

GLOSERV

ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT

Editors

Dr. Cihan Cobanoglu

Dr. Valentina Della Corte



Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA

Dr. Valentina Della Corte, University of Naples Federico II, Italy

ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT: VOLUME 2

ISBN 978-1-955833-03-5

****Authors are fully responsible for corrections of any typographical, copyrighted materials, technical and content errors.***

Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA

Dr. Valentina Della Corte, University of Naples Federico II, Italy

ISBN 978-1-955833-03-5

© USF M3 Publishing 2021

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This imprint is published by USF M3 Publishing, LLC

The registered company address is University of South Florida, 8350 N Tamiami Tr, Sarasota, FL 34243 USA.

Associate Editor

Dr. Seden Dogan, Ondokuz Mayıs University, Turkey
Dr. Muhittin Cavusoglu, Northern Arizona University, USA

Assistant Editor

Dr. Faizan Ali, University of South Florida, USA
Dr. Resat Arica, Adiyaman University, Turkey
Dr. Alaattin Basoda, Aksaray University, Turkey
Dr. Lisa Cain, Florida International University, USA
Dr. Giovanna Del Gaudio, University of Naples Federico II, Italy
Dr. Rab-Nawaz Lodhi, University of Central Punjab, Pakistan
Dr. Bendegul Okumus, University of Central Florida, USA
Dr. Antonella Miletti, University of Naples Federico II, Italy
Dr. Gozde Turktarhan, University of South Florida, USA

Editor Assistants

Ipek Itr Can, Anadolu University, Turkey
Filiz Dalkilic Yilmaz, Nevsehir Hacı Bektaş University, Turkey
Eda Hazarhun, Dokuz Eylül University, Turkey
Gamze Kaya, Mersin University, Turkey
Oguz Kiper, Sakarya Applied Sciences University, Turkey
Basak Ozyurt, Trakya University, Turkey
Gokhan Sener, Necmettin Erbakan University, Turkey

**Authors are fully responsible for corrections of any typographical, copyrighted materials, technical and content errors.*

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

Burcu Türkcan

Faculty of Economics and Administrative Sciences
Ege University, Turkey

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

Recommended Citation: Turkcan, B. (2021). Tourism and women empowerment: Empirical findings from past experience and predictions for the post-COVID era. In C. Cobanoglu, & V. Della Corte (Eds.), *Advances in global services and retail management* (pp. 1–11). USF M3 Publishing. <https://www.doi.org/10.5038/9781955833035>

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.

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 purpose 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 lockdowns 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

	<u>High</u> <u>Income</u>	<u>Countries</u>	<u>Upper</u> <u>Income</u>	<u>Middle</u> <u>Countries</u>	<u>Lower</u> <u>Income</u>	<u>Middle</u> <u>Countries</u>	<u>Low Income</u>	<u>Countries</u>
	<u>flfpr</u>	<u>tour</u>	<u>flfpr</u>	<u>tour</u>	<u>flfpr</u>	<u>tour</u>	<u>flfpr</u>	<u>tour</u>
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	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	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

	<u>High</u> <u>Income</u> <u>flfpr</u>	<u>Countries</u> <u>tour</u>	<u>Upper</u> <u>Income</u> <u>flfpr</u>	<u>Middle</u> <u>Countries</u> <u>tour</u>	<u>Lower</u> <u>Income</u> <u>flfpr</u>	<u>Middle</u> <u>Countries</u> <u>tour</u>	<u>Low</u> <u>Income</u> <u>flfpr</u>	<u>Countries</u> <u>tour</u>
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	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)***
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)***
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 is 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 crisis 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.

References

- Barneveld, K., Quinlan, M., Kriesler, P., Junor, A., Baum, F., Chowdhury, A., Junankar, P.N., Clibborn, S., Flanagan, F., Wright, C.F., Friel, S., Halevi, J. & Rainnie, A. (2020). The Covid-19 pandemic: Lessons on building more equal and sustainable societies. *The Economic and Labour Relations Review*. 31(2): 133 – 157. doi: 10.1177/1035304620927107
- Blasko, Z., Papadimitriou, E. & Manca, A.R. (2020). *How will the Covid-19 crisis affect existing gender divides in Europe? EUR 30181 EN*, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-18170-5, doi:10.2760/37511, JRC120525.
- Blinder, A.S. (1973). Wage discrimination: reduced form and structural estimates. *The Journal of Human Resources*, 8(4), 436 – 455. doi: 10.2307/144855
- Campos-Soria, J.A., Ortega-Aguaza, B. & Roper-Garcia, M.A. (2009). Gender segregation and wage difference in the hospitality industry. *Tourism Economics*. 15(4), 847 – 866. doi: 10.5367/000000009789955152
- Casado-Diaz, J.M., Driha, O. & Simon, H. (2020). The gender wage gap in hospitality: new evidence from Spain. *Cornell Hospitality Quarterly*, In Press, doi: 10.1177/1938965520971273

- Coakley, J. and Fuertes, A. M. (1997). New panel unit root tests of PPP. *Economics Letters*, 57(1), 17 – 22. doi: 10.1016/S0165-1765(97)81874-5
- Collins, C., Landivar, L.C., Ruppanner, L. & Scarborough, W.J. 2020. Covid-19 and the gender gap in work hours. *Gender, Work & Organization*, <https://onlinelibrary.wiley.com/doi/epdf/10.1111/gwao.12506> .
- Czymara, C.S., Langenkamp, A. & Cano, T. (2020). Cause for concerns: Gender inequality in experiencing the Covid-19 lockdown in Germany. *European Societies*. doi: 10.1080/14616696.2020.1808692
- Farre, L., Fawaz, Y., Gonzalez, L & Graves, J. (2020). How the Covid-19 lockdown affected gender inequality in paid and unpaid work in Spain. IZA Discussion Paper No. 13434.
- Ferguson, L. (2011). Promoting gender equality and empowering women? Tourism and the third millenium development goal. *Current Issues in Tourism*, 14(3), 235 – 249. doi: 10.1080/13683500.2011.555522
- Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica*. 37.
- Evans, M. D.R. & Kelley, J. (2008). Trends in women's labor force participation in Australia: 1984 – 2002. *Social Science Research*, 37, 287 – 310. doi: 10.1016/j.ssresearch.2007.01.009
- Ghosh, S. (2020). Female entrepreneurs in the hospitality industry: A panel causality analysis of EU countries. *Arthaniti: Journal of Economic Theory and Practice*. Online First. doi: 10.1177/0976747920942486
- Gujarati, D. N. & Porter, D.C. (1999). *Essentials of Econometrics*. Cambridge University Press. UK.
- Guimaraes, C.R.F.F. & Silva, J.R. (2016). Pay gap by gender in the tourism industry of Brazil. *Tourism Management*, 52, 440 – 450. doi: 10.1016/j.tourman.2015.07.003
- Hipp, L. & Bünning, M. (2020). Parenthood as a driver of increased gender inequality during Covid-19? Exploratory evidence from Germany. *European Societies*. doi: 10.1080/14616696.2020.1833229
- Hsiao, C. (2002). *Analysis of panel data*. West Nyack, Cambridge University Press, USA.
- ILO. (2020a). Asia-Pacific employment and social outlook 2020 – navigating the crisis towards a human-centred future of work. Retrieved from <https://www.ilo.org/> (11.01.2021).
- ILO. (2020b). *ILO monitor: Covid-19 and the world of work*. 6th Edition. Retrieved from <https://www.ilo.org/> (25.12.2020).
- Im, K. S., Pesaran, M. H. & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, 115, 53 – 74. doi: 10.1016/S0304-4076(03)00092-7
- Kephart, P. & Schumacher, L. 2005. Has the 'glass ceiling' cracked? an exploration of women entrepreneurship. *Journal of Leadership and Organizational Studies*, 12(1), 2-15. doi: 10.1177/107179190501200102
- Kushi, S. & McManus, I.P. (2016). Gender, crisis and the welfare state: Female labor market outcomes across OECD countries. *Comparative European Politics*. 16(3), 434 – 463. doi: 10.1057/cep.2016.21
- Lahoti, R. & Swaminathan, H. (2016). Economic development and women's labor force participation. *Feminist Economics*, 22(2), 168 – 195. doi: 10.1080/13545701.2015.1066022
- Levin, A., Lin, C.-F. & Chu, C-S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108, 1 – 24. doi: 10.1016/S0304-4076(01)00098-7
- Lovell, P. A. (2000). Race, gender and regional labor market inequalities in Brazil. *Review of Social Economy*, 58(3), 277 – 293. doi: 10.1080/00346760050132337
- Macunovich, D. J. (1996). Relative income and price of time: Exploring their effects on US fertility and female labor force participation. *Population and Development Review*, 22, 223 – 257. doi: 10.2307/2808013
- Maddala, G. S. & Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics*. 61, 631 – 652.
- Maltby, L. E., Hall, M. E. L., Anderson, T. L. & Edwards, K. (2010). Religion and sexism: the moderating role of participant gender. *Sex Roles*, 62(9-10), 615 – 622. doi: 10.1007/s11199-010-9754-x
- MBS Intelligence, PWC and WIHTL. (2020). *Guarding against unintended consequences – the impact of Covid-19 on gender and race & ethnic diversity in hospitality, travel & leisure*. Retrieved from <https://www.wihtl.com/covid-19> (10.01.2021).
- Nassani, A. A., Aldakhil, A. M., Abro, M. M. Q., Islam, T. & Zaman, K. (2019). The impact of tourism and finance on women empowerment. *Journal of Policy Modeling*, 41(2), 234 – 254. doi:10.1016/j.jpolmod.2018.12.001
- Neumark, D. (2004). Introduction. In *Sex Differences in Labor Markets*. Ed. David Neumark, Routledge, USA & Canada.
- Ng, Y. C. (2007). Gender earnings differentials and regional economic development in urban China, 1988 – 97. *Review of Income and Wealth*, 53(1), 148-165. doi: 10.1111/j.1475-4991.2007.00221.x
- Nwaka, I. D., Guven-Lisaniler, F. & Tuna, G. (2016). Gender wage differences in Nigerian self and paid employment: Do marriage and children matter? *The Economic and Labour Relations Review*, 27(4), 490 - 510. doi: 10.1177/1035304616677655
- OECD. (2020). *OECD economic outlook – December 2020*. No.108. Retrieved from <http://www.oecd.org/>(29.03.2021).
- OECD. *Tourism satellite account*. Retrieved from <https://www.oecd.org/cfe/tourism/tourismsatelliteaccountrecommendedmethodologicalframework.htm> (30.03.2021).
- Orloff, A. S. (2009). Gendering the comparative analysis of welfare states: An unfinished agenda. *Sociological Theory*, 27(3), 317 – 343. doi: 10.1111/j.1467-9558.2009.01350.x
- Ozcan, Y. Z., Ucdogruk, S. & Ozcan, K. M. (2003). Wage differences by gender, wage and self employment in urban Turkey. *Journal of Economic Cooperation*, 24(1), 1 – 24.
- Pampel, F. C. & Tanaka, K. (1986). Economic development and female labor force participation: A reconsideration. *Social Forces*, 64(3), 599 – 619. doi: 10.1093/sf/64.3.599

Puga, I. & Soto, D. (2018). Social capital and women’s labor force participation in Chile. *Feminist Economics*, 24(4), 131 – 158. doi: 10.1080/13545701.2018.1481990

Reddy, D. N. (1975). Female work participation: A study of interstate differences, a comment. *Economic and Political Weekly*, 10(23), 902-05.

Santos, L.D. & Varejao, J. (2007). Employment, pay and discrimination in the tourism industry. *Tourism Economics*, 13(2), 225 – 240. doi: 10.5367/000000007780823186

Sefil T. S. & Kent, O. (2018). Earnings inequality in Turkey: A regional perspective. *Marmara Journal of Economics*, 2(1), 117 – 136.

Skalpe, O. (2007). The CEO gender pay gap in the tourism industry – evidence from Norway. *Tourism Management*, 28(3), 845 – 853. doi: 10.1016/j.tourman.2006.06.005

United Nations. (2019). *World Economic Situation and Prospects*. New York, USA.

UN WOMEN. (2020a). *Will the pandemic derail hard-won progress on gender equality? – spotlight on gender, Covid-19 and the SDGS*. Ed. Way, C. Retrieved from <https://www.unwomen.org/en/digital-library/publications/2020/07/spotlight-on-gender-covid-19-and-the-sdgs> (13.12.2020).

United Nations. *World development indicators online database*. Retrieved from <https://databank.worldbank.org/source/world-development-indicators> (10.02.2021).

UNWTO. (2020a). *World tourism barometer*. 18(6), 1-36. Retrieved from <https://www.e-unwto.org/doi/epdf/10.18111/wtobarometereng.2020.18.1.7> (28.03.2021).

WTTC. (2020a). *Travel & tourism global economic impact & trends 2020*. Retrieved from <https://wttc.org/Portals/0/Documents/Reports/2020/Global%20Economic%20Impact%20Trends%202020.pdf?ver=2021-02-25-183118-360> (29.03.2021).

World Travel & Tourism Council. (2020b). *100 million jobs recovery plan final proposal*. Retrieved from <https://wttc.org/COVID-19/G20-Recovery-Plan> (13.12.2020).

Zhang, J. & Zhang, Y. (2020). Tourism and gender equality: an Asian perspective. *Annals of Tourism Research*, 85, 103067. doi: 10.1016/j.annals.2020.103067.

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
Australia	Lithuania	Algeria	Lebanon
Austria	Luxembourg	Armenia	Libya
Bahamas	Malta	Azerbaijan	Malaysia
Bahrain	Netherlands	Belarus	Maldives
Barbados	New Zealand	Belize	Mauritius
Belgium	Norway	Bosnia and Herzegovina	Mexico
Brunei	Oman	Botswana	Montenegro
Darussalam	Panama	Brazil	Namibia
Canada	Poland	Bulgaria	Paraguay
Chile	Portugal	China	Peru
Croatia	Qatar	Colombia	Romania
Cyprus	Republic of	Costa Rica	Russian Federation
Czech Republic	Korea	Cuba	Samoa
Denmark	Saudi Arabia	Dominican Republic	Serbia
Estonia	Singapore	Ecuador	South Africa
Finland	Slovak Republic	Equatorial Guinea	Suriname
France	Slovenia	Guinea	Thailand
Germany	Spain	Fiji	The former Yugoslav Republic of
Greece	Sweden	Gabon	Yugoslav Republic of
Hong Kong SAR	Switzerland	Guatemala	Macedonia
Hungary	Taiwan	Guyana	Turkey
Iceland	Province of China	Iran (Islamic Republic of)	Turkmenistan
Ireland	Trinidad and Tobago	Iraq	Turkmenistan
Israel	United Arab Emirates	Jamaica	Venezuela (Bolivarian Republic of)
Italy	United Kingdom	Jordan	
Japan	United States		
Kuwait	Uruguay		

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