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ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT

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Tourism and Women Empowerment: Empirical Findings From Past Experience and Predictions for the Post-COVID Era

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Abstract

Tourism industry is one of the major industries of today's world and hence it is in the forefront of current national and international policies. Tourism is perceived as one of the fundamental engines of economic growth and development due to the fact that it has many contributions to the economy. Moreover, tourism has a dimension of women empowerment which is one of the critical issues of modern world. Hence, researchers and policymakers have begun to pay more attention to the issue of gender discrimination and tourism relationships. There are some direct linkages between tourism and women empowerment, and what is more is that it seems critical to analyse these relationships in order to form effective development policies. In this sense, this study aims to analyse the long-run relationships between tourism revenues and female labor force participation across different country groups and to develop predictions about post-COVID era. In this context, following a brief introduction, the first section is devoted to a literature review about relationships between tourism industry, women empowerment and COVID-19 pandemic. Then the second section is attributed to the empirical analyses. Lastly, the third section is devoted to current situation and future predictions about post-COVID era.

Keywords: tourism, female labor force, COVID-19, panel data analysis

Introduction

Tourism activities are important for economies due to the fact that they create export revenues, increase employment and contribute to economic growth process. It's widely accepted that tourism industry has three fundamental impacts on the macroeconomics. These impacts can be listed as direct impacts, indirect impacts and induced impacts. Direct impacts of travel and tourism activities are observed through Gross Domestic Product (GDP) and employment. Tourism industry creates positive additions to balance of payments (BoP) by earning export revenues and higher export revenues increase economic growth rates. Also, since tourism industry is a labor intensive industry, it contributes the employment rates. Moreover, indirect impacts are observed through supply chain linkages with other sectors. Lastly, induced impacts are observed through expenditures of employees working in tourism industry and expenditures of sectors related to tourism industry. World Travel and Tourism Council underlines that tourism industry created US$8.9 trillion direct contribution (that is 10.3% of global GDP) to the world's GDP in 2019. Moreover, it created 330 million jobs that account for 10% of global jobs also (WTTC, 2020a: 3). Consequently, it's seen that tourism industry is one of the major industries of the world economy.

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However recently, it has been facing strong challenges stemming from Covid-19 pandemic. More than 197 million jobs and US$5.5 trillion thought to have been lost in tourism industry at the end of 2020 (WTTC, 2020b: 1).

Today it's accepted that Covid-19 pandemic has caused a new global economic crisis. World real GDP growth has turned to the negative with the rate of -4.2 in 2020. This decline has mainly been characterized by the sharp decline in trade and tourism activities (OECD, 2020: 13). International tourist arrivals fell by 72% between January – October 2020 over the same period of the previous year. The decline in the first ten months exhibits a loss of US$935 billion in export revenues from international tourism and this decline corresponds more than 10 times the loss experienced in 2009 after global financial crisis. World Tourism Organization estimated international tourist arrivals to decline 75% at the end of 2020 for the whole year and this means the international tourism to return its level to 30 years ago (UNWTO, 2020a: 1-3).

These developments have also a dimension of gender discrimination. Recent researches and reports indicate that female labor force participation declined substantially in all over the world. Income losses are critical for women especially working in tourism industry. Consequently, analyzing the relationships between tourism activities and female labor force participation has critical importance. Women's participation in economic life has been one of the critical issues of economic development since the emergence of the concept. Overcoming gender discrimination in labor markets has especially been a key issue. The attention on this topic has been directly related with the persisting gender discrimination in hiring and paying in nearly all sectors and all economies (Neumark 2004: 1). Several researches have been conducted and the list of reasons causing gender discrimination have been detected as follows: high childcare and housekeeping responsibilities of women, glass ceiling, insufficient women rights and inadequacy of related public policies, cultural structures and strict religious beliefs in some regions (Orloff 2009; Evans & Kelley 2008; Kephart & Schumacher 2005; Maltby et al. 2010). These disadvantages cause women to be highly excluded from the economic life during the times of crises. Although different welfare regimes caused different outcomes, the general inclination during crises has been increasing gender discrimination in all over the world. Women have always been the first to be laid off in times of crises like in Covid-19 pandemic (Kushi & McManus, 2016). In this context, this study has two main purposes. The first purpose of this study is analysing the bidirectional relationships between tourism and female labor force participation across different country groups for a long time period. And the second prupose is trying to foresee the gender-based developments in the context of tourism industry for post-Covid era. In this context, the main contribution of this study is twofold. First of all, there are too few studies econometrically examining the women empowerment and tourism relationships with the recent data. And it's seen that all the studies are for either a specific country or a country group. However, our study covers all the countries in the world for the period of 1995 - 2019 and it also conducts analysis for four different country groups determined as to income levels, providing an extensive perspective. Secondly, this study tries to develop predictions about gender based developments related with the tourism activities in the context of the empirical findings and the facts of the current world. To the best of our knowledge, there is no other study developing predictions in this issue in light of empirical methods those have been applied in this study. In this manner the main hypotheses of this study are: tourism industry contributes to female employment and there are long term relationships between tourism revenues and women empowerment in labor markets. In this context, after a brief introduction, the first section is devoted to the literature review about tourism industry, women empowerment and

Covid-19. The second section is separated to the empirical analysis. In this section, firstly data and variables are explained and then empirical findings are given. Lastly, in the third section, gender based current situation is examined and predictions about post-Covid era are enhanced.

Tourism, Women Empowerment and COVID-19: A Literature Review

Gender discrimination has been a popular issue that has been studied from different perspectives. The general inclination to examine the gender discrimination in economy, has been analysing the female labor force. However, there is a basic distinction in such studies. The first branch of these studies examines gender inequality in terms of wage gaps (Blinder, 1973; Lovell, 2000; Ozcan et al., 2003; Ng, 2007; Nwaka et al., 2016; Sefil & Kent, 2018) and the second branch examines in terms of female labor force participation and unemployment rates (Reddy, 1975; Pampel & Tanaka, 1986; Macunovich, 1996; Lahoti & Swaminathan, 2016; Puga and Soto, 2018). In our study, we adopted the perspective of labor force participation rates due to the consistency and adequacy of the currently published data.

When the related literature is examined further, it's observed that there are lots of studies analysing impacts of Covid-19 on gender discrimination; tourism and women empowerment relationships; gender discrimination in tourism labor market itself and impacts of Covid-19 on gender discrimination in tourism industry. As an example to gender-based impacts of Covid-19, Hipp & Bünning (2020) applied a survey during three different periods in Germany and they conducted an empirical analysis with 4400 respondents. The empirical evidences expressed that women work less than men during lockdowns due to higher childcare and housework responsibilities. The most of the in house responsibilities are valid for women and hence gender inequality increased with Covid-19 in Germany. As another study, Blasko, Papadimitriou & Manca (2020) discussed the impacts of Covid-19 on European countries. They highlighted that women are facing higher risk than men since they have higher physical and mental workload then men. This situation can cause disruptions in their careers both in short-run and long-run. Moreover, Barneveld et al. (2020) discussed lots of issues in terms of Covid-19 pandemic and one of these issues is gender dimension. They underlined that Covid-19 caused a humanitarian crises and women are directly affected especially in labor markets. Collins et al. (2020) studied the data on work hours from US Current Population Survey for February, March and April 2020. They investigated that Covid-19 outbreak in USA increased the gender gap in working hours. Especially women with young children decreased their working hours due to childcare responsibilities. Czymara et al. (2020) conducted a survey with 1119 respondents in Germany. They detected that women are affected more by lockdowns and this situation mainly occur due to the childcare responsibility. Farre et al. (2020) analysed the impacts of lockdows in Spain and they found that gender inequalities increased due to more housework and childcare responsibilities of women.

There are also some studies examining the relationships between gender discrimination in labor markets and tourism. As an example, Ghosh (2020) applied panel cointegration and causality methods to investigate the relationships between female entrepreneurship and tourism receipts for 30 European countries and 2006 – 2016 period. Results indicate that there is a bidirectional causal relationship between female entrepreneurship and tourism receipts. Zhang & Zhang (2020) conducted an empirical analysis for 36 Asian countries and the time period of 2006 – 2018. They applied Generalized Method of Moments (GMM) and investigated that tourism has a positive significant impact on gender equality through female labor force participation. Moreover, Nassani

et al. (2019) investigated the impacts of tourism on women empowerment by panel GMM estimations. They used a panel data of 24 European countries and 1990 – 2015 period. They found that tourism revenues promote female employment in all sectors and hence increases women empowerment. In a critics paper, Ferguson (2011) also underlined that tourism can contribute to gender equality and women empowerment (called as third Millenium Development Goal -MDG3) but policies should be reframed to maximize this potential.

Apart from these studies, there are some studies analyzing the gender discrimination in tourism industry. As a recent study, Casado-Diaz et al. (2020) compared the Spanish hospitality industry with the rest of the economy with the microdata for 2010. They empirically investigated that the gender wage gap is more in hospitality industry than the rest of the economy. Collins et al. (2020) analysed US Current Population Survey data between February and April 2020. They applied person-level fixed effects model and observed that COVID-19 outbreak increased gender discrimination in terms of working hours in USA. Guimaraes & Silva (2016) examined the wage gap among genders for 2012 in Brazil. They investigated that women were paid lower than men with the same jobs in Brazil. Campos-Soria et al. (2009) analysed the data set of 3211 tourism workers in Andalusia by 2000. They found that there existed both gender wage gap and gender segregation in occupations. Santos & Varejao (2007) analysed a detailed data set including approximately 2.000.000 individuals working in tourism industry in Portugal by 2000. They found that although Portuguese tourism industry was a female dominant industry, a significant wage gap against women was valid. Skalpe (2007) analysed the pay gap between male and female CEOs in 1866 Norwegian tourism and manufacturing firms between 1999 – 2001. Empirical results proved that female CEOs received significantly less compensation then male CEOs in both industries.

Lastly, there is an extensive report examining the gender – based impacts of Covid-19 in tourism industry. MBS Intelligence, PWC and WIHTL (2020) published a report of Covid-19 on gender and race & ethnic diversity in hospitality, travel & leisure industries. The report underlined that Covid-19 period affected women more severely than men and it's expected that this affect will also continue in the long run. This report basically relies on the case studies and expert views and it's important since it's the most comprehensive attempt to evaluate the situation in a broad perspective.

To sum up, there are lots of studies examining women empowerment, tourism and Covid-19 relationships in the literature. When the results are summarized, it's observed that Covid-19 outbreak increased the gender discrimination in all sectors and economies at the worldwide. Although tourism industry is seen as a tool to increase women empowerment in labor markets, currently tourism industry itself experiences higher gender discrimination across its labor force.

Empirical Analysis

Data Sets and Variables

Three types of data sets are used in econometric analyses. They are: time series data sets, cross section data sets and panel data sets. As it's widely accepted, panel data sets have some advantageous in empirical analyses. Panel data covers both time and cross section dimensions at the same time and hence provides more observations and higher degrees of freedom levels in analyses. Moreover, the possibility of multicollinearity between independent variables is less in

panel data sets and this feature provides more reliable empirical results (Hsiao 2002: 1-3). What is more is that techniques of panel data estimation have been developed to take into account heterogeneity between units over time and hence these techniques have some superiorities over time series and cross section estimation techniques (Gujarati & Porter 2009: 592). Following the superiorities of panel data sets and panel estimation methods, this study has also four different panel data sets for different country groups and 25 years. Totally 177 countries are included in empirical investigations for the time period of 1995 – 2019. Panel data sets are formed as to the income levels of countries and classification has been adopted from United Nations per capita Gross National Income (GNI) country classification. Country classifications are given in Table A1 in Appendix. High income countries data set includes 52 countries and 25 years. Upper middle income countries data set covers 47 countries and 25 years. Lower middle income countries data set captures 44 countries and 25 years. Lastly, low income countries data set includes 34 countries and 25 years. There are two variables used in empirical investigations. Female labor force participation rate (flfpr) and international tourism receipts as percentage of total exports (tour). Both series are available from 1995 to 2019 in World Development Indicators Online Database. Variables have been chosen by following the studies in the empirical literature such as Ghosh (2020), Zhang & Zhang (2020) and Nassani et al. (2019).

Empirical Investigation

There are some basic steps in econometric estimations and the first step is checking the stationarity of series. In this manner, unit root tests are applied to series of variables. Stationarity tests are quite important due to the fact that nonstationary series cause to artificial regression problem and hence biased estimation results. There are different approaches in panel unit root specification. These approaches are developed by different tests as Levin, Lin & Chu t Test, Im, Pesaran & Shin W-stat Test, ADF – Fisher Chi-Square Test and PP – Fisher Chi-Square Test [Please see Coakley & Fuertes (1997), Levin, Lin & Chu (2002) and Im, Pesaran & Shin (2003)]. Levin, Lin & Chu t Test has a different null hypothesis by assuming common unit root process. However, other tests assume individual unit root processes. The best way to determine whether a panel data set is stationary or not, is to examine all these four tests and then to determine the result. The general inclination of tests shed light on the stationarity of series. Table 1 summarizes the unit root tests' results for our series in level.

Table 1: Unit Root Test Results for Series in Level

	High Income flfpr	Countries tour	Upper Income flfpr	Middle Countries tour	Lower Income flfpr	Middle Countries tour	Low Income flfpr	Countries tour
Levin, Lin & Chu t*	-1.9757 (0.024)**	-6.9350 (0.000)***	-5.0414 (0.000)***	-4.2014 (0.000)***	-4.0677 (0.000)***	-1.0711 (0.142)	-3.9770 (0.000)***	-0.1099 (0.456)
Im, Pesaran and Shin W-stat	5.1534 (1.000)	-2.3835 (0.008)***	1.0729 (0.858)	-3.1785 (0.000)***	1.8072 (0.964)	0.4848 (0.686)	0.1668 (0.566)	-0.6355 (0.262)
ADF - Fisher Chi-square	75.500 (0.984)	150.52 (0.000)***	86.915 (0.684)	142.56 (0.000)***	98.038 (0.176)	64.342 (0.866)	91.194 (0.031)**	63.739 (0.127)
PP - Fisher Chi-square	103.40 (0.498)	153.11 (0.000)***	73.278 (0.944)	142.71 (0.000)***	74.435 (0.808)	82.707 (0.336)	85.424 (0.075)*	107.41 (0.000)***

Notes. Values are the coefficients and their probabilities-as in parenthesis. *10% significance; ** 5% significance; ***1% significance

Test results exhibit that female labor force participation series are nonstationary in high income, upper middle income and lower middle income data sets. Although it seems stationary in low income data set, significance level is low. Moreover, tourism revenues are nonstationary in lower

middle income and low income data sets. Taking the differences of series is the next step to have stationary series. What is more is that all the series should be stationary in the same level in cointegration analyses. Since panel cointegration tests are applied in this study, first differences of all series are taken and then panel unit root tests are applied again. Table 2 summarizes test results for the first differences of series.

Table 2: Unit Root Test Results for the First Differences of Series

	High Income flfpr	Countries tour	Upper Income flfpr	Middle Countries tour	Lower Income flfpr	Middle Countries tour	Low Income flfpr	Countries tour
Levin, Lin & Chu t*	-9.4443 (0.000)***	-12.435 (0.000)***	-5.1891 (0.000)***	-13.890 (0.000)***	1.3389 (0.909)	-10.609 (0.000)***	-1.9455 (0.025)**	-5.7231 (0.000)***
Im, Pesaran and Shin W-stat	-11.669 (0.000)***	-11.972 (0.000)***	-8.7905 (0.000)***	-11.797 (0.000)***	-4.0998 (0.000)***	-11.232 (0.000)***	-2.1039 (0.017)**	-7.0699 (0.000)***
ADF - Fisher Chi-square	338.70 (0.000)***	338.53 (0.000)***	253.79 (0.000)***	324.27 (0.000)***	177.85 (0.000)***	281.62 (0.000)***	93.293 (0.022)**	163.62 (0.000)***
PP - Fisher Chi-square	685.91 (0.000)***	557.49 (0.000)***	450.30 (0.000)***	546.09 (0.000)***	309.43 (0.000)***	551.83 (0.000)***	119.86 (0.000)***	345.78 (0.000)***

Notes. Values are the coefficients and their probabilities-as in parenthesis.* 10% significance; ** 5% significance; ***1% significance

Panel unit root test results for the first differences of series exhibit that all series are stationary in this level. After reaching to stationarity, the next step is applying cointegration test. Cointegration analysis shows the long-run correlations of series. If there is a cointegrated relationships between two variables, it means that they are in a relationship in the long run. Table 3 summarizes Johansen Fisher Panel Cointegration Test results for four panel data sets. Johansen Fisher Test has been developed by Maddala & Wu (1999) by proposing two statistics as the Fisher statistic from trace test and the Fisher statistic from the eigenvalue test. In these tests, lag order is set from 1 to 3 and the null hypothesis is set as there is no cointegrating relationships between variables.

Table 3: Johansen Fisher Panel Cointegration Test Results

Hypothesized No of CE(s)	Fisher Stat^ (from trace test)	Probability	Fisher Stat^ (from max-eigentest)	Probability
HIGH INCOME COUNTRIES				
None	485.9	0.0000***	337.5	0.0000***
At most 1	378.1	0.0000***	378.1	0.0000***
UPPER MIDDLE INCOME COUNTRIES				
None	425.1	0.0000***	280.1	0.0000***
At most 1	338.6	0.0000***	338.6	0.0000***
LOWER MIDDLE INCOME COUNTRIES				
None	335.8	0.0000***	245.5	0.0000***
At most 1	245.4	0.0000***	245.4	0.0000***
LOW INCOME COUNTRIES				
None	163.8	0.0000***	134.5	0.0000***
At most 1	108.2	0.0000***	108.2	0.0000***

Notes. ^ Probabilities are computed using asymptotic Chi-square distribution. * 10% significance; ** 5% significance; ***1% significance

The results in Table 3 exhibit that there are cointegrated relationships between female labor force participation rate and tourism revenues across all country groups. Fisher statistics for both trace test and maximum eigenvalue test indicate the relationships even at 1% significance level.

Cointegration analysis shows the cointegrated relationships between variables but it does not point out the causality. These relationships can be random and we can not be sure about the meaningful associations without checking the causality interactions. In this context, Granger Causality Analysis is applied to variables for all country groups. Granger Causality Analysis examines

bidirectional causal relationships between two variables and it relies on the interpretation of F statistic. If F statistic is statistically significant, then the null hypothesis is rejected and the coefficients are statistically meaningful. In this manner, the alternative hypothesis stating there is a causal relationship between variables is accepted (Granger, 1969: 431). Table 4 shows the results of Panel Granger Causality Analysis results for the series in different country groups.

Table 4: Granger Causality Test Results

Null Hypothesis	F Statistic	Probability
HIGH INCOME COUNTRIES		
Tourism does not cause flfpr	4.45138	0.0119**
Flfpr does not cause tourism	1.33326	0.2642
UPPER MIDDLE INCOME COUNTRIES		
Tourism does not cause flfpr	2.66272	0.0705*
Flfpr does not cause tourism	0.39354	0.6748
LOWER MIDDLE INCOME COUNTRIES		
Tourism does not cause flfpr	0.48179	0.6179
Flfpr does not cause tourism	2.85447	0.0583*
LOW INCOME COUNTRIES		
Tourism does not cause flfpr	5.16403	0.0061***
Flfpr does not cause tourism	0.35205	0.7035

*Note. * 10% significance; ** 5% significance; ***1% significance*

It's observed from the Panel Granger Causality Test results that tourism revenues are the cause of female labor force participation rate but the reverse is not valid in high income countries. Similar results are also valid for upper middle income countries. It's also observed that tourism receipts are the cause of female labor force participation but the reverse is not true. However, the results are different in lower middle income countries. In this country group, female labor force participation is the cause of tourism revenues but the reverse is not valid. Lastly, empirical results for low income countries are similar to high income and upper middle income countries. In this country group, it's again observed that tourism receipts are the cause of female labor force participation rate but the reverse is not valid. Lastly, empirical results are in the same line with Ghosh (2020), Zhang & Zhang (2020) and Nassani et al. (2019).

Tourism and Women Empowerment: The Current Situation and the Predictions for the Post-COVID Era

Covid-19 pandemic increased gender discrimination in global labor markets. Recent researches underline that female unemployment increased; women experienced more wage cuts than men; childcare and housework responsibilities of women increased and women began to work more from home with the Covid-19 outbreak. All these developments point out that gender discrimination has increased globally. Furthermore, some industries have been experiencing more gender discrimination such as health and tourism industries (WTTC, 2020a). Gender discrimination facts of Covid-19 in tourism industry can be directly observed from Tourism Satellite Accounts of countries. The Tourism Satellite Account (TSA) is a standard statistical framework to measure economic indicators in tourism industry. It has been developed by World Tourism Organisation (UNWTO), OECD, Eurostat and United Nations Statistics Division. TSA includes lots of indicators about the industry such as tourism expenditures, gross value added and gross domestic product attributable to tourism, investments, government consumption and employment. Employment indicator is the most important indicator to observe gender discrimination in tourism industry in TSA. However, when the TSAs of different countries are examined it's seen that only few countries (such as Australia and New Zealand) published 2020

data. Consequently, it's hard to observe the current situation at the worldwide. One of the countries published the recent data is Australia. TSA indicators of Australia exhibits that the number of tourism jobs decreased by 13% as to the previous year and it is in its lowest level since September 2013. From September quarter 2019 to September quarter 2020, tourism jobs changed by -10.2% for males and -15.4% for females. Hence, unemployment rates seem higher for women and hence gender discrimination in employment increased in industry. For the same period, full time job losses (-16.4%) are higher than part time job losses (-14.4%) across women and this indicates that long-run employment impacts will seem to be persistent for women.

There are also some reports published to shed some light on the developments about gender discrimination in tourism industry during COVID-19. United Nations Women Department published a report and it underlines that COVID-19 outbreak increased gender discrimination at the worldwide. Migrant women, women living below the poverty line and women belonging to disadvantaged ethnic groups have been affected more and these effects seem to be persistent in the long run. Women working in informal jobs lost approximately 60% of their income even at the end of the first month of pandemic. ILO (2020a) underlines that only in Asia and Pacific region, 81 million jobs have been lost during 2020 and 32 million of them were the jobs of women. Also, the decline rate in female employment corresponded to 4.6% which is higher than the decline rate in male employment as 4% in this region. These gender-based facts in tourism industry is quite important due to the fact that tourism is one of the major industries of the current world economy and it's observed that gender discrimination is experienced even in this industry.

Reports and empirical researches indicate that COVID-19 outbreak caused long-term impacts on both tourism industry and women empowerment. The empirical analyses conducted in our study also exhibit that tourism revenues and female labor force participation are in association in long term period. What is more is that tourism revenues are observed as the cause of female labor force participation in most of the countries. This causality results especially underline that as tourism activities increase, gender discrimination decreases in economies. Furthermore, there is a reverse causal relationship in lower middle income countries. Empirical results underline that as female labor force participation increases, tourism revenues increase too. This result is not surprising but it is remarkable. Lower middle income countries are mainly from Asia and Pacific region and it's known that tourism industries of those countries are female dominant (ILO,2020a). Consequently, as female labor force participation rates increase, tourism revenues also increase in those countries. After examining long term empirical relationships between tourism revenues and female labor force participation, it's important to observe the current situation in the world. The empirical findings of the past and the facts of today together light the way for the predictions about future. 2020 figures showed that female labor force participation rates decreased in nearly all countries. In this context, we may also develop some predictions about the gender discrimination and tourism industry relationships for the post-Covid era. The main predictions can be listed as follows:

It seems that high unemployment rates will continue to exclude female labor force out of the labor markets, especially in low income, upper middle income and high income countries in the short term. However, it's probable that the situation will gradually get better in the long term but gender discrimination impacts of pandemic will probably be persistent for almost 10 years.
Lower middle income countries seem to be more likely to experience high female labor force participation increases in post-Covid era, due to the fact that tourism industries of those countries are basically female dominant.

The successful countries about increasing their tourism revenues will be able to get over the global crisis before other countries. And these countries will be able to create new jobs and hence increase their female labor force participation rates in tourism and related industries.

Conclusions

Covid-19 outbreak influenced the labor markets directly. Unemployment increased due to business closures and labor income reductions occurred due to economic downturn. It's estimated that income losses corresponded to a global decline of 10.7% during the first three quarters of 2020. What is more critical is that the latest labor surveys indicate that relative increase in unemployment is greater for women in nearly all countries (ILO, 2020b). With the pandemic, women are excluded from labor force in nearly all over the world and this result is contradicting with the global sustainable development goals of United Nations. Consequently, it's seen that urgent policy actions are required.

Empirical results of this study indicate that tourism revenues are the cause of female labor force participation rates in high income, upper middle income and low income countries. This is a remarkable result since it points out that tourism activities can be used to leverage the female labor force participation rates nearly all over the world. Empirical results are different for lower middle income countries by indicating causality from female labor force participation through tourism revenues. However, this a predictable result due to the fact that lower middle income countries are mainly from Asia and Pacific region and tourism industry is female-dominant industry in this region. Consequently, it's predictable to observe increases in tourism revenues as female labor force participation rates increase in these countries. In short, our empirical results underline that there are causal relationships between tourism industry and female labor force participation in all the country groups. This result indicates that tourism activities can help to reduce female unemployment in all over the world.

Covid-19 pandemic caused a brand-new global crisis and one of the causes of this crises is restricted tourism activities. It's predicted that countries those will increase their tourism activities and hence tourism revenues in post-Covid era, will be more successful to overcome the crisis. However, the impacts of Covid-19 on female labor force are severe and it's not easy to remedy the gender based results of outbreak in the short term quickly. It's predicted that gender-based impacts of Covid-19 will be persistent in the long run and hence governments should take some policy actions to ease the process. In this context, investing in tourism industry and promoting especially pro-poor tourism can be good policy options.

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Appendix

Table A1: Country Classification of United Nations as to Per Capita GNI in 2018

High-Income		Upper-Middle Income		Lower-Middle Income		Low Income	
Argentina	Latvia	Albania	Kazakhstan	Angola	Lesotho	Afghanistan	Liberia
Australia	Lithuania	Algeria	Lebanon	Bangladesh	Mauritania	Benin	Madagascar
Austria	Luxembourg	Armenia	Libya	Bhutan	Mongolia	Burkina Faso	Malawi
Bahamas	Malta	Azerbaijan	Malaysia	Bolivia	Morocco	Burundi	Mali
Bahrain	Netherlands	Belarus	Maldives	(Plurinational	Myanmar	Central	Mozambique
Barbados	New Zealand	Belize	Mauritius	State of)	Nicaragua	African	Nepal
Belgium	Norway	Bosnia and	Mexico	Cabo Verde	Nigeria	Republic	Niger
Brunei	Oman	Herzegovina	Montenegro	Cambodia	Pakistan	Chad	Rwanda
Darussalam	Panama	Botswana	Namibia	Cameroon	Papua New	Comoros	Senegal
Canada	Poland	Brazil	Paraguay	Congo	Guinea	Democratic	Sierra Leone
Chile	Portugal	Bulgaria	Peru	Cote d'lvoire	Philippines	People's	Somalia
Croatia	Qatar	China	Romania	Djibouti	Republic of	Republic of	South Sudan
Cyprus	Republic of	Colombia	Russian	Egypt	Moldova	Korea	Syrian Arab
Czech	Korea	Costa Rica	Federation	El Salvador	Sao Tome	Democratic	Republic
Republic	Saudi Arabia	Cuba	Samoa	Eswatini	and Principe	Republic of	Tajikistan
Denmark	Singapore	Dominican	Serbia	Georgia	Solomon	the Congo	Togo
Estonia	Slovak	Republic	South Africa	Ghana	Islands	Eritrea	Uganda
Finland	Republic	Ecuador	Suriname	Honduras	Sri Lanka	Ethiopia	United
France	Slovenia	Equatorial	Thailand	India	State of	Gambia	Republic of
Germany	Spain	Guinea	The former	Indonesia	Palestine	Guinea	Tanzania
Greece	Sweden	Fiji	Yugoslav	Kenya	Sudan	Guinea-	Yemen
Hong Kong	Switzerland	Gabon	Republic of	Kiribati	Timor-Leste	Bissau	Zimbabwe
SAR	Taiwan	Guatemala	Macedonia	Kyrgyzstan	Tunisia	Haiti	
Hungary	Province	Guyana	Turkey	Lao People's	Ukraine		
Iceland	of China	Iran (Islamic	Turkmenistan	Democratic	Uzbekistan		
Ireland	Trinidad and	Republic of)	Venezuela	Republic	Vanuatu		
Israel	Tobago	Iraq	(Bolivarian		Vietnam		
Italy	United Arab	Jamaica	Republic of)		Zambia		
Japan	Emirates	Jordan					
Kuwait	United						
	Kingdom						
	United States						
	Uruguay						

Source. United Nations. (2019). World Economic Situation and Prospects. New York, USA. P. 17