	58.733	2	.000
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Source: Author's field Survey, 2018.

Table 3 shows that, Age, Presence of young children, Educational attainments of women, Household size and Relation to the HH head were found to be strongly associated with LFP, except Martial status, Husbands' education and Religion which shows relatively weak association with FLFP. Accordingly, each of the variables found to be associated with LFP in the city were taken as a candidate predictor variable in multiple logistic regression models.

In order to analyze the socio-demographic determinants of labor force participation the logistic regression model was estimated using enter method of Maximum Likelihood Estimation, which is available in SPSS version 20. A total of 6 explanatory variables were included in the model analysis on the basis of theoretical explanations and the results of various empirical studies. (See Table 4)

Table 4 Results of logistic Regression for Socio-Demographic determinants of FLFP, 2018

	β	S.E.	Wald	df	Sig.	Exp (β)
AGE			53.009	3	.000**	
AGE(1)	-.271	.252	1.156	1	.282	.762
AGE(2)	.958	.226	17.929	1	.000**	2.607
AGE(3)	-	-	-	-	-	-
MART_STATUS			9.740	1	.428	
MART_STATUS(1)	.607	.267	5.165	1	.023*	1.835
MART_STATUS(0)	-	-	-	-	-	-
EDUC_STATUS			23.398	2	.000**	
EDUC_STATUS(1)	.115	.177	.418	1	.518	1.121
EDUC_STATUS(2)	-.681	.171	15.870	1	.000**	.506
EDUC_STATUS(3)	-	-	-	-	-	-
PRES_CHIILDREN			9.974	2	.000**	
PRES_CHIILDREN(1)	.304	.143	4.523	1	.033*	1.355

PRES_CHIILDREN(0)	-		-	-	-	-
HH_SIZE			39.538	2	.000**	
HH_SIZE(1)	1.148	.339	11.447	1	.001*	3.150
HH_SIZE(0)	-	-	-	-	-	-
RELATION			9.716	2	.008*	
RELATION(1)	.597	.209	8.183	1	.004*	1.817
RELATION(2)	.130	.315	.170	1	.680	1.139
RELATION(3)	-	-	-	-	-	
Constant	-1.422	.384	13.731	1	.000**	.241

*P<0.05 and ** p <0.01

Source: Computed from Survey, 2018

β =Regression Coefficient

S.E. = Standard Error

Exp (β) = Odds ratio

Sample size: 390

Pearson chi-square:

439.563

-2Log likelihood:

32.2

Pseudo R²

76.3%

From the multiple logit model of Table 4, Age has been found one of the significant determinant factors for women's LFP decision in Gondar. It is clear indicated that, those women aged 25 to 39 years have more likely to participate in labor market than those aged 15 to 24 years with reference to those women in the age category 40 to 49. Thus, the likelihoods of participation of those women aged 25-39 in the labor force are about 2.61 times more than the likelihood of LFP of those women in the reference age category 40-49 respectively. The likelihood of participating for those women aged 15 to 24 in to the labor market is less by 76.2% compared to women in the reference age category 40-49. The result demonstrates that relative to the reference age category, a woman being in age of 25-39 have higher chance of being in the labor market of Gondar city. The finding of the present study is consistent with

prior research findings of Atieno (2006), Munoz (2007), Magidu (2010) & Yakubu (2010), Mujahid (2014). Piritta et al., (2015), Yuni (2015) and Varol, F. (2017), who indicated that, the likelihood of participation of those working women in the median aged in the LF were more than the likelihood of those women relatively in the old age. This means that an increase in the age of the women decreases the probability for participation in the labor force.

As expected, the marital status has been found to determine women LFP for Gondar. Compared to married women, non-married women (Hence, singles or widowed or divorced) have 83.5% more likely to participate in the labor market. This finding suggests that, marriage become a limiting factor for women to be in the labor force for Gondar women. This result is in conformity with the findings of Magidu (2010), Yakubu (2010), Piritta et al., (2015), Yuni (2015), Abraham Y., Fidelia O. & Ohemeng W., (2017) which showed that, female marital status exerts positive and significant influence of female participating in the labour market. All things being equal, widowed and divorced women are more likely to be active in the labour market participation than married ones though the later also reports of positive marginal effects.

Although the illiterate women (LFP) found to be insignificant but their likelihood of participation is not showing a decline trend (see Table 4). The LFP of a woman having primary or junior school education is 50.6 % less compared to those who has high school or above education (reference category). The above finding entail that education have strong positive relationship with employability (particularly, after completing primary or junior school education). Beside this, illiterate women have more chance of being in labor market than more educated one but their participation has not much right to be heard. This finding is in line with prior research findings of Darik B. & Mehemet H. (2010), D. Contreras , L. de Mello & E. Puentes (2011), Piritta et al., (2015), Yuni (2015), Ngeh (2016) and Abraham Y., Fidelia O. , Ohemeng W., (2017) and Che & Sundjo (2018), who stated that show that the probability of participation rises with educational attainment.

As far as women household attributes were concerned, result shows that, the presence of a young child less than 5 years old in the home decreases the probability of a woman LFP. Thus, the likelihood of participation of those women in from the HH with no child at home increased by about 35.5% compared to those women with at least one child less than 5 years old at home. This means that, the presence of an extra young child at home negatively affects a woman's propensity to participate in market work. This may be evident because under- five children constitute that part of the population that requires much attention and care. This finding is also supported by the findings of Darik B. & Mehemet H. (2010), D. Contreras, L. de Mello & E. Puentes (2011), Piritta et al.,(2015), Ngeh (2016), Varol, F. (2017) and Che & Sundjo (2018), which indicated that, the presence of young children in the household discourages

female participation both for prime-age and young women. This effect is particularly strong for those with children aged less than 5 years.

Another attribute that affected significantly a woman decision to participate in labor market is her household size. The result indicates that, those women, who had household size of greater than 5 were about 3.15 times more likely to participate in the labor market than those women, who had 5 or less households. This implies that those women who are had more households tend to force themselves to participate in labor market than those, who had household members in their families. This is in line with Darik B. and Mehemet H. (2010), Yakubu (2010), Ngeh (2016) and Che & Sundjo (2018), who concluded that, the increase in the number of individuals within the family declines the likelihood of labor force participation.

Finally regarding to a woman relation to the household head, the likelihood of participating into the market work for those women, who are the head of the household, and those, who are spouse of the head are increased by 82%, and 14% compared to other family member in the Household respectively. This implying that, the headship responsibility of a woman has in the household might force her to participate in the labor market. This means the risky of unemployment tend to increase as the women position in the household decreased. This finding is also supported by the findings of Darik B. and Mehemet H. (2010) and Varol, F. (2017) which indicated that the increase in family responsibilities (i.e. being head of household) the likelihood of labour force participation increases.

5. CONCLUSIONS AND IMPLICATIONS

This empirical study attempts to investigate socio-demographic determinants of female labor force participation in Gondar city, Amhara region. The overall result of the analysis leads to the conclusion that women's Age, Educational status, Relation to household head, marital status, Fertility, and household size significantly determine female labor force participations in city. Marital status, migration status and religion were found insignificant to determine the propensity of women participation to labor market.

The result of this study showed 43.7% and 56.3% of the women were found to be employed and unemployed, respectively. The result of chi-square and t-test statistics revealed there are statistically significant associations and/or differences between LFP and socio-demographic characteristics.

Furthermore, the binary logit model output revealed age, education level, presence of young children, household size and relation were found to be statistically significant with the hypothesized sign in determining female labor force participation. Thus, the finding indicates the socio-demographic determinants of labor force participation are complex and call for multifaceted interventions.

Given the hindering factors to female labour participation in Gondar, the government and other stakeholders should put in place measures to improve on female labour force participation supply. Policy makers at national level and government officials at regional level should concentrate on increasing female labor force participation by increasing female education level. For those with no education or school dropouts, effort should be made to help them by providing informal education and an appropriate skills and trainings that help them to get employed and become productive. Facilitate formalization of informal employment sector in order to motivate more youth to engage in different activities which are currently considered to be informal. Government should provide financial assistance to the female those who below the poverty line to grant household industries. In addition to this, find ways to increase mother's access to child care facilities in order to alleviate the limiting effect of child care on women's labor market participation.

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