The Myanmar JOURNAL

Letter from the Editor-in-Chief

Myanmar and Korea have many similarities and are complementary relationship. Therefore, we believe that research exchange will expand mutual understanding between Myanmar and Korea, and will be the cornerstone for mutual development.

KOMYRA and YUE have co-published The Myanmar Journal since August 2014. So far, many scholars have published numerous papers through the journal, and We are sure that this journal has helped many people understand Myanmar and Korea more clearly and closely.

The Myanmar Journal covers various issues in Myanmar and Korea. It covers various topics that can promote bilateral development and mutual understanding, not limited to specific topics such as economy, industry, society, education, welfare, culture, energy, engineering, healthcare, and agriculture.

We hope that this journal will continue to promote understanding of the current status and potential capabilities of Myanmar and South Korea and promote in-depth international exchange and cooperation.

We would like to express our deepest gratitude to the editorial board and YUE and KOMYRA for their valuable support in The Myanmar Journal publication.

August 30, 2021

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INFORMATION ABOUT
The Myanmar Journal

The Myanmar Journal (ISSN 2383-6563) is the official international journal co-published by Yangon University of Economics (YUE) and Korea Myanmar Research Institute (KOMYRA).

This journal aims to promote the mutual cooperation and development of Myanmar and Korea through intensive researches in the entire filed of society, economy, culture, and industry.

It will cover all general academic and industrial issues, and share ideas, problems and solution for development of Myanmar.

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Factor Influencing Women's Work Participation in Myanmar: An Empirical Analysis of Labour Force Survey Data

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ABSTRACT : The present study tries to examine the various factors which affect the women's work participation. The data were used in this study is obtained from the Labour Force Survey 2015. The logistic regression analysis is used to examine the determining factors. The result shows that age, education, marital status, relationship to head of household job training, residence and location are significant determinant factors that effect on women work participation. This study concludes that the women who were educated, married, lived in urban areas, and head of household is more likely to participate in economic activities. Furthermore, women who got a job training is more likely to participate in the labour market.

Key words : *Women work participation, Logistic regression analysis, Education, Residence, Job training.*

I. INTRODUCTION

The labour force participation rate plays a very essential role in determining the socio- economic development and growth. It shows the supply of labour in the economy and the composition of human resources of the country.

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Female labour 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 labour 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 and Sultana 2009). Understanding women's decision to supply labour to the market, as well as the factors that can encourage them to either participate in or optout 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 labour market.

According to the World Bank (2013) women now represent around 40 percent of the global labour force and more precisely on a country level women constitute around half of any country's human endowment. However, in most countries women labour force participation is much less than that of men. According to the IMF (2013), the average gender participation gap which is the difference between male and female labour force participation rates has been falling since 1990. However, it seems that this is due to a worldwide decline in male labour force participation rates rather than an increase in female labour participation rate thus male-female differences still remain substantial.

In Myanmar, the working age population was 33.9 million, of which females constituted 54 per cent and males 46 per cent (Myanmar Labour Force Survey Report 2015). Rural areas have 71 per cent of the working age population while urban areas have 29 per cent. The labour force participation rate was 64.7 per cent, however, the rate for males was 80 percent, considerably higher than that for females by 52 per cent. There is a difference between working men and working women since women are burdened with childbirth and the responsibility for raising the family as well as domestic work. Women are considered the weaker sex and employers prefer hiring men to women.

There are many inherent problems linked to employment and labour markets in Myanmar such as education level and skills of labour. At the national level, the proportion of the working age population (persons aged 15 years and above) that have completed high school is 6.5 per cent. It is 11.1 per cent in urban areas and only 4.4 per cent in rural areas. Regarding attaining higher levels of education, the proportion is slightly favourable for males compared to females. The proportion of

the working age population with a graduate education qualification and above is 5.8 per cent. In urban areas, it is 13 per cent while in rural areas it is 2.6 per cent.

The analysis of the labour force participation is helpful in determining employment policy and policy formulation for human resource development. Further, employment is an important socio-economic issue, and it affects the lives of both young and old. It has a direct impact on income distribution, poverty and economic development. There is a strong correlation between the employment and the incidence of poverty as recession leads to increase in unemployment that then causes an increase in poverty.

There are many factors such as age, marital status, education, training and residential location have significant impact on women work participation. The degree of correlation ship between each variable and women work participation rate varies from country to country which has achieved different levels of economic development, as economic development of the country creates better employment opportunities and better social welfare programs for women and children. In the case of Myanmar women, it is expected that determinants of women work participation would be different from those of other countries. For this reason, this study aims to find which factors are significant influencing women's work participation in Myanmar.

II. Materials & Methods

1. Data

The Labour Force Survey (LFS) 2015 was conducted by Ministry of Labour, Employment and Social Security jointly with the Central Statistical Organization (CSO) conducted a national labour force, child labour and school-to-work transition survey in 2015 (LF-CL-SWTS) with the financial and technical support of the International Labour Organization. The sample size in this survey was 24,000 households covering over 1,500 enumeration areas (EAs) of the population and housing census, 2014. In the survey, a stratified two-stage sampling design was adopted for the selection of the sampling units for urban as well as rural areas. The first stage units (FSUs) were enumeration area (EAs) blocks. The second stage units (SSUs) were the households. In the country, altogether 1,500 EAs were selected for the survey from the EA blocks of the population and housing census of Myanmar 2014, covering 522 urban EAs and 978 rural EAs. Out of which 1,468 EAs comprising 519 EAs in urban and 949 EAs in rural areas were surveyed. In this study, out o 61,774 working age population, 36,799 females belonging to the working age 15-64 years were analysed to determine the

factors influencing the women work participation in Myanmar.

2. Logistic Regression Model

The dependent variable in this study is dichotomous. It may take only two binary values. 1 if the women are participating in the labour force (economic activities) and 0 if they are not participating. Such function is called the logistic distribution function, and it is estimated by maximum likelihood (ML) techniques. An advantage of this function is that it guarantees that the probability ranges from 0 to 1. The binary logistic model was used to estimate the probability of participating in the labour force. The specification of the logistic model is as follows:

$$P_i = E\left(\frac{Y=1}{X_i}\right) \tag{1}$$

In Equation (1), Y = 1 means that a woman participates in the labour force and X denotes the set of independent variables used. Pi is the conditional probability that a woman participates in the labour force. In context of logistic model,

$$P_i = E\left(\frac{Y=1}{X_i}\right) = \frac{1}{1+e^{-(\beta_0+\beta_i X_i)}} \tag{2}$$

$$\text{Let } z_i = \beta_0 + \beta_i X_i, \quad \text{thus} \quad P_i = \left(\frac{1}{1+e^{-z_i}}\right) \tag{3}$$

$$P_i = \left(\frac{e^{z_i}}{1+e^{z_i}}\right) \tag{4}$$

If Pi gives the probability of women's work participation in economic activities, then (1- Pi) will give the probability of women do not work participation in economic activities.

$$1 - P_i = \left(\frac{1}{1+e^{z_i}}\right) \tag{5}$$

The ratio of work participation individuals to not participate is written as

$$\frac{P_i}{1-P_i} = \left(\frac{1+e^{z_i}}{1+e^{-z_i}}\right) = e^{z_i} \tag{6}$$

$\dfrac{P_i}{1-P_i}$ is called the odd ratio in favour of work participation individual. Taking the natural log of the odd ratio obtain

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i \qquad (7)$$

Therefore, it can say that Li is linear in the parameters and in independent variables denoted by Xi. The point of advantage of this model is that here only Li the logit is linearly related with but not the probabilities.

3. Model Description

To find out the factors influencing the women's work participation, logistic regression model was used. A general description of the variables included in the model is given below.

Dependent Variable: The Women Work Participation (WWP) is a dummy variable two-way choice model: 0=unemployed and 1=employed. Therefore, WWP is the dependent variable in this study.

Independent Variables: There are three main categories of the variable in the logistic regression model which can explain the women's work participation: (a) demographic factors age, education and marital status; (b) socioeconomic factors: relationship to head of household, and training of job; and (c) geographic location factors: residential status and location (States & Regions).

The logistic regression model was developed and shown in below:

$$WWP = F(Age,\ Edu,\ Marts,\ Rhad,\ Jtrn,\ Redi,\ Region)$$

$$\Pr WWP = 1X = F(\beta 0 + \beta 1 Agej + \beta 2 Edu + \beta 3 Marts + \beta 4 Rhad \\ + \beta 5 Jtrn + \beta 6 Redi + \beta 7 Region)$$

where, WWP is the women work participation
    Age: Age of Women (15-64 years)
    Edu: Education
    Marts: Marital Status
    Rhad: Relationship to Head of Household
    Jtrn: Job Training
    Redi: Residence(rural/urban)
    Region: Location(States/Regions)
Descriptions of the variables which were included in the logistic model are summarized in Table 1.

III. Results & Discussion

To meet the objective, the logistic regression model was developed with seven independent variables. The results were shown in Table 2 which provides the regression coefficients, standard error with their statistical significance level and odds ratio for each variable. The age of women is very crucial factor for women work participation decision. Five categories have been included in the model to trace out the effect of different age groups on women's work participation.

The results revealed that women's work participation was highly influenced by age of the women and all the coefficients by age group were positive and statistically significant at the 1 percent level. The women were an age (15-24) years, age (25-34) years, age (35-44) years and age (45-54) years were 1.251, 3.185, 3.746 and 2.677 times more likely to participate in the labour force compared to age of women were (55-64) years. Women work participation varies with respect to different age groups. These findings showed that the probability of women's work participation increases with their age.

Concerning the education factor, the women's level of education is the most important factor which influences women to make decision for work participation in economic activities. The study assumes illiteracy (uneducated) as the reference category. The coefficient of education variable was a positive and statistically significant at the 1 percent level. The result revealed that the women who were educated are 2.080 times more likely to participate in economic activities than those women who were uneducated. The women's level of education turned out to be very important and vital factor in determining the labour force participation's decisions. In this study, it was observed a positive relationship between female labour force participation and education. This positive significant change in labour market shows that increasing level of education enhances the better job opportunities for women.

Marital status was another factor that significantly affects the women's work participation in economic activities. The coefficient of marital status was positive, and it was statistically significant at the 1 percent level. Single women were taken as the reference category and the results showed that married women were 2.111 times more likely to participate in the labour market rather than the single women.

This is theoretically true because after marriage the responsibility of workers increases with involving many other factors so their participation increases. The positive significant effects of marital status on female labour force participation indicate that the married women are more likely to join the labour market to share the financial burden of the family and to support their counterparts in meeting basic economic necessities of life.

Regarding the relationship to head of household, the women work participation was also influenced by head of household. The head of the household factor was positive and highly significant at the 1 percent level. The result showed that women who were heads of household were 2.181 times more likely to participate in the labour market than women who were not heads of household.

The job training factor was also positive and highly significant, and it plays a major role in women's work participation. The result showed that women who got a job training were 1.616 times more likely to participate in the labour market than women who did not get a job training. This result supported theoretically increase, leading productivity.

The region of residence also influenced women work participation. The coefficient of residence (urban area) was positive and significant at the 1 per cent level. The women lived in urban areas were more likely to participate in the labour market as compared to that of women lived in rural areas. The result showed that women lived in urban areas were 1.315 times more likely to participate than the women lived in a rural area.

The location (Provincial) also affected the women's work participation. The women lived in Kachin, Kayah, Kayin, Chin, Tanintharyi, Bago, Mandalay, Mon, Rakhine, Yangon and Ayeyarwady were 0.714, 0.714, 0.455, 0.674, 0.352, 0.835, 0.815, 0.422, 0.508, 0.479, and 0.469 times less likely to participate in the labour force than women lived in Nay Pyi Taw. The capital city of Myanmar is Nay Pyi Taw and the majority of women who live in this city participate in the labour market. Thus, relatively high as compared to other locations and the women live in this region also have better job opportunities.

IV. Conclusion and Suggestions

The main purpose of present study is to examine the demographic and socioeconomic factors that directly or indirectly influence the women's work participation. The study is based on micro-level data on different demographic and socioeconomic factors, which have an effect on the women' work participation in Myanmar. The sample of 36,799 women was obtained from the Labour Force Survey of Myanmar 2015. In this study, it can be concluded that the age, education, marital status, relationship to head of household, job training and urban residence were determinant factors that influencing the women work participation positively and, significantly, but the location factor was negatively related to the women's work

participation. The findings of the study identified that education and job training factors were the main sources of human capital formation that in turn have a positive influence on worker's lifetime earnings and women work participation. Moreover, married women were more likely to enter the labour market to share the financial burden of the family and to support their counterparts in meeting basic needs. Based on the findings, it is suggested that government should focus on the female labour force by providing equal opportunities compare to the male labour force to get the education and vocational trainings so that their efficiency and productivity will be increased to the full potential. It needs to take sufficient measure to remove the inequalities in different sectors. Government should provide education to the women, especially in rural area. Quality of education should also be improved and women's training opportunities should be provided. Consequently, rural infrastructure is needed to be improved and government should also start the rural development programs for creating more employment opportunities for women.

Acknowledgements

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Appendix

Table 1. List of Variables

Variables	Variable description
Women's Work Participation	1=if women are working or currently searching for a job. 0= Otherwise
Age (Years)	Age of the women respondent. It ranges from 15-64 years.
15-24	1=women have the age 15-24 years
25-34	2=women have the age 25-34 years
35-44	3=women have the age 35-44 years
45-54	4=women have the age 45-54 years
55-64	5=women have the age 55-64 years
Education	1= if women are literate, went to primary, middle, high school, vocational school, or university (Educated) 0= Otherwise (Uneducated)
Marital Status	1= if women are married, widow/widower, divorced. (Married) 0=if women is a single
Relationship to Head of Household	1= Women are head of household 0= Otherwise
Job Training	1=If women got a job training 0= Otherwise
Residence(rural/urban)	1= If women live in an urban area 0= If women live in a rural area
Location (States/Regions)	Women's Residency Status: 1= Kachin 2= Kayah 3= Kayin 4= Chin 5= Sagaing 6= Tanintharyi 7= Bago 8= Magway 9= Mandalay 10= Mon 11= Rakhine 12= Yangon 13= Shan 14= Ayeyarwady 15= Nay Pyi Taw

Table 2. Factors Influencing Women's Work Participation

Variables	Variable description
Women's Work Participation	1=if women are working or currently searching for a job. 0= Otherwise
Age (Years)	Age of the women respondent. It ranges from 15-64 years.
15-24	1=women have the age 15-24 years
25-34	2=women have the age 25-34 years
35-44	3=women have the age 35-44 years
45-54	4=women have the age 45-54 years
55-64	5=women have the age 55-64 years
Education	1= if women are literate, went to primary, middle, high school, vocational school, or university (Educated) 0= Otherwise (Uneducated)
Marital Status	1= if women are married, widow/widower, divorced. (Married) 0=if women is a single
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Source: Labour Force Survey of Myanmar (2015)
Dependent Variables: Women's Work Participation