The Effect of Trade Openness on Female Unemployment Rates in Developing Countries

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Ligia Ventura

THESIS

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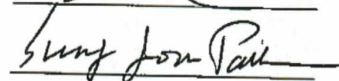in partial fulfillment of the requirements

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Abstract

Openness to trade has been a strategy and a relevant factor for economic development. In order to improve their condition, developing countries implement trade policies aimed at increase their economic growth and benefit their population. These countries currently suffer from high unemployment rates, and international trade has been seen more often as part of the solution of this issue. In this respect, is also well- known that unemployment is one of the major economic and social problems around the world and it affects groups in different ways across society. However, although international trade has promoted changes in the labour market and tend to create more jobs, we see that especially for women the unemployment rates still appears with negative outcomes. Usually, women in developing countries are more limited in time, resources and mostly in attaining higher levels of education, and as a consequence, they are frequently classified as constituting low skilled labour. It reduces their chances to be part of qualified human capital and find better job opportunities. Nowadays, whether trade openness may increase the unemployment rates in developing countries, particularly for females, is a topic still hotly debated. Despite this, countries generally try to open their economies and enjoy benefits from trade openness. Conversely, the effects of trade are still mixed, and it does not necessarily reward all groups within and among economies. This research continues the debate by studying the effect of trade openness on female unemployment rates in 119 developing countries during the period 1990-2012, based on cross sectional data analysis. The empirical results suggest that in these countries trade openness rises female unemployment rates.

Acknowledgements

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1. Introduction

On the one hand, the World Trade Organization (WTO) is the leading organization responsible for the global framework to set the standard rules about international trade. Under its principles all economic agents around the world can benefit from trade. On the other hand, the organization in charge of promoting respect of workers′ rights and encourage more job opportunities across the world is the International Labor Organization (ILO). Both entities, the WTO and the ILO have worked jointly, seeking a common purpose, increasing global welfare promoting more employment through trade. Based on this, a fair interaction between labor force and trade openness could improve the well-being for all countries and their citizens. However, despite the best efforts in cooperation and coordination made by these organizations to enhance trade and employment, the net effect across economies have shown unpredictable results. Economies react indistinctly, depending on their own social, political, and economic structure. As a result, the structure of factors of production, financial markets, technology, and market regulations are implemented with some modifications in each country.

According to Oslington (2005) in his paper about unemployment and trade liberalization, among several studies, trade policy usually is not a core issue in relation to employment inquiries; generally, employment is ruling the public debate over the first one. Also, there is a pervasive view among economists emphasizing that when unemployment and trade policy are a part of debate, they should be considered separately, especially when job losses is in the middle of the debate.

The 80's and 90's were decades when trade liberalization extended its roots more

deeply to developing countries, period in which multilateralism assured equal trading opportunities to all its members. However, in this regard, developing countries as part of the world trading system -one member, one vote system- generally, they do not seem to be successful in relation to a fairness and equity agenda (Narlikar, 2006).

Based on WTO (2007) traditional trade models, keep the assumption that competitiveness within economies is determined by using technological abilities or relative endowments with factor of productions. Nevertheless, it is also admitted that there are asymmetries among countries in technology, infrastructure, investment, etc., which is in disfavor of developing countries. Thus, given these unbalanced conditions, in low income countries, trade usually results in expansion of labour intensive exports, where low skill workers are demanded and hired with very low wages.

Previously, OECD (2003) reports had supported that idea; trade had created mostly employment in exports sectors where firms would prefer to hire more women than men. In this sense, trade had shown some positive evidence in relation to women, considering it in a good ground for female employment due to women indicate a significant part of the relatively abundant factor in those countries.

With all this dynamic, it is also known that women show some disadvantages in order to play as economic agents —women generally have less access to inputs, information, and technology (Korinek, 2005)- . In line with this, Alazzwi (2013) mentions that women are also limited in their labour market experience, mostly they have to split their time between the job and household responsibilities. Furthermore, the UNCTAD reports (2012) indicates that with less advantage and less opportunities to find a suitable job, women earn less than men, even at comparable skill levels, and are commonly filling the numbers of

informal employment.

In this order of ideas, Swamy (2004) says that women have seen improvement in their economic condition; however, they still seem to have limited achievement regarding wages and formal employment, for being considered as low skilled workers.

According to Sauré and Zoabi (2009) in the last century, global trade significantly increased, and it promoted an increasing in sectors for female jobs, nevertheless, women labor force participation decreased and subsequently had an inverse reaction. This result occurred because male workers tend to get higher wages than women, men are generally part of formal employment, and contrary to this, female workers tend to be excluded of formal jobs. This situation is more usual in developing countries, where many women are very poor, the level of education is low, it brings less chances for employment choices and get better wages (OECD, 2005).

Also, there are plenty of papers showing that the relationship between trade liberalization and poverty can bring a controversial outcome. In addition, there is growing evidence about the results between trade liberalization and female activities that point out the positive and negative effects. In summary, we see mixed results.

Thus, there is not currently an ultimate study that concludes trade is the main factor of unemployment or particularly on female unemployment in developing countries. There are several factors that affect women conditions in those countries, and such factors cannot be analyzed individually, they have different sources of origin, those can be social, economic, cultural and/or political, and interact one to each other. For instance, women are devoted to work to assure food security at home and at the same time look after all members in the family. Their time and income are diluted on others instead of improving their own social and economic condition.

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According to Paul Krugman, the Heckscher-Ohlin Model points out that trade is basically determined by differences of resources among countries; the theory underlines the interaction between the amounts in which the different factors of production are available across countries and the proportions in which they are used in manufacturing different products. The model assumes that countries are able to access the same technology. Hence, countries with relatively large quantities of labor will shift production to labor-intensive production and export these goods to import capital-intensive goods (Krugman, 9th Ed. 2012).

In addition, this model has been studied closely with the Stolper-Samuelson theorem. Both models appear in general-equilibrium status and show the redistributive effects of trade reforms. Practically, some groups can gain from trade while others are harmed. Nevertheless, by contrast, some of the predictions of the models have not found enough empirical support (Gaddis and Pieters, 2012).

Even though, trade liberalization brings some disadvantageous or substantial costs in the short-run for economies adjustment, in the long run, has demonstrated important benefits (Fernandez de Cordoba and others, 2005).

Based on this context, the present study in order to have more findings to support the hypothesis research has also considered some empirical analysis, specifically the work issued by Gabriel Felbermayr and others (2011) related to trade and unemployment; their analysis looks at the effect between trade and the unemployment rates from 20 OECD (Organization for Economic Cooperation and Development) countries. The above scholars found mixed results in their studies, which means that the fluctuations in the unemployment rates differs according to each economies factors as well as the sectors analyzed in this study. Nevertheless, they found a plausible result, that more trade openness for larger periods in

those (OECD) countries result in lower unemployment rates. Then, with the purpose, to see what is the impact of trade openness in developing countries regarding the unemployment rates, this paper examines not only the effect on total unemployment rate, moreover, the study is more focused on the female unemployment rate in order to attest what is the effect on this group. This interest comes on women, as female workers have become a pillar for economic development across countries, and therefore, any impact reward important effect in their economyˊs progress.

1.1 Research Hypothesis

Macroeconomic evidence suggests that although women are on par with men in "brain-intensive" skills and abilities, women are likely to have a comparative disadvantage in "brain-intensive" activity. New technologies appear in favor of brain intensive activities, it makes that women are usually separated of the labour force or hired relatively lower in these jobs (Contessi and others, 2013).

Based on the United Nations and its report of World's Labor Force Participation (2010), women represent nearly half of the population of the world, which also means that potentially they are also half of its work force. Women have increased their participation as labour force due to changes in social and economic development across countries, and nowadays they are more active in the global market as part of trade liberalization.

Unfortunately, even though women show more involvement in the labour force including the most developing countries, several statistics still display that it has not reduced female unemployment rates, which is still comparatively high. One of the positive signs of trade benefits should be the reduction of unemployment rates, especially in low income countries where it has been increasing over the years. For instance, from 2007 and 2012, the

developing countries suffered a drop in employment of 0.9 percentage points, and more negatively affected were Southern Asia and Eastern Asia, both regions had a reduction of employment of 2.1 and 1.5 percentage points in relation to population ratio, respectively (MDG Report, 2013)**.**

"Openness" which is measured as the ratio between exports and/or imports (WTO), is also a parameter used in this study, and accordingly as the trade theory states, trade openness should bring benefits where the factor abundance exists.

In this order, the present paper would like to study what the emerging literature and empirical analysis suggest about the effect of trade openness on total unemployment rates in developing countries, and what is the particular effect on female unemployment rates, as women are considered part of the abundant factor in developing countries, who are also vital actors for economic development. Thus, this research will explore whether trade openness increases female unemployment rates in developing countries.

1.2 Significance of the study

Few papers have published the effect of trade on unemployment rates and about trade liberalization and female unemployment, the studies are even more reduced, as most of the papers focus on the positive view, which is in trade and female employment. Also, there are some papers that emphasize particularities such as trade and gender implications; or how trade is connected with female pecuniary activity, mainly focused on trade flows; or trade and female labour force in a specific country (ies), industries, sectors, etc. In other words, there is no formal and recent study that defines the outcome between trade and female unemployment rates in developing countries. Thus, taking into account a variety of factors, such as women

increasing in number within the global market as labour force; their importance for sustainable development around the world, and certainly, the few papers about trade and female unemployment rates create the seed to study more thoroughly about the impact of trade openness on female unemployment rates.

In sum, this study could be a relevant and useful tool in terms of policy input for developing countries to know the effect that trade openness brings to female unemployment rates, considering the fact that women play a main role to increase economic growth in each economy.

1.3 Organization of the Study

This study is organized into five chapters. The first chapter is the Introduction that includes Background, Research Hypothesis, and Significance of this study. Chapter II presents a literature review which contains the theoretical framework and empirical works about the topic. Chapter III contains the data and model specification. Chapter IV finds the empirical analysis that support this study and Chapter V includes conclusions and recommendations.

2. Literature Review

In the view of this paper, which is focused on international trade theory and its relation on female unemployment rates, I have considered the Heckscher-Ohlin theory (H-O model) which emphasizes that economic performance is based on factor abundance; therefore, developing countries with this comparative advantage enjoy a greater probability decreasing unemployment as long as the country utilizes its abundant labour.

2.1 Theoretical View

The Heckscher-Ohlin Theory submits that endowments of factors basically define a country's trade and consequently, it states that countries export those commodities which are required for their production, relatively intensive use of those productive factors found locally in relative abundance (Sikdar and Chakraborty, 2012).

Following the idea of factor abundance, based on the group of researchers of the IMF, Elborgh-Woytek in 2013, emphasized the remarkable influence in economic terms that women wield across countries through the study issued by Aguirre and others (2012), who estimated that of the 865 million women worldwide have the potential to contribute more meaningfully to their national economies, and 812 million live in emerging and developing nations.

Thus, as Krugman (2012) says trade in goods appears as a substitute for trade in factors. In this sense, trade is determined by the differences in factor abundance that are transversely found among countries. So, countries with abundant labor will shift production to export labor intensive production and similarly they will import capital-intensive goods.

Kreickemeier (2006) cites the analysis that Richard Brecher (1974) gives to the classical approach into a Heckscher-Ohlin model in which introduces unemployment. He mentions this trade model requires ″a binding wage floor for one of the factors, which can be fixed in units of either of the goods, or in terms of a price index.″ Also, Kreickemeier says that the background of International trade in the Heckscher-Ohlin model, mentions that ″efficiency wages influences aggregate unemployment because it influences the sectoral structure of production.″ Additionally in the same study the model used by Egger and

Kreickemeier (2006) finds that unemployment may increase or decrease as a result of international trade.

Essentially, the Heckscher-Ohlin theory works with the assumption of full employment, and predicts that countries with an abundance of low-skill labour will specialize in the production of low-skill labour intensive products. Under this principle, the assumption mentioned would be met in developing countries.

Bussolo and others (2002) using the basic model of Heckscher−Ohlin−Samuelson (H−O−S) of comparative advantage, considering it with developing countries, the model predicts output changes in the direction of low-skilled-labour intensive goods, so, in developing countries, the demand for unskilled workers will go up, and this will lead a rise in their wage relative to other factors, which in turn rewards them only when certain low wages products are liberalized of protectionist barriers. Conversely, this study reaches a contrasting result, and underlines that wide empirical analysis points out that developing countries experience the raise of relative wages specifically for qualified labor force.

However, in most of the developing countries, although trade openness has reduced slightly the gap between men and women in terms of labour force participation in the last decades, the female unemployment rates still infer critical percentages. Men with equal or less skills than women can still find a job easier and better positions in the labour market (OECD, 2005), moreover international trade has been moved by increasing employment among highly skilled female workers.

From 2002 to 2007, the female unemployment rate kept numbers higher than men, it was 5.8 per cent, and male unemployment at 5.3 per cent; in this sense, the gap between

women and men in unemployment remained constant at around 0.5 percentage points, implying nearly 72 million women unemployed (ILO, 2012). Considering the factor endowment, as the number of women available for work is relatively abundant, developing countries are able to use female labor force from the high labour pool. Hence, it would reduce the female unemployment rates.

2.2. Empirical studies.

2.2.1. The Effect of trade openness on total unemployment rates.

In many developing countries high levels of poverty may occur due to a lack of employment. Unemployment existed before international trade appeared. Some studies mention that trade has been the key around the world in creating job opportunities, but others classify it as a means to destroy jobs. For instance, in the short run, trade reforms have decreased employment, while in the long run, have found that trade reforms increment employment as it creates new job opportunities. For Krugman, trade should be part of a debate, in relation to efficiency′s impact, and not regarding jobs created or lost. The case

presented by Rama (2003) points out that developing economies implementing openness do lead to transitional unemployment rate, but at the same time, finds that more open economies will not meet higher unemployment rates. According, Dutt, Mitra, and Ranjan (2009), the openness of countries and unemployment appears negatively correlated. They find that unemployment increase in the short-run as an impact of trade liberalization, consequently it is driven into a positive relationship, where there is a reduction in unemployment, inducing a new steady state. Nonetheless, they have also considered in this study the level of job destruction caused by trade liberalization depending on government unemployment benefits.

Hasan and others (2012), conduct a study of India using data in two stages: at the state and industry level related to unemployment rates and trade protection. In their analysis, the evidence was very weak to support the opinion that unemployment would increase through liberalizing trade. Also, a very interesting insight in Hasan's study shows that urban unemployment can be reduced by trade liberalization. Their findings imply that India could reduce unemployment in urban zones if they reduce trade barriers, mostly where there exits vast employment shares in net exporter industries. The study issued by Priya Ranjan (2012) finds that the economy overall on a steady state has an ambiguous result. While trade liberalization increased unemployment in the import sector, it was reduced in the export sector. A different effect in the short and long run was studied by Gabriel Felbermayr and others (2011) in their paper, Trade and unemployment rate: what do data say? The authors suggest that "in the short run, trade liberalization increases job turnover as workers are reallocated from shrinking to expanding sectors… while, …the long run effect of trade liberalization on the equilibrium rate of unemployment is less clear."

Soomro and others (2012) in their study on a country level (Pakistan) and also with a global approach, find the following results: First, at country level, Pakistan shows that globalization has a positive impact in terms of increasing labor force participation, while the opposite result appears when the study is focused on a general level, where, globalization contributes around a zero percent increase to employment. Now, going in detail into developing countries, a study from Krishnamurthy (2012) says that the results between trade and unemployment in those countries is complex, the reactions vary and depends on the sectors studied. In the case of the manufacturing sector, trade openness has a negative relationship to unemployment rate, which runs contrary to the result in the agriculture sector.

2.2.2. The Effect of trade openness on female unemployment rates

Across this study, the priority is to know the impact of trade liberalization on female unemployment. Primarily, women account for around half of the global population, unfortunately with limitations in resources and time, are less able to receive benefits from trade. Women frequently generate a very positive economic impact based on their decisions as they typically invest in their family, health, education, etc., this is that, women contributes and plays an important role in social and economic structure (Korinek, 2005). Nevertheless, in developing countries a significant number of women have low levels of educational achievement; thus, they would not be the main recipients of benefit from trade openness if this liberalization goes simultaneously with an increase in skill level (WTO).

Thus, considering the potential advantages that trade could offer to women, it is relevant to policy makers to know what trade policies or additional adjustments are more suitable in developing countries in order to enhance female employment. If societies would provide better opportunities for women such as accurate educational programs, subsidies for basic food, health care, and smooth procedures to access micro-financial facilities, etc., they would find more chances to be qualified workers, and they would increase the probabilities to find a better job, which lead them to get their own income, improve their living standards, and the life of those who depend on them. It indirectly contributes to extend the economic development in developing economies.

Then, it is pertinent to see what empirical studies have developed about it. In Brazil (Gaddis and Pieters, 2012), where tariff reductions increased female labor force and employment in the short run; where in general, the evidence shows that employment moves positively from one sector to another. Nooreen and others (2012), who found in their study that remittances and globalization increase female labor force participation and reduce

unemployment. A different approach and result was found by Brecher (1974) and David (1998) who used the H-O model, with the inclusion of the minimum wage, found that trade liberalization can exacerbate unemployment. In this vein, Helpman and Itskhoki (2010) said that the opening of trade enhances wage inequality and raises unemployment. This finding supports Sauré and Zoabi (2009) who show that trade liberalization, contrary to expectations based on H-O model, experiences a *decline* in female labor force participation once it uses female labor *intensively*.

Nevertheless, trade openness still display a distributive effect, and this impact is not exclusive for developing countries, but also the developed countries, sometimes avoid serious injuries when sensitive groups can be affected within and among economies. Therefore, as the above literature review implies, it cannot be concluded that trade openness in developing countries may find a conclusive and unique trend regarding female unemployment rates. Thus, it is also important to consider the implementation of adequate policies, promote private sector development, strengthen public institutions, make them effective and with sound functioning; which could help to reduce some negative effects on vulnerable groups in the economies.

3. Data and model specification.

3.1. Data.

To explore whether trade openness would increase the female unemployment rates in developing countries, I used a recent data set consisting of 119 developing countries which was taken from the World Bank's World Development Indicators (2014) over the period of 1990-2012. I have made use of the OLS regression (based on weight tariff-World Bank Data Indicators). I also included control variables to mitigate the effect of omitted variables. In

order to overcome the endogenity problem, I used the initial values available of trade in goods (*ivtrade-g*) as the instrument with Instrumental Variable regressions (IV regressions). The regressions estimate the effect of trade openness on female unemployment rates in developing countries. As a result, I find that female unemployment rates in developing countries is positive and significant correlated in all countries, which resound with Instrumental Variable estimations results. Therefore, the results obtained are robust with different estimation techniques.

This paper will use all the variables measured in average for over a period of 1990-2012. As my main and independent variable I have "trade in goods," denoted as ***av_trade_g***, which is the sum of exports and imports of goods and services measured as a share of gross domestic product measured as a percentage of GDP or known as Trade (% of GDP). In the case of my dependent variables, I use one with "total unemployment rate" denoted as ***av_unemplt*** and the other with "female unemployment rate," denoted as ***av_unemplf.*** Both variables refer to the share of the labor force that is without work but available for and seeking employment measured as the percentage of total and female labor force modeled in ILO estimations. The definitions considered in this study for each variable are according to the catalog of World Bank Group Indicators.

There are several control variables included in the study. I used ″trade in services″ is the sum of services exports and imports divided by the value of GDP; "urban population" refers to people living in urban areas as defined by national statistical offices with the purpose to explore what is the impact on total as well as female unemployment rate in industrialized areas and find out if the unemployment rates increases in areas where exist more population qualified to work; "total population" is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. This variable is

included to verify the impact on female unemployment rate among all people across the country. I do consider it important to include "economic growth" to verify the incidence of the growth rate of GDP on total and female unemployment rates. I also included as a variable the indicator of "female labor participation" measured as the women labour force actually working and what is the impact on the dependent variable. Regarding the model with total unemployment as dependent variable, I included "total labor force participation" to verify the effect coming from the whole mass of workers in developing countries in relation to the total unemployment rates. All control variables are averaged over the period of 1990-2012.

This study is definitely more focused on finding out the effect on female unemployment rates as a result of trade openness in developing countries, seeing female workers as representative of all vulnerable workers across low and middle income countries. Nonetheless, I consider it necessary to find out the effect of trade openness on total unemployment rates in order to understand more thoroughly the effect on female unemployment rates in those countries.

Figure 1: Scatter plot of trade openness and total unemployment rates.

Figure 1, show a positive relationship between trade in goods and total unemployment rates, the more open the trade, the more the total unemployment rates. Also the graphs suggest, more important interactions, which need to be observed carefully. In this sense, these results will be useful in finding out what is the overall meaning of this variation though empirical estimations.
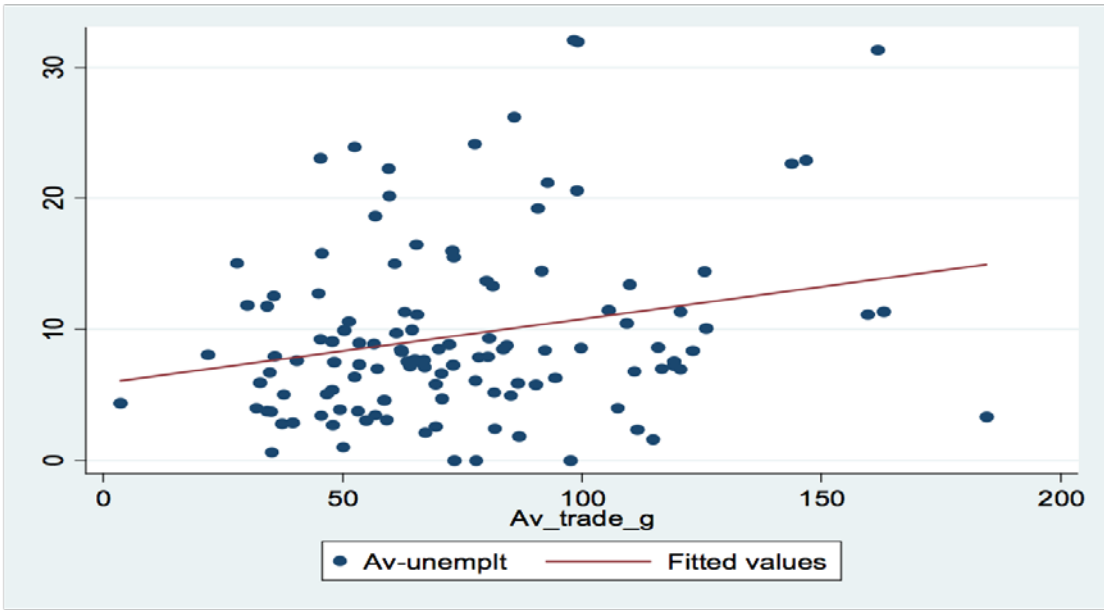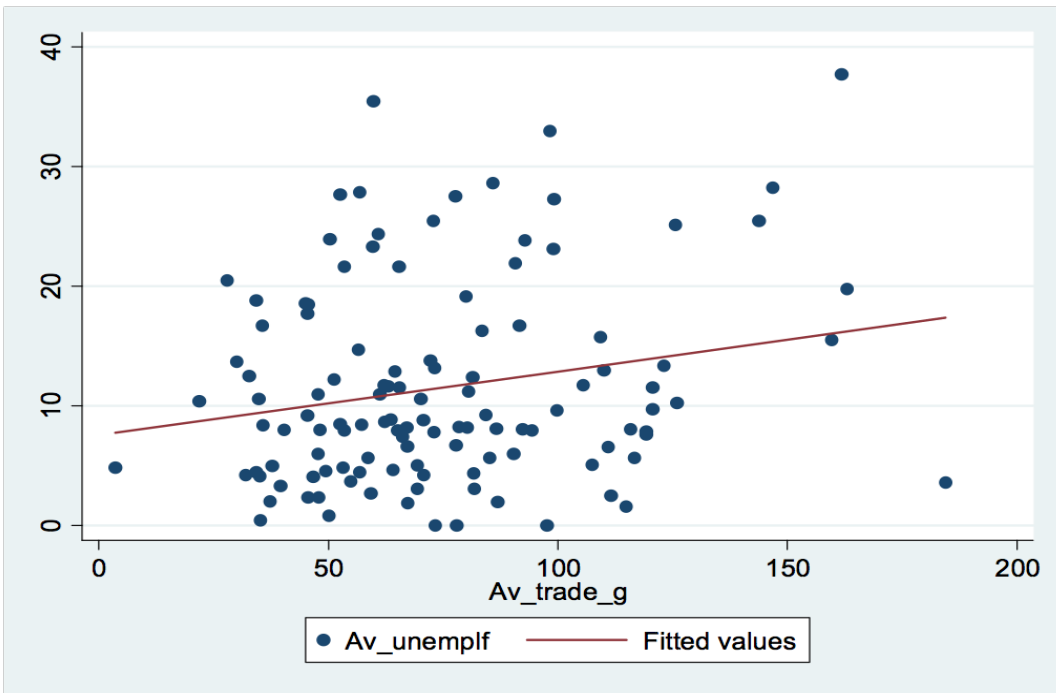
Figure 2: Scatter plot of trade openness and female unemployment rates.

Looking at figure 2, we can observe a very similar pattern, where trade in goods and female unemployment rates show a positive relationship, nevertheless, in this figure the line

shifts slightly more upwards than total unemployment rates graph, which implies that the more the trade openness, the more total unemployment rates, but even higher female unemployment rates. The graph similarly shows a positive correlation, it infers when countries decide to open their economies to trade in goods, female unemployment rates also increases. In addition, I consider that the empirical estimations could offer a closer approach to this relationship; it could explain more clearly what the graph displays with these interactions.

Table 1: The summary statistics and correlation matrix

	av_unemplf	av_tra_g	av_tra_s	avurb_p	avn_pop	av_growth	av_labfem	av_labtot
Panel A: Summary Statistics								
Mean	11.4866	74.417	17.670	44.636	30.492	3.8859	53.59974	66.424
Median	8.8136	67.364	14.487	43.972	8.7897	3.8610	54.94783	66.595
Standard error	8.4145	32.835	16.416	19.931	101.200	2.1751	19.036	10.949
Maximum	37.695	184.60	98.275	90.171	1057.017	12.027	89.547	90.486
Minimum	0	3.5451	0	8.567	0.09916	-1.5066	12.604	41.021
Panel B: Correlation Matrix								
av_unemplf	1.0000							
av_trade_g	0.2074*	-0.1242						
av_trade_s	0.0074	-0.0496	0.4793*					
avurbanpop	0.2391*	-0.1603	0.0510	-0.0320				
avn_pop	-0.1090	0.2997*	-0.2217	-01099				
av_growth	0.0136	0.1191	* -0.0142	0.1642				
av_labfem	-0.4660 *	-0.0298	-0.2282 *	-0.0729	-0.0435			
av_labtot	0.5000*	0.0569	-0.0883	-0.1190	-0.1061	-0.4096*		
Note: * indicates significance at the 5% level.								

Table 1, present the Summary Statistics, which most of the variables show different results about their standard deviations, and it means that trade in goods is more volatile than

female unemployment rates. More volatile is showing more variability of the variables.

3.2. Model specification

To check whether trade openness would affect total unemployment rate and female unemployment rate, I estimate the following regression model:

3.2.1. Model specification between trade openness and total unemployment rates.

$$av\_unemplt = \beta_1 + \beta_2 avtrade\_g_i + \beta_3 avtrade\_s_i + \beta_4 avurbanpop_i + \beta_5 avn\_pop_i + \beta_6 avgrowth_i + \beta_7 av\_labtot + u$$
(1)

In this analysis, where i=1,2,…, is a subscript referred to each country. The dependent variable, in each case, either total unemployment rates (*av_unemplt*) and female unemployment rates (*av_unemplf*), refers to the share of the labor force that is without work but available and seeking employment, both of them measured as an average.

Trade in goods is an indicator of the sum of exports and imports of goods and services expressed as a percentage of GDP but measured as an average. *Trade in services* is the indicator of the sum of service exports and imports expressed as a percentage of GDP. *Urban population* refers to people living in urban areas as defined by national statistical offices, measured as average. *Population* is the indicator that counts all residents regardless of legal status or citizenship. *Growth* is the measurement of wealth. *Female labor participation* is the proportion of the female population with ages 15 and older who are economically active, during a specified period. *Total labor participation* is the proportion of the population with ages 15 and older that is economically active, during a specified period, and *u* the disturbance term. All the values are measured as an average.

I expect that β_2*avtrade_g*<0: the larger trade in goods, the lower total unemployment

rates. More trade in goods, more job opportunities, more chances for people to find employment in the sector. $\beta_3 avtrade\_s < 0$: the larger trade in services, the lower the total unemployment rates. More trade in services, more job opportunities, more chances for people to be hired in the services sector. $\beta_4 avurbanpop > 0$: the larger urban population, the higher the total unemployment rates; in developing countries exist a high number of people that is seeking for employment opportunities, not everybody will be competent to find a job; $\beta_5 avn\_pop > 0$: larger total population, the higher total unemployment rate. The higher the population density, the less chances of finding employment for all the citizens. $\beta_6 avgrowth < 0$: the higher the economic growth, the lower total unemployment rate. In general a wealthier economy will bring better job opportunities for people. And, $\beta_7 av\_labtot < 0$: the larger the total labor participation the lower total unemployment rates. The more people active in the labor force will reduce the total unemployment rates in countries.

3.2.2. Model specification between trade openness and female unemployment rates.

$av\_unemplf = \beta_1 + \beta_2 avtrade\_g_i + \beta_3 avtrade\_s_i + \beta_4 avurbanpop_i + \beta_5 avn\_pop_i + \beta_6 avgrowth_i + \beta_7 av\_labfem + u$
(2)

I expect that for $\beta_2 avtrade\_g > 0$: the larger trade in goods, the higher the female unemployment rates. Trade in goods could increase job opportunities, nevertheless, in many developing countries women seem to be not have benefited from international trade, and female unemployment has been affected by trade openness. $\beta_3 avtrade\_s < 0$: the larger trade in services, the lower the female unemployment rates. More the trade in services, more the non-tradable jobs, more the chances for women to be hired in the services sector. $\beta_4 avurbanpop > 0$: the larger urban population, the higher the female unemployment rates.

More qualified people, is more competitive to find a job for women. Mostly in developing countries where a high number of women are low skilled workers. $\beta_5 avn\_pop < 0$: larger total population, the higher female unemployment rates. Among total population, men have more chances to find employment, it makes difficult for women to find employment opportunities. $\beta_6 avgrowth < 0$:the higher the economic growth, the lower female unemployment rates. A wealthier economy will bring more opportunities for all, then, women potentially will have more chances to find a job. And $\beta_7 av\_labfem < 0$: the larger the female labor participation the lower female unemployment rates. The more women active in the labor market will tend to reduce the female unemployment rates.

4.   Empirical results.

Table 2 reports the estimations regression results with OLS (Ordinary Least Squares). The six columns show the OLS regression estimate results using the sample of all countries.

Regarding the total unemployment rates and contrary to the expectations, in the first column, trade in goods seems to have an important effect in terms of increasing the unemployment rates. The coefficient value is positive and significant, meaning that more trade in goods will increase the total unemployment rates.

It could be explained that in developing economies, when countries are more open to trade, some of them are able to lose if the trading party has a lower minimum wage, in many developing countries, labour unions and legal constraints on occasions are rigid, it brings high wages and as a result unemployment (ILO, 2011). In other words, companies will settle down in those economies where wages are lower, and those economies without this

framework, will have reduced chances to attract firms or to be a ground to create job opportunities, then, this could be the reason why many people could be unemployed. Moreover, firms would prefer to move to countries with more predictable rule of law and flexible labour regulations which strengthen their business environment.

4.1. Total unemployment rates and trade openness in developing countries.

Table 2. OLS Estimates

av_unemplt	(1)	(2)	(3)	(4)	(5)	(6)
av_trade_g	0.049***	0.070***	0.066***	0.063***	0.064***	0.062***
	(0.019)	(0.021)	(0.020)	(0.021)	(0.021)	(0.019)
av_trade_s		-0.089**	-0.082**	-0.083**	-0.084**	-0.102**
		(0.042)	(0.041)	(0.041)	(0.042)	(0.039)
av_urbanpop			0.073**	0.072**	0.073**	0.008
			(0.030)	(0.030)	(0.030)	(0.032)
avn_pop				-0.000	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
av_growth					0.044	-0.113
					(0.285)	**(0.267)**
av_labtot						-0.254***
						(0.057)
_cons	5.902***	5.887***	2.801	3.215	3.013	23.905***
	(1.512)	(1.489)	(1.923)	(2.002)	(2.394)	(5.183)
R^2	0.06	0.09	0.14	0.14	0.14	0.27
N	119	119	119	119	119	119

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

In the second column, when I added trade in services, trade in goods keeps the same outcome. This means that once developing countries increase more trade in services, it could

significantly reduce the total unemployment, which makes sense, because most of workers belong to the informal sectors, which activities are non-tradable in general. The service sector is also related to non-tradable activity, therefore, more low skills workers are frequently hired in the service sectors reducing substantially unemployment rates in those countries.

When urban population is added in the third column, the total unemployment rates increase notably. Such a result is consistent, due to the fact that in the urban areas there is more workforce and also a much better educated and well trained than in rural areas. Thus, women and men who have moved from the rural to urban areas could increase the pool of the total unemployment, as both are part of the bulk of low skill workers and keeping longer periods of time seeking for jobs. In relation to trade in services, the results show a substantial P value as the total unemployment is decreased and this can be as a result of the overall labor force which finds employment in the service sector. At this point, the total unemployment rates is reduced notably.

Once the total population is part of the control variables, the results seem to be consistent in the estimations, the total unemployment rates is not reduced, it may imply that as men as for women in several occasions there is no gain from trade. In addition, it can be explain that among the population, the most affected parts appear mainly female workers, followed by young workers, who are not given a chance to improve their abilities that market demands and get more experience. For them is difficult to be presented as equal to other workers who got the chance to create different experiences. Sometimes job opportunities as a result of trade openness are very limited for the majority in developing countries. Therefore, there is no impact in reducing the unemployment rates.

In the case of growth the outcome is very similar in the six regressions. It can explain the fact that most developing countries do not show a big change in terms of

qualitative numbers in their GDP, therefore, the economic growth does not have a significant impact in their social welfare. Even in those countries with a better economic outcome, it does not mean that the unemployment rate is going to decrease. Also, is important to point out that reducing tariffs or trade barriers will not ensure that countries will increase in trade, consequently, job opportunities will be limited only for some workers. Trade can benefit some groups within society but not everyone. Although society in general can be better off, sometimes, many people will not find a job, so, the total unemployment rates will have a limited and insignificant effect as a result of trade.

In the last regressions of this table, total labor force participation is added. This variable is the only one that show a very strong effect, it has a negative coefficient and remains very significant. Thus, the total unemployment rate is highly reduced when the labour force participation increases across countries. This result makes sense as more people find jobs, more people will be out of the group of unemployed citizens and the total unemployment rates will dramatically decrease.

With the purpose to make the analysis of our estimations more robust, I also use Instrumental Variables (IV) regressions. The values from the IV regressions along with their interpretation is given as follows:

The six regressions in relation to trade in goods appear consistent with the regressions shown in Table 1, which are positive and very significant. I may also add that the coefficient values at any column in the present IV Regressions Table are higher than in the OLS regressions, which offers a more reliable result and means that the control variables are explaining very thoroughly the effect of trade in goods in total unemployment rates in developing countries. Therefore, the coefficient values show that higher trade in goods, will bring higher total unemployment rates.

Table 3. Instrumental Variables regressions: total unemployment rates and trade openness in developing countries.

av_unemplt	(1)	(2)	(3)	(4)	(5)	(6)
av_trade_g	0.075***	0.111***	0.100***	0.097***	0.097***	0.073**
	(0.026)	(0.032)	(0.032)	(0.033)	(0.033)	(0.030)
av_trade_s		-0.128***	-0.115**	-0.114**	-0.115**	-0.113**
		(0.048)	(0.047)	(0.048)	(0.049)	(0.045)
avurbanpop			0.069**	0.069**	0.070**	0.007
			(0.030)	(0.030)	(0.031)	(0.032)
avn_pop				-0.000	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
av_growth					0.075	-0.102
					(0.290)	(0.268)
av_labtot						-0.253***
						(0.057)
_cons	3.936*	3.557*	1.032	1.353	1.028	23.172***
	(2.036)	(2.064)	(2.319)	(2.470)	(2.859)	(5.404)
R^2	0.04	0.06	0.12	0.12	0.12	0.27
N	119	119	119	119	119	119

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Regarding this result it is important to mention that trade in goods usually require tradable activities, such as manufacturing and mining. In order to explain this, in many developing countries it is easy to find a low performance in technological progress and transportation fee; therefore, companies will try to find those countries which boast lower

costs with the purpose to increase their profits. Otherwise, companies that have their agencies in low income countries with higher costs reduce job opportunities to keep their profits. Therefore, the unemployment rates will not decrease. Firms will try to gain more revenues as much as they can. In this line, total unemployment rates will increase. Additionally, trade in services appears in the six columns even more consistent than in OLS regressions, it means that trade in services brings to developing countries a platform of new jobs, mostly because low skill workers in these countries belong to the agricultural sector and the informal one, which major part of their process is non-tradable, very similar as service sector. Therefore, it provides to the unemployed and the low skill workers the chance to be hired in jobs offered in this sector. Thus, it helps in reducing the total unemployment rates.

The urban population variable also shows the same trend as the previous regressions. Then, the interpretation on this would be that trade openness could lead to increase in unemployment, as urban areas especially require more high skill workers, and developing economies count on mostly with low skills workers that cannot fill the demand required. Thus, people will remain unemployed. Regarding the total population variable, it also remains similar to the first regression. Although all the coefficient values appear negative, the effect is not significant, which means that among all population, the unemployment rates are not reduced. As a result, a big number of people, including the youngest generations are subjects of unemployment in developing countries, unfortunately, many of them, can seek for jobs for years without succeeding. The unemployment rates are not reduced at all.

Regarding the economic growth, although the coefficient values appear positive and negative in column 5 and 6 respectively, both are also insignificant. Then, we can infer that the impact is limited. This result can be explained that economic growth in most developing economies does not show important fluctuations in percentages over years. Several low income countries have little changes in growth, and therefore, economic growth itself does

not settle the conditions to decrease unemployment rates. Countries in order to increase growth need at least some improvements in infrastructure, innovation, and respect to rule of law, etc; with all these conditions, once countries increase economic growth, the probabilities would be higher for unemployed people to find a job, due to firms will consider those countries as good fields to start business.

In terms of the total labor force participation, the negative and significant result could be interpreted that as a result of trade openness, the new industries settled in the economy require low skill workers, which is relative abundant factor in developing countries. Then, more low skill workers are required, the supply and demand will find an equilibrium, leading to a substantial reduction in the total unemployment rates.

4.2. Female unemployment rates and trade openness in developing countries.

As most of the literature reviewed has showed a mixed result between trade openness and unemployment rates, the case of female unemployment rates could also expect an ambiguous results, depending on particularities of each country.

From the empirical estimations, trade in goods show a very strong result, which is significant and has an important effect on female unemployment rates. It suggests that trade openness in developing countries increases female unemployment.

These results contradict what is expected with H-O model, nevertheless, the estimation makes sense, because in many developing countries, for instance, where labor unions find space to require higher salaries, the companies will be see reduced their profits, the business environment will be contracted, therefore, demand of labour will be reduced. Under this circumstance, trade reforms do not adjust naturally, as a consequence, economies will meet higher wages, it will lead to less job opportunities, and female workers will be

driven out from formal employment.

Table 4. OLS Estimations.

av_unemplf	(1)	(2)	(3)	(4)	(5)	(6)
av_trade_g	0.053**	0.068**	0.063**	0.060**	0.062**	0.061**
	(0.023)	(0.026)	(0.026)	(0.026)	(0.026)	(0.024)
av_trade_s		-0.061	-0.053	-0.053	-0.063	-0.080*
		(0.053)	(0.052)	(0.052)	(0.053)	(0.048)
av_urbanpop			0.094**	0.093**	0.100***	0.013
			(0.037)	(0.038)	(0.038)	(0.038)
avn_pop				-0.000	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
av_growth					0.362	0.034
					(0.359)	(0.329)
av_labfem						-0.207***
						(0.040)
_cons	7.531***	7.521***	3.532	3.960	2.309	19.009***
	(1.884)	(1.881)	(2.426)	(2.528)	(3.010)	(4.191)
R^2	0.04	0.05	0.10	0.11	0.11	0.29
N	119	119	119	119	119	119

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

This is supported by Elborgh-Woytek and others (2013), who ponder an analysis presented by ILO (2010), it found that women are overrepresented in sectors that are

characterized by low status, pay and part of informal sectors. While trade in goods is significant in relation to female unemployment rate, trade in services shows a different impact. In all regressions the results appear negative and insignificant, which brings the conclusion that trade in services seems to generate a very reduced effect on female unemployment rates.

The result is consistent with the study of Elborgh-Woytek and others (2013), who in their report mention that women have increased their participation in the service sector, around 80% of women employed, in comparison with 60% of men. Although this participation is higher nowadays, unfortunately low wages of women in developing countries have led them to labor intensive services, and it did not show a considerable reduction in the female unemployment rates, especially when men are still controlling sectors such as manufacturing and construction.

Regarding urban population, trade openness has an important impact in increasing the female unemployment rate. There is a general idea that men have more power of bargaining than women, which has derived a negative effect in the probability of women labour force participation in urban areas. Also, this situation is caused in part by men typically having more years of schooling than women, so, their chances to find and get a job are higher. This is consistent what Taymaz (2010) states regarding the Turkish case, which mentions that the share of educated women is much lower than the share of educated men. The employment ratio is extremely low for urban women. Contrary to this, in the total population, female unemployment rate decreases, which make sense in developing countries, as it pointed out, a higher proportion of women are hired in services, and considering that 70% of total employment is in service sector (OECD, 2005), the proportion of women to find a job among the whole population is higher. Across developing countries the female

unemployment rate will be lower.

In terms of economic growth, as opposed to most expectations, female unemployment rate does not show any impact. But in developing countries it could be a very reliable outcome, because when economies show a very low rate of economic growth, it could be an important cause of increasing of unemployment. This is supported not only by OECD (2012), but is also considered in the study cited above of Elborgh-Woytek and others (2013) which based on evidence from previous recessions, concluded that the pattern changed between 2009 and 2011−12, when female unemployment increased over years, while male unemployment saw the opposite trend, either declining or remaining steady. Thus, the female unemployment rates will not decrease due to economic growth.

In relation to female labour force participation, the result is as expected, the impact is negative and very significant. This means that higher female labour force in the market brings a substantial reduction in female unemployment rates in developing countries. More trade openness, more firms in the cities, the business sector will be expanded. Trade openness could give the possibility that more women can participate more actively in diverse sectors in the economy, and it helps with decreasing the female unemployment rates in developing countries.

Instrumental Variables regressions: Female unemployment rates and trade openness in developing countries.

Based on the H-O Model (AlAzzawi, 2013) if women are relatively less skilled than men, so, females should gain from trade in developing countries (that are relatively more abundant in less skilled workers) through increased employment opportunities. Nevertheless, the results presented in this paper show an outcome contrary to the assumptions of the H-O

model. Instead, the results are more in keeping with the outcome of several empirical studies on the topic. The female unemployment rates increases once trade in goods increases.

Table 5. Instrumental Variables regressions: Female unemployment rates and trade openness in developing countries.

	av_unemplf	av_unemplf	av_unemplf	av_unemplf	av_unemplf	av_unemplf
av_trade_g	0.089***	0.120***	0.106***	0.104**	0.104**	0.070*
	(0.033)	(0.041)	(0.040)	(0.042)	(0.042)	(0.037)
av_trade_s		-0.111*	-0.095	-0.094	-0.103*	-0.088
		(0.061)	(0.060)	(0.060)	(0.061)	(0.054)
avurbanpop			0.090**	0.089**	0.097**	0.013
			(0.038)	(0.038)	(0.039)	(0.038)
avn_pop				-0.000	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
av_growth					0.402	0.042
					(0.364)	(0.330)
av_labfem						-0.207***
						(0.040)
_cons	4.848*	4.517*	1.254	1.526	-0.209	18.485***
	(2.542)	(2.609)	(2.926)	(3.121)	(3.595)	(4.512)
R^2	0.02	0.02	0.08	0.08	0.09	0.29
N	119	119	119	119	119	119

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Regarding the Instrumental Variable regressions, the results are consistent with the OLS regressions, even more, the coefficient of trade in goods is higher than in OLS regressions estimates and more significant, it means that trade in goods tend to increase

substantially female unemployment rates.

In the case of trade in goods usually leads to more jobs for men than for women, as an illustration, more men will be hired jobs in manufacturing areas, increasing the female unemployment rates and reducing the lack of job opportunities for women. The result is consistent what the Office of National Statistics (ONS, 2013) of United Kingdom displayed in its report ″Women in the Labor Market″, which says that traditionally a higher number of women than men have worked in services, and the proportion of workers in manufacturing area is in favor of men.

In the case of trade in services, it seems to have a limited impact. Although, the service sector can offer more opportunities for women, but when economies show a insignificant improvement in economic growth, it can be concluded that countries need other policies beyond trade reforms, notably policies related with education, technology, transparency and streamlined procedures, enabling more companies to open more jobs in service sector, causing more women to be employed, reducing the female unemployment rates.

For urban population the results are still in the same line with OLS regressions, the female unemployment rates increase in urban areas, which is consistent with the fact that women are more constrained in access to education and training skills, because they split their time between house´s responsibilities and their professional field. In the majority of countries, women are still at a disadvantaged position in the economy, which reduces the probabilities for them to be beneficiaries from international trade. So, in cities or urban areas, men tend to have more schooling years, becoming more qualified and with more time available to find a job, women will participate less in the labor force, and the female

unemployment rate will not decrease.

Regarding total population, the coefficient value is negative and not significant, meaning that total population has no impact on female unemployment. This result is not consistent with OLS regressions, and it could be explained that each country face trade indistinctly among them, due to their social and economic structure being different. On one hand, some countries can have the ground to create more jobs opportunities for more groups within the economy, in this scenario the female unemployment rates could be reduced, on the other hand, other countries only benefit some groups, and women generally are part of the group negatively affected, then, the female unemployment rates cannot change at all.

When the variable of economic growth is added, the result is a positive coefficient and not significant, it seems to have a limited impact on female unemployment rate, which is consistent with the previous OLS results, when developing countries improve their economies very slightly with difficulty could open employment opportunities. Most of the low and middle income nations usually suffer long periods of recession, it makes that the demand of labour is very reduced and therefore the unemployment rate is high, and sometimes increased. The economy is not able to provide jobs for everyone.

Finally labor force participation makes a substantial difference, the result is negative and very significant, the female unemployment rates decreases remarkably, due to trade openness providing labor intensive jobs, so, women as a relative intensive factor in developing countries, will increase their participation in the workforce and it will directly reduce the female unemployment rates.

5.   Conclusions and Recommendations

Trade openness has extended the ground for more economic agents in the world. The

labour market where men used to perform is no longer exclusive for them as women have become an integral part of it; discrimination among workers has been reduced, not to mention the rise in the participation of women in the development of the economy. The unemployment rates have been increasing over time in the developing countries and yet trade openness has come to create more jobs in export-oriented industries where labour and low-skilled workers are in high demand. As such is the case, most of the women in the labour force tend to be concentrated in those export-oriented sectors. Nevertheless, the female unemployment rates in developing countries remain substantially high.

Although one of the main goals of WTO and ILO is to enhance more employment channelized by trade, the results have varied across countries. Ever since international trade began to take place, developing countries have been seeking to gain a share of the trade volume. In this sense, trade has promoted the reductions of barriers among countries to make easier and faster the flows of products and services around the world. Nevertheless, not all economies have been able to gain benefits from the increasing trade volume. Some groups have gained much less than they potentially could, especially those groups with less advantages in the labour market. At this point, is very important to mention what Alazzawi (2013) considers in her study. Her research suggests that international openness may reduce discrimination among all workers, including women, as well as provide new job opportunities. However, they may also bring a deterioration of the relative position of women in the labour market.

Since women tend to have several responsibilities that limit their labor market experience, it pushes them to be concentrated in a few sectors of economic activity. In addition, as low skill workers women have also limited chances to improved job opportunities and better salaries.

Nowadays, the idea that female participation in the labour market brings high gains in productivity on a variety of ways is still clearly problematic in different sectors and industries among countries. Governments in general do not pay much attention to the significant benefit that women provide for economic development to all countries, which is more remarkably seen in developing countries. In this sense, increasing trade openness is imperative in order to understand: a) if trade openness has a positive or negative effect upon the female unemployment rates in developing countries; b) if women (nearly half of the labour market in the world) are gaining from trade; and c) if trade openness as part of trade policies in developing countries can be the key to increasing the level of female labor force participation in developing countries.

In order to analyze the effect of trade openness in total unemployment rates as well as female unemployment rates in developing countries, this paper uses Ordinary Least Squares (OLS) regressions estimates and Instrumental Variables regressions (IV regressions). This paper studies 119 developing countries during the period 1990-2012. It analyzes the whole sample with the purpose to know what if the effect on the female unemployment rates as a result of trade openness. Furthermore, it was used as a robustness check in Instrumental Variable (IV) regressions. The results showed more consistency, because the coefficient values appeared higher than OLS regressions. In general, IV regressions reaffirm the OLS estimations regression results. Nevertheless, in our expectations, total unemployment rates, found an opposite result, the more trade openness, the more total unemployment rates. In general most economies are better off due to trade, therefore, decreasing unemployment is what we would expect, nevertheless, in developing countries it makes sense to find sound conditions that bring an opposite outcome. In the case of female unemployment rates, the result show what was expected, the more trade openness, the more female unemployment

rates. Women are still a very vulnerable group in developing countries, thus, they can be easily affected by alterations in the economy when countries do not have proper conditions to absorb those changes, essentially when it implies a strong economic impact for these groups.

The evidence points to the fact that for total unemployment and female unemployment rates increase when economies are more open to trade in goods. Particularly, in total unemployment rates the results show that once trade in goods increases in developing countries, the unemployment rate is highly affected. Women and young people are a very important part of the economy. This result suggests that a majority in the economy are seeking for job, who do not find it and the unemployment rate is not decreased. Therefore, openness to trade in goods does not have any effect on the reduction of total and female unemployment rates. In general, the results indicate that although open economies might not create enough jobs to reduce the unemployment rates, it does not aggravate the existing unemployment rates.

Explaining in more detail the results about female unemployment rates, OLS estimation results showed consistency; more trade openness led to higher female unemployment rates. The results are confirmed in the IV regressions. Hence, trade openness continues to raise female unemployment among developing countries. In general, trade in goods does not seem to be the key factor in ridding of female unemployment rates in the developing countries.

Once the total population is part of the control variables, the results seem to be consistent in both estimations (total and female unemployment). It may suggest that most of developing countries do not have the production structure to absorb trade; therefore, there is no creation of job opportunities as a result of trade openness. Likewise, there is no impact on reducing the unemployment rates for both females and males. The coefficients values are

higher in IV regressions which confirm the consistency in the whole sample tested with OLS regressions.

The correlation between total and female unemployment rates and trade in goods is positive and very significant. The impact of trade openness in 119 countries was essentially the same for both samples: total and female unemployment. They showed that trade openness increases both total and female unemployment rates. This study can help to think ahead and take into account that countries should consider additional policies and another economic adjustments to make sure that the majority of the players in the economy can gain from trade. Trade policies on their own cannot be the universal cure to solve the economic issues or guarantee economic development in those countries.

Thus, it may be wise to conclude that decreasing female unemployment rates in developing countries may not rely only in the reduction of or elimination of tariffs with the belief that such initiatives can support more women to gain from trade, and therefore increasing the level of welfare across societies. In addition, I can conclude that the implementation of trade policies is only one part of the tools and mechanism that governments can use in order to increase trade openness in their economies and increase job opportunities for women. Based on these results, trade in goods is not a solution per se to reduce the female unemployment rates in developing countries. Nevertheless, I can deduce that additional policies concerning trade openness could promote a healthier environment within economies to provide more work suitable for women. With more access to education, financial facilities, adequate training, and greater involvement in entrepreneurial activities, women can become better qualified, and increase their opportunities in new market segments. It could surely open a secure path to decrease the existing female unemployment rates, and increasing the overall social welfare. In the end, we see that those developing countries that

succeed in improving the living standards of women see as a direct result greater well-being

for society at large.

References.

Afrim, Loku, and Deda Gazmend. 2013. Unemployment in relation of growth population. *International Journal of Research in Social Sciences* 2(2): 31-38.

AlAzzawi, Shireen. 2013. Did Trade Liberalization Benefit Female Workers? Evidence on Evidence on Wage and Employment Effects from Egypt. The Economic Research Forum, Working Paper 787. Giza, Egypt. http://www.erf.org.eg/CMS/uploads/pdf/787.pdf. accessed on 13 June 2014.

Bussolo Maurizio, Mizala Alejandra, and Pilar Romaguera.2002.Beyond Heckscher–Ohlin: trade and labour market interactions in a case study for Chile. *Journal of Policy Modeling* 24(2002): 639-666.

Contessi, Silvio, Francesa De Nicole, and Li Li. 2013. International Trade, Female Labor, and Entrepreneurship in MENA Countries. Federal Reserve Bank of St. Louis Review Working Paper No. 2012-053C. United States. http://research.stlouisfed.org/publications/review/13/01/Contessi.pdf. accessed on 17 August 2014.

De Cordoba, Santiago, Sam Laird, Jean-Christophe Maur, and Jose Maria Serena. 2005. *Trade liberalization and adjustment costs*, Trade Analysis Branch. UNCTAD, Geneva. accessed on 10 August 2014.

Dutt, Pushan, Devashish Mitra, and Priya Ranjan. 2009. International trade and unemployment: Theory and cross-national evidence. *Journal of International Economics* 78(1): 32-44.

Elborgh-Woytek, Katrin, Monique Newiak, Kalpana Kochhar, Stefania Fabrizio, Kangni Kpodar, Philippe Wingender, Benedict Clements, and Gerd Schwartz. 2013. Women, work and the Economy: Macroeconomic Gains from Gender Equity. SDN/13/10. International Monetary Fund (IMF) accessed on 18 August 2014.

Felbermayr, Gabriel, Prat Julien, and Hans-Jörg Schemerer. 2011. Trade and unemployment: What Do the Data Say?. *Economic European Review 55(6): 741-758.*

Gaddis, Isis and Janneke Pieters. 2012. Trade Liberalization and Female Labor Force Participation: Evidence from Brazil. Discussion Paper 6809. Institute for the Study of Labor, Bonn, Germany. http://ftp.iza.org/dp6809.pdf. accessed on 12 July 2014.

Gender and Trade in The Multilateral Trading System. Geneva Women in International Trade. http://www.wto.org/ accessed on 12 August 2014.

Hasan, Rana, Devashish Mitra, Ranjan Priya, and Reshad Ahsan. 2012. Trade Liberalization and unemployment: Theory and evidence from India. *Journal of Development Economics* 97(2): 269-280.

Helpman, Elhanan and Oleg Itskhoki. 2010. Labor Market Rigidities, Trade and Unemployment. *Review of Economic Studies, Oxford University Press* 77(3): 1100-1137.

International Labour Organization.*Trade and Employment. From Myths to Facts.* Gevena: ILO, 2011. http://www.ilo.org/. accessed on 15 August 2014.

International Labour Organization. *Global Employment Trends for Women 2012.* Gevena: ILO, 2012. http://www.ilo.org/. accessed on 15 August 2014.

Korinek, Jane. 2005. Trade and Gender: Issues and Interactions. OECD Trade Policy Working Paper 24, Organisation for Economic Co-operation and Development (OECD), Paris, France.http://www.oecd.org/trade. accessed on 3 June 2014.

Kreickemeier, Udo. 2006. Unemployment in Models of International Trade, 1-28. University of Nottingham. United Kingdom. http://www.kreickemeier.de/unemployment.pdf. accessed on 17 August 2014.

Krishnamurthy, R. 2012. Trade Openness Policy, Institutions, & Unemployment: Evidence from developing Countries. Presented on November 10, 2012 at The Association for Public Policy Analysis and Management, Baltimore, MD. Fall Conference. Arizona State University.

Martin, Rama. 2003. Globalization and the labor market. *The World Bank research observer 18(2): 159-186.*

Mujahid, Noureen, Shabbir Muhammad Shahbaz and Shahbaz Muhammad. (2016). Labor Market Conditions-Female Labor Supply Nexus: The Role of Globalization in Pakistan. Global Business Review. http://gbr.sagepub.com/. accessed on 5 July 2014.

Narlikar, Amrita. 2006. Fairness in International Trade Negotiations: Developing Countries in the GATT and WTO. World Economy 29 (8):989-1155.

Sikdar, Chandrima and Debesh Chakraborty. 2012. Bilateral trade between India and Sri Lanka – does factor content matter? (Paper submitted for the 20th IIO Conference to be held at International School of Input-Output Analysis). Bratislavia, Slovakia June 24-29 2012. The International Input-Output Association (IIOA). www.iioa.org. accessed on 10 September 2014.

Office of National Statistics (ONS).*Women in the Labor Market.* United Kingdom, 2013. http://www.ons.gov.uk/ons/rel/lmac/women-in-the-labour-market/2013/rpt---women-in-the-labour-market.html accessed on 2 September 2014.

Oslington, Paul. 2005. Unemployment and Trade Liberalisation. *World Economy 28(8): 1139-1145.*

Organization for Economic Cooperation and Development. *Growth in Services. Fostering employment, productivity and innovation.* Paris: OECD, 2005. http://www.oecd.org/general/34749412.pdf accessed on 10 September 2014.

Paul R. Krugman, Maurice Obstfeld, and Marc J. Melitz (2012) *International Economics: Theory & Policy*, 9th edition, Pearson.

Ranjan, Priya. 2012. Trade liberalization, unemployment, and inequality with endogenous job destruction. *International Review of Economics & Finance* 23(2012):16-29.

Sauré, Philip, and Hosny Zoabi (2009). Effects of Trade on Female Labor Force Participation. The Swiss National Bank Working Paper, Zurich, Switzerland. http://www.snb.ch/n/mmr/reference/working_paper_2009_12/source/working_paper_2009_12.n.pdf. accessed on 17 August 2014.

Swamy, Gurushri. 2004. The Impact of International Trade on Gender Equality. World Bank, Washington, DC. United States. https://openknowledge.worldbank.org/handle/10986/11271. accessed on 1 September 2014.

Soomro, Riaz. H.; Nasar-ul-eman, Syed Muhammad, and Farooq Aziz. Impact of Economic Globalization on Unemployment: Global and National Perspective. *Interdisciplinary Journal of Contemporary Research in Business* 3 (2012): 605.

Taymaz, Erol. 2010. Growth, Employment, Skills and Female Labor Force. State Planning Organization and World Bank. Working Paper 6. Ankara.

Thurlow, James. 2006. Has trade liberalization in South Africa affected men and women differently?. Discussion paper 36, International Food Policy Research Institute. Washington, United States. http://www.ifpri.org/. accessed on 6 September 2014.

United Nations. *The Millenium Development Goals Report*. New York: UN, 2013. http://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf. accessed on 13 June 2014.

United Nations. *The World´s Women 2010. Trends and Statistics*. New York: UN, 2010. http://unstats.un.org/unsd/demographic/products/Worldswomen/WW_full%20report_color.pdf. accessed on 13 June 2014.

United Nations Conference on Trade and Development. *Trade, Income, Distribution and Poverty in Developing Countries*. Switzerland: UNCTAD, 2012. http://unctad.org/en/PublicationsLibrary/osgdp20121_en.pdf accessed on 20 June 2014.

World Bank. Economic Growth in the 1990s. Trade Liberalization: Why so much controversy? Washington: WB, 2005.

World Bank Group. http://www.worldbank.org/ accessed on 29 May 2014.

World Bank Data Indicators. http://data.worldbank.org/indicator accessed on 21 June 2014.

World Trade Organization. www.wto.org. accessed on 30 June 2014.

World Trade Organization (2013). World Trade Report 2013. Factors shaping the future of world trade. http://www.wto.org/english/res_e/booksp_e/world_trade_report13_e.pdfhttp://www.wto.org/english/res_e/booksp_e/world_trade_report13_e.pdf. accessed on 13 September 2014.

World Trade Organization. *Trade and Employment. Challenges for Policy Research*. Switzerland: WTO Secretariat, 2007.http://www.wto.org/english/res_e/booksp_e/ilo_e.pdf. accessed on 15 September 2014.

World Trade Organization. Globalization and Informal Jobs in Developing Countries. Switzerland: WTO Secretariat, 2009. http://www.wto.org/english/res_e/booksp_e/jobs_devel_countries_e.pdf. accessed on 15 September 2014.