An Evaluation of the Contribution of Female Labor Force Participation on Economic Growth of Sri Lanka

Gunarathne, G.S.P.[1]* , Perera, P.D.M.V.[2]

[1]Department of Social Sciences, Faculty of Social Sciences & Humanities, Rajarata University of Sri Lanka
[2]Department of Social Sciences, Faculty of Social Sciences & Humanities, Rajarata University of Sri Lanka
Sajaanpraveen7@gmail.com[1]

Abstract - Existingliterature cited that the laborforce participation is as an influential factor of economic growth in developing nations. Female participation inthe labor force is outnumbering than male labor force participation in Sri Lanka because of the female-biased population. The general objective of this study is to identify the impact of female labor participation oneconomic growth in Sri Lanka. The study used secondary data of Economic Growth Rate, Women Labor Participation (WLP), Male Labor Participation (MLP) & Gross Domestic Fixed Capital Formation (GFCF) from 1990 to 2016 over 26 years. According to the regression analysis, there is a positive significant impact of WLP on economic growth in Sri Lanka. However, it is very low when it compares with the MLP & GFCF. The relationship between WLP & economic growth is a weak positive relationship. It is also very low when considering the relationship between the other two variable & economic growth.However, the relationship is a unidirectional relationship; from WLP to economic growth. As a summary of the conclusion, there is a considerable positive impact& relationship of female labor participation on economic growth in Sri Lanka. However, the contribution is quite lower than other influential factors of the growth equation.There are some barriers tofemale labor participation in Sri Lanka. However, it can be promoted by incorporating the policy actions for reducing barriers & in order to obtain the higher economic growth rate.

Keywords - Economic Growth, Labor Force, Regression Analysis, Sri Lanka, Women Labor Participation

I. INTRODUCTION & RESEARCH BACKGROUND

Women participation in the labor force shows a higher level in the world context. Women work as much as men do in the present world; paid & unpaid work. However, all of their participation is uncountable; household chores and caring for children [1]. Women in Sri Lanka from approximately 51.89% of a total estimated population of 21 million in 2016 [2]. However, out of the total economically active population of 8.5 million persons, only 33.4% are women [3]. The situation of women in Sri Lanka has been influenced by patriarchal values embedded in traditional, colonial, and post-independence societies. Compared to the rest of South Asia, Sri Lankan women are very well off, enjoying high life expectancy as 74 years, nearly universal literacy; 92.6% of literacy rate, and access to economic opportunities, which are approximately unmatched in the rest of the subcontinent [4]. When considering the women participation in labor force, there can be seen numerous types of careers that they engaged; in the main agriculture sectors of paddy, tea, rubber and coconut, in the industrial sector such as in textile industry & migrant workers who earn biggest foreign exchange in to the country etc.

Thus, it is very clear that the women participating in the labor force are a much important factor for the country's economy since the number of women exceeds the male population as well as the labor force in Sri Lanka. Some literature implied that there is a significant impact of women labor participation on economic growth. Dogan&Akyuz identified as a negative relationship between economic growth and female labor force participation in Turkey [5].According to Lahoti, there is no any significant relationship between thelevel of economic development and women's participation rates in the labor force in India [6]. But, according to Shahid, there is a positive significant impact of female labor force participation on economic growth in Pakistan [7].Semasinghe revealed that the Gross Domestic Product (GDP) is positively impacted by the women labor force participation in Sri Lanka & it is a unidirectional relationship as the GDP is the leading variable [8].

Based on this background with the blend results, it is more important to empirically examine with the Sri Lankan context. The research problem is that whether the women labor participation is impactedon theeconomic growth of Sri Lanka. The general objective of this study is to find the contribution of women labor participation on economic growth in Sri Lanka. The specific objectives are; (1) to identify the relationship between women labor participation & economic growth, (2) to find out the causal relationship between economic growth and other variables; women labor participation, male labor participation,and gross fixed capital formation, (3) to evaluate the impact of female labor participation on economic growth.

II. MATERIALS & METHODS

The econometric model is developed by using aggregate production function.

$$Y = f(K, L) \rightarrow (1)$$

Where Y is the total output, K is the capital stock & L is the number of labors. The developed model of the study can be stated as follows.

$$lnY = \beta_0 + \beta_1 lnWLP + \beta_2 lnMLP + \beta_3 lnGFCF + u_i \rightarrow (2)$$

Where economic growth is the depended variable, which is represented in Y. Women labor participation (WLby, Male labor participation (MLP) & gross domestic fixed capital formation (GFCF) are the independent variables. All the variables are in log forms for normalizing the data and used in its first deference form in order to satisfy the stationary assumption of time series data. Here, the GFCF is representing the capital formation (K) & the WLP & MLP are representing the number of labors (L) in the aggregate production function.

The secondary data from 1990 to 2016 extracted from central bank reports of Sri Lanka. Correlation analysis used to show the relationship between WLP & economic growth &the Granger causality test was employed to identify the causal relationship among variables. In addition, Multiple linear regression analysis employed to identify the impact of WLP on economic growth in Sri Lanka. Recent literature& published articles were investigated to identify the barriers in of women labor participation in Sri Lanka.

III. RESULTS & DISCUSSION

Correlation Analysis

Table one implies the test results of the correlation analysis. The correlation between economic growth & the female labor participation is a positive but weak relationship.

Table 1: Correlation analysis

	Economic Growth	
	Pearson Correlation	Sig. (2-tailed)
WLP	0.077	0.015**
MLP	0.137	0.006*
GFCF	0.613	0.001*

Note: N=26, * denotes the correlation is significant at 1%, ** denotes the correlation is significant at the 5% level (2-tailed).
Source: Prepared by Researcher, 2018

Also, the level of the relationship is quite low when it compares with the relationship between economic growth &the other two variables; malelabor participation & gross domestic fixed capital formation.

Granger Causality Test

Granger causality test provides the direction of the relationship between variables. The test result is shown in table two.

Table 2: Granger Causality Test Result

Direction	F Statistic	P Value	Granger causality
WLP→Y	2.68082	0.0957*	Yes
Y→WLP	0.19519	0.8244	No
MLP→Y	2.04159	0.0560*	Yes
Y→MLP	0.30618	0.7396	No
GFCF→Y	2.79270	0.0663*	Yes
Y→GFCF	2.38438	0.0858*	Yes

Note: * denotes significant at 10%
Source: Prepared by Researcher, 2018

According to the results, there is a unidirectional relationship between women labor participation & economic growth; WLP Granger causes economic growth. It explains that women labor participation is caused to change the economic growth in Sri Lanka. The level of impact is further described by the regression analysis.

As well as the male labor participation indicates the unidirectional relationship with economic growth as MLP Granger causes economic growth. Moreover, there is a bidirectional relationship between gross domestic fixed capital formation & economic growth of Sri Lanka; GFCF causes to change the economic growth &viseversa.

Regression Analysis

Table three represents the coefficients of the explanatory variables that significant at 5% & 10% of significant levels.

Table 3: Coefficients

Variables	Coefficients	t Statistics	Significance
β_0	-0.238	2.056	0.052**
WLP	0.08	0.268	0.092**
MLP	0.154	0.515	0.012*
GFCF	0.624	3.683	0.001*

Note: * denotes significant at 5% level & **significant at 10% level
Source: Prepared by Researcher, 2018

This model has overall significance& better goodness of fit, as the F test is significant at 5% of significance level (0.012)& the R square value is equal to 0.781 respectively. In addition, there is no autocorrelation&multicollinearity problem since the Durbin-Watson statistics (2.414) is close to two & VIF values are between 1.003 & 3.116.

$$lnY = -0.238 + 0.08lnWLP + 0.154lnMLP + 0.624lnGDFCF + u_i \rightarrow (3)$$

According to this model, all three independent variables have a significant positive impact on economic growth. However, the contribution of women labors participation is lower than the impact of male labor participation&gross domestic fixed capital formation.

Various barriers cause this weak relationship& lower impact of women labor participation in Sri Lanka even though the female represents the largest share of the labor force. The most highlighted barriers are; (1) wage inequality between male & female; especially in the agriculture sector in Sri Lanka is paid higher wages for male than female. (2) Involvement in household management; more women in Sri Lanka is limited to household activities only. (3)Unfavorable working conditions, (4) socio-cultural constraints, (5) restrictions imposed by family, (6) living area; inefficient amount of female labor participation is mostly seen in rural area than urban area, (7) Lack of job-related skills; Training on soft skill, internship, subsidized vocational training, (8) Lack of access to opportunities and information etc.

IV. CONCLUSION& RECOMMENDATION

This study is an attempt to identify the impact of women labor participation on economic growth in Sri Lanka. The relationship between women labor participation& economic growth is a positive but weak relationship. The study found the causal relationship as a unidirectional link from women labors participation to economic growth. According to the regression analysis, there is a positive significant impact of female labor participation on economic growth in Sri Lanka. However, it is very low when it compares with the impact of male labor participation & gross domestic fixed capital formation on the economic growth.

As a summary of the conclusion, there is a significant positive impact & relationship of women labor participationon economic growth in Sri Lanka. However, the contribution is quite lower than other variables in the growth equation. Various barriers cause this weak relationship& lower impact of women labor participation in Sri Lanka. Therefore, it is very important to promote the female labor participation since it consistsof the highest amount of the Sri Lankan labor force & the positive impact on the economic growth in the country. It is necessary to focus on the factors affecting female participation by the government; the level of female education, overall labor market conditions or cultural attitudes and family issues which cannot rapidly be affected by policy reform. Further, incorporating the policy actions by the government;Flexible working-time arrangements, the Fair tax rate for female entrepreneurs, allocation of budget for training and skill development programs, childcare subsidies are more appropriate to increase the efficient female labor participation in order to reap the highest gross domestic product.

References

1. [1] EDGE Project, 2015. The World's Women. [Online] Available at: https://unstats.un.org [Accessed 21 11 2017].
2. Central Bank of Sri Lanka, 2016. Sri Lanka Labour Force Statistics, Colombo: Department of Census & Statistics, Ministry of National Policies & Economic Affairs.
3. Wage Indicators, 2017. Wage Indicators. [Online] Available at: https://salary.lk [Accessed 21 11 2017].
4. Asian Development Bank , 1999. Women in Sri Lanka, s.l.: Asian Development Bank.
5. Dogan, B. & Akyuz, M., 2017. Female Labor Force Participation Rate and Economic Growth in the Framework of Kuznets Curve: Evidence from Turkey, Turkey: Review of Economic & Business Studies.
6. Rahul, L., 2013. Economic Growth and Female Labour Force Participation in India, Bangalore: Indian Institute of Management Bangalore.
7. Shahid, M., 2014. Impact of Labour Force Participation on Economic Growth in Pakistan. Journal of Economics and Sustainable Development, pp. 89-94.
8. Semasinghe, W. M., 2017. Women's Labor force Participation in Sri Lanka: An Inquiry into the Factors Influencing Women's Participation in the Labor Market. International Journal of Social Science and Humanity, pp. 185-187.