The Impact of Economic Growth on Gender Inequality in Ethiopia

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Abstract
The main objective of this study was to investigate the impact of economic growth on gender inequality in Ethiopia using time series data collected from UNDP and World Bank Development Indicators during the period 1985 to 2018. The Auto-regressive Distributed Lag (ARDL) Approach to Co-integration was applied in order to investigate the long-run relationship between gender inequality and economic growth, trade openness and government expenditure. The Bounds test shows that there is a stable long run relationship between the variables included in the study. The finding show the error correction term of the short run is statistically significant having desirable negative coefficient to restore equilibrium in dynamic model between short run and long run. The results of the study revealed that government expenditure found to have a negative significant effect on gender inequality, but economic growth and trade openness have a negative insignificant effect on gender inequality in the long run. Therefore, national policies designed to stimulate economic growth or to open up the economy to FDI should meet the requirement to equalise access to jobs for men and women, enhance the expansion of women's access to economic opportunities relative to men, ease scarcity-related constraints which put pressure on households to discriminate against women and making pro-poor and gender-equitable government expenditures.
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1. INTRODUCTION

Gender gaps or gender inequality refer to gender differences in dimensions such as education, mortality, labour force participation, pay, or access to productive inputs and resources. They also include differential treatment of men and women in laws and differentials in political participation (Appiah, 2014).

Promoting gender equality and empowering women is one of Millennium Development Goals (MDGs) set by United Nations. It is on public policy agenda in almost every country of the world because inequality on the basis of gender cannot be justified on any ethical or philosophical basis. In spite of this, gender inequality can be observed in almost all developing countries and even in the developed world. In his influential work Sen (2014), has pointed out the phenomenon of missing women which confirms the existence of gender inequalities across the globe. Reduction in existing gender inequalities is a concern for social scientists and economists not only because of its well-being related dimensions but also because its economic implications (Bussmann, 2015).

Although there are many dimensions used to measure gender inequality; gender wage gap, education gap and employment gap are the common measures of gender inequality. Based on these measurements, a growing number of studies have explored the relationships between economic growth and gender inequality and found the contribution of economic growth to gender equality in terms of health, wellbeing and rights (World Bank, 2015).

Ethiopia has experienced rapid economic growth since 2005, with gross domestic product (GDP) growing at an average rate of 10.5 per cent per annum in real terms for the period between 2004/05 and 2013/16 (MoFEC, 2016). This makes Ethiopia one of the fastest growing countries in the world. The rapid economic growth has a multifaceted effect on a number of social, economic, and political domains such as gender inequality.

Despite the rapid economic growth, global comparisons show that Ethiopia lags behind other countries in closing the gender gap. According to the Gender Empowerment Measure (GEM), an aggregated index elaborated by UNDP to measure women's and men's capacity to actively participate in economic and political life, in 2015 Ethiopia was 72nd out of 93 countries. A more appropriate assessment is suggested by the Gender Equity Index (GEI) proposed by Social Watch. This index captures gender inequality in three different dimensions: education, participation in the economy and empowerment. Ethiopia's GEI value is 52 in a worldwide range between 29 (worst performance) and 89 (better performance) (Klasen, 2016).Thus, the issue needs further investigation. Therefore, Ethiopia makes an interesting case study to analyse the impact of economic growth on gender inequality.

1.1 Statement of the problem

Recently gender perspective of inequality has been studied by a number of feminist scholars. They have studied the effect of economic growth on gender inequality using proxies like literacy, labour force participation, and gender wage gap. Accordingly, Economic growth has direct and indirect effect on gender equality. For example,

women's access to economic opportunities can affect gender inequality by enhancing their ability to bargain for a better deal for themselves within family and the community at large. Indirect pathways include easing scarcity-related constraints which put pressure on households to discriminate against dependent members, increasing the costs of discrimination to employers as markets become more competitive and making pro-poor and gender-equitable government expenditures more affordable (Segino, 2013).

There are also other social observations which suggest that the status of women and overall socio-economic development tend to go hand-in-hand. They assume 'good times are good for women' because in the poorest countries, women are particularly discriminated against in terms of education, health, or legal rights compared to the richest countries. Thus, for a low level of economic development where opportunities are constrained, discrimination against women is frequent. With economic development, the constraints on opportunities are reduced and inequalities too. This assumption means that market failure leading to gender inequality may decline as countries develop (Levine, 2012).

However, studies sofar done have a number of limitations. First, most of these studies are cross-country studies which have a problem of generalization. Second, there is a problem of measurement of gender inequality. Therefore, this research tries to address these limitations of prior studies through using time series data focus on Ethiopia and use comprehensive measurement of gender inequality to identify the effect of economic growth on gender inequality in Ethiopia.

2.   LITERATURE REVIEW
2.1   THEORETICAL LITERATURE
2.1.1 Definitions and Concepts
2.1.1.1 Gender Inequality

The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) defines discrimination against women as "any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field". It may be pointed out, as Palmer (2011) do, that "gender is the social meaning that is given to biological differences between the sexes, it refers to social constructs rather than to biological givens". Therefore, the GII (Gender Inequality Index) describes only women's situation relative to men and not the absolute female welfare.

Gender inequality refers to the obvious or hidden disparity between individuals due to gender. This multidimensional concept contains various aspects which may vary from one country to another depending on the level of development, as well as on social and cultural characteristics, and lastly on institutions. Indeed, men less able than women have better access to education, political, social and economic resources, to labour markets and therefore to economic opportunities (Klasen, 2012).

Gender discrimination refers to the treatment taken toward or against an individual in consideration based solely on gender. It involves excluding or restricting members of one gender from opportunities that are available to others. According to the World Bank (2016), discriminatory behaviour takes many forms, but they all involve some form of exclusion or rejection. An overall trend of gender inequalities is to exclude half of the population from economic opportunities, by restricting their civil liberties through restrictive norms, by reducing their productivity through damage to their physical integrity or limited access to health, by decreasing their human and physical capital accumulation via limited access to education and economic assets respectively, by restraining their bargaining power in the household, and by limiting their political and economic power.

The Human Development Report 1995 provides some concrete Illustrations of the Inequality of women and men under the law in many countries:
• Right to nationality. In much of West Asia and North Africa, women married to foreigners cannot transfer citizenship to their husbands, though men in similar situations can.
• Right to manage property. Married women are under the permanent guardianship of their husbands and have no right to manage property in Botswana, Chile, Lesotho, Namibia, and Swaziland.
• Right to income-earning opportunities. Husbands can restrict a wife's employment outside the home in Bolivia, Guatemala, and Syria.
. Right to travel. In some Arab countries, a husband's consent is necessary for a wife to obtain a passport, but not vice versa. Women cannot leave the country without their husband's permission in Iran.

2.1.1.2Measures of Gender Inequality

There is considerable diversity in the indicators used to measure gender inequality. They include various measures of labour market, health measures, education measures and legal equality measures. These are; adolescent fertility rate, relative infant mortality, relative labour participation, gender parity index (GPI), gender wage gap and women's rights law score. Adolescent fertility rate, measured as number of births per 100 women aged 15-19 years, captures the detrimental health, economic and social risks and consequences associated with

early child bearing. Premature motherhood tends to prevent women from pursuing further education, and thus to obtain higher-skilled jobs. Relative infant mortality ratio, being the ratio of infant female mortality to infant male mortality, indicates gender inequality in infant health, where excess female infant mortality rates relative to male rates reflect the discriminatory treatment of women. Gender Parity Index (GPI), which is the ratio of female students to male students, measures the gender parity in schooling. Gender wage gap measures a systemic difference between the average wages or salaries of men and those of women. Relative labour participation ratio, measured by labour participation rate of males relative to females, captures the relative underrepresentation of women in the workforce – an important component of gender inequality. Women's rights law score captures the strength of the legal framework for enforcing gender equality. It is constructed using Women's Legal Rights data, that contains questions related to women's legal rights replied as "Yes" or "No", depending on the presence of laws in a country (Duflo, 2015). However, all the above measures don't comprehensively measure gender inequality. In order to solve this measurement problem UNDP has developed Gender Inequality Index (GII). This GII is a composite measure used to quantify the loss of achievement within a country due to gender inequality. It uses three dimensions to measure opportunity cost. I.e. reproductive health, empowerment (which include education and income) and labour market participation. The index ranges from 0 to 1 where higher GII indicates higher gender inequality (Klasen, 2012).

2.1.1.3 Factors Affecting Gender Inequality

It would appear that cultural factors, economic development and policy regimes, such as openness to trade and share of public expenditure are among the critical factors determining the level of gender inequality. The positive impact of gender equality in education and employment operates largely through indirect family mediated pathways at lower levels of development while the market-mediated pathways take on greater significance as countries develop. As a result, different levels of education may matter for activating these pathways, with literacy/primary education far more important than secondary and higher levels of education in lower income countries because of their more immediate impact on fertility levels and health-seeking behaviour (Anker, 2014). There are strong theoretical grounds for expecting cultural variables, including religious affiliation, to have a strong impact on gender inequality, given their significance in shaping patriarchal norms and practices in different countries (Busse, 2014).

The impact of economic growth on gender equality appears far less consistent. As we argued, gender inequality is not a purely scarcity-related phenomenon, although scarcity may contribute to it. It is the product of historically established and structurally entrenched norms, values and practices which determine the limits to women's advancement in different societies. Unless economic growth is of the kind that weakens these institutionalised constraints, we cannot expect a great deal of progress on gender equality. Economic growth that contributes directly to women's employment opportunities and generates incentives to invest in their education is most likely to achieve broad-based progress on gender equality and this effect is likely to be stronger as countries become more developed (Elson, 2011).

2.1.1.4 Impact of Economic Growth on Gender Inequality

A growing literature has examined the relationship between economic growth and gender inequality. Most current work on the impact of economic growth on gender inequality reflects three schools of thought. First, the modernization neoclassical approach shows that economic development leads to the diminution of gender inequality. The World Bank supports this view: "economic growth has proved a slow instrument of change in the status of women". This approach considers that gender inequalities in human capital result mainly in some other forms of gender inequality but decrease over time. Yet, this discrimination has a cost which creates incentives for decreasing discrimination, namely through a development process. The second approach finds a U-shaped relationship between gender equality and economic growth. In this view, the initial stages of development lead to a growing gap between men and women, while over the long run, the direction of the correlation reverses. This approach assumes the development process has a specialization effect in the gender division of labour. Thus, discrimination is embedded in institutional arrangements, formatting the labour market organization and property rules. Then, a similar logic as the neoclassical one may occur. Finally, feminist studies consider that economic growth increases the vulnerability of women (Hill, 2015).

The mainstream development literature appears to be largely dominated by a positive view of the relationship between economic growth and gender inequality. One version of this is the view that gender inequality is linked to scarcity of material resources in a society so that women are placed at the back of the queue whether it is for food, health care, education or jobs, when these are in short supply, particularly if women's economic contributions are seen to be less than those of men. Growth will ease these constraints on households, 'reducing the grip of poverty', making it less necessary for households to discriminate against their female members. In addition, growth strategies that open economies up to global market forces will lead to a reduction of gender discrimination in employment and a closing of the gender gap in wages. Women's increased productivity will then make it worthwhile for households to invest more resources in female members. A third route is through the likely impact of growth on women's bargaining power. Economic development will expand

women's work opportunities in the wider economy while labour saving technologies will enable them to reduce their time in unpaid domestic and agricultural activities and to take up these expanded market opportunities. Increased access to jobs by women will increase their bargaining power at home and in the economy, leading to a diminution of gender inequality on various fronts (Wold, 2015).

There are also counter-arguments to the above theories which are derived from dependency theory and various strands of the feminist literature and suggest that economic growth will have little or no impact on gender inequality and may, under certain circumstances, exacerbate it. First of all, there is no guarantee that economic growth will have any impact on gender inequality because, the forces that create inequalities of wealth in a society embody quite different social norms and material practices to those which create inequalities of gender. Certain conditions have to be in place if economic growth is to constitute a strong enough force, or provide the preconditions necessary, to overcome the historically entrenched patriarchal structures which give rise to these inequalities of gender (Costa, 2014).

2.2 Empirical Literature
Different researchers have found different findings on the impact of economic growth on different measures of gender inequality. For example, women's high levels of education in the Caribbean, even exceeding that of men in some contexts, translated into higher levels of unemployment among women relative to men rather than to a closing of the gender gap in employment. The policies which had encouraged increasing levels of education for women had clearly left gender-related barriers in the labour market intact (Elder, 2014).

The study made by Murphy (2013) used pooled cross-sectional time series panel datasets for 1980-1999 for three large Caribbean countries (Barbados, Jamaica, and Trinidad and Tobago) to investigate why female unemployment rates were higher than those of male despite the fact that their educational attainment rivalled, and even exceeded those of men. He used a measure of the deviation of the GDP from its trend to capture periods of economic upturn and recession. While his results showed that both male and female unemployment declined during periods of upturn and rose in downturns, he also found that economic upturns contributed to an increase in female unemployment relative to male. In other words, men gained more than women in accessing newly created jobs during an upturn, widening the gender gap in access to paid work. In fact, men were hired to a greater extent than women during an upturn even in the typically female-dominated service sector. It was evident that in this region, national policies to stimulate economic growth or to open up the economy to FDI had not sufficed to equalise access to jobs for men and women.

In both South Korea and Taiwan, economic growth that was accompanied by increasing levels of female education relative to male, an increase in women's share of professional/technical jobs and, in the case of South Korea, increasing rates of female labour force participation relative to male all contributed to a decline in the gender wage gap (Heintz, 2016).

Baliamoune-Lutz (2015) examined the impact of economic growth on gender inequality in literacy rates among youth and adults in 62 countries over the period 1990-1999, with 30 countries coming from SSA and 32 from non-SSA countries. The estimation was carried out separately for SSA and non-SSA countries in her sample. The results suggested that not only did economic growth fail to improve gender differentials in literacy rates in SSA countries, but that in most specifications they increased gender inequality. These findings additionally suggest that growth in female education was slower than that of male. However, women's share of the labour force reduced gender inequality in literacy rates. A different set of results were reported for the non-SSA countries in her sample. Neither growth nor female share of the labour force appeared to have any significant impact on gender inequality in literacy rates. The study concluded that economic growth had very different and largely negative implications for gender inequality in literacy rates in SSA compared to its insignificant effect in other countries in the world but that female share of the labour force had a favourable impact.

In General, issues of time and context feature as significant influences on the impact of growth on gender equality in different studies. These studies found that the impact of economic growth on gender equality depended on initial levels of gender inequality and per capita income. Accordingly, they found the greatest impact of growth on gender equality for countries that started out poorer. I.e. the greatest declines occurred in countries that started out with higher levels of per capita GDP (Caselli, 2015).

3. RESEARCH METHODOLOGY
3.1 Method of Data Analysis and Presentation
To achieve the objectives of the study, econometric analysis was applied. A time series method of data analysis was employed to analyse the effect of economic growth on gender inequality. To estimate the model the following steps were conducted; first, the collected time series data was tested for Stationary; second, optimum lag length was determined; third, long run relationships (co-integration) was estimated and tested; fourth, estimation was made; lastly, post estimation tests were conducted. E-views was used to analyse and evaluate the

data. Its simplicity and superiority in time series analysis than that of other many competing software's make the researcher to prefer this software.

3.2 Model specification and estimation technique

3.2.1 Model specification

Because of its comprehensiveness, the UNDP Gender Inequality Index (GII) is taken as a measurement indicator for Gender Inequality (dependent variable) in this model. According to the UNDP, this index is a composite measure used to quantify the loss of achievement within a country due to gender inequality. It uses three dimensions to measure opportunity cost. I.e. reproductive health, empowerment (which include education and income), and labour market participation. This new index was introduced as an experimental measure to remedy the short comings of other previous indicators such as the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM) because of their limitation to include every dimension of the gender inequality indicators.

The independent variables are formed based on different literature and economic theories. As a result, economic growth, trade openness, and government expenditure were used as independent variables that affect gender inequality in a number of countries.

Accordingly the standard model is given below;

$GI_t = f(EG_t, TRO_t, GEx_t)$ ………………………… (1)

Where; GI, EG, TRO and GEx are gender inequality, economic growth, trade openness and government expenditure, respectively. Then the variables were transformed into log. Taking the natural log of this gender inequality function; it is rewritten as follows for estimation purpose:

$LnGI_t = \alpha + \beta 1 LnEG_t + \beta 2 LnTRO_t + \beta 3 LnGExp_t + \varepsilon t$ ……(2)

In this model, βs represent the elasticity of gender inequality with respect to each variable they are attached. The effects of independent variables on the dependent variable are expressed via the magnitudes of the coefficient estimates, their signs, and statistical significance.

In the above equation, the main variable of interest is LnEG, thus β1 is the coefficient of interest that tells us the percentage response in gender inequality for a percentage change in EG.

The following variables are the variables included in the gender inequality index model.

Gender Inequality (GI): GI is measured by gender inequality index (GII). It is the main outcome variable in this study. This GII is a composite measure used to quantify the loss of achievement within a country due to gender inequality. It uses three dimensions to measure opportunity cost. I.e. reproductive health, empowerment (which include education and income) and labour market participation. The index ranges from 0 to 1 where higher GII indicates higher gender inequality.

Economic Growth (EG): EG is the main outcome variable in this study. Economic growth is conventionally measured as percent rate increase in real GDP. It is measured as a log of nominal Gross Domestic Product (GDP) deflated by GDP deflator.

Trade Openness (TRO): TRO is the ratio of import and export to GDP and it is a result of globalization, and trade liberalization.

Government Expenditure (GExp): Government consumption expenditure (in million USD) captures the effects of government role in gender inequality.

3.2.2 Estimation Techniques

This study examines the impact of economic growth on gender inequality in Ethiopia by employing Auto Regressive Distributed Lag (ARDL) Co-integration approach. Other than this approach, among many; the Granger (1981), Engle and Granger (1987), Johansen and Juselius (1990) co integration techniques are available for time series analysis. But due to many advantages the researcher employed Autoregressive Distributed Lag (ARDL) model.

4. RESULTS AND DISCUSSIONS

4.1 Long Run Model Estimation

Through the test of stationarity the variables are all found to be stationary at first difference. The existence of long run co-integration among the variables is also confirmed by the bound test. Hence, from now on wards it is possible to precede to the estimation of the long run coefficients of the model. Estimation results will show which of the independent variable(s) is (are) a significant predictors of the dependent variable in the long run. The following table presents the results found after running the appropriate ARDL model to find out the long run coefficients. The numbers in bracket are number of lag chosen by the model for each variable automatically by E-views 9 statistical software package. The selected model, based on the AIC criteria, is ARDL (1, 1, 0, 1).

Table 4.1 Long run model coefficient estimation

Selected Model: ARDL(1, 1, 0, 1)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEG	-0.037037	0.228639	0.030776	0.1357
LTRO	-0.023974	3.087995	0.244163	0.5190
LGEX	-0.365175	0.611234	2.466556	0.0247
C	-0.386161	2.274102	1.489010	0.2485

Source: own computation using E-views 9.

The long run Estimated Equation can be expressed as:

LnGI= -0.3862 - 0.0370LnEGt -0.0240LnTROt -0.3652LnGEx

The result of Table 4.3 indicates that all the variables entered in the regression have the expected signs. Economic growth, trade openness and government expenditure have negative impact on gender inequality.

As the long run estimated result of the above table shows, economic growth has negative and statistically insignificant impact on gender inequality. The finding of the study is similar with other studies conducted by Costa (2014), Buvinic (2013) and Baliamoune-Lutz (2015). These studies confirm little or no impact of economic growth on gender inequality. This is because of the forces that create inequalities of wealth in a society embody quite different social norms and material practices to those which create inequalities of gender. In addition growth which generates forms of employment largely favour male workers, has served to buttress existing ideologies of the male breadwinner, leaving pre-existing gender inequalities largely intact. Therefore certain conditions have to be in place if economic growth is to constitute a strong enough force, or provide the preconditions necessary, to overcome the historically entrenched patriarchal structures which give rise to these inequalities of gender and national policies to stimulate economic growth had to suffice to equalise access to jobs for men and women.

Trade openness has a negative and statistically insignificant impact on gender inequality. The finding of the study is similar with other studies conducted by Wood, A. and Ridao-Cano (2004), (Fontana, 2003) and (Grown, 2006). These studies confirm little or no impact of trade openness on gender inequality. This is because of national policies that open up the economy to FDI doesn't equalise access to jobs for men and women and the cost cutting measures taken to deal with international competition appeared to protect male jobs and male wages relative to female. In addition, women are concentrated in only a few sectors of economic activities, have limited geographic mobility, and have both labour market and household responsibilities that limit their availability to work and hence their ability to accept a number of demanding, high-paying job opportunities.

Government expenditure has a negative and statistically significant impact on gender inequality. Since the coefficient of government expenditure (LGEx) is -0.3652, this can be interpreted as follows; holding other things constant, a one percent increase in government expenditure will cause 0.3652 percent decrease in gender inequality (LGI).The finding of the study is similar with other studies conducted by Gray, Kittilson, &Sandholtz, (2006) and Gatti (1999). These studies confirm the high impact of public expenditure on gender inequality. This is because of increasing access to education and medical facility. This access to education and medical facility has improved women's literacy rate and life expectancy.

4.2. Short Run Error Correction Model

Once the long-run cointegrating model has been estimated, the next step is to model the short-run dynamic parameters within the ARDL framework. In the short-run error correction model the most important thing is the speed of adjustment term or error correction term. It shows the speed of time the short run dynamics adjusted itself to the long run equilibrium. The error correction term should be negative and significant at a standard significant level (i.e. p -value should be less than 0.05). A positive coefficient indicates a divergence from equilibrium, while a negative coefficient indicates convergence to the equilibrium.

The equation of Error Correction Model (ECM-1) or ECT is:

Cointeq = LGI - (-0.0370*LEG – 0.0240*LTRO -0.3652*LGEX - 0.3862)

As shown in the table 4.4 below, ECM-1(ECT) is statistically significant with p-value of 0.0001 that is less than 0.05 and the coefficient (-0.2412) has negative value which is highly desirable. This implies a high speed of adjustment to equilibrium.

Table 4.2 The Error Correction Model
Dependent Variable: LGI
Selected Model: ARDL(1, 1, 0, 1)

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LEG)	-0.021778	0.031106	1.664589	0.3080
D(LTRO)	0.032704	0.029796	-1.097586	0.2824
D(LGEX)	-0.112003	0.016067	2.747044	0.0317
CointEq(-1)	-0.241176	0.145035	0.299070	0.0001

Cointeq = LGI - (-0.0370*LEG -0.0240*LTRO -0.3652*LGEX - 0.3862)

Source: own computation using E-views 9.

As we can see from the result in Table 4.4, economic growth and trade openness have insignificant negative and positive impact on gender inequality in the short run. However, Government expenditure has negative and significant impact on gender inequality in the short run.

Similar to the long run result, government expenditure have negative and significant impact on gender inequality in the short run. As a result a one percent increase in government expenditure results in 0.1120 percent decrease in gender inequality in the short run.

5. CONCLUSIONS AND RECOMMENDATIONS
5.1 Conclusion
Promoting gender equality and empowering women is one of Millennium Development Goals (MDGs) set by United Nations and it is on public policy agenda of almost every country of the world because inequality on the basis of gender cannot be justified on any ethical or philosophical basis. In spite of this, gender inequality is observed in almost all developing countries and even in the developed world. Despite the rapid economic growth, global comparisons show that Ethiopia lags behind other countries in closing the gender gap. Thus, the impact of economic growth on gender inequality has been analysed in this study.

The main objective of this study is to analyze the impact of economic growth on gender inequality in Ethiopia during the specified study period. To determine the relationship among the variables, Auto regressive Distributed Lag (ARDL) model was applied. Before applying the ARDL model, all the variables are tested for their time series properties (stationary properties) using the ADF test. As a result, all variables like economic growth, trade openness and government expenditure are stationary at first difference with intercept as well as with intercept and trend.

After testing for stationary (unit root) property, the model stability was done by testing the post regression diagnostic tests. The result revealed that no evidence of serial correlation, no functional form problem (the model is correctly specified), the residual is normally distributed, no evidence of heteroskedasticity problem and the model is stable. As we discussed above, this study applied the methodological approach called ARDL model, and the bound test approach for long run relationship is applied. As the result indicated the bound test (F-statistic) value is larger than the upper bound critical value, there is a long run relationship between dependent variable gender inequality and independent variables economic growth, trade openness and government expenditure. The manner of causality between the variables are also checked using Granger causality test that indicates economic growth and gender inequality have unidirectional causality in which economic growth granger causes gender inequality but gender inequality does not granger cause economic growth.

The empirical result revealed that economic growth has a negative and statistically insignificant impact on gender inequality. This indicates that, in the long run, holding other things constant, a one percent increase in economic growth will cause 0.0370 percent decrease in gender inequality. This is because of the economic growth which generates forms of employment largely favour male workers and leaves the pre-existing gender inequalities intact.

The results of the study also indicated that trade openness has a negative and statistically insignificant impact on gender inequality. i.e. one percent increase in trade openness will cause 0.0240 percent decrease in gender inequality. This is because of national policies that open up the economy to FDI doesn't equalise access to jobs for men and women and the cost cutting measures taken to deal with international competition appeared to protect male jobs and male wages relative to female.

In addition the study found a negative and significant impact of government expenditure on gender inequality. A one percent increase in government expenditure will cause 0.3652 percent decrease in gender

inequality. This is because of increasing expenditure on education and health and improving access to education and medical facility.

5.2 Recommendation

Based on the findings of the study, the following policy recommendations are forwarded to the government and any other concerned stakeholders to improve the impact of economic growth, trade openness and government expenditure on reducing gender inequality.

➢ National policies designed to stimulate economic growth or to open up the economy to FDI should meet the requirement to equalise access to jobs for men and women, enhance the expansion of women's access to economic opportunities relative to men, ease scarcity-related constraints which put pressure on households to discriminate against women and making pro-poor and gender-equitable government expenditures.

➢ National policies should incentivise the production and importation of labour saving technologies which enable women to reduce their time in unpaid domestic and agricultural activities and to take up the expanded market opportunities.

➢ Where countries seek to compete in the global economy by exploiting women's disadvantaged position in the labour market as a source of flexible labour, the jobs that women gain may do little to transform their bargaining power within the economy. Thus, minimum wage policy and other laws that protect the rights and responsibilities of women workers should be developed and implemented.

➢ As women are largely concentrated in more mobile, export oriented industries, their capacity to bargain for higher wages is likely to be weakened as employers can easily relocate in lower wage sites. Thus, trade openness policies should not allow firms to freely move labor from other countries as any increase in the wage rate would entail a larger reduction in employment in the export sector.

➢ Trade openness policies should be supported with increased competition in the local market in order to companies can no longer afford to discriminate against women by paying a premium to male workers just because they are men.

➢ Government should incentivize women workers to invest on vocational and skilled training in order to avoid the loss of jobs because of the advancement of industries to higher-value-added segments and become more skill-intensive over time.

➢ As women might experience more stress and work-related accidents, in particular if working conditions are poor. Thus, trade openness policies should be supported with laws and regulations that enhance the rights and responsibilities of women.

➢ As the number of children exceeds the capacity of schools, boys are often more likely to attend school. Thus, government should increase the expenditure on school construction, which increases the capacity of schools to enrol children, especially girls as the boys are already enrolled in schools.

➢ As female enrolment in school is sensitive to the cost of elementary education, therefore government should increase public education expenditures and providing subsidized educational services that increase female education.

➢ As women have double burden with longer working hours and less time available for caring activities and leisure, the government should work towards cultural and behavioral change in the society in order to enhance equal sharing of responsibility among men and women.

➢ In general, as gender inequality may be also increased due to other qualitative factors such as differential treatment of men and women in laws, difference in political participation, religious and cultural issues etc.; the government should review these factors and take serious measures to solve these problems.

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