GENDER INEQUALITIES AND ECONOMIC GROWTH OF SELECTED COUNTRIES

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Abstract

This study analyzes the relationship between gender inequalities and economic growth of selected countries including the ones with both high and medium human development. Employing longitudinal data on gender inequality index, gross domestic product per capita of 43 countries during the period of 2005 and 2015, and this study examines whether economic growth has an effect on gender inequalities. In order to satisfy this objective, descriptive analysis is firstly employed to portray the trend of gender inequalities and economic growth of countries. Gross domestic product per capita is also employed to measure economic growth of countries. In addition, regression analysis is used for deeper exploring of how economic growth influences gender inequalities. Gender inequality index is used as dependent variable, and natural logarithm of gross domestic product per capita is used as independent variable in this study. According to the findings of this study, it can be said that countries with high economic growth have low gender inequality index on average. Based on the regression result, it is found that the coefficient of natural logarithm of gross domestic product per capita is at one percent level of significance. The economic growth is higher, the gender equality is better. Having employed regression analysis, there is no doubt that this study gives the considerable information to policy makers regarding the gender equality.

Keywords: gender inequality index, gender development index, human development index, gross domestic product per capita

Introduction

1.1 Rationale of the Study

In the recent world, gender equality is one of the Millennium Development Goals (MDGs) of the United Nations. A number of scholars have analyzed a lot of studies about the relationship between gender inequality and economic growth. Some scholars have observed that existence of gender inequality has an effect on economic growth through many channels. According to the studies, gender inequality lowers fertility rate and

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infant mortality rate, which in turn population growth. It may increase saving and investment, and tends to increase economic growth of an economy. On the other hand, gender inequality on wages and employment may reduce the ability of women labor force to work, which in turn reduce economic growth. Another aspect of gender inequality on wages says that lower wages for female workers increase competitiveness for export industries, and this situation tends to reduce production costs, facilitate export promotion, and stimulates investment. These factors lead to increase in economic growth. Then, whether economic growth has an effect on gender equality becomes an interesting thing. This research, therefore, intends to investigate whether economic growth of countries has an effect on gender inequality.

1.2 Objective of the Study

The objective of the study is to analyze how economic growths of selected countries including the ones with both high and medium human development have an effect on gender inequalities.

Literature Reviews

N. Forsythe, R.P. Korzeniewicz, and V. Durrant (2000) analyzed the relationship between gender inequalities and economic growth between 1970 and 1992. To estimate cross-national relationship, gender inequality (GI) is used as a dependent variable and gross domestic product per capita (GDPPC) is employed as an independent variable. Based on the study, gross domestic product per capita (GDPPC) which is measured as economic growth is significant at 5 % level although the sign is not as expected. It means that an increase in economic growth cause an increase in gender inequality. In order to investigate whether the data follow the curvilinear pattern, gender inequality (GI) is used as a dependent variable and gross domestic product per capita (GDPPC) and square of gross domestic product per capita (GDPPC) are used as independent variables. Based on the study, gross domestic product per capita (GDPPC) which is measured as economic growth is significant at 5 % level although the sign is not as expected. However, square of gross domestic product per capita (GDPPC) is significant at 1% level. In addition, the sign is also expected. It means that high economic growth reduce gender inequality.

S. Seguino, (2000) examines how gender inequality is related economic growth in the field of semi-industrialized export oriented economies during the period of 1975 and 1995. `z used GDP growth (is employed) as a dependent variable, and gender wage inequality is employed as an independent variable. According to the study, it is found that GDP growth is positively related to gender wage inequality. It means that increases in gender wage inequality promote economic growth.

Z. Pervaiz, M. I. Chani, S. A. Jan, and A. R. Chaudhary (2011) investigated the relationship between gender inequality and economic growth in Pakistan during the period of 1972 and 2009. They used growth rate of real gross domestic product (GDP) per capita as a dependent variable, and gender inequality, labour force growth, gross total investment, and trade openness are used as independent variables. According to the study, it is found that labour force growth, gross total investment and trade openness are positively related to economic growth, and also significant. Gender inequality and economic growth are negatively related and also significant. Based on these findings, it can be said that reducing gender inequality promotes economic growth of Pakistan.

J. Kim, J. W. Lee, and K. Shin (2016) analyzed a model of gender inequality and economic growth in Asian economies by employing numerous variables such as women's time allocation, market production, home production, child rearing, and child education. According to their study, it is found that high gender equality considerably improve economic growth through changes in women's time allocation and promotion in human capital accumulation. In addition, it is affirmed that entirely removing gender inequality increases aggregate income after one and two generations.

T. M. M. Goodwin, J. Hall, and C. Raymond (2017) analyzed the relationship between gender inequality and the growth rate of per capita Gross Domestic Product by employing cross-sectional data during the period of 1985 and 2015. They used growth rate of per capita Gross Domestic Product as a dependent variable, and initial human capital, initial gross domestic product, investment rate, and population growth rate variables are employed as independent variables. Based on the findings, it is said that low gender inequality increases economic growth. In addition, it is found that initial human capital, initial gross domestic product,

investment rate, and population growth rate variables certainly promote economic growth.

Trend of Gender Inequalities and Economic Growth of Countries

This study investigates how economic growth of selected countries including the ones with both high and medium human development has an effect on gender inequalities of those countries. In order to meet the objective of this study, the trend of gender inequalities and economic growth of countries is firstly portrayed. This study uses gross domestic product per capita for measuring economic growth of countries.
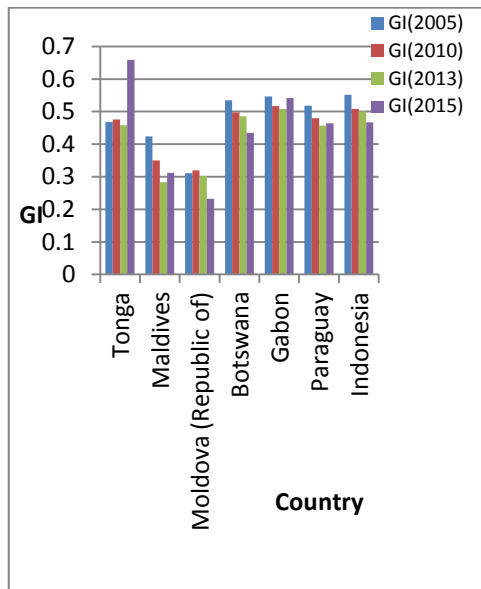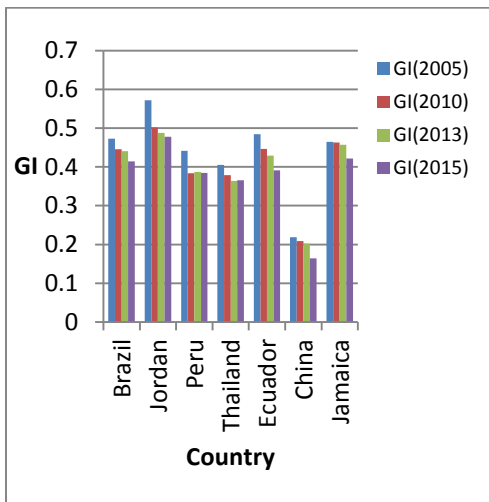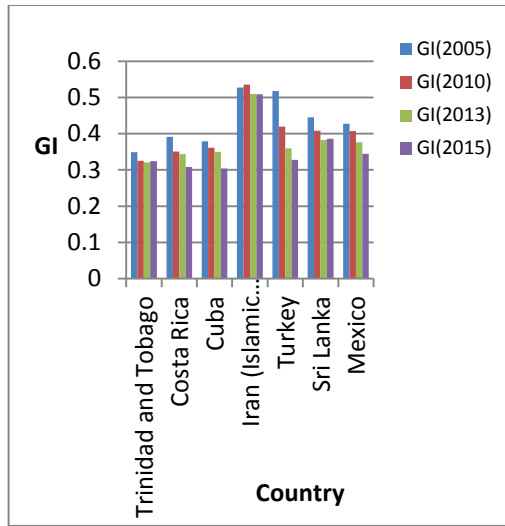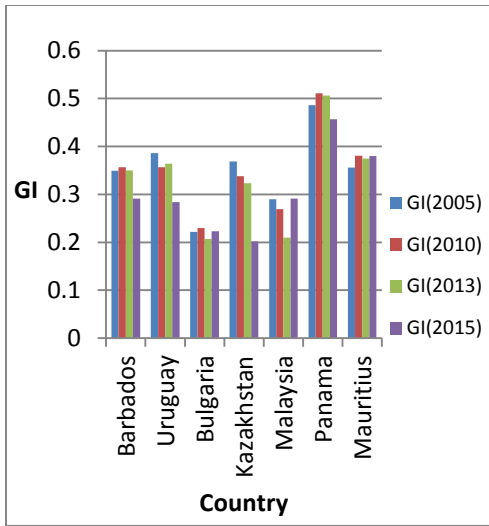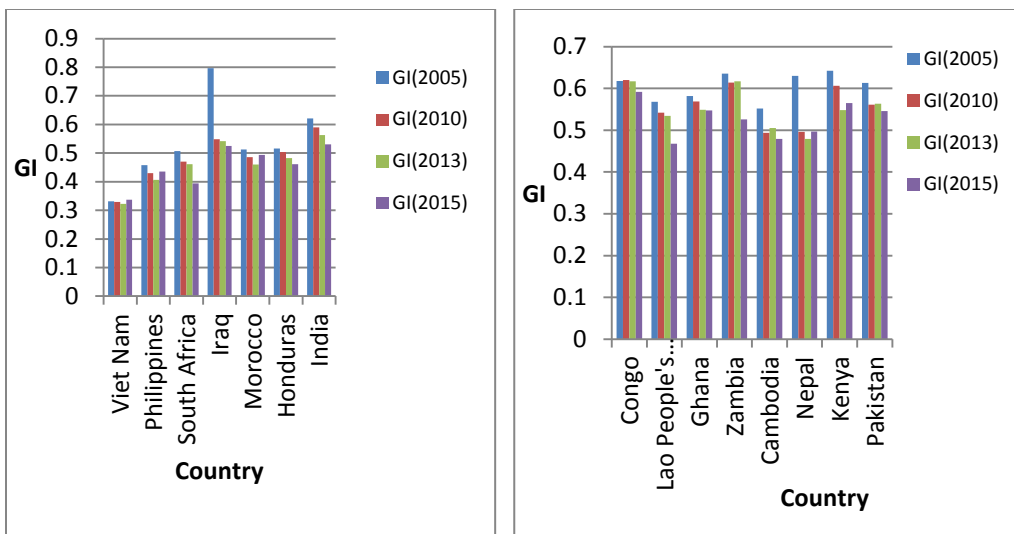
Table (1) Trend of Gender Inequality Index of Selected Countries

S.N	Country	GI(2005)	GI(2010)	GI(2013)	GI(2015)
1	Barbados	0.349	0.357	0.35	0.291
2	Uruguay	0.386	0.357	0.364	0.284
3	Bulgaria	0.222	0.23	0.207	0.223
4	Kazakhstan	0.369	0.338	0.323	0.202
5	Malaysia	0.29	0.269	0.21	0.291
6	Panama	0.486	0.511	0.506	0.457
7	Mauritius	0.356	0.381	0.375	0.38
8	Trinidad and Tobago	0.349	0.325	0.321	0.324
9	Costa Rica	0.391	0.351	0.344	0.308
10	Cuba	0.379	0.361	0.35	0.304
11	Iran (Islamic Republic of)	0.527	0.535	0.51	0.509
12	Turkey	0.518	0.42	0.36	0.328
13	Sri Lanka	0.445	0.408	0.383	0.386
14	Mexico	0.428	0.407	0.376	0.345
15	Brazil	0.473	0.446	0.441	0.414
16	Jordan	0.572	0.502	0.488	0.478
17	Peru	0.442	0.384	0.387	0.385
18	Thailand	0.405	0.379	0.364	0.366
19	Ecuador	0.485	0.447	0.429	0.391
20	China	0.219	0.209	0.202	0.164

S.N	Country	GI(2005)	GI(2010)	GI(2013)	GI(2015)
21	Jamaica	0.465	0.463	0.457	0.422
22	Tonga	0.468	0.476	0.458	0.659
23	Maldives	0.424	0.35	0.283	0.312
24	Moldova (Republic of)	0.311	0.32	0.302	0.232
25	Botswana	0.535	0.497	0.486	0.435
26	Gabon	0.547	0.517	0.508	0.542
27	Paraguay	0.518	0.48	0.457	0.464
28	Indonesia	0.551	0.508	0.5	0.467
29	Viet Nam	0.332	0.329	0.322	0.337
30	Philippines	0.458	0.43	0.406	0.436
31	South Africa	0.507	0.47	0.461	0.394
32	Iraq	0.797	0.548	0.542	0.525
33	Morocco	0.513	0.486	0.46	0.494
34	Honduras	0.516	0.504	0.482	0.461
35	India	0.621	0.59	0.563	0.53
36	Congo	0.618	0.62	0.617	0.592
37	Lao People's Democratic Republic	0.568	0.542	0.534	0.468
38	Ghana	0.582	0.569	0.549	0.547
39	Zambia	0.635	0.614	0.617	0.526
40	Cambodia	0.552	0.494	0.505	0.479
41	Nepal	0.63	0.496	0.479	0.497
42	Kenya	0.642	0.606	0.548	0.565
43	Pakistan	0.613	0.561	0.563	0.546

Source: World Development Indicators

Figure 1: Trend of Gender Inequalities during the period of 2005 and 2015

Source: Table (1)

The gender inequality index of each country is shown in above figure. Generally, it can be said that the index of gender inequality becomes lower year by year based on data. Reducing gender inequality is a signal of good condition for gender equality. However, it is seen that the gender inequality index of some countries such as Malaysia, and Tonga increases slightly.
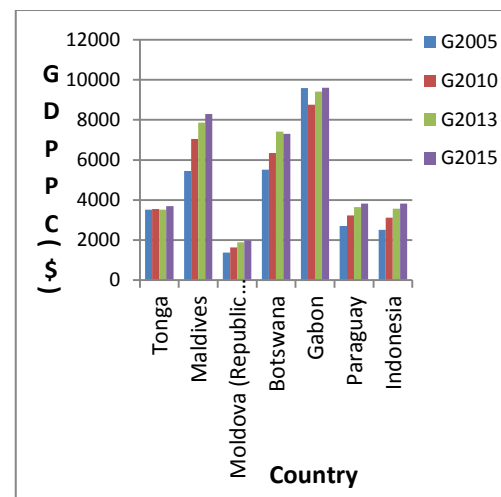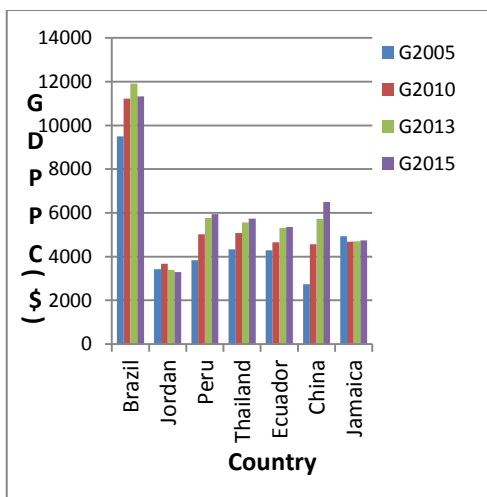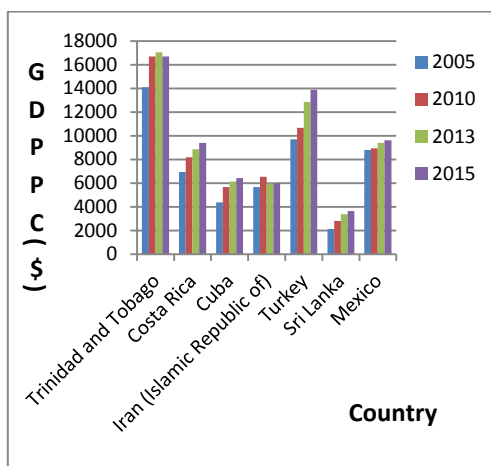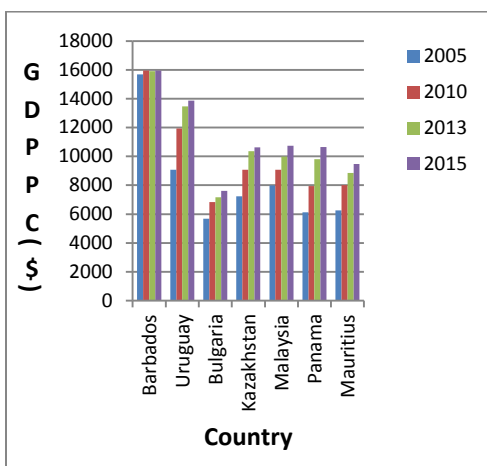
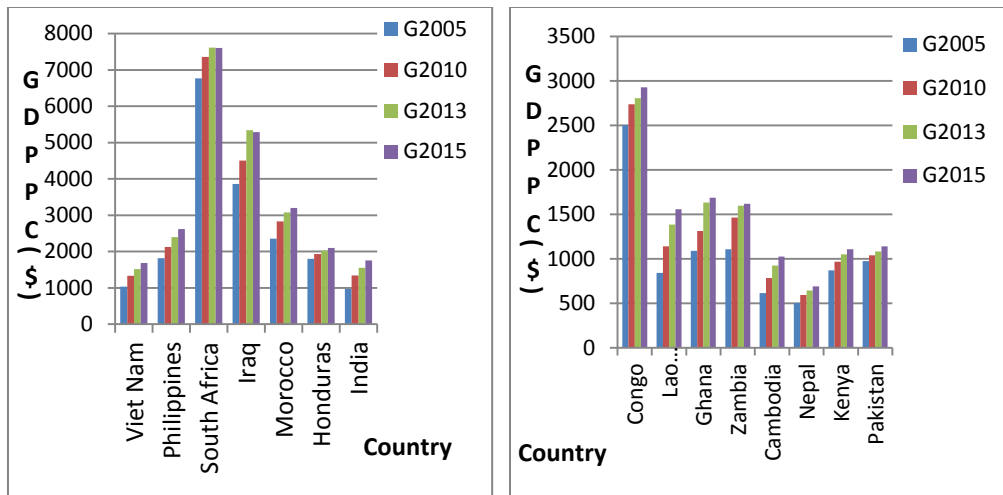**Table 2: Trend of Gross Domestic Product per Capita of Selected Countries** US $

S.N	Country	2005	2010	2013	2015
1	Barbados	15676.1092	15959.0298	15910.9349	15,961.20
2	Uruguay	9068.23921	11938.212	13467.4378	13,859.41
3	Bulgaria	5678.04794	6843.26329	7162.99482	7,612.02
4	Kazakhstan	7227.98295	9070.64997	10368.6667	10,616.68
5	Malaysia	7983.89149	9071.35699	9981.15458	10,745.05
6	Panama	6114.22121	7937.25993	9810.01095	10,642.30
7	Mauritius	6245.19696	8000.37643	8848.88703	9,468.94
8	Trinidad and Tobago	14105.3413	16683.9458	17038.787	16,695.98
9	Costa Rica	6954.03921	8199.41462	8852.40112	9,406.76
10	Cuba	4385.00248	5676.1414	6133.47373	6,444.98

S.N	Country	2005	2010	2013	2015
11	Iran (Islamic Republic of)	5684.9575	6531.92743	5964.17905	6,007.00
12	Turkey	9691.81595	10672.0548	12865.679	13,898.30
13	Sri Lanka	2149.03908	2819.51116	3371.18272	3,642.21
14	Mexico	8808.56356	8959.58142	9409.96537	9,615.31
15	Brazil	9495.10494	11224.1541	11912.1468	11,322.15
16	Jordan	3417.73014	3679.19027	3401.07604	3,297.89
17	Peru	3831.36485	5022.49319	5765.88714	5,936.02
18	Thailand	4337.26336	5075.30218	5561.29153	5,733.92
19	Ecuador	4286.51525	4657.30236	5311.21212	5,352.88
20	China	2738.20546	4560.51259	5721.69382	6,496.62
21	Jamaica	4925.27739	4682.52125	4699.76846	4,740.64
22	Tonga	3521.5071	3548.0684	3524.23207	3,694.46
23	Maldives	5447.97384	7052.25084	7863.55021	8,288.59
24	Moldova (Republic of)	1379.87562	1631.53583	1894.78011	1,980.27
25	Botswana	5512.81123	6346.1562	7409.42116	7,308.61
26	Gabon	9579.35612	8754.11392	9408.0062	9,598.30
27	Paraguay	2707.97467	3225.59175	3640.52202	3,822.86
28	Indonesia	2519.50984	3113.48063	3560.10658	3,827.55
29	Viet Nam	1035.92217	1333.58352	1522.48588	1,684.69
30	Philippines	1818.31543	2129.49925	2399.60719	2,615.66
31	South Africa	6767.63258	7361.75585	7616.77912	7,604.36
32	Iraq	3857.61039	4502.74905	5338.52198	5,285.67
33	Morocco	2358.44358	2834.20472	3077.31501	3,204.75
34	Honduras	1799.49033	1932.85829	2033.31619	2,098.34
35	India	971.229761	1345.77015	1550.14223	1,758.04
36	Congo	2503.31205	2737.34233	2806.34743	2,925.53
37	Lao People's Democratic Republic	842.56763	1141.12712	1383.70298	1,556.67
38	Ghana	1089.46832	1312.60756	1633.49404	1,685.99
39	Zambia	1107.72817	1463.21357	1595.91504	1,618.46

S.N	Country	2005	2010	2013	2015
40	Cambodia	613.27901	785.692884	923.726341	1,024.87
41	Nepal	502.239428	592.183522	645.25101	690.075033
42	Kenya	868.92282	967.340077	1048.26921	1,107.92
43	Pakistan	974.537298	1040.14227	1083.96701	1,140.21

Source: World Development Indicator

Source: Table (2)

Figure 2: Trend of GDP during the period of 2005 and 2015

The per capita gross domestic product of each country is shown in above figure. Generally, it can be said that the dollar value of gross domestic product per capita increase year by year based on data. Increasing the dollar value of gross domestic product per capita is a sign of improvement in economic condition of countries. However, it can be said that there is no improvement in dollar value of gross domestic product per capita of some countries such as Jamaica, based on data.

Regression Analysis

Based on numerous literatures, the following model is used for analyzing the objective of this study:

$$GI = \beta_0 + \beta_1 lgdppc + \varepsilon$$

Where GI = gender inequality

lgdppc = log (gross domestic product per capita)

ε = error term

GI   = 0.991*** − 0.153*** lgdppc

(0.000)   (0.000)

Note: Values in parenthesis are p-value.

*** significant at 1 % level.

In this study, gender inequality index is used as dependent variable, and natural logarithm of gross domestic product per capita is used as independent variable. According to the regression result, it is found that gender inequality is negatively related to gross domestic product per capita. Accordingly, it can be said that countries with high economic growth have low gender inequality index on average. Based on the regression result, it is found that the coefficient of natural logarithm of gross domestic product per capita is at one percent level of significance. The economic growth is higher, the gender equality is better. Having employed regression analysis, there is no doubt that this study gives the considerable information to policy makers regarding the gender equality.

Concluding Remark

This study analyzes the relationship between gender inequalities and economic growth of selected countries including the ones with both high and medium human development. Employing longitudinal data on gender inequality index, gross domestic product per capita of 43 countries during the period of 2005 and 2015, and this study examines whether economic growth has an effect on gender inequalities. Based on the study, it can be said that there is an improvement in the condition of gender inequality index and gross domestic product per capita of selected countries. According to the findings of this study, it can be said that economic growth is negatively related to gender inequality on average.

Based on the regression result, it is found that the coefficient of natural logarithm of gross domestic product per capita is significant at one percent level. The economic growth is higher, the gender equality is better. Having employed regression analysis, it is believed that this study gives the significant information to policy makers regarding the gender equality.

Acknowledgement

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