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# The impact of a woman's physical attractiveness on the height of her glass ceiling

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The impact of a woman's physical attractiveness on the height of her  
glass ceiling  
An honors thesis submitted in partial fulfillment of the requirements for  
the degree of BSBA, Marketing and Economics

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May 2016  
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# The impact of a woman's physical attractiveness on the height of her glass ceiling

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## **1. INTRODUCTION**

Despite rising numbers of women in the workforce, the percentage of women that occupy positions in the highest tiers of companies is still relatively small (Swanson, 2015). This phenomenon is often referred to as the glass ceiling (Merriam-Webster, 2016). There has been much research on the glass ceiling itself, including Vianen and Fischer's 2002 study illustrating that women's lack of ambition may keep them out of top management, Liff and Ward's 2001 study showing that women may not advance to top management because of uncertainty about how to pursue higher levels of employment, and Dreher's 2003 study suggesting that companies with more work-life human resources practices will likely have more female senior managers. And although there has been much research on the impacts of female physical attractiveness at lower levels of employment, relatively little research has been done to understand the impacts of physical attractiveness on the glass ceiling phenomenon.

Research supports the assertion that being a physically attractive female is an advantage when seeking entry level/non-managerial work (Heilman and Saruwatari, 1979; Hosoda, Stone-Romero, and Coats, 2003). The research often highlights that this is true for men and women alike. However, when studying the next level of employment, managerial positions, there have been competing findings. It is known that being an attractive male is an advantage for managerial employment decisions, but there are competing findings for women. Some studies show that being an attractive female is an advantage in managerial employment decisions (Hosoda, Stone-Romero, and Coats, 2003). However, there are also studies

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that have shown that being an attractive female can be detrimental to managerial employment decisions (Heilman and Saruwatari, 1979).

Because the impacts of a woman's physical attractiveness are still unclear at increasing levels of employment, it is important that this study research the phenomenon further, both for hiring managers and for future research. By determining if there is in fact a correlation between level of attractiveness and hiring decisions, managers may become more aware of the phenomenon and put in place measures to ensure their hiring and promoting practices work to prevent discrimination based on looks, much like managers today work to prevent discrimination against minorities and women. Additionally, this research will open new avenues for future research into women and the glass ceiling. If a correlation between attractiveness and hiring/promoting practices is shown, research may further determine the extent of the correlation and work to determine if there is causality. No matter the findings, it will allow researchers in management to come one step closer to understanding the composition of the highest ranks of corporate employment.

It is the purpose of this thesis to identify the impact of a woman's physical attractiveness on the height of her glass ceiling. In chapter two, I will thoroughly review relevant literature. In chapter three, I will pose four hypotheses. In chapter four, I will explain the research methodology, and finally, in chapters five and six, I will outline my findings and formulate my conclusions.

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## **2. LITERATURE REVIEW**

To create and execute a study that will improve the understanding of the impact a woman's physical attractiveness on the height of her glass ceiling, it is first crucial to understand how far research has already gone by completing a thorough review of the literature available on the subject matter. This chapter will discuss a review of the literature regarding what attractiveness is, how it is known to impact hiring and promotion decisions, what research has not been done yet, and how attractiveness can be objectively measured.

### **What is attractiveness?**

Physical attractiveness can be determined using many different measurements, and physical attractiveness can mean different things across time and culture (Grammer and Thornhill, 1994; Singh, 1993; Tovee, Maisey, Emery, and Cornellison, 1999). There is no one universal way to accurately define physical attractiveness, but in research, most measures are centered around the idea that the physical feature being studied must in some way display a person's level of health, fitness, and reproductive ability, and that there must be a way for people to recognize these features (Singh, 1993).

For the purpose of this thesis, physical attractiveness will be defined in the following way: "Physical attractiveness refers to the degree to which a person's physical traits are regarded as aesthetically pleasing or beautiful. The term often implies sexual attractiveness or desirability, but can also be distinct from the two (Garg)."

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### **How is attractiveness known to impact hiring and promotion decisions?**

There are a multitude of known consequences of attractiveness for women, the most important of which is likely increased sex typing. Gillen (1981) clearly demonstrates that increased physical attractiveness increases gender characterizations; thus, a more attractive woman is seen as more feminine. Femininity is associated with strong stereotypical traits (Rosenkrantz, Vogel, Bee, Broverman, I., and Brovermand, D., 1968). These stereotypical traits are communal in nature, often including tentative speech, kindness, and sympathy. These traits are in stark contrast to the agentic traits possessed by what people view to be successful leaders (Eagly and Johannesen-Schmidt, 2001; Moskowitz, Suh, and Desaulniers, 1994). Agentic traits include competitiveness, ambitiousness, and assertiveness, and are typically associated with masculinity rather than femininity.

The different traits prescribed by women's roles and leadership roles create a discrepancy for women, particularly attractive women. This gap in expected behavioral traits for female leaders and the resulting implications on employment decisions are explained by Heilman's (1983) "lack of fit" model. This model illustrates that when a woman exemplifies very feminine characteristics (which can be exacerbated by her beauty), that she will be evaluated poorly as a leader, despite her actual performance. If the same woman exemplifies very masculine characteristics and typical leadership traits, she may be evaluated as a good leader, but will be poorly evaluated overall as a person for lacking communal traits. This puts women in a difficult position. They may either act like a woman and risk getting poor leadership evaluations, or act like a leader and risk getting poor personality

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evaluations. It is often this dilemma that earns women nicknames like “battle-ax” or “dragon lady” (Tannen, 1994).

It is also been suggested that varying levels of physical attractiveness influence causal attributions for job success. Heilman and Stopeck (1985) developed a study to illustrate the influence of attractiveness on success attributions. They showed that attractive women often have their success attributed to luck or timing, while less attractive women's success is typically attributed to hard work and skill. The reverse is true for males. Attractive men have their success attributed to hard work and skill, while unattractive men are assumed to be lucky. In addition, this same study discovered that if an attractive woman ascended a corporate ladder quickly, her success would be attributed to the relationships she had built. A critical point made by Heilman and Stopeck (1985) is that many of these findings were more closely related to gender variance than attractiveness variance, supporting gender characterization, rather than just attractiveness stereotyping.

As for whether or not levels of physical attractiveness affect all women equally, despite the level of position being applied for, is undetermined. Heilman and Saruwatari (1979) developed and carried out a study that illustrates that increased attractiveness positively affects employment decisions for all men applying for non-managerial and managerial positions and for women who are applying for non-managerial positions, however, the study showed that increased attractiveness has adverse effects for women applying for managerial positions. Jackson (1992) supports this. In spite of these findings, a recent meta-analysis by Hosoda, Stone-Romero, and Coats (2003) that pulled together 27 studies on the



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implications of physical attractiveness on employment outcomes argues that increased levels of attractiveness cause positive outcomes for all men and women, regardless of job sex-type or employment level. These findings are curious in light of the "token status" awarded to women applying for higher positions within a company (Kanter, 1997; Taylor and Fiske, 1978). As women move upward in corporations, they become increasingly rare, making their femininity more apparent and leading to discrimination that supports Heilman's (1983) lack of fit model.

### **What has not been done yet?**

Although research strongly suggests that attractiveness has a positive impact at the non-managerial level for males and females alike, it has not been determined for certain whether increased attractiveness is helpful or detrimental to women seeking managerial positions (Heilman and Saruwatari, 1979; Jackson, 1992; Hosoda, Stone-Romero, and Coats 2003). Additionally, the implications of attractiveness have yet to be measured at levels greater than managerial employment. Because the roles and responsibilities of managers and executives are fundamentally different, studies of managerial employment outcomes cannot be used to make assumptions about executive employment outcomes, particularly when considering that the job demands of executives continue to rise (Hambrick, Finkelstein, and Moony, 2005).

There is also some uncertainty about the influence of rater sex on evaluations. There has been meta-analytic evidence that the rater gender has no effect on evaluations (Hosoda, Stone-Romero, and Coats, 2003), but there has also been evidence of men evaluating women more harshly than they evaluate other men

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(Decker 1987; Dubno 1985). The studies that found evidence contrary to the more recent meta-analytic review were not considered in the review and therefore must be taken as possible evidence against the analysis.

### **How can attractiveness be measured?**

There are three commonly used measures of attractiveness: facial symmetry, WHR, and BMI. Facial symmetry is the standard indicator of facial attractiveness. Studies on facial symmetry stem from studies on facial averageness (Langlois and Roggman, 1990; Symons, 1979), and these studies utilize computer software that can merge photos of human faces together, thus blending the facial features to make more average and more symmetrical faces. Blended faces usually have more average sized features and smoother, blemish free skin. Blended photos of women are typically rated as more attractive than original and organic images. Additionally, facial images used in symmetry tests are usually measured in several ways, including width of eyes, length and width of face, and length and width of nose (Grammer and Thornhill, 1994).

Waist-to-hip ratio (WHR) is very simply measured as the ratio of inches around the narrowest portion of the waist to the ratio of inches around the widest portion of the hips. It has been shown through many studies that a lower waist-to-hip ratio is considered to be more physically attractive. Low waist-to-hip ratios also suggest youth, good health, and fertility (Singh, 1993). Pre-pubescent women have a similar WHR to men, but post-pubescent women begin depositing fat into the hips, significantly lowering the WHR to the typical range of .67 to .80 (Singh, 1993).

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Weight scaled for height, or the body mass index (BMI) is becoming an increasingly popular way of measuring physical attractiveness. It has been shown that measurements of BMI are excellent indicators of overall health and wellness, as well as reproductive abilities. Popular high fashion models all fall within a very small BMI range, indicating that ideally attractive women adhere to certain BMI standards (Tovee, Maisey, Emery, and Cornellison, 1999). BMI has been shown to be a much more reliable measurement of visual attractiveness of women's bodies when compared to WHR, and BMI is also an excellent indicator of mortality (Tovee, Maisey, Emery, and Cornellison, 1999).

In addition to these measurements, it is important to point out that clothing choice may influence first impressions and person perception (Conner, Nagasawa, and Peters, 1975; Douty, 1973; Rosencranz, 1962). In a 1985 study, Forsythe, Drake, and Cox determined that the level of femininity or masculinity of dress can influence hiring decisions, much in the way physical attractiveness can influence hiring decisions.

Because there are so many ways to measure attractiveness, it is difficult to say that any one measure is the best way. However, the aforementioned measurements and scales were all developed in a similar way, using survey participants to evaluate images of men and women based on a scale of attractiveness. It would appear based on prior research evaluating attractiveness, requiring raters to use scales to measure attractiveness is the most objective way to determine levels of attractiveness.

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### **3. ATTRACTIVENESS AND EMPLOYMENT OUTCOMES**

As previously stated, there have been mixed results in the studies of the implications of physical attractiveness. Some studies of mating patterns and preferences have confirmed that “what is beautiful is good” (Dion, Berscheid, and Walster, 1972; Berscheid and Walster, 1974), and others have shown that this also applies to attractive individuals seeking managerial employment (Hosoda, Stone-Romero, and Coats, 2003), but competing studies have found that attractiveness may be detrimental for females seeking managerial positions (Heilman and Saruwatari, 1979).

Attractive females are more strongly associated with femininity, while attractive males are more strongly associated with masculinity (Gillen, 1981), thus, at increasing levels of attractiveness, women are more strongly associated with those characteristics typical of femininity. These feminine traits are in stark contrast to the agentic traits possessed by what people view to be successful leaders (Eagly and Johannesen-Schmidt, 2001; Moskowitz, Suh, and Desalniers, 1994). This contributes to what Heilman first discussed in the 1983 “Lack of Fit” model. If a female is more attractive, she will be associated with more feminine traits, creating a gap between people's perceptions of what the female should behave like and what a leader should behave like. Because of this, this thesis asserts that:

*Hypothesis 1: The physical attractiveness of a woman negatively impacts the likelihood of promotion from nonmanagerial to managerial levels.*

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Additionally, it has been asserted that this study aims to illustrate the relationship between women's physical attractiveness and the height of their glass ceiling. Although there have not yet been studies illustrating the impacts of physical attractiveness on employment outcomes above managerial level, the research on nonmanagerial and managerial level employment outcomes does create a strong sounding board for expansion. Continuing off of the logic posed for hypothesis one, this study asserts that similar patterns will appear at higher levels of employment. As mentioned, increasing levels of physical attractiveness cause increased sex-typing (Gillen, 1981), likely resulting in negative employment outcomes for female managers. This study asserts that this trend will continue at even higher levels of employment.

As women risk in the ranks of employment, the composition of the applicant pool becomes increasingly male. A 1980 study by Heilman shows that the fewer the women in the applicant pool, the more likely women are to be discriminated against in employment outcomes, therefore just exacerbating the aforementioned sex-typing. It can be assumed that this type of discrimination will become more apparent at increasing levels of employment as females represent a smaller portion of applicants. This could be attributable to tokenism (Kanter, 1977). When there are a disproportionately small number of female applicants, these women become token representatives of their gender. Research suggests that these tokens are susceptible to higher performance pressures, entrapments in specific roles, and more clearly defined group boundaries (Kanter, 1977). Therefore, it is possible to assert that increased physical attractiveness will emphasize this token status, increasing the

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implications of being overly feminine and leading to more detrimental effects of physical attractiveness.

*Hypothesis 2: The physical attractiveness of a woman negatively impacts the likelihood of promotion from managerial to executive levels.*

In addition to nonmanagerial and managerial research illustrating the impact of physical attractiveness on promotional and hiring decisions, there has also been research illustrating the implications of physical attractiveness on employment evaluations. Men and women are both evaluated more favorably at nonmanagerial levels if they are more physically attractive, but only physically attractive men are evaluated more favorably at the managerial level while physical attractiveness for females becomes detrimental to employment evaluations (Heilman and Saruwatari, 1979). This may be due in part to the fact that women who show success and dominance in agentic roles face push back from subordinates (Carli and Eagly, 2001). Leadership roles are particularly agentic, while women's roles are particularly feminine. This disparity makes it difficult for female leaders to balance the two competing sets of expectations. If a female leader fulfills her duties as a leader, she will often be evaluated poorly on social metrics because she doesn't meet people's expectations of being kind and gentle, but if she is too kind and gentle, she will be evaluated poorly as a leader for not being tough and motivational enough. This overall lack of fit typically leads to lower ratings of female managers (Eagly and Kurau, 2002; Eagly and Johannesen-Schmidt, 2001; Heilman 1983). In

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order to expand upon this knowledge base, it must be understood if these same circumstances apply to women seeking higher levels of employment.

*Hypothesis 3a: The physical attractiveness of a female manager negatively impacts performance evaluations.*

*Hypothesis 3b: The physical attractiveness of a female executive negatively impacts performance evaluations.*

#### **4. METHODOLOGY**

##### **Developing Physical Attractiveness Scale**

In order to properly test these hypotheses, a scale for physical attractiveness had to first be developed. To create a physical attractiveness scale, five women, aged 40-50, of varying height, weight, and race, were asked for a business professional headshot. These five photographs were incorporated into a survey completed by more than 130 Sam M. Walton College of Business undergraduate students. During the survey, participants were shown all five images in random order. The first time the photos were presented, no questions were asked. Participants were then shown the images a second time, and the second time, they were asked to rate the candidates on a 1-7 scale on the following criteria: (1) physical attractiveness and, (2) sexiness. Finally, survey participants completed a demographic section that collected information on gender and age. The survey results were then collected and t-tested to determine a most and least attractive candidate. An "attractive" and an "unattractive" image were selected from the five images that were tested. The attractive and unattractive images had different mean ratings for both attractiveness and sexiness with a statistical significance of greater than 99% (see Figure 1 and 2).

##### **Experimental Design**

To test the hypothesis, a second survey describing a fictional online retail company was developed. This company was posed to have two job openings, one at the managerial level and one at the executive level. Job descriptions and requirements were provided in the description of the fictional company.



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Additionally, two separate resumes were developed, one resume for a managerial level candidate and one for an executive level candidate. The resumes were developed based on the resumes of real employees currently holding similar positions in online retail companies. The resumes were duplicated and slightly modified. The resumes considered to fit the attractive or unattractive conditions had the pre-tested female candidate photos attached. The control resume had no photo attached.

The experimental design was a 3 x 2 survey with the level of attractiveness and the level of employment opening varied. Survey participants were 72 Sam M. Walton College of Business MBA candidates as well as 100 Qualtrics panelists. Each survey participant was given access to complete the survey via email. The survey provided information about the fictional company and each of the job openings, as well as one randomly selected resume/photo combination for each job opening. Each survey participant was first instructed to read the company profile, job descriptions, and resumes, and then to evaluate each candidate on 12 scales (see Figure 3).

After evaluating the two candidates, survey participants were asked for demographic information including gender, age, and employment information. Respondents were 55% female and 45% male. The respondents ranged in age from 18-55 with an average age of 24. The respondents had an average of 6.7 years of work experience, with responses ranging from 1 to 23 years of experience.

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### **Measures**

The independent variable in this experiment is the female's attractiveness. The dependent variables are the chance of hire for managerial employment or for executive employment and the performance evaluations of female managers and executives. Chance of hire or promotion was determined by the first six survey metrics listed, while performance evaluations were determined by the following six survey metrics.

### **Controls**

This experiment controlled for rater employment. Although it has been shown that university students and professionals rate candidates in a similar fashion (Hosada, Stone-Romero, Coats, 2003), employment history was gathered on participants in survey 2 to ensure the data was not skewed by length of employment.

Although it has been shown time and again that men and women rate applicants in a similar fashion (Chung, 2001; Cash, Gillen, Burns, 1977) and that male and female participants respond similarly to the candidates they rate (Heilman, 1980), for completeness, this survey did control for rater gender and found no significance between rater gender and survey results.

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### **5. RESULTS**

In order to test the hypotheses posed in this study, a series of multiple linear regressions were conducted. Each multiple regression included the following: a binomial value for gender, a value for length of employment (in years), a binomial value for level of attractiveness and a score for either hiring recommendation or performance evaluation. Scores for hiring recommendations were determined by averaging the response value of the first six survey questions for each response set, while the value for performance evaluation was determined by averaging the response value of the second six survey questions for each response set.

At the managerial level, six multiple linear regressions were conducted, three for hiring recommendations and three for performance evaluations. The first multiple linear regression illustrates the impact of attractiveness on hiring recommendations based on assigning binomial variables to the attractive and unattractive conditions (Figure 4). The second multiple linear regression illustrates the impact of attractiveness on hiring recommendations based on assigning binomial variables to the unattractive and no photo (control) conditions (Figure 5). The third multiple linear regression illustrates the impact of attractiveness on hiring recommendations based on assigning binomial variables to the attractive and no photo (control) conditions (Figure 6). An identical process was repeated for the three regressions for managerial performance evaluations, and results for these are illustrated in Figures 7-9.

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For executive level hiring recommendations and employment evaluations, the same six multiple linear regressions were conducted and can be seen in figures 10-15. For a summary of these results, see figure 16.

As the figures show, at a p-value of .05, there is no significant impact of a woman's physical attractiveness on her hiring recommendations or her employment evaluations at either the managerial or executive level, and only one of the twelve scenarios even approaches significance. The results in figure 13 suggest that when an attractive female executive is evaluated against an unattractive female executive, the attractive candidate may be evaluated more favorably, but again this may not be said with significance.

Hypothesis 1 stated that the physical attractiveness of a woman negatively impacts the likelihood of promotion from non-managerial to managerial levels. The results indicate that level of attractiveness does not have a significant impact on the hiring recommendations for female managers. Therefore, hypothesis 1 is not supported.

Additionally, hypothesis 2 stated that the physical attractiveness of a woman negatively impacts the likelihood of promotion from managerial to executive levels. The results indicate that level of attractiveness does not have a significant impact on the hiring recommendations for female executives, either. Therefore, hypothesis 2 is not supported.

The results also suggest that attractiveness is not a significant factor in performance evaluations. Hypothesis 3a stated that the physical attractiveness of a female manager negatively impacts performance evaluations and hypothesis 3b

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stated that the physical attractiveness of a female executive negatively impacts performance evaluations. Neither hypothesis 3a nor 3b is supported by the data. In fact, in the one scenario approaching significance the data is approaching significance in the opposite direction, suggesting that attractiveness may be favorable for performance evaluations. Again, this cannot be said with any confidence, but it is crucial to recognize that not only are the hypotheses unsupported, but that the data is even trending in the opposite direction in some situations.

## **6. DISCUSSION AND CONCLUSION**

The primary purpose of this study was to determine if a woman's physical attractiveness has any impact on her chance of being hired or promoted and her performance evaluations at varying levels of employment. The results of the study did not indicate any significant relationship between a woman's physical attractiveness and her chance of being hired or promoted and her performance evaluations. Hypotheses 1, 2, 3a and 3b are all unsupported by the data, suggesting that there is no adverse affect of attractiveness on employment outcomes. In fact, one scenario approaches significance in the opposite direction, suggesting that at the executive level of employment, being an attractive female may be beneficial for performance evaluations and feedback. The sample used in this study was large and fairly diverse, so these findings are not likely to be a function of a small sample size that does not have the power to detect such effects.

These findings are intriguing in light of the review of literature, but could be attributable to any number of things, which may be used as platforms for further research in the field. It is entirely possible that as we progress through the 21<sup>st</sup> century, society as a whole is becoming more accepting of women in leadership roles. This increased level of acceptance towards powerful women may reduce the unfavorable affects of attractiveness. In fact, it is even possible that physical attractiveness may become beneficial, rather than detrimental to women in positions of power, just as it typically is for men. This study would serve as an excellent sounding board for a meta-analysis of studies that determines whether the

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impact of a woman's physical attractiveness on employment outcomes is deteriorating over time.

Additionally, this study did not control for the sex-type of the two fictional employment positions. Some types of employment are typically considered more masculine or feminine. This study did not present job openings in specifically male or female dominated fields; the sex-type of the positions was simply not considered. It may be that the sex-type of the positions was conducive to finding these specific results. If further research is conducted, it could be useful to vary the employment positions based on associations with masculinity and femininity.

Finally, the findings of this study, like most studies, were limited by certain factors. The study is first limited by the fact that responses were not just collected from hiring managers or people with experience hiring, evaluating, and promoting employees. The results may not be replicable in a natural setting. A logical next step in this research would be to create a more natural experimental setting. Also, the study is limited by the fact that a large portion of responses came from Sam M. Walton College of Business MBA candidates, meaning they are limited demographically and geographically. Several of these respondents were personal contacts, resulting in a sample that may not be representative of opinions and practices across the United States.

Although the data did not support the proposed hypotheses, it is important to reflect on what the study is telling us, which is that there is little to no impact of a woman's appearance on her employment outcomes. Therefore, further research on women in the workplace can focus on other factors that may or may not be

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inhibiting women from reaching the highest peaks of power within organizations or which may be limiting female performance evaluations.

It is critical for hiring managers to understand social and psychological factors that may impede equal and fair evaluations of all potential employees. It is the hope of this study to draw attention to the underlying stereotypes associated with physical attractiveness and how that factor may or may not be impeding hiring and evaluating decisions. Further research must be conducted to determine if, in fact, these effects are as limited as this study suggests.



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## 8. APPENDICES

Figure 1: Attractive – Unattractive Photo Significance

<b>t Test</b>					
The TTEST Procedure					
Difference: Attractive - Unattractive					
N	Mean	Std Dev	Std Err	Minimum	Maximum
106	1.8585	0.5763	0.0560	0	3.0000
Mean	95% CL Mean	Std Dev	95% CL Std Dev		
1.8585	1.7475	1.9695	0.5763	0.5078	0.6664
DF	t Value	Pr >  t			
105	33.20	<.0001			

Figure 2: Sexy – Not Sexy Photo Significance

<b>t Test - Sexiness</b>					
The TTEST Procedure					
Difference: Sexy - Not Sexy					
N	Mean	Std Dev	Std Err	Minimum	Maximum
106	1.5283	0.8419	0.0818	0	3.0000
Mean	95% CL Mean	Std Dev	95% CL Std Dev		
1.5283	1.3662	1.6904	0.8419	0.7418	0.9734
DF	t Value	Pr >  t			
105	18.69	<.0001			

## The impact of a woman's physical attractiveness on the height of her glass ceiling

Figure 3: Survey 2 Scales

Scale	Strongly Disagree	Disagree	Neither Agree/ Disagree	Agree	Strongly Agree
1. I would recommend this candidate for hire.	1	2	3	4	5
2. This candidate is a good fit for this position.	1	2	3	4	5
3. This candidate fulfills the criteria being sought for the position.	1	2	3	4	5
4. This candidate has the skills and abilities necessary to perform the job functions.	1	2	3	4	5
5. This candidate is a great fit for this position.	1	2	3	4	5
6. Flyfast should hire this person for the position.	1	2	3	4	5
7. This candidate had a positive impact on their previous place(s) of employment.	1	2	3	4	5
8. The candidate's previous place(s) of employment benefitted from their work.	1	2	3	4	5
9. This candidate had a positive impact on other employees of their previous place(s) of employment.	1	2	3	4	5
10. This candidate improved the performance (profitability, cost savings, employee relationships, etc...)	1	2	3	4	5
11. Compared to other marketing managers, this employee has been effective in previous roles.	1	2	3	4	5
12. Compared to other marketing managers, this employee has been successful in previous roles.	1	2	3	4	5

## The impact of a woman's physical attractiveness on the height of her glass ceiling

Figure 4: Managerial Hiring Recommendation – Unattractive v. Attractive

**MM Hiring UA**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Hiring Recommendation

Number of Observations Read	145
Number of Observations Used	95
Number of Observations with Missing Values	50

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.61872	0.20624	0.40	0.7549
Error	91	47.17211	0.51837		
Corrected Total	94	47.79083			

Root MSE	0.71998	R-Square	0.0129
Dependent Mean	3.78351	Adj R-Sq	-0.0196
Coeff Var	19.02949		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.82381	0.18140	21.08	<.0001	0
Gender	1	0.11445	0.14867	0.77	0.4434	0.08032
Work Experience	1	-0.00810	0.01667	-0.49	0.6283	-0.05096
UA	1	-0.09387	0.14895	-0.63	0.5301	-0.06617

Figure 5: Managerial Hiring Recommendation – Unattractive v. Control

**MM Hiring NU**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Hiring Recommendation

Number of Observations Read	145
Number of Observations Used	95
Number of Observations with Missing Values	50

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.80826	0.26942	0.80	0.4961
Error	91	30.58472	0.33610		
Corrected Total	94	31.39298			

Root MSE	0.57974	R-Square	0.0257
Dependent Mean	3.84912	Adj R-Sq	-0.0064
Coeff Var	15.06155		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.76181	0.14175	26.54	<.0001	0
Gender	1	-0.06728	0.12065	-0.56	0.5785	-0.05797
Work Experience	1	0.02488	0.01707	1.46	0.1483	0.15540
NU	1	-0.07705	0.12200	-0.63	0.5293	-0.06702



## The impact of a woman's physical attractiveness on the height of her glass ceiling

Figure 6: Managerial Hiring Recommendation – Attractive v. Control

MM Hiring NA						
The REG Procedure						
Model: Linear_Regression_Model						
Dependent Variable: Hiring Recommendation						
Number of Observations Read						145
Number of Observations Used						96
Number of Observations with Missing Values						49
Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Model	3	0.98331	0.32777	0.65	0.5833	
Error	92	46.20576	0.50224			
Corrected Total	95	47.18906				
Root MSE		0.70869	R-Square	0.0208		
Dependent Mean		3.80313	Adj R-Sq	-0.0111		
Coeff Var		18.63432				
Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.73040	0.17717	21.06	<.0001	0
Gender	1	0.14607	0.14625	1.00	0.3205	0.10381
Work Experience	1	0.00958	0.01898	0.50	0.6150	0.05255
NA	1	-0.12907	0.14512	-0.89	0.3761	-0.09204

Figure 7: Managerial Employment Evaluation – Unattractive v. Attractive

MM Eval UA						
The REG Procedure						
Model: Linear_Regression_Model						
Dependent Variable: Performance Evaluation						
Number of Observations Read						145
Number of Observations Used						95
Number of Observations with Missing Values						50
Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Model	3	0.56555	0.18852	0.36	0.7816	
Error	91	47.58374	0.52290			
Corrected Total	94	48.14929				
Root MSE		0.72312	R-Square	0.0117		
Dependent Mean		3.81263	Adj R-Sq	-0.0208		
Coeff Var		18.96635				
Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.83102	0.18219	21.03	<.0001	0
Gender	1	0.11416	0.14932	0.76	0.4465	0.07981
Work Experience	1	-0.00473	0.01674	-0.28	0.7783	-0.02964
UA	1	-0.09591	0.14959	-0.64	0.5231	-0.06735

## The impact of a woman's physical attractiveness on the height of her glass ceiling

Figure 8: Managerial Employment Evaluation – Unattractive v. Control

**MM Eval NU**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Performance Evaluation

Number of Observations Read	145
Number of Observations Used	95
Number of Observations with Missing Values	50

  

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.00978	0.33659	1.01	0.3935
Error	91	30.41887	0.33427		
Corrected Total	94	31.42865			

  

Root MSE	0.57816	R-Square	0.0321
Dependent Mean	3.90702	Adj R-Sq	0.0002
Coeff Var	14.79808		

  

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.86300	0.14137	27.33	<.0001	0
Gender	1	-0.09315	0.12033	-0.77	0.4409	-0.08021
Work Experience	1	0.02431	0.01702	1.43	0.1567	0.15174
NU	1	-0.12725	0.12167	-1.05	0.2984	-0.11061

Figure 9: Managerial Employment Evaluation – Attractive v. Control

**MM Eval NA**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Performance Evaluation

Number of Observations Read	145
Number of Observations Used	96
Number of Observations with Missing Values	49

  

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.54660	0.51553	1.08	0.3622
Error	92	43.97395	0.47798		
Corrected Total	95	45.52054			

  

Root MSE	0.69136	R-Square	0.0340
Dependent Mean	3.85799	Adj R-Sq	0.0025
Coeff Var	17.92021		

  

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.79137	0.17284	21.94	<.0001	0
Gender	1	0.15399	0.14268	1.08	0.2833	0.11142
Work Experience	1	0.01267	0.01852	0.68	0.4955	0.07076
NA	1	-0.18739	0.14157	-1.32	0.1889	-0.13606

## The impact of a woman's physical attractiveness on the height of her glass ceiling

Figure 10: Executive Hiring Recommendation – Unattractive v. Attractive

**VP Hiring UA**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Hiring Recommendation

Number of Observations Read	143
Number of Observations Used	96
Number of Observations with Missing Values	47

  

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.78657	0.59552	0.96	0.4158
Error	92	57.15064	0.62120		
Corrected Total	95	58.93721			

  

Root MSE	0.78816	R-Square	0.0303
Dependent Mean	3.85243	Adj R-Sq	-0.0013
Coeff Var	20.45888		

  

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.78721	0.18058	20.97	<.0001	0
Gender	1	-0.17222	0.16415	-1.05	0.2968	-0.10836
Work Experience	1	0.01094	0.01835	0.60	0.5526	0.06166
UA	1	0.19550	0.16129	1.21	0.2286	0.12465

Figure 11: Executive Hiring Recommendation – Unattractive v. Control

**VP Hiring NU**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Hiring Recommendation

Number of Observations Read	143
Number of Observations Used	97
Number of Observations with Missing Values	46

  

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.67029	0.55676	0.95	0.4220
Error	93	54.76729	0.58890		
Corrected Total	96	56.43757			

  

Root MSE	0.76740	R-Square	0.0296
Dependent Mean	3.81443	Adj R-Sq	-0.0017
Coeff Var	20.11820		

  

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.71549	0.18190	20.43	<.0001	0
Gender	1	-0.04895	0.15705	-0.31	0.7560	-0.03201
Work Experience	1	0.02912	0.01967	1.48	0.1422	0.15136
NU	1	-0.11508	0.15656	-0.74	0.4641	-0.07540

## The impact of a woman's physical attractiveness on the height of her glass ceiling

Figure 12: Executive Hiring Recommendation – Attractive v. Control

**VP Hiring NA**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Hiring Recommendation

Number of Observations Read	143
Number of Observations Used	93
Number of Observations with Missing Values	50

**Analysis of Variance**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.85943	0.28648	0.54	0.6554
Error	89	47.11966	0.52943		
Corrected Total	92	47.97909			

Root MSE	0.72762	R-Square	0.0179
Dependent Mean	3.91577	Adj R-Sq	-0.0152
Coeff Var	18.58184		

**Parameter Estimates**

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.75679	0.18307	20.52	<.0001	0
Gender	1	-0.06427	0.15263	-0.42	0.6747	-0.04462
Work Experience	1	0.02378	0.02144	1.11	0.2702	0.11729
NA	1	0.07459	0.15196	0.49	0.6247	0.05192

Figure 13: Executive Employment Evaluation – Unattractive v. Attractive

**VP Eval UA**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Performance Evaluation

Number of Observations Read	143
Number of Observations Used	96
Number of Observations with Missing Values	47

**Analysis of Variance**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.34853	0.44951	1.07	0.3675
Error	92	38.79285	0.42166		
Corrected Total	95	40.14138			

Root MSE	0.64935	R-Square	0.0336
Dependent Mean	3.87118	Adj R-Sq	0.0021
Coeff Var	16.77407		

**Parameter Estimates**

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.67629	0.14878	24.71	<.0001	0
Gender	1	0.04592	0.13524	0.34	0.7350	0.03501
Work Experience	1	0.01058	0.01512	0.70	0.4858	0.07227
UA	1	0.20547	0.13288	1.55	0.1255	0.15874

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Figure 14: Executive Employment Evaluation – Unattractive v. Control

**VP Eval NU**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Performance Evaluation

Number of Observations Read	143
Number of Observations Used	97
Number of Observations with Missing Values	46

  

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.65909	0.55303	1.36	0.2598
Error	93	37.80597	0.40652		
Corrected Total	96	39.46506			

  

Root MSE	0.63759	R-Square	0.0420
Dependent Mean	3.84192	Adj R-Sq	0.0111
Coeff Var	16.59548		

  

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.73548	0.15113	24.72	<.0001	0
Gender	1	0.02717	0.13048	0.21	0.8355	0.02124
Work Experience	1	0.02680	0.01635	1.64	0.1044	0.16658
NU	1	-0.15118	0.13007	-1.16	0.2481	-0.11845

Figure 15: Executive Employment Evaluation – Unattractive v. Attractive

**VP Eval NA**  
The REG Procedure  
Model: Linear\_Regression\_Model  
Dependent Variable: Performance Evaluation

Number of Observations Read	143
Number of Observations Used	93
Number of Observations with Missing Values	50

  

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.96235	0.32078	0.84	0.4747
Error	89	33.92346	0.38116		
Corrected Total	92	34.88581			

  

Root MSE	0.61738	R-Square	0.0276
Dependent Mean	3.94946	Adj R-Sq	-0.0052
Coeff Var	15.63209		

  

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate
Intercept	1	3.75591	0.15533	24.18	<.0001	0
Gender	1	-0.02333	0.12950	-0.18	0.8575	-0.01899
Work Experience	1	0.02748	0.01819	1.51	0.1344	0.15893
NA	1	0.05076	0.12893	0.39	0.6947	0.04144

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*Figure 16: Summary Results*

		<b>Unattractive v. Attractive</b>	<b>Unattractive v. Control</b>	<b>Attractive v. Control</b>
<b>Managerial</b>	<i>Hiring Recommendation</i>	Not Significant	Not Significant	Not Significant
	<i>Employment Evaluation</i>	Not Significant	Not Significant	Not Significant
<b>Executive</b>	<i>Hiring Recommendation</i>	Not Significant	Not Significant	Not Significant
	<i>Employment Evaluation</i>	Approaching Significance	Not Significant	Not Significant