Gender Segregation in Employment in Bosnian and Herzegovinian Labor Market

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Abstract
This paper analyses employment segregated market, as method of discrimination that is rather common and present in Bosnia and Herzegovina’s (B&H) labor market. Data on B&H’s labor market were gathered, and examined by using a Mann Whitney test. Since this nonparametric test does not depend on normality of data, it was a best fitting test, for two independent populations, male and female population. Results of our analysis on analysis of person in employment by group of economics activities, shown that in B&H more men are employed than women, and women appear to be more economically inactive in all three groups of sections of economics activities that are selected for the analysis namely agriculture, industry and service sector. In order to resolve this problem several recommendations were given among which primary research on education attainment and employment opportunities should be conducted on the country level. It is needed to insure that gender equality law and gender action plan will be fully and equally implemented across the country, at all levels and entities.

1. INTRODUCTION
By the definition occupational segregation is the segregational distribution of people across and within occupations and jobs, most often classified by gender, as one of the most present demographic characteristic, by which segregation is done. This term is often found under gender segregation in employment. It refers to unequal distribution of men and women in occupational structure (often referred to as ‘occupational segregation by sex’). It can be present in two forms - vertical and horizontal segregation. By vertical segregation it is considered that men are at top of occupational hierarchies while women are at bottom. This is type of clustering. Horizontal segregation is situation where at same occupational level (man and women have different job tasks. This paper provides an analysis of gender inequality within the occupational group that is not pure horizontal or vertical segregation. By this study will be proved that women are actually underrepresented in three main groups of sections of economic activities in B&H labor market - agriculture, industry and service sector.
Clear distinction between occupational segregation and labor market segmentation needs to be made. First one refers to those in such jobs that are kept apart and where there is no effective competition between these categories. Second (labor market segmentation) refers to specific segment within the firm, where each segment has its own condition of employment, and different career reward. These two categories does not have to be necessarily related since there are societies where the sexes are separated into different sorts of occupations, but woman have access to good working conditions and they can have prosperous opportunities for carrier development.

Primary reason behind the problem of gender segregation in employment in Bosnia and Herzegovina’s labor market lies in the fact that women in the labor market have low labor force participation rate. This is also one of the reasons behind the large gender differences in the sectored composition of employment.

Gender equality in labor market is crucial in order to ensure a fair and productive labor market which provides decent work for man and woman. By definition of International Labor Organization gender equality embraces equality of opportunity and treatment, equality of remuneration and access to safe and healthy working environments, equality in association and collective bargaining, equality in obtaining meaningful career development, maternity protection, and a balance between work and home life that is fair to both man and women. This framework of gender equality in Bosnia and Herzegovina (B&H) is guaranteed in B&H by its law, the Parliamentary Assembly of Bosnia and Herzegovina passed the Gender Equality Law (GEL) in 2003 (revised in 2010). GEL is the most important mechanism for progress towards gender equality in the country. It prohibits discrimination on the grounds of sex and sexual orientation.

Inequalities in Bosnian and Herzegovinian labor market are highly pronounced. Occupational segregation (especially horizontal ones) are highly present in Bosnia and Herzegovina labor market. This is one of current and burning issues in the modern labor market economics as well. Modern labor market often fails to provide equal opportunities to all its users. That is the exact case in Bosnia and Herzegovina. Therefore this topic should be set as priority and more elaborated in B&H. According to Labor force surveys and statistical reports, Bosnian and Herzegovinian labor market is reporting high inequalities in terms of occupational segregation among the genders. This paper tries to address the problems of segregation by gender in employment, more precisely in the three major sections of economic activities (occupations) such as agriculture, industry and service sector. Possible solutions and recommendations will be provided.

2. LITERATURE OVERVIEW

Since gender inequality on labor markets is problem that is deeply rooted in many societies, it has been area of interest of many researchers. Gender inequality occurs on many levels, from chances to getting a job, or retaining a job, wage differences, promotional possibilities, inequalities on the level of education, to discrimination based on the sector where only specific gender works (occupational segregation). This was examined by many authors.

Kara (2006) investigated occupational gender wage discrimination in Turkey, and found that gender wage gap decreases with education, is less present in public sector, and varies across occupations. Segregation is said to be one of the most important factors in explaining pay differences. Gender occupational segregation has shown stability since the 1960s and it is similar across different countries. Cohen and Huffman (2003) reported through empirical research close link between gender segregation (at various levels) and earnings inequality, showing that female representation depresses wage rates.

Cotter, Hermsen and Vanneman (2003) investigated effect of occupational gender segregation across the race. Finding show that occupational gender segregation does in fact hurt the earnings levels of all women. Del Rio and Alonso – Villar (2010) analyzed occupational segregation by gender in Spain, as a country where occupational segregation explains a large part of the gender wage gap. Gauchat, Kelly and Wallace (2012) found results that indicate that occupational segregation is still the leading determinant of gender earnings inequality, that its effects are only slightly diminished by the presence of globalization, and that various aspects of the global economy independently influence the gender earnings gap.

Deutsch and Jacques (2002) examined reasoning for the segregation in ten European countries. The question was whether segregation is due mainly to the existence of “very male” intensive occupation or to the presence of very female intensive occupations.

Neuman (1998) states that in Israeli labor market gender occupational segregation is higher than ethnic segregation. Study on existence of discrimination in urban and rural labor markets in Brazil according to gender criterion and education level was done by Loureiro, Carneiro and Sachsida (2004). Results of this study have shown that returns to education are different for black and white workers, male and female, and that there is difference according to these characteristics in urban and rural areas.

Benjamin (2011) stresses on the importance of deskilling in changing labor market rewards for women employed in traditionally feminine service occupations.

Turner and Monk – Turner (2007) researched on gender differences in occupational status in the South Korean Labor market. The research findings were following: occupational segregation by gender was more extreme in 1988 than 1998. In 1988, 83.3 percent of all female workers were employed in three broad occupational categories. Few women (5.4 percent) worked as professional, technical or administrative workers. By 1998, 11.5 percent of female workers were employed as professionals. The highest paid occupational categories, in South Korea, have the lowest percentage of female workers.
Women benefit from additional educational experience, though less so than holds for men, and from being in a union (in 1988). Women are penalized, in terms of occupational status prestige, when working in large firms and when married. Findings show that if South Korea aims to make full use of the human capital of all workers, measures need to address how women might enjoy returns on their educational investment that approach those realized by men. Therefore gender segregation in employment has been area of interest of many researchers and has been investigated for many countries, but in B&H’s labor market not many researchers have investigated on this topic.

3. METHODOLOGY

All data collected for this research is secondary data. Data is gathered from data bases and Agency for Statistics of Bosnia and Herzegovina and labor force survey (LFS). Time period of data analyzed is from reterent time period of year 2006 to year 2015 (10 years period). Through this time period, segregation indicators on person in employment by gender criterion are being analyzed.

Data used for this research is not normally distributed, therefore nonparametric tests will be used. These tests are conducted in statistical software named Statistical Package for the Social Sciences (SPSS) version 20. Therefore, test that will be used is Wilcoxon Signed - ranks samples test or in SPSS test named Mann - Whitney for two independent variables. Mann - Whitney test is numerically equivalent to the Wilcoxon rank sum test.

Therefore a nonparametric procedure requires nonparametric analysis as it is a Wilcoxon rank sum test nonparametric analysis for two independent populations. If sample sizes are small and we cannot or do not want to make the assumption that the data in each sample are taken from normally distributed populations. Wilcoxon rank sum test is used, that does not depend on the normality of the two populations, as it is the case here.

Accordingly, in this analysis sample 1 and sample 2 for all 3 analysis performed are being used. Sample 1 is male, and sample 2 is female, so in the analysis these values were assigned accordingly.

Research hypothesis is designed along one main hypothesis:

\[ H_0: \text{Genders are equal by employment in specified sector} \]

\[ H_1: \text{Genders are not equal by employment in specified sector} \]

The following analyses are examining persons in employment by groups of sections of economic activities and by gender classified into three sections (working in occupation of agriculture, service sector or industry), and then examines gender ine/quality by using Mann Whitney nonparametric test.

4. RESULTS

Results of three analysis on persons in employment by group of section of economic activities (agriculture, industry, and service sector) and examined by gender criterion shows following.

I ANALYSIS OF PERSONS IN EMPLOYMENT BY GROUP OF SECTIONS OF ECONOMIC ACTIVITIES AND BY GENDER (IN AGRICULTURE)

\[ H_0: \text{Genders are equal by employment in agriculture sector} \]

\[ H_1: \text{Genders are not equal by employment in agriculture sector} \]

<table>
<thead>
<tr>
<th>Type of Employment by Section of Economic Activity</th>
<th>p value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0.029</td>
<td>significant/reject Ho</td>
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</tbody>
</table>

Table1: Persons in Employment by Group of Sections of Economic Activities by Gender (Agriculture)

Note: if p<0.05 significant/reject Ho
if p>0.05 not significant do not reject Ho

According to this analysis, there is a gender inequality in section of economic activity of agriculture (p value 0.029). Since p value is less than 0.05 we reject the Ho hypothesis and we can conclude that genders are not equal in the occupational sector of agriculture in Bosnia and Herzegovina. This can also be seen from the real data in appendix one, where throughout all year’s figures on male employment in agriculture are sometimes twice as higher than those of female employment. Generally women in Bosnia and Herzegovina tend are present in the agriculture but as unpaid workers, not in the salaried sector or as employed.

II ANALYSIS OF PERSONS IN EMPLOYMENT BY GROUP OF SECTIONS OF ECONOMIC ACTIVITIES AND BY GENDER (IN INDUSTRY)

\[ H_0: \text{Genders are equal by employment in industry sector} \]

\[ H_1: \text{Genders are not equal by employment in industry sector} \]

<table>
<thead>
<tr>
<th>Type of Employment by Section of Economics Activity</th>
<th>p value</th>
<th>Explanation</th>
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<tr>
<td>Industry</td>
<td>0.00 01</td>
<td>significant/reject Ho</td>
</tr>
</tbody>
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Table2: Persons in Employment by Group of Sections of Economic Activities by Gender (Industry)

Note: if p<0.05 significant/reject Ho
if p>0.05 not significant do not reject Ho

*/** - statistically significant, respectively at 1% and 5% level
Industry sector is generally characterized as male dominated sector, which has been also proven by this analysis. Accordingly, p value is 0.0001 and genders are not equal in the occupation of industry.

From the real data it can be seen that employment of females in occupation of industry is in certain years four times lower than those of man within the same year, for instance in year 2010 employment of males was amounting to 210,000 while those of females amounted to 51,000.

III ANALYSIS OF PERSONS IN EMPLOYMENT BY GROUP OF SECTIONS OF ECONOMIC ACTIVITIES AND BY GENDER (IN SERVICE SECTOR)

$H_0$: Genders are equal by employment in service sector

$H_1$: Genders are not equal by employment in service sector

<table>
<thead>
<tr>
<th>Type of Employment by Section of Economics Activity</th>
<th>p value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service sector</td>
<td>0.002</td>
<td>significant/ reject Ho</td>
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Table 3: Persons In Employment By Group Of Sections Of Economic Activities By Gender (Service Sector)

Note: if p<0.05 significant/reject Ho
if p>0.05 not significant do not reject Ho
Note: */** - statistically significant, respectively at 1% and 5% level

Service sector is usually characterized as female dominated occupation. According to p value of 0.002 we can conclude that genders are not equal in the service sector, where according to real numbers there are more men employed in the service sector than there are women. Therefore the common reporting fact of many researchers on B&H labor market, that there are more females employed in service sector than males is proven as wrong by this analysis.

5. CONCLUSIONS

In Bosnia and Herzegovina’s labor market women are less employed than man. Women are more associated with unpaid activities such as helping with the farming, upbringing the children and taking care of elderly people. This problem can be referred to as problem of women’s economics exclusions.

Labor Force Survey (2009) estimated that out of the total number of women employees in the formal economy, 71 percent worked in the wholesale or retail trade, the education sector, healthcare, and social work. The evidence also shown that there is low participation of women in the private sector, possibly due to it being incompatible with the demands of women’s family responsibilities.

B&H labor market also shown that increase in job opportunities is primarily taking place in male dominated industries such as construction or trade for which most of the women do not have qualification. Bosnia and Herzegovina labor market should construct gender sensitive employment policies in order to achieve poverty reduction and to experience countries growth in general which is precondition for creation of stable labor market, where all right of workers regardless of gender can be satisfied.

Results of this research of person in employment by groups of sections of economics activities by gender shown following:

- in all occupations (agriculture, service sector and industry) $H_0$ hypothesis has been rejected leading to conclusion that man are more presented in all occupations.
- overall labor market of Bosnia and Herzegovina is having lower labor force participation of females than those of males
- overly is in all three sectors that are analyzed, agriculture, industry and service sector women are underrepresented.

In order to achieve gender balance in employment following steps are needed to be done: create friendly environment for the foreign investors, since this leads to job creation, ensure that women entrepreneurs are at least 30% of beneficiaries of all credit lines (domestic and foreign funds) provided by the government; undertake research on self-employment in B&H with a gender analysis; since women tend to be much less self-employed than man. (Somun-Krupalija,2011).

There are many recommendations on what is to be done in order to achieve equality of gender in B&H’s labor market among following should be priorities:

1. Conduct primary research on the relationship between educational attainment and employment opportunities for both man and women
2. Conduct primary research on the relationship between family responsibility and employment opportunities for both man and women
3. Ensure that gender equality law and gender action plan are fully and equally implemented across the country, and that different labor and social protection regulations could be harmonized between Republic of Srpska, Federation of Bosnia and Herzegovina and District of Brčko.
4. More affirmative action policies needs to be undertaken to increase the number of women in the workforce, such as a quotas in boards and management and mentoring programs.
5. Socially responsible activities should be undertaken in order to raise awareness of the problem, and to combined trainings on gender equality such as raising awareness of government employees and trade unions on the legal framework that exists and its implications so that women can fully and equally participate labor force.
Therefore it can be concluded that better employment plan for male dominated industries is highly needed. This is most commonly achieved through the vocational training in order to provide women with generally male technical skills.

Overall there is no statistical evidence that segregation may lead to discrimination, but it definitely leads to exclusion and economic inactivity of less preferred gender by labor market and in this case those are female employees. Bosnia and Herzegovina’s labor market recognizes still the old fashioned terms such as male and female occupations. In order to repress this unhealthy habit of prejudice and division among occupations, previously mentioned recommendations need to be implemented.

REFERENCES