

## **GLASS CEILING PHENOMENON IN TRANSITION ECONOMIES - THE CASE OF SOUTH EASTERN SERBIA**

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**Abstract.** *The aim of the paper is to test the existence and the height of the glass ceiling for women in South Eastern Serbia. The research aims to determine the difference in the level of education between employed men and women, the participation of women in managerial positions, as well as the level of management in which they participate equally or participate at all. These issues are analyzed in the context of industry, type of ownership and size of the enterprise. The additional aim of the paper is to make a comparative analysis of business performances of enterprises in which women have a share in managerial positions, compared to the enterprises with an all-male management structure.*

**Key Words:** *glass ceiling, discrimination, business performances, South Eastern Serbia*

### INTRODUCTION

Although theoretically conceived in developed economies, the phenomenon of the glass ceiling, that is invisible ceiling through which women can see higher hierarchical positions but cannot reach them [18], was and still is virtually present in the transition countries. The ideology of gender equality was officially the ideology of the former communist system countries, but in practice, the domination of men in the public and in the business sphere was a fact [15]. Removing the barriers for women's career promotion is one of the aspects of reaching gender equality and exploiting the full potential of all members of society. Given the persistence of the traditional values in the Serbian society [10, p. 1097; 19, p. 46], the assumption is that the women in Serbia are in a worse position than the women in most EU countries regarding this issue. Therefore, breaking the glass ceiling for Serbian women is of a particular importance for their professional and individual development and for the progress of this transition society as a whole. The existence and

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height of the glass ceiling for Serbian women will be evaluated in the business context of the South Eastern Serbia.

Apart from the gender equality issues, involving women in management teams has been gaining in importance given the fact that gender-diversified management teams can improve the quality of decision making and management. In that sense, the relationship between the increased participation of women in management teams and business performances should be examined.

The paper is structured as follows: The conceptual framework for developing hypothesis and the hypothesis themselves are presented in the second section of the paper. After explaining the methodology and showing the research results in the third part of the paper, these results are discussed and certain concluding remarks are presented. Limitations of the study and propositions for further research are presented in the final part of the paper.

## 1. CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

The glass ceiling refers to the invisible barrier that keeps women away from the managerial positions, especially away from the top management level [22]. This ceiling is *made* of glass which makes it invisible, but nevertheless the existence of the barrier limits the vertical carrier movement of women [2]. If the glass ceiling exists, women are unable to move up to higher management levels despite their qualification and abilities [16]. In most EU member states women make more than half of new university graduates, but they are still the underrepresented gender in a decision making positions [8]. Basic indicators on secondary education in the Republic of Serbia show that half of the pupils in the regular upper secondary education are girls [25]. More than half of the newly enrolled students in Serbia are women also [24]. More important for the management potential of women is the fact that 59% of all graduate students in the tertiary education in Serbia are women [25]. Women represent the majority of graduate students in almost all levels of studies in the Republic of Serbia (Table 1).

**Table 1** Gender composition of graduated students by level of studies

| Level of studies              | % of graduated women students<br>(Republic of Serbia) | % of graduated women students<br>(Region of the South Eastern Serbia) |
|-------------------------------|---|---|
| All levels of studies         | 59%   | 60%   |
| First stage studies           | 57%   | 63%   |
| Basic academic studies        | 57%   | 61%   |
| Basic vocational studies      | 57%   | 63%   |
| Second stage studies          | 60%   | 58%   |
| Master and integrated studies | 60%   | 58%   |
| Specialist vocational studies | 43%   | 58%   |
| Specialist academic studies   | 69%   | 50%   |
| Third stage studies           | 48%   | 53%   |
| Doctorate academic studies    | 48%   | 53%   |

Source: [25]

Going down from the national to the local level, the participation of women in the number of high and higher educated individuals in the South Eastern Serbia is slightly lower – but still almost equal to the relative number of men (Table 2).

**Table 2** Population aged 15 and over by educational attainment and sex in the South Eastern Serbia

|                                | Total   | male   | % male | female | %female |        |                     |
|--------------------------------|---------|--------|--------|--------|---------|--------|---------------------|
| Total                          | 1347323 | 661251 | 100%   | 49.08% | 686072  | 100%   | 50.92%              |
| Without educational attainment | 50823   | 9472   | 1.43%  | 18.64% | 41351   | 6.03%  | 81.36% <sup>1</sup> |
| Primary education              | 314513  | 152185 | 23.01% | 48.39% | 162328  | 23.66% | 51.61%              |
| Secondary education            | 605683  | 334124 | 50.53% | 55.16% | 271559  | 39.58% | 44.84%              |
| High education                 | 68440   | 36642  | 5.54%  | 53.54% | 31798   | 4.63%  | 46.46%              |
| Higher education               | 99472   | 51146  | 7.73%  | 51.42% | 48326   | 7.04%  | 48.58%              |
| Unknown                        | 6700    | 3128   | 0.47%  | 46.69% | 3572    | 0.52%  | 53.31%              |

Source: [25]

In the context of the official data for the general population level, the first hypothesis that will be tested refers to the educational level of the employed men and women in the South Eastern Serbia. Therefore, the following hypothesis is defined:

H1: *There is no significant difference in the level of education of the employed men and women in the South Eastern Serbia.*

Women represent about one half of the work force but only for a minority of them carrier advancement means reaching managerial positions [17]. Working men have more experience in managerial roles than working women [11; 26]. As a barrier that prevents carrier advancement for women, not because of their lack of education, but because of their gender, glass ceiling can exist at different levels, but it mainly blocks the advancement toward the top management positions [20]. Not only are they less likely to be managers at all, but the probability of being a top manager is lower for women as well [1; 4; 14]. When they do have certain managerial experience, women dominantly gained it in the operational management level [11]. Related to the discussion about the educational level, it can be stated that although there is no difference in that regard, there is a difference in the management experience of men and women, in favour of men.

Although growing, the rate of women's participation on boards is still low. In 2013 only one in six members, that is 16.6% of the board members of large publicly listed companies in the EU 27 were women [7]. Keeping the current dynamics, it would take 50 years to accomplish the EU goal of at least 40% of each gender in the boardrooms<sup>2</sup>. The

<sup>1</sup> It is interesting to note that the significant majority of all individuals without educational attainment are women. It is reasonable to assume that the majority of these women are older. Nevertheless, this fact signals that women have a significantly worse socio-economic status.

<sup>2</sup> Of the 33 countries covered by the European Commission database, only two – Iceland and Norway – are close to this goal, and both countries have introduced a quota system for the composition of business boards [7]. The *quotas* instrument is aimed to achieve a wider and deeper participation of women in different spheres of public life. Defining quotas for the inclusion of the under-represented gender in corporate management is a

situation is not better in the USA as well. In the US, women represent more than a half of the population, and almost a half of the workforce but only 12% of the corporate officers of the Fortune 500 companies are women [21]. Regardless of the fact that there are more graduated women than men, and that there are more working women that are professional experts – the number of men legislators, administration officials and managers is greater than the number of women in these occupations in the Republic of Serbia [23]. Less than one third (29%) of the legislators, administration officials and managers in the Republic of Serbia are women [ibid.]. Given the available data, it seems that the glass ceiling phenomenon is a statistical fact and that it represents one kind of the subtle form of gender discrimination in the workplace [22].

This discussion leads to a development of the hypothesis regarding the gender composition of the business management structure in the South Eastern Serbia. Therefore, it is hypothesized that:

H2a: *The number of female managers is significantly lower than the number of male managers in any level of managerial positions.*

H2b: *The male centred composition of the management structure is particularly pronounced in the top management level.*

Given their relational perspective [3], the involvement of women in management teams can encourage dissemination of information, and thus facilitate decision making [13]. Women have multiple roles in their lives, and they are often forced to balance between their personal and professional obligations [5], so this can make them more competent for multitasking [13]. This reasoning has been proved by certain studies whose results show that gender diversified management teams contribute to business performances [8; 13], and particularly in firms that are pursuing high growth [6]. Studies show that those companies which promote women workers are more successful [9], and that those companies which use the full potential of their employed women are the ones that have competitive advantage and greater results with regards to profits and sustainability [12]. In line with the presented results, the third hypothesis has been developed:

H3: *There is a positive correlation between gender diversified management teams and better business performances.*

## 2. METHODOLOGY AND RESULTS

The research presented in this paper included 119 enterprises and 24 entrepreneurs and corresponds to a proportional structure of the employers in the South Eastern Serbia. The research was conducted in January and February 2014. The questionnaire was designed for employers with questions concerning the gender structure of employees, education level of employees (the share of higher educated employees), management structure (the number of top, middle and operational management positions) and the

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measure that causes different reactions, but its supporters state that this is a measure for an effective realization of the gender equality goals.

amount of earnings realized in the respondent companies. The structure of the sample according to gender and educational level of employees is presented in Table 3.

**Table 3** Educational and gender structure of the sample

| Education               | High education | Other levels |
|-------------------------|----------------|--------------|
|                         | 92%            | 8%           |
| Gender                  | Female         | Male         |
|                         | 41%            | 59%          |
| High educated employees | 44%            | 56%          |

The methods which are used in order to conduct analyses are: descriptive statistics, chi-square test, z-test, correlation analysis. The sample includes 15564 employees, 6338 of which are female. Such gender structure (40.72% of female employees) corresponds to the global gender structure of the labour force in South Eastern Serbia (40.48% of female employees) and it is slightly less than the country share (41.98%). The structure of the sample regarding the participation of employed women is presented in Table 4.

**Table 4** Participation of female employees in the research units

|               | Female employees participation |           |          |      | Total |
|---------------|--------------------------------|-----------|----------|------|-------|
|               | 0%                             | Up to 50% | Over 50% | 100% |       |
| Enterprises   | 7                              | 76        | 32       | 4    | 119   |
| Entrepreneurs | 3                              | 8         | 7        | 6    | 24    |
| Total         | 10                             | 84        | 39       | 10   | 143   |

According to the data in Table 4, there are 11 enterprises and 9 entrepreneurs which are so-called “purely male” (7 enterprises and 3 entrepreneurs) or “purely female” (4 enterprises and 6 entrepreneurs). Given the fact that it is reasonable to analyse the glass ceiling phenomenon in gender diversified business environments, these units will be excluded from the analyses.

From the aspect of business type, all enterprises and entrepreneurs in the sample were classified into four groups: (1) construction companies, (2) industry, (3) service companies and (4) companies in the field of recycling and ecology. The reason why recycling is separated from the rest of the industry is the strategic and economic significance which the development of this branch has not only for South Eastern Serbia, but for the whole of Serbia as well. Namely, the latest report of the European Commission, at the very moment of the commencement of accession negotiations with the EU, clearly emphasizes that environmental protection in Serbia is at a low level. The structure of the sample according to business type and percent of female employees is presented in Table 5.

The Chi square test showed that there is no dependence between the analyzed types of business sectors and the share of female employees ( $p=0,386$ ).

**Table 5** Share of female employees in different business sectors

| Share of female employees |                 | Business sector |                       |          |                   | Total |
|---------------------------|-----------------|-----------------|-----------------------|----------|-------------------|-------|
|                           |                 | Construction    | Recycling and ecology | Industry | Service companies |       |
| 0%                        | Count           | 1               | 0                     | 7        | 2                 | 10    |
|                           | % within sector | 20.0%           | .0%                   | 8.0%     | 4.9%              | 7.0%  |
| Up to 50%                 | Count           | 4               | 8                     | 49       | 23                | 84    |
|                           | % within sector | 80.0%           | 88.9%                 | 55.7%    | 56.1%             | 58.7% |
| Over 50%                  | Count           | 0               | 1                     | 27       | 11                | 39    |
|                           | % within sector | 0.0%            | 11.1%                 | 30.7%    | 26.8%             | 27.3% |
| 100%                      | Count           | 0               | 0                     | 5        | 5                 | 10    |
|                           | % within sector | 0.0%            | 0.0%                  | 5.7%     | 12.2%             | 7.0%  |
| Total                     |                 | 5               | 9                     | 88       | 41                | 143   |

The number of high educated employees in the sample is 1228. The number of high educated female employees is 539 and they represent 8.50% of total females in the sample and 43.89% of all high educated employees. The highest share of women in the structure of high educated employees is in the field of recycling and ecology. The average share of highly educated women by business sectors is given in the following table.

**Table 6** Average share of high educated women in different business sectors

| Sector                                   | Construction | Recycling and ecology | Industry | Service companies | Average |
|--|--------------|-----------------------|----------|-------------------|---------|
| Women's share in high educated employees | 35.60%       | 54.22%                | 48.76%   | 51.63%            | 49.47%  |

In order to test hypothesis H1, the level of education is expressed through percent of high educated employees. So, this hypothesis can be formulated in the sense that there is no difference in the percent of high educated employees between employed men and women.

There are 9226 men in the structure of employees in the sample. 689 are highly educated, which makes 7.47% of the employed men. The significance of the difference in participation of highly educated men and women was tested by using the *z-test*. The realized value of the significance level of the test ( $z=0.66$ ,  $p=0.509$ ) indicates that there is no statistically significant difference between the share of highly educated men and women in the population of the employed individuals in South Eastern Serbia.

The number of male managers in the sample is 597, while the number of women occupying management positions is 317, which means that the number of men in managerial positions is almost two times higher. Regarding the relative structure of managers, it can be noted that 65.32% of the management positions in the sample belong to men, while women's participation is 34.68%. According to the applied testing procedure, the significance of the difference in the participation of women and men in managerial positions ( $p=0.0002$ ) led to the conclusion that the number of female managers is significantly lower than the number of male managers in any level of management position.

The levels of top and middle management in the sample are also dominated by men. Within 334 positions of top and middle management, 235 positions are occupied by men,

while women take only 99 positions. The relative structure of the top and middle management positions according to gender is 70.36% compared to 29.64% in favour of men. According to the formulated hypotheses that male centred composition of the management structure is particularly pronounced at the top management level, the one-tailed test of the significance of the difference between two independent proportions has been applied. The test result confirmed the accuracy of the hypothesis ( $p=0.0001$ ).

Testing the hypothesis about the correlation between gender diversified management teams and better business performances is based on variables related to the women's share in management positions and the revenue per employee in 2013 and the average amount of earnings. As an appropriate measure of correlation, the Pearson Correlation Coefficient was calculated. The results obtained by calculation, as well as the significance level, are presented in the table below.

**Table 7** Value of Pearson correlation coefficient between selected variables

| Variables  | Revenue per employee in 2013 | Earnings       |
|--|------------------------------|----------------|
| Women's share in all management positions            | -0.026 (0.788)               | -0.062 (0.493) |
| Women's share in top and middle management positions | 0.080 (0.407)                | 0.022 (0.808)  |
| Women's share in operational management positions    | 0.091 (0.346)                | 0.036 (0.693)  |

According to the results presented in the table above, it can be seen that there is negative correlation between the women's share in all management positions and the selected business performances measures. If the participation of women in various levels of management is considered separately, the correlation with business performances measures is positive, but weak. These results do not support the hypothesis about positive correlation between gender diversified management teams and better business performances because their statistical significance is very low.

### 3. DISCUSSION AND CONCLUSION

When it comes to participation in groups of highly educated people generally, discrimination against women cannot be noticed, since their participation is a little less than 50%. Although Table 6 indicates that there is a difference in average share of highly educated men and women, the results of hypothesis testing ( $z=0.66$ ,  $p=0.509$ ) show that there is no statistically significant difference between the share of highly educated men and women. These results are in line with the statement of the first hypothesis that there is no significant difference in the level of education of the employed men and women in South Eastern Serbia. Inappropriate levels of education, therefore, cannot be an excuse for the fact that women are underrepresented in the management structures.

In accordance with the assumption that there is a glass ceiling for women in South Eastern Serbia, the statistically testing procedure shows that the number of female managers is significantly lower than the number of male managers in any level of managerial position. More precisely, there is no statistically significant difference between the shares of highly

educated men and women – 65.32% of management positions in the sample belong to men, while women's participation is 34.68%. The conclusion is based on  $p$ -value, which equals 0.0002, which shows that hypothesis H2a should be accepted.

As the discussion goes on, new reasons for confirming the glass ceiling phenomenon appear. More precisely, the analysis of the hypothesis that most directly concerns this phenomenon, H2b, is based on the fact that the relative structure of the top and middle management positions according to gender is 70.36% compared to 29.64% in favour of male managers. The  $P$ -value confirms the accuracy of this hypothesis ( $p=0.0001$ ).

The results of the last hypothesis analysis are not clear enough to lead to obvious and firm conclusions. Even though the results of the correlation analysis between women's share in all management positions and business performances indicate negative values, the conclusion is blurred with the results of the same kind of analysis concerning correlation of women's share in specific levels of management (top, middle, operational) and business performances (positive values are indicated). Therefore, the H3 hypothesis cannot be accepted based on the data used in this research and analysis.

#### 4. LIMITATIONS OF THE STUDY AND FURTHER RESEARCH

This study is an initial step in revealing the existence and height of the glass ceiling in South Eastern Serbia. The presented analysis is limited by the available data, the data which was gathered as an additional part of a wider project that is not primarily focused on the glass ceiling issues. This data limitation became obvious particularly in the part of testing the H2b hypothesis. Namely, the structure of the questionnaire (which was not specially defined for this research) did not provide a clear distinction between the middle and the top management levels. Further on, the results of testing the H3 hypothesis could have been different if another performances measure had been used. Together with exploring the height of the glass ceiling toward the top management levels, further directions for academic research of this phenomenon are also related to a need for a deeper analysis of determinants of the glass ceiling phenomenon, and for investigating the awareness of this issue among the employees and employers in Serbian companies. Only this kind of holistic approach to the problem can give a solid base for defining measures in order to break the glass ceiling.

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## **FENOMEN STAKLENOG PLAFONA U EKONOMIJAMA U TRANZICIJI – PRIMER JUGOISTOČNE SRBIJE**

*Cilj rada jeste istraživanje postojanja i visine staklenog plafona za žene u regionu Jugoistočne Srbije. Namera je da se istraživanjem utvrdi postojanje razlika u nivou obrazovanja između zaposlenih žena i zaposlenih muškaraca, prisustvo žena na menadžment pozicijama, kao i nivoa menadžment pozicija na kojima su žene podjednako, ili na kojima su uopšte zastupljene. Navedeni aspekti biće sagledani u kontekstu pojedinih grana, privrednih subjekata različite veličine i vlasničke strukture. Pored toga, u radu će biti prikazani i rezultati komparativne analize poslovnih performansi privrednih subjekata u kojima su žene zastupljene na menadžment pozicijama i onih u kojima nisu.*

**Ključne reči:** *stakleni plafon, diskriminacija, poslovne performanse, Jugoistočna Srbija.*