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**Original Scientific Paper** 

# Glass Ceiling over Private Equity: The Case of Emerging Markets

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Abstract: The study investigated the glass ceiling in private equity companies in emerging markets. The research covered 119 private equity companies, members of the Emerging Markets Private Equity Association. The companies employed 736 top executives, in forty-two countries. The results showed that women occupied sixty-six top executive positions, representing 8.97 percent. The results also showed statistically significant differences in the average values of the percentage of women occupying the top executive positions, depending on the geographic location of the companies. The geographic distribution of the average values showed a significant correlation with the economic development levels and the Hofstede cultural dimensions.

Key words: Glass Ceiling, Private Equity, Emerging Markets

# Stakleni plafon nad private equity kompanijama - slučaj brzorastućih tržišta

Apstrakt: Ova studija je istraživala stakleni plafon u private equity kompanijama na brzorastućim tržištima. Istraživanje je obuhvatilo 119 private equity kompanija, koje su članice Emerging Markets Private Equity Association. U analiziranim kompanijama je bilo zaposleno 736 ljudi u top menadžmentu, u 42 zemlje. Rezultati su pokazali da su žene bile zaposlene na samo šesdeset i šest pozicija top menadžmenta, odnosno 8.97 procenta od ukupnog broja. Rezultati su takođe pokazali statistički značajnu razliku u prosečnim vrednostima zaposlenosti žena na pozicijama top menadžmenta, u

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zavisnosti od geografske lokacije analiziranih kompanija. Geografska razuđenost prosečnih vrednosti je takođe pokazla statistički značajnu korelaciju sa nivoima ekonomske razvijenosti, kao i sa Hosftede dimenzijama kulture.

Ključne reči: Stakleni plafon, private equity, brzorastuća tržišta

#### 1. Introduction

Do women occupy the top executive positions in private equity companies operating in emerging markets? Are female executives equally represented in private equity companies in different geographic locations across the globe? The purpose of this research is to answer those questions and to provide an overview on the status of women in the top executive positions in the industry which, just in 2012, raised \$40.3 billion for investments (Emerging Markets Private Equity Association, 2013a).

Although women have made progress entering management positions across the globe, there are still few at the top executive levels (Wanzenried, 2008). According to the Grant Thornton International Business Report (2012: 2). women hold 21 percent of the senior management positions globally, but less than 10 percent of the Chief Executive Officer (CEO) positions. In the United States, the top management positions are dominated by men (Goodman et al., 2003), while women occupy only 7 percent of the Chairman, Chief Executive Officer, Chief Operating Officer (COO), and the Executive Vice-President positions (Hoobler et al., 2011), while that number is even lower for the Fortune 500 and Fortune 1000 CEO positions - only 4.2 percent (Catalyst, 2012). At the same time, the empirical evidence shows that women are as effective as men in leading companies (Buckalew et al., 2012), and that their representation in the top management improves firm performance (Dezco & Ross 2012). Although the general data on the glass ceiling has been published in academic literature, the data on the glass ceiling in private equity in emerging markets has not. The term "private equity" refers to investments into equity of companies, which are not listed on the stock exchange (Mbhele, 2011), as well as to equity of companies, which have stopped being listed on the stock exchange, after an investment by a private equity company. Private equity companies invest money, and, in return, receive equity (Gompers & Lerner, 2004), thus becoming the partners who, among other things, share the business risk. Because they share the business risk, private equity companies also provide their investees with knowledge, networks, and experience (Portmann & Mlambo, 2011), and thus, foster their growth (Eric et al., 2009). In return, private equity companies seek to realize profits from their investments (Stefanovic & Vuckovic, 2012).

The objective of this research is to provide an overview of the status of women in the executive positions in private equity companies operating in emerging markets, and to give information about geographical differences in number of female executives across different world regions. For the research study, the following hypotheses were defined: a) women are underrepresented at the top executive level in private equity companies operating in emerging markets, and b) the percent of female executives, in private equity companies operating in emerging markets, depends on the geographic location of the private equity company.

## 2. Methodology

For the study, the members of the Emerging Market Private Equity Association (EMPEA) were analyzed. EMPEA is a global association of the leading private equity managers and investors, operating in emerging markets and managing more than one billion dollars in assets (Emerging Markets Private Equity Association, 2013b). The data was collected for 168 private equity companies (i.e. the fund managers), members of EMPEA, representing the full sample. The data was extracted from the official EMPEA web presentation, as self-reported by the fund managers, as well as from the official web presentations of the fund managers. The information for 119 fund managers was available, while the information for forty-nine fund managers was not available. For the study, the number of male and female employees, occupying the top executive positions, at the fund managers, was used. The top executive positions were defined as the Managing Partner and Partner level positions for the fund managers organized as partnerships, and the CEO and Managing Director positions for the fund managers having other forms of organization. In the sample of 119 fund managers, 736 individuals occupied the top management positions.

The data was analyzed from four aspects, using the SPSS software<sup>4</sup>:

- The analysis of the total percentage of females occupying the top executive positions. Out of the 736 managers, 670 were males and sixtysix females. The robust bootstrapping method, on the sample of 1,000, was used for the determination of the standard error and the confidence interval (CI).
- 2) The analysis of the association between the geographic coverage and the female representation at the top executive level. Out of the sample, more than 50 percent of the fund managers had their headquarters in the United States, United Kingdom, South Africa, India, and Brazil (Appendix

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 $<sup>^{4}</sup>$  IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.

- A). The one-way, between groups, ANOVA was used. The dependent variable was the representation of the females occupying the top management positions, while the independent variable was the continent where the fund managers had their headquarters. The standard error and the 95 percent confidence interval were determined by the bootstrapping method, based on the sample of 1,000.
- 3) The analysis of the association between the geographic coverage and the female representation at the top executive level. The data on the classification of the economies, using the gross national income (GNI) per capita as the criteria, was utilized (World Bank Group, 2013). According to the classification, the economies were split into four categories:
  - a. High-income economies (\$12,476 or more),
  - b. Upper-middle-income economies (\$4,036 to \$12,475),
  - c. Lower-middle-income economies (\$1,026 to \$4,035), and
  - d. Low-income economies (\$1,025 or less).

The dependent variable was the percentage of the females occupying the top management positions, while the independent variable was the classification group of the country where the fund manager had its headquarters. The standard error and the 95 percent confidence interval were determined by the bootstrapping method, based on the sample of 1,000.

4) The analysis of the association between the Hofstede cultural dimensions (HCD) and the female representation at the top executive level. The country data on the Power Distance (PDI), Individualism vs. Collectivism (IDV), Masculinity vs. Femininity (MAS), Uncertainty Avoidance (UAI), and the Long-term Orientation (LTO) were collected from the online Hofstede Centar (Hofstede Centre, 2013). The dependent variable was the percentage of the females occupying the top executive positions, while the independent variables were the Hofstede cultural dimensions, where the fund manager had its headquarters (Appendix A). The standard error and the 95 percent confidence interval were determined by the bootstrapping method, based on the sample of 1,000. The calculation of the Spearman's coefficient of correlation, between the percent of the female representation and the HCD, was performed, in order to define the direction and the size of the association between the variables. The cases with the missing values were deleted pair-wise.

#### 3. Results

The results of the study showed the following:

The analysis of the total percentage of females occupying the top executive positions. In the sample of 119 fund managers, 736 individuals occupied the top executive positions. Out of the 736 individuals, 670 were males and sixty-six females. The total representation of females in the top management, for the entire sample, was 8.97 percent, with the 95 percent CI [8.07 percent, 9.82 percent]. The Table 1 shows the statistical results of the analysis.

Table 1. Percent of the female representatives at the top executive level position

	Statistic Boo			otstrap <sup>a</sup>				
		Bias	Std. Error	95% Confide	ence Interval			
				Lower	Upper			
Mean	8.97	02	.48	8.07	9.83			
N	736							
Std. Deviation	12.72	04	.50	11.73	13.67			
a. Bootstrap results are based on the 1,000 bootstrap samples								

Source: Author

2) The analysis of the association between the geographic coverage and the female representation at the top executive level. The results of the oneway ANOVA showed a statistically significant difference (F(4,731) =13.714, p < .01,  $\eta^2 = .069$ ) in the average values of the percentage of females occupying the top executive positions, depending on the geographic position of the headquarters of the fund managers. The Levene's test indicated the violation of the assumption of the equality of the variances (F(4,731) = 47.947, p < .01), but, upon the adjustment of the number of the degrees of freedom, the Welch's test confirmed (F(4, 234.46) = 20.866, p < .01) a statistically significant difference in the average percentage values. Furthermore, it was noticed that the fund managers, having their headquarters on the continents characterized by a lower level of the economic development (i.e. South America and Africa), did have a significantly lower representation of females occupying the top executive positions, 3.74 percent, 95 percent CI [2.64 percent, 4.85 percent], compared to the fund managers having their headquarters on the continents characterized by a higher level of the economic development (i.e. Europe, North America, Asia), 10.75 percent, 95 percent CI [9.58 percent, 11.96 percent]. The Table 2 shows

the statistical results of the analysis. The pair-wise comparisons per continents, as well as the mean geographic values, can be found in Appendix B.

Table 2. The geographic coverage and the female representation in the top management

Group of continents		Statistic	Bootstrap <sup>a</sup>					
			Bias	Std. Error	95% Confidence Interval			
					Lower	Upper		
	Mean	3.74	04	.57	2.64	4.85		
South America and Africa	N	187						
	Std. Deviation	8.00	08	.62	6.66	9.09		
	Mean	10.75	.02	.59	9.58	11.96		
Europe, North	N	549						
America and Asia	Std. Deviation	13.52	01	.55	12.46	14.68		

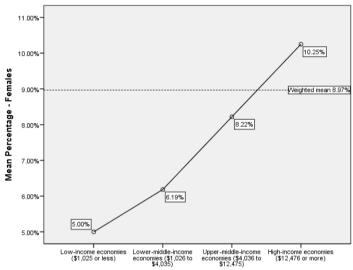
a. Bootstrap results are based on 1,000 bootstrap samples

Source: Author

3) The analysis of the association between the economic development and the female representation at the top executive level. The results showed statistically significant differences in the representation of females in different World Bank economic development categories. The Fig. 1 shows the relationship between the female representation and the World Bank classifications.

The Levene's test did not confirm the fulfilment of the assumption of the equality of the variances (F(3,732) = 4.224, p < .01). The results of the one-way ANOVA showed a statistically significant difference (F(3,732) = 3.848, p < .01,  $\eta^2$  = 0.01) in the average values of the female representation at the top executive level, depending on the classification of the economies. The linear contrast analysis indicated a statistically significant trend of growth (F(3, 28.37) = 17.7836, p < .01,  $\eta^2$  = 0.01) in the female representation in the top management, with the increase in an economic development of the country having registered headquarters of the fund manager. The Table 3 shows the results of the contrast tests.

Figure 1. Female representation and the World Bank country classifications



The World Bank Country Classifications

Source: Author

Table 3. The linear contrast test

			Contrast	Value of Contrast	Std. Error	Т	Df	Sig. (2 tailed)
Percent	of	Assume equal variances	1	17.78	8.83	2.02	732	.04
partners	Does not assume equal variances	1	17.78	5.81	3.06	28.378	.01	

Source: Author

4) The analysis of the association between the Hofstede cultural dimensions (HCD) and the female representation at the top executive level. The female representation percentage variable had a statistically significant correlation with four out of five Hofstede cultural dimensions. The female representation percentage, at the top executive level, had a negative correlation with the Power Distance ( $r_s$  (684) = -,132, p < .01) and the Uncertainty Avoidance ( $r_s$  (684) = -,257, p < .01) dimensions. The

percentage of females variable also had a positive correlation with the Individualism ( $r_s$  (684) =,165, p < .01) and the Masculinity ( $r_s$  (684) = ,133, p < .01) dimensions. The relationship between the female percentage and the Long-term Orientation was not statically significant ( $r_s$  (520) = ,059, p = .182). The Table 4 shows the results of the correlation analysis.

Table 4. Association analysis - percent of female representation and the Hofstede cultural dimensions

 17 <sup>**</sup>	,13**	**		=
, , , ,	,13	-,26	,06	1,00
,00	,00	,00	,18	
684	684	684	520	736
1	684	684 684	1 684 684 684	, , ,

Source: Author

## 4. Discussion

Based on the research results, the following hypotheses were confirmed:

Hypothesis 1: Women are underrepresented at the top executive level in private equity firms operating in emerging markets. The results of the research show that the total representation of females, in the top management, for the entire sample was 8.97 percent, with the 95 percent CI [8.07 percent, 9.82 percent]. Thus, the results show a significant underrepresentation of the female executives in the top executive positions, as reported, in the private sector, by other research studies (Berry & Franks, 2010; Buckalew et al., 2012). The results are in line with the current industry private equity research, which shows that women occupy 8.7 percent of the top management positions in private equity companies outside the United States and Europe, 8.9 percent in the United States, and 9.1 percent in Europe (Preguin, 2012, as cited in Social Networking Women, 2012). The results are also in line with the results Grant Thornton International Business Report (2012: 2), showing less than 10 percent of women occupying the top executive positions globally. The results also show geographic disparities, which were also noticed in the overall private sector (Chanavat 2012). When compared

to the 2003 study, showing that only 3-5% of the top positions were occupied by women in the United States (Goodman et al., 2003), the results of the research show a slightly better situation in the private equity sector, potentially due to a trend of an increased number of females in the top management (Fain, 2011). Furthermore, the results of the study support the research showing that female executives tend to work in high risk industries (Paul & Sahni, 2009). The overall results for Europe are close to those of the United States, although, in some developed countries, such as the Netherlands, the studies show the women occupy only about 3.3% of the executive board seats in the general private sector (Sools et al. 2007). When compared to up to 3% of women occupying the top executive positions in large corporations across the globe (Berry & Franks 2010), the results of the studies also show that there is still room for improvement across many different industries and sectors, as the financial sectors is, besides the healthcare and energy, one of the most advanced sectors for providing equal opportunities to women (Chanavat 2012).

Hypothesis 2: The percent of female executives, in private equity companies operating in emerging markets, seems to be associated with the geographic location of the private equity company. The results of research show a statistically significant difference in the average values of the percentage of females occupying the top management positions, depending on the geographic position of the headquarters of the fund manager. It was noticed that the fund managers, having their headquarters on the continents characterized by a lower level of economic development (i.e. South America and Africa), did have a significantly lower representation of female executives, 3.74 percent, 95 percent CI [2.64 percent, 4.85 percent], compared to the fund managers having their headquarters on the continents characterized by a higher level of economic development (i.e. Europe, North America, and Asia), 10.74 percent, 95 percent CI [9.58 percent, 11.96 percent]. Therefore, the results indicate that the percent of female executives in private equity companies operating in emerging markets does depend on the geographic location. Apart from the geographic location, other authors report implicit bias, exclusion from social and information networks, lack of quality mentoring, discrimination, and tokenism (Cook & Glass, 2013; Berry & Franks 2010) as the major variables in influencing representation of women at the top executive levels.

Based on the statistical data, a lower representation of women in the top management, in different geographic areas, can be partially explained by: a) the economic development (as classified by the World Bank), and b) the cultural specifics (as described by the Hofstede Cultural Dimension Theory). As far as the economic development is concerned, the research results show

statistically significant differences in the representation of females in different World Bank economic development categories. The results of the linear contrast analysis indicated a statistically significant trend of growth in the female representation, at the top executive level, with the increase in economic development of the country having registered headquarters of the fund manager. Therefore, the results show that the level of economic development does influence the representation of female executives in private equity companies operating in emerging markets.

As far as the cultural specifics are concerned, a lower representation of females, at the top management positions, in different geographic areas, can also be explained by the cultural specific, as defined by the Hofstede Cultural Dimension Theory. The female representation percentage, at the top executive level, had a negative correlation with the Power Distance and the Uncertainty Avoidance dimensions. Thus, the countries which try to equalize the distribution of power and have less rigid codes of belief and behavior tend to have more women in the top management of private equity companies. The percent of female variable also had a positive correlation with the Individualism and the Masculinity dimensions. Therefore, the countries with loosely-nit social networks and competitive attitudes also tend to have more women at the top executive level. Based on the data, the representation of women in the top management is strongly influenced by the cultural characteristics of different countries. The cultural specific data also matched the economic development data.

One of the limitations of the research is that it was conducted only on the members of the Emerging Markets Private Equity Association. Although the EMPEA is the representative body of private equity companies operating in emerging markets, any future research could be expanded to include other associations and private equity companies.

### 5. Conclusion

The study shows that women are underrepresented at the top executive level in private equity companies operating in emerging markets. It shows that, although women represent more than fifty percent of the world population, they still occupy very few of the top decision making positions. Future research studies could follow the members of the Emerging Markets Private Equity Association over the next decade to analyze the improvements in the representation of the female executives, or to analyze any potential changes relating to the geographic or economic characteristics. Furthermore, any future studies could analyze whether the top female executives help other women advance in private equity companies in emerging markets. Lastly, any

potential research studies could focus on the reasons why there is a significant underrepresentation of females in the top executive position in private equity companies in emerging markets.

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Appendix A Breakdown of the Fund Managers

Country	Percentage – Females	PDI	IDV	MAS	UAI	LTO	# of top managers
Argentina	0.00%	49	46	56	86		5
Austria	0.00%	11	55	79	70	31	3
Belgium	5.56%	65	75	54	94	38	18
Brazil	5.26%	69	38	49	76	65	38
Cambodia	16.67%						6
Canada	10.00%	39	80	52	48	23	10
China	27.27%	80	22	66	30	118	33
Colombia	0.00%	67	13	64	80		2
Egypt	0.00%	70	25	45	80		13
France	0.00%	68	71	43	86	39	2
Georgia	0.00%						2
Germany	33.33%	35	67	66	65	31	3
Ghana	0.00%	80	15	40	65		8
Greece	0.00%	60	35	57	112		4
India	6.98%	77	48	56	40	61	43
Ireland	0.00%	28	70	68	35	43	2
Jordan	0.00%						4
Kenya	0.00%	64	27	41	52	25	12
Kuwait	60.00%	90	25	40	80		5
Lebanon	0.00%	75	40	65	50		4
Madagascar	0.00%						2
Malaysia	0.00%	104	26	50	36		5
Mauritius	7.69%						13
Mexico	0.00%	81	30	69	82		19
Nigeria	5.56%	80	30	60	55	16	18
Poland	0.00%	68	60	64	93	32	7
Romania	16.67%	90	32	42	90		6
Russia	16.67%	93	39	36	95		12
Senegal	0.00%						2
Singapore	6.25%	74	20	48	8	48	32
South Africa	5.88%	49	65	63	49		51
Spain	6.67%	57	51	42	86	19	15
Switzerland	0.00%	34	68	70	58	40	3
Tunisia	0.00%						23
Turkey	0.00%	66	37	45	85		4
United Arab Emirates	0.00%	90	25	50	80		26
United Kingdom	9.47%	35	89	66	35	25	95
United States	13.14%	40	91	62	46	29	175
Vietnam	18.18%	70	20	40	30	80	11
Total	8.97%	57	60	58	52	41	736

# Appendix B Association between the Geographic Location and the Female Representation

(I) Continent	Mean value		Mean Difference (I-J)	Bootstrap <sup>a</sup>				
		(J) Continent		Б.	0.1.5	95% Confidence Interval		
				Bias	Std. Error	Lower	Upper	
	_	South America	1.30	07	1.15	-1.04	3.40	
A f = :	4.00	Asia	-7.76	07	1.39	-10.59	-5.08	
Africa 4,00  South America 2,70	4,00	Europe	-4.23	03	.97	-6.12	-2.35	
		North America Africa	-7.76 -1.30	.03 .0717	1.20 1.15	-10.27 -3.40	-5.33 1.04	
	0.70	Asia	-9.06	00	1.57	-12.07	-6.12	
	2,70	Europe	-5.53	.04	1.13	-7.70	-3.29	
		North America	-9.06	.10	1.41	-11.64	-6.07	
Asia		Africa	7.76	.07	1.39	5.08	10.59	
	11,76	South America	9.06	.00	1.57	6.12	12.07	
	11,70	Europe	3.54	.04	1.38	.86	6.26	
		North America Africa	.00 4.23	.10 .03	1.60 .97	-2.90 2.35	3.31 6.12	
F	0.00	South America	5.53	04	1.13	3.29	7.70	
Europe	8,23	Asia	-3.54	04	1.38	-6.26	86	
		North America Africa	-3.54 7.76	.06 03	1.21 1.20	-5.84 5.33	-1.02 10.27	
North America	11,76	South America	9.06	10	1.41	6.07	11.64	
		Asia	.00	10	1.60	-3.31	2.90	
		Europe	3.54	06	1.21	1.02	5.84	

a. Bootstrap results are based on 1000 bootstrap samples