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# The Effect of Glass Ceiling on Women Advancement: A Case Study of Financial Institutions in Bangladesh

Taskina Ali<sup>1</sup>, Nasrin Akter<sup>2</sup>

<sup>1</sup>Taskina Ali, Assistant Professor, School of Business & Economics, United International University.  
Email: taskina.ali@gmail.com

<sup>2</sup>Nasrin Akter, Assistant Professor, School of Business & Economics, United International University.  
Email: nasrin.mgt@gmail.com

Correspondence: Taskina Ali. Email: taskina.ali@gmail.com

## Abstract

Glass ceiling, a widely practiced but unrevealed obstacle for the development of women and minorities towards executive and upper level of managerial hierarchy in the organizations. At the present time this issue is drawing more attention from human resource practitioners around the globe. In developed and developing countries, women's empowerment is the burning issue as the economy can reach its peak through the participation of all genders. In Bangladesh also women are engaging more in jobs specifically in the financial sector and contributing to the economy at large volume. But the disparity between male and women participation at the decision-making level raises the question of the presence of a glass ceiling and the factors contributing to the glass ceiling in the financial sector of Bangladesh. Based on the survey by using structured questionnaires from the commercial banks of Dhaka City Corporation, this study explores organizational factors, explicitly the absence of human resource practices responsible for creating glass ceilings and its presence at the workplace. Using factor analysis and multiple regressions among the six factors, the study found five factors have a significant contribution to the presence of glass ceiling and thus creating barriers to women's advancement. The factors include recruitment practices, performance appraisal, promotion policy, maintenance issues and equal employment opportunities. Policy implications are discussed in light of the findings to minimize glass ceiling effect to contribute gender parity, women's advancement and reducing gender discrimination.

**Keywords:** Glass Ceiling, Commercial Banks, Women Advancements, Gender Discrimination, Human Resource Practices

## 1. Introduction

The presence of women participation in the corporate world has increased significantly over the last few decades. In many cases women received tremendous success in their work-life careers. Although women have become very successful in terms of their participation in every sector of their working life, their role in the top management is still marginal. Thus, the issues of women's role in management received much attention recently (Rishani, Mallah,

Houssami & Ismail, 2015). Several researchers indicated that women faced both visible and invisible barriers in their careers (Jackson, 2001; Tracey, 2006; Veale & Gold, 1998). Several recent studies found that women are not only received lower wages but also under-represented in the top corporate ladder than men (Helfat, Harris, & Wolfson, 2007; Blau & Kahn, 2007; Kochan, 2007). In Canada, women occupied only 25.6% senior managerial management positions in the private sector (Moyser, 2017). One study reported that women who belong to the corporate hierarchy are also less likely to be promoted than men in the same level (Yap and Konrad, 2009). Thus, they are continuously facing the 'glass ceiling' in terms of advancing into management positions (Pichler, Simpson, & Stroh, 2008; Cech & Blair-Loy, 2010). This paper aims to examine to what extent and how the universal human resource practices reduce the glass ceiling effect on women's careers. Several studies also indicate that universal practices in terms of recruitment systems with the aim of attracting female applicants would create a broader scope for women into managerial positions (Konrad, 2007; Konrad, Kramer, & Erkut, , 2008; Terjesen & Singh, 2008). The argument is that organization with a discrimination free recruitment system would play crucial role in dealing with the glass ceiling effect in the organization.

### *1.1 Objectives of the Study*

The main objective of the study is to investigate how the universal set of human resource practices can minimize the glass ceiling effect on women and minorities in the financial sector of Bangladesh. The other objectives are to examine the presence of glass ceiling in the financial sector and also identify the major contributing factors for accelerating the glass ceiling and of course focusing on the issue of whether glass ceiling has any adverse effect on women's career development.

### *1.2 Hypothesis of the study*

H1: Ha: Presence of universal set of HRM practices reduces ceiling effect in the organization.

Ho: Presence of universal set of HRM practices does not reduce the glass ceiling effect in the organization.

H2: Ha: Presence of glass ceiling has a negative impact on women's advancement in careers.

Ho: Presence of glass ceiling has positive impact on women's advancement in careers.

H3: Ha: Gender and glass ceiling has a positive relationship.

Ho: Gender and glass ceiling have no relationship.

## **2. Literature Review**

The "Glass Ceiling" is a term that indicates a variety of barriers that prevent qualified women achieving higher positions in the organizations. Though many women nowadays hold top positions around the globe, few made positions in the upper top level or in boardrooms (Carole A. Kadir, 1999). Women have been unable to exert power over economic structure in their societies as they are virtually absent from or poorly represented in economic decision making (FWCW 1995, Para 152). The International Labor Organization (ILO) clarifies that the promotion of participation in economic activity, including the management and decision making levels, it's not a simply a question of equity, but one of the necessities of viable and sustainable national development (United Nations 1989, p:242). Glass ceiling not only indicates the invisible barrier to hierarchical promotion but also represents the gender inequality (David A. Cotter, 2000).

Literature suggests that both the individual and organizational factors are responsible for creating barriers for women who are advancing into management roles. Lower self-efficacy and self-esteem than men, work/life conflict, a lack of social capital, and a lack of family and social supports are those individual factors that hinder women's career advancement into the managerial level (Pell, 1996; Matthews et al., 2010; Konrad & Cannings, 1997; Coronel et al., 2010; Aycan, 2004; Ragins and Cotton, 1991; Hersby et al., 2009; Metz, 2009). On the other hand, organizational culture (negative attitudes and biases against women; Aycan, 2004; Weyer, 2007), lack of organizational support (Aycan, 2004), gender stereotyping (Lee and James, 2007; Schein, 2007), and inadequate universal human resource practices (Konrad, 2007; Hamel, 2009) also found responsible for contributing to the glass ceiling effect at the organizational level. In this regard, men and other colleagues indicate that both individual level and organizational levels are also affected by the glass ceiling. The effect of the glass ceiling has negatively

affected women's progress in the organization, it also prevents them from receiving higher wages (Wesarat, & Mathew, 2017). Moreover, women who have reached the same position also received a lower wage rate than men (Jackson & O'Callaghan, 2009; Sharma & Sehrawat, 2014). One study also suggests that there is a pay discrepancy between men and women for the senior level administrative position (Jackson & O'Callaghan, 2009). Smith and colleagues (2012) also indicate that women's job satisfaction, psychological well-being, and their happiness are also negatively affected by the glass ceiling in the organizations. As such the reduction of glass ceiling effect in the organizations will improve their subjective career success which is important to increasing organizational performance (Wesarat, & Mathew, 2017). In this regard, it can be argued that the presence of a glass ceiling affects women's careers in the workplace. While past studies suggest that the lack of universal human resource practices is responsible for the glass ceiling (Konrad, 2007; Hamel, 2009), little is known about which specific practices reduce the glass ceiling effect in the organization. In this study, we examine the effect of universal human resource practices on the glass ceiling effect on women's careers in the context of the banking sector in Bangladesh.

Presence of well-practiced universal human resource practices, especially like- discrimination-free work environment, pay-based performance system, equal employment opportunities, management attitude are helping organizations to break the glass ceiling. (Syed Rownak A & M. K. Newaz, 2008). Universal HR practices (i.e., selective staffing, comprehensive training, job rotation and cross-utilization) and firm performance are intuitively appealing and supported by theoretical arguments from a number of disciplines (Syed, Z & Jamal, Waseef. (2012). Universal Model suggests that HRM has a number of practices that are considered 'best' in delivering the 'best' possible forms of success in business performance or other indicators (Brewster, 1999; Huselid, 1995). Selective hiring, extensive professional and competency enhancing training and development program, appropriate internal flexible working system enable the organization to heighten their performance (Phillips, 1996; foot & Hook, 1999).

### **3. Research Methodology**

#### *3.1 Data Sources*

Both primary and secondary data have been collected and used for this study. Secondary data have been collected from various publications, journals, books and websites to explore more about the glass ceiling and its presence in Bangladesh. Primary data have been collected through a structured survey questionnaire to reveal the presence of glass ceiling in financial organizations especially in banks in Bangladesh and also identify the major contributing factors of glass ceiling impact in these organizations.

#### *3.2 Sampling Design*

The study implemented a structured questionnaire survey method to gather data regarding the glass ceiling effect in the financial sector in Bangladesh. Executives (officer grade officials) of the financial industry of Bangladesh are considered as the target population for this study. Sampling for this target population is rather inaccessible; hence a multi-stage random sampling was done to select the sample for this study. Primarily a list of publicly listed financial institutes (Banks, Insurance companies and other financial companies) was obtained from Dhaka Stock Exchange (DSE). In the first stage, 40 financial institutes were selected randomly. In the second stage, 3 branches of each financial institute (across Dhaka) were selected randomly (if the institute has more than 3 branches including head office). The enumerators attempted to get responses from top 4 officials from each branch (if unavailable then next available senior most official). The following diagram would portray sampling methodology graphically;

During execution enumerators faced difficulties to get responses from top officials, as the methodology accommodated, next available senior most officials were then approached if top most official was not available. Due to non-response and missing values, a total of 388 responses were obtained for this study. The response rate for the survey was nearly 40%. As the sample size should be able to provide an acceptable range of confidence level, the researchers decided to go ahead with 388 sample size. The analyzed results from the data may contain 5% margin of error at 95% level of confidence.

### 3.3 Survey Instrument

A structured questionnaire survey was developed to understand the level of glass ceiling impact in the Bangladeshi financial sector. The questionnaire was developed based on current literature, specialized opinion and brainstorming. As the study targeted top finance executives, the primary questionnaire was developed in English. The questionnaire then pretested in the field. Based on pretest results, few questions were modified for betterment of the assessment. Several factors relating to women leadership in financial institutions of Bangladesh, were assessed through 39 components. Each component was basically a statement. Respondents were asked if they agreed with the statements or not. All measurements were done on a 5-point likert's scale, where 5 is strongly agree and 1 is strongly disagree. Multidimensional factors were measured through multiple components.

### 4. Analysis

Basic descriptive statistics and cross tabulations were obtained from the data to check data entry errors and other data-related issues. Once the consistency of the data was checked through descriptive statistics, a multivariate factor analysis (with principal component extraction) was performed to reduce the data into several factors of interest. The factor analysis also applied with Varimax rotation to understand factor structures more prominently. Once the factor analysis was performed and factor loading structure was finalized, reliability of each factor was then assessed through Cronbach's Alpha. Each factor passing through reliability tests was then calculated by taking averages of components contributing to that factor. Once all the factors were created, correlation analysis and multiple regressions analysis was performed to understand underlying relations of factors assessed in this study.

Factor analysis (a data reduction technique) using principal components analysis with varimax rotation was conducted first to group the variables measuring the five main constructs of the conceptual model – promotion policy, recruitment, performance appraisal, maintenance policy, equal employment policy. A final factor structure was retained consisting of 20 items and five factors that were easy to interpret and (see Table 1). Level of the glass ceiling was assessed separately and resulted in a five-item construct.

Table 1: Rotated Component Matrix<sup>a</sup>

	Component					
	Equal Employment policy	Promotion	Maintenance issues	recruitment	Level of Glass ceiling	Performance appraisal
Q20	.820	-.119	-.077	-.058	-.026	.124
Q24	.817	-.157	-.060	-.106	.006	.066
Q19	.657	.129	.234	.180	-.007	-.082
Q32	.637	.002	.092	-.127	-.046	.386
Q21	.538	-.189	-.164	-.108	-.040	.496
Q16	-.045	.732	.037	.251	.055	.003
Q7	-.166	.732	.073	-.019	.096	.134
Q8	-.125	.638	.076	-.017	.345	-.104
Q17	.089	.615	.187	.267	.081	-.101
Q29	-.094	.115	.810	.012	.047	.115
Q30	.024	.011	.787	-.102	.062	-.142
Q26	.026	.387	.663	.142	.028	-.158
Q27	.139	.004	.622	.251	.053	.118
Q3	.006	.056	-.004	.700	.249	.116
Q6	.156	.358	.023	.657	-.015	-.221
Q2	-.117	.355	-.076	.647	.207	.070
Q1	-.186	-.121	.300	.608	.104	.362

Q15	-.159	.092	.320	.513	.216	-.135
Q38	.035	.140	.032	.217	.831	.002
Q37	-.079	.303	.122	.132	.772	-.071
Q36	-.047	.113	.088	.290	.766	-.122
Q11	.198	.154	-.003	.042	-.058	.737
Q5	.299	-.255	-.026	.114	-.156	.615
Cronbach's alpha	0.660	0.706	0.733	0.714	0.822	0.506

Extraction Method: Principal Component Analysis.

Rotation Method: Quartimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Reliability of each factor was assessed using Cronbach's  $\alpha$ . To be reliable, the value of  $\alpha$  ought to equal or exceed the value of 0.7 (Nunnally, 1978). Two factors had a  $\alpha$  value slightly less than .7 (see Table 1). Frequency analysis was performed next to obtain measures of central tendency, variation, and distribution values, shown in Tables 2 & 3.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Recruitment	392	1.20	5.80	4.0233	.66933
Performance appraisal	392	1.00	7.00	3.2117	1.16088
Promotion policy	392	1.00	7.75	3.9488	.81783
maintenance issues	392	1.75	9.00	4.1609	1.16334
glass ceiling level	391	1.67	9.00	3.9433	.99011
EQUAL EMPLOYMENT POLICY	392	1.00	7.60	3.1543	1.12511
Valid N (listwise)	391				

Table 3: Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.818	.335		2.442	.015
1 Recruitment	.550	.071	.372	7.697	.000
Performance appraisal	-.113	.042	-.133	-2.711	.007
Promotion policy	.285	.059	.235	4.835	.000
maintenance issues	.022	.039	.026	.569	.570
EQUAL EMPLOYMENT POLICY	.019	.043	.022	.439	.661

a. Dependent Variable: glass ceiling level

The mean scores, standard deviations and reliability scores are provided in Table 2. The results show how the respondents perceived the effect of the glass ceiling. Glass ceiling level (the dependent variable), measured on a 5-point scale, rated a mean score of 3.94 ( $s=0.99$ ). Maintenance issue had a mean of 4.16 ( $s=1.16$ ); equal employment policy had a mean of 3.15 ( $s=1.12$ ); promotional policy had a mean of 3.94 ( $s=0.81$ ); performance appraisal had a mean of 3.21 ( $s=1.16$ ) and recruitment had a mean of 4.02 ( $s=0.67$ ).

## 5. Results

In our factor analysis, we began by conducting an EFA (Thompson, 2004) using the principal axis factoring method. We chose to use an oblique rotation (direct oblimin) method assuming that the different types of HRM practices would be highly interrelated (Fabrigar et al., 1999). The Kaiser criterion or a Scree test (Thompson, 2004) are used for effectively determining the number of factors to be retained in our model. Our results indicated that, at most, a six-factor solution should be interpreted. In our interpretation of the factors, the first factor indicated the equal employment opportunity policy, the second factor represented the promotion policy, the third factor indicated the wellness practices, the fourth factor represented the recruitment policy, the fifth factor indicated the glass ceiling level, and the six factors represented the performance appraisal policy. In order to eliminate the items from the particular factor, we followed the criteria of 0.33 proposed by the Comrey and Lee's as an acceptably strong loading (1992). All standardized loadings on the latent variables were significant ( $p < .01$ ; range .65–.98), supporting the construct validity of the scales with  $R^2$  of 0.292 and adjusted  $R^2$  of 0.282.

Equal employment opportunity policy has Cronbach's alpha 0.660, while not overly high, is deemed acceptable for justifying the simple addition of these five items Q19-Q21, Q24, and Q32. Whereas Promotion policy has Cronbach's alpha 0.706, which is high, which is acceptable for our research study. Answers obtained from Q7-Q8 and Q16-Q17. Maintenance Issues has a simple sum of the four-item answers obtained from Q26-Q27 and Q29-Q30. The Cronbach's alpha statistic of these five items is 0.733, which is high, acceptable for our research study. Recruitment policy answers obtained from Q1-Q3, Q6 and Q15 in the dataset, Cronbach's alpha is 0.714, which is high—is acceptable for our research study. This variable Performance appraisal practice is the sum of the two-item Q5 and Q11 in the dataset has Cronbach's alpha 0.506, while is not overly high—is deemed acceptable for our research study.

Three of the factors – recruitment, performance appraisal and promotional policy were found to be highly significant whereas wellness practices or maintenance issues and equal employment policy were found to be significant with the probability 5 percent of the time. Here the dependent variable is glass ceiling level. Table 3 summarizes the regression results of the final model. The standardized beta ( $\beta$ ) values indicate that “recruitment” had the greatest impact on the glass ceiling for women's advancement. Properly defined job duties, working environment, skill recognized by the organization has an impact over presence of glass ceiling. Promotional policy has second highest values which carries promotion training and interview benefits influencing glass ceiling for in the path of women advancement. Maintenance issue and equal employment opportunity have relatively lower value than the previous two variables which covers grievances, resignation, biasness with training, work environment and benefits seems to have lower impact on the glass ceiling. There must be some other social unexplained factors affecting the respondents while making a decision. Performance appraisal covering less interest of management assigning important work to women and reward system favoring male employees seems to have quite a strong impact on the effect of glass ceiling on women advancement.

## 6. Conclusion

In our study we mostly focused on the position of women in the top-level management in the financial intuitions in Bangladesh, not on minorities. In the financial sector of Bangladesh, very few women employees are holding the positions at the executive and decision-making level which may lead the allegation of gender discrimination, lack of women empowerment which ultimately leads to slower economic growth. This study also edifies the human resource department to ensure more fair policies which creates a way to break the intangible barrier i.e glass ceiling.

In this study we focused on a universal set of HRM practices which includes recruitment and selection, promotion and leave policies, training and development policies, equal employment policies, maintenance issues and performance appraisal policies that may reduce the impact of glass ceiling in an organization which guides the ultimate growth ladder in an organization. Proper recruitment and selection policy, job placement, specification of job duties and more over working environment and skill recognition may have a negative impact on the professional elevation of women. Balanced HRM policies create the condition in which women can rise, flourish and access the same level of opportunities as their male counterparts which helps organizations to grow more with

building trust and interpersonal relationships with more accountability which ultimately benefits the financial health of the organization.

Our research suggested that a solid blend in HRM policies and practices may reduce the gender gap which creates equal employment opportunities and change in working culture may help the financial organizations to build more trust among the customers, investors and other stakeholders which may utilize the natural capacity of transformational leadership of women in this changing world.

Our study does not represent the financial institutions outside Dhaka city corporation where a good number of financial institutions are situated. Further study should consider to develop a broader reach and to understand situations and working culture over there. In our study we also find some other unexplained social factors which are affecting respondents while making decisions. This study provides a preliminary look to explain the impact and presence of glass ceiling in the financial institution especially in Banks in Bangladesh.

## References

- Afza, S. R., & Newaz, M. K. (2008). Factors determining the presence of glass ceiling and influencing women career advancement in Bangladesh.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606. <https://doi.org/10.1037/0033-2909.88.3.588>
- Blau, F. D., Simpson, P., & Anderson, D. (1998). Continuing progress? trends in occupational segregation in the United States over the 1970s and 1980s. *Feminist Economics*, 4(3), 29-71. doi:10.1080/135457098338301
- Bollen, K.A. (1989), *Structural Equations with Latent Variables*, Wiley, New York, NY.
- Carole A. Kadir (1999) *Cracking the Glass ceiling: Factors influencing women's attainment of Senior Executive Positions*. ISBN:1-58112-064-8. Dissertation.com 1999
- Cech, E. A., & Blair-Loy, M. (2010). Perceiving glass ceilings? meritocratic versus structural explanations of gender inequality among women in science and technology. *Social Problems*, 57(3), 371-397. doi:10.1525/sp.2010.57.3.371
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cooper Jackson, J. (2001). Women middle managers' perception of the glass ceiling. *Women in Management Review*, 16(1), 30-41. doi:10.1108/09649420110380265
- Cech, E. A., & Blair-Loy, M. (2010). Perceiving glass ceilings? Meritocratic versus structural explanations of gender inequality among women in science and technology. *Social Problems*, 57(3), 371-397.
- Cotter, D. A., Hermsen, J. M., Ovadia, S., & Vanneman, R. (2001). The glass ceiling effect. *Social forces*, 80(2), 655-681.
- Eagly, H. & Carly, L.L. (2007). *Through the Labyrinth : The truth how women become leaders*. Cambridge, MA: Harvard Business School Press.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4, 272–299.
- Fapohunda, T. M. (2018). THE GLASS CEILING AND WOMEN'S CAREER ADVANCEMENT. *BVIMSR's Journal of Management Research*, 10(1), 21-30.
- Hamel, S. A. (2009). Exit, voice, and sense making following psychological contract violations: Women's responses to career advancement barriers. *The Journal of Business Communication*, 46(2), 234-261. doi:10.1177/0021943608328079
- Helfat, C. E., Harris, D., & Wolfson, P. J. (2007). The pipeline to the top: Women and men in the top executive ranks of U.S. corporations. *Academy of Management Perspectives*, 20(4), 42-64. doi:10.5465/AMP.2006.23270306
- Hong, S.-H. (2000). The criteria for selecting appropriate fit indices in structural equation modeling and their rationales. *The Korean Journal of Clinical Psychology*, 19, 161–177.
- Hu, L. T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76–99). Thousand Oaks, CA: Sage.
- Jackson, J. C. (2001). Women middle managers' perception of the glass ceiling. *Women in management review*.
- Kochan, T. A. (2007). Social legitimacy of the HRM profession: A U.S. perspective. In P. Boxall, J. Purcell, & P. Wright (Eds.), *The Oxford handbook of human resource management* (pp. 599–621). Oxford, UK: Oxford University Press.



- Konrad, A.M. (2007). The effectiveness of human resource practices for promoting women's careers. In D. Bilimoria (ed.). *Handbook of Women in Business and Management*. Northampton, MA: Edward Elgar, pp. 254-276.
- Konrad, A. M., Kramer, V., & Erkut, S. (2008). Critical mass: The impact of three or more women on corporate boards. *Organizational Dynamics*, 37(2), 145. doi:10.1016/j.orgdyn.2008.02.005
- Khair, R., Haque, M. S., & Mukta, A. R. (2017). *Gender and Representation of Women in Bangladesh Civil Service: An Empirical Analysis of 'Glass Ceiling' Effect*. Dhaka: Bangladesh Public Administration Training Centre.
- Konrad, A. M. (2007). 12 The effectiveness of human resource management practices for promoting women's careers. *Handbook on women in business and management*, 254.
- Man, M. M. K., Skerlavaj, M., & Dimovski, V. (2009). Is there a 'glass ceiling' for mid-level female managers? *International Journal of Management and Innovation*, 1(1), 1-13. Retrieved from <http://ezproxy.lib.ryerson.ca/login?url=https://search-proquest-com.ezproxy.lib.ryerson.ca/docview/89163647?accountid=13631>
- Morrison, A. M., & Von Glinow, M. A. (1990). Women and minorities in management. *American Psychologist*, 45(2), 200-208. doi:10.1037/0003-066X.45.2.200
- Moyser, M. (2017). *Women in Canada: A gender-based statistical report: women and paid work*. Statistics Canada. P. 26. <https://www150.statcan.gc.ca/n1/pub/89-503-x/2015001/article/14694-eng.htm>. download on Januar 01, 2018.
- Nunnally J. C. (1978). *Psychometric Theory*, 2<sup>nd</sup> ed. New York: McGraw-Hill.
- Pichler, S., Simpson, P. A., & Stroh, L. K. (2008). The glass ceiling in human resources: Exploring the link between women's representation in management and the practices of strategic human resource management and employee involvement. *Human Resource Management*, 47(3), 463-479. doi:10.1002/hrm.20227.
- Quinlan, C. (2012). *Women's career development: the lived experience of Canadian university women presidents* (Doctoral dissertation, University of Toledo).
- Rishani, M., Mallah, M., Houssami, S., & Ismail, H. (2015). Lebanese perceptions of the glass ceiling. *Equality, Diversity and Inclusion: An International Journal*, 34(8), 678-691. doi:10.1108/EDI-11-2014-0082.
- Samson, D.S., & Moore, L.L. (2008). Is there a glass ceiling for women in development? *Nonprofit Management and Leadership*, 18(3), 321-339.
- Subramaniam, I. D., & Arumugam, T. (2013). Barriers To Women Managers' Career Progression in Malaysian Government Link Companies (Glcs). *Australian Journal of Basic and Applied Sciences*, 7(2), 248-256.
- Supriya, S., Arul, M., & Jayakrishnan, J. (2019). Invisible Hindrance on Women Career Development. *Journal of the Gujarat Research Society*, 21(2), 155-158.
- Terjesen, S., & Singh, V. (2008). Female presence on corporate boards: A multi-country study of environmental context. *Journal of Business Ethics*, 83(1), 55-63. doi:10.1007/s10551-007-9656-1
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. Washington, DC: American Psychological Association.
- Tracey, C. (2006). The glass ceiling in irish healthcare: A nursing perspective. *Journal of Health Organization and Management*, 20(6), 502-511. doi:10.1108/14777260610702253
- Veale, C., & Gold, J. (1998). Smashing into the glass ceiling for women managers. *Journal of Management Development*, 17(1), 17-26. doi:10.1108/02621719810199527
- Wesarat, P., & Mathew, J. (2017). Theoretical framework of glass ceiling: A case of India's women academic leaders. *Paradigm*, 21(1), 21-30. doi:10.1177/0971890717700533
- White, K. (2004). The leaking pipeline: Women postgraduate and early career researchers in australia. *Tertiary Education and Management*, 10(3), 227-241. doi:10.1023/B: TEAM.0000044828.44536.67
- Yap, M., & Konrad, A. M. (2009). Gender and racial differentials in promotions: Is there a sticky floor, a mid-level bottleneck, or a glass ceiling? *Relations Industrials*, 64(4), 593. doi:10.7202/03887