

Exploring the Persuasive Influence of Physical Attractiveness Premium in the Recruiting Process: A Study Using the Elaboration Likelihood Model

Weining Liu

Graduate Institute of Human Resource and Knowledge Management, National Kaohsiung Normal University, Kaohsiung Email: t3353@nknu.edu.tw

How to cite this paper: Liu, W. N. (2024). Exploring the Persuasive Influence of Physical Attractiveness Premium in the Recruiting Process: A Study Using the Elaboration Likelihood Model. *Journal of Service Science and Management*, *17*, 89-106. https://doi.org/10.4236/jssm.2024.171004

Received: January 10, 2024 Accepted: February 26, 2024 Published: February 29, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/

Abstract

People often wonder why physically attractive individuals seem to enjoy numerous benefits. In the contemporary landscape, AI-generated characters are gaining popularity, often selected for their physical attractiveness. This study adopts a persuasion-attitude perspective, utilizing the Elaboration Likelihood Model (ELM), to uncover the reasons behind the persuasive impact of physical attractiveness and the subsequent favorable decisions made by individuals. Employing structural equation modeling (SEM) techniques, the study conducted a multi-group analysis with a sample of 134 recruiters in the food and beverage industry. The key findings reveal that while recruiters tend to prefer hiring physically attractive applicants due to affective information processing, the moderator role of recruiters' need for cognition can significantly mitigate this stereotype premium. These findings have important implications for future research and practice. Understanding the interplay between physical attractiveness, cognitive processing, and decision-making process can contribute to the development of strategies to promote fair and objective decision-making processes.

Keywords

Physical Attractiveness, Elaboration Likelihood Model (ELM), Recruiter, Attitude, Decision-Making Process, Need for Cognition

1. Introduction

In the current era, various AI tools are prevalent, and people are often drawn to edited photos or influencers. Sometimes, these tools are also used for improper purposes, such as scams exploiting attractive photos. These technologies evoke both love and fear, but for most people, the reasons behind their attraction and decision-making are actually perplexing. Studies consistently highlight the significance of physical attractiveness, as individuals instinctively associate beauty with positive attributes such as "good-better," "smart-successful," and "important-valuable". The groundwork for this understanding stems early from a seminal study by Dion et al. (1972). Their findings indicated that, irrespective of gender, attractive individuals are more likely to be perceived as socially desirable, have a higher likelihood of securing prestigious jobs, enjoy happy marriages, and be regarded as good spouses (Dion, Berscheid, & Walster, 1972). Subsequent research has unveiled a pervasive view where people routinely presume that attractive individuals are not only smarter, more successful, and sociable but also more dominant, sexually warmer, possess better mental health, and exhibit higher self-esteem. This attractiveness premium extends even to perceptions of moral traits, with good-looking individuals being perceived as more honest and, at times, receiving the benefit of the doubt when dishonest (Gugushvili & Bulczak, 2023; Kanazawa, 2011; Kwan & Trautner, 2011; Montova, 2014; Ryabov, 2019; Wolfe & Patel, 2024).

Our natural tendency to ascribe all sorts of positive traits to beautiful people also means that we give them more breaks in life. This is nowhere more pronounced than in human resources. Physically attractive job candidates whose qualifications are similar to those of less attractive candidates are more likely to be hired for the same job (Watkins & Johnston, 2000). Experienced personnel managers are not immune to this premium. Despite believing that they are able to overlook physical appearance and that they do not consider it in their hiring decisions, experienced managers will often believe that a physically attractive person with a resume identical to that of a less attractive person is better qualified and/or will make a better employee. Although this effect is generally smaller with the most experienced personnel managers, physically unattractive women are at a consistent disadvantage when it comes to applying for jobs, regardless of the personnel manager's experience. This raises issues and questions that is it that we are too strict in our requirements for recruiters, demanding that they go against the natural human inclination for beauty and always make completely rational decisions? Moreover, such decisions may not necessarily be the most suitable. Therefore, understanding the decision-making process of the physical attractiveness premium becomes an important issue in finding the most appropriate way to address it. After all, identifying the problem is crucial to finding solutions. This study delves into the challenge of the formation of individuals' attitudes and decision-making toward the physical attractiveness premium according to a persuasive model, the Elaboration Likelihood Model (ELM).

Petty and Cacioppo (1986a) define elaboration as the depth of individual thought on issue-relevant arguments, influenced by personal traits and situations. Elaboration Likelihood Model (ELM) posits two attitude formation routes:

central and peripheral. High-EL individuals, termed "cognitive elaborators," use the central route, requiring extensive cognitive effort for enduring judgments. Low-EL individuals opt for the peripheral route, relying on simpler cues like source attractiveness or message length. This approach entails less cognitive processing, emphasizing affective cues. Njus and Johnson (2008) note that under the peripheral route, individuals favor less effortful thinking, letting simple message cues shape their attitudes. **Figure 1** is our conceptual framework.

2. Theoretical Framework and Hypothesis Development

2.1. Recruiters' Attitude toward Applicants' Facial Appearance Based on the ELM

Social psychologists believe that attitude is the most distinctive and indispensable variable for behavior change. They refer to attitude as "disposition to evaluate objects favorably or unfavorably" (Insko & Schopler, 1972: p. 1). Recent evidence in neuroscience research also indicates that visual perceptions of social categories are highly sensitive to both facial features and higher-order social cognitive processes such as attitudes (Freeman & Johnson, 2016). In the field of attitude research, one of the most influential models is the Elaboration Likelihood Model (ELM), developed by Petty and Cacioppo (1986b). The ELM is essentially a theory that models the effects of a person's elaboration of individual persuasive items on his or her overall attitude. According to ELM, information recipients can vary widely in their ability and their motivation to process the information (Cao, Liu, Zhu, Hu, & Chen, 2017). Petty and Cacioppo (1981), proposed the ELM to explain the persuasion process when individuals encounter different incoming messages and information. As a well-supported model of attitude, Petty and Cacioppo (1986b) explained elaboration as the extent to which

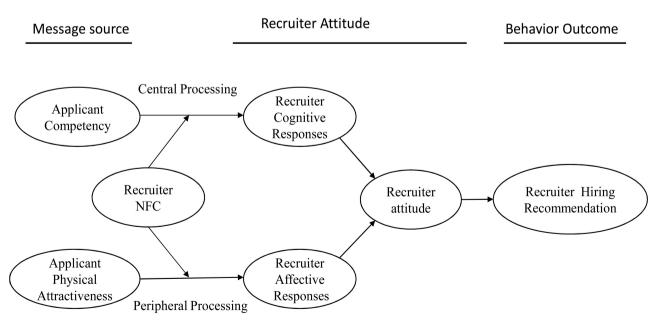


Figure 1. Research model: Recruiter's hiring recommendation in the context of ELM.

an individual thinks carefully about issue-relevant arguments and contended that personal traits and different situations may affect motivation and ability, leading to different levels of elaboration likelihood (EL). The ELM describes two routes of attitude formation: the central route and the peripheral route. When individual with high EL attitude is formed through central route, it takes individuals more cognitive efforts and critical thinking to make judgments or evaluations, which may be more extensive and enduring (Sicilia et al., 2006). Individuals who travel this route may be referred to as "cognitive elaborators" (Morris, Woo, & Singh, 2005). In contrast, individuals with low EL take the peripheral route and tend to take less complex approach to process upcoming messages. Under the peripheral route, individuals have less desire to engage in effortful and cognitive thinking and are likely to use affective cues such as perceived source attractiveness, message length and rule of thumb (Njus & Johnson, 2008). In this case, relatively simple cues in the message may influence his or her attitude.

According to Watkins and Johnson (2000: p. 76), "A fundamental principle of person perception is that people form first impressions of others on the basis of their immediately apparent features, such as physical appearance" Goodman, Morris and Sutherland (2008: p. 148), referred to a generalization known as the "what is beauty is good" stereotype that "People are more willing to accept persuasive messages from beautiful individuals whether the beautiful person is actually there, shown photographically, or on film." Consequently, during the selection process, if the applicants are facially attractive, recruiters are affectively brought happiness (Chiu & Babcock, 2002). Hence, this selection situation can offer recruiters pleasure, which may arouse the recruiters' positive attitude toward the applicant and then lead them more likely to make favorable evaluations. Therefore, when it comes to applicants' facial appearance, according to the ELM, individuals take the peripheral (affective) route and habitually look for information with more intuition and less critical thinking. Higgins and Judge (2004) suggested that recruiters might judge the facially attractive candidates to have proper personality for the job vacancy and thus to perform better. Since attitude is an evaluative judgment, the recruiters' judgments of physical attractiveness may affect their likeability towards the applicants. Then, the judgments of likeability may influence recruiters' judgments of hiring recommendation. Consequently, recruiters have positive attitudes toward the good-looking applicant. Thus, we hypothesize that:

H1: According to the ELM, recruiters are inclined to take the peripheral route and form a positive attitude toward facially attractive applicants and make favorable hiring recommendation.

2.2. Recruiters' Need for Cognition as a Moderator

In the ELM model, need for cognition (NFC), an individual-difference variable (Cacioppo, Petty, Feinstein, & Jarvis, 1996), plays an important role on a person's desire to engage in effortful thinking and it is known to influence the formation of attitudes. Njus and Johnson (2008: p. 647) illustrated that "all people try to make sense of the world in which they live, but low and high NFC individuals do so in different ways." Individuals with high NFC "naturally tend to seek, acquire, think about, and reflect back on information to make sense of stimuli, relationships, and events in the world" (Njus & Johnson, 2008: p. 198), and have "active, exploring minds" (Njus & Johnson, 2008: p. 243), while individuals with low NFC favor counting on simple and peripheral cues over engaging in complex and effortful thinking.

As Kuo, Horng, Lin and Lee (2012) mentioned in their study, individuals with high NFC are described as more intrinsically motivated ones who "use systematic rules to process information" more frequently (Kuo et al., 2012: p. 1026). Bye and Pushkar (2009) supported that individuals with high NFC have inclination to gather information. Macias (2003) also indicated that NFC is a stable personality characteristic, which may influence how consumers are motivated to think about information when they are exposed to persuasion situations. In our study, we proposed that when recruiters have high NFC, they are inclined to take the central route in information processing and view applicant's competency level as a vital cognitive cue. Recruiters with high NFC make hiring judgment by evaluating whether the applicant is equipped with sufficient job-related knowledge, skills, and traits.

On the other hand, individuals with low NFC barely make cognitive effort and have a tendency to form their attitude toward objects on simple cues such as physical attractiveness (Bye & Pushkar, 2009). According to ELM, recruiters with low NFC tend to make use of more intuitive cues and consider if an applicant's outlook appeals to them (Cacioppo, Petty, Kao, & Rodriguez, 1986). The peripheral route takes place when individuals with low NFC receive non-argument message and take the peripheral cues as their main concerns. During the recruitment and selection process, recruiters would have an impression of applicants' outlook when taking a glance at résumés photos, or interview applicants in person (Chen, Huang, & Lee, 2011). Thus, based on the above findings, the hypothesis is formulated that:

H2: Recruiters with high NFC take the central (cognitive) route whereas recruiters with low NFC take the peripheral (affective) route to make hiring recommendation.

3. Method

3.1. Participants and Procedures

Because we were interested in attitudes of experienced recruiters in real social context, we contacted recruiters who had at least 4-year recruiting experiences in the food and beverage industry. Competition for qualified employees is intense in the food and beverage industry; managers have to deal with the revolving door associated with constantly hiring and training new employees to replace those who have left the operation. However, physical attractiveness may be a le-

gitimate hiring criterion in the service industry. As a result, an interest in the factors influencing talent recruiting of these firms is certainly warranted. Have those contacted, 134 experienced recruiters participated voluntarily in this study (N = 200 initially contacted). In terms of gender distribution, the participants are nearly balanced, comprising 47% male and 53% female. Regarding age, the participants fall into the following categories: 53% are below the age of 30, 48% are between the ages of 30 and 39, 19% are between 40 and 49, and 14% are above the age of 50. The tenure distribution of the participants is as follows: 53% have less than 5 years of working experience, 36% have between 5 and 10 years, and 45% have more than 10 years of experience.

3.2. Procedures

A total number of four printed résumés were developed to measure the influences of applicant competency and physical attractiveness on recruiters' attitude. The résumés provided educational background, working experience and interests, competency information and the black-and-white photographs attached at the top right-hand corner of the résumés (Watkins & Johnston, 2000). Four versions of the résumé were developed, which differed only in competency information and photograph attractiveness according to a 2 (competency: high/low) × 2 (photograph: attractive/unattractive) between-subjects factorial design.

We invited 15 recruiters to participate in the pilot study to properly measure applicant competency in the food and beverage industry. We listed categories for competency according to Work-Related Competency Index (WCI) (Braunstein & Stull, 2001). Based on the frequency analysis, four of the most frequently mentioned items are selected and included in the résumé design: communication, responsibility, team skills, and customer services. We conducted an independent sample t-test on competency in order to examine whether the manipulation of levels of competency (high and low) really works. The results of manipulation check on competency indicate that high-level competency is significantly different from low-level competency (t = 29.63, p = .000).

As for physical attractiveness selection, ten black-and-white printed headshot photos are presented for another group of recruiters, and each recruiter has to rank the photos according to their facial appearance. "10" is the most facially attractive, while "1" is the least facially attractive. Two of the most facially attractive and two of the least facially attractive pictures ranked by the respondents are selected and included in the résumés design. To ensure the respondents' perceived physical attractiveness is as intended, we conducted an independent samples t-test to check the result of the manipulation as well. The results indicated that high-level physical attractiveness is significantly different from low-level one (t = 30.99, p = .000).

To avoid the revelation of the true purpose of this study, we simply told the participants that this study aims to develop a training tool concerns applicant résumé formatting. In order to objectively and justly evaluate the variables, each résumé includes the similar work experience, tenure, and educational background. The four competency items selected from the pilot study are designed in the section of autobiography and in the section of certifications and awards in the résumés. Each participant is randomly assigned an envelope containing one version of the résumé. Once they felt that they have sufficient information to form an opinion of the applicant, they were asked to make hiring recommendation to avoid the priming effect on our key measures. Then, another author handed a survey questionnaire that included the measures regarding cognitive response, affective response, and attitudes toward applicant among other masking items (e.g., on résumé formatting training). After the participants had completed all the ratings, they were asked to complete a manipulation check to verify the competency and physical attractiveness of the applicants. Two weeks later, we collected the measure of recruiters' need for cognition and other personal background information to complete the survey procedure.

3.3. Measures

3.3.1. Recruiter's Responses

We measured recruiters' responses as a two-component view of responses, which is a cognitive (i.e. belief-based) and an affective (i.e. emotion-based) component of responses (Verplanken, Hofstee, & Janssen, 1998). Cognitive response is measured as the recruiter-reported subjective probability of applicant's performing working behavior, on the basis of his or her cognitive appraisal of behavioral determinants. According to previous studies, we used perceived employability and working behavioral expectation to measure cognitive responses in the study (Liden, Wayne, & Stilwell, 1993; Welbourne, Johnson, & Erez, 1998). Participants responded to items such as "How likely is it that this applicant will be a high performer?" on a 5-point Likert-type scale ranging from 1 (not at all likely) to 5 (extremely likely).

We measured recruiter's affective response to applicants by using the PAD scheme (Pleasure, Arousal, & Dominance) proposed by Mehrabian (1996). Pleasure, arousal and dominance are conceived as three basic dimensions of emotional responses that indicate peoples' state of feeling in the field of environmental psychology (Mehrabian, 1996). Pleasure as an emotional state is a continuum, ranging from extreme pain or unhappiness to extreme happiness and used adjectives such as happy-unhappy, pleased-annoyed, and satisfied unsatisfied to define a person's level of pleasure. Arousal was conceived as a mental activity, describing the state of feeling along a single dimension ranging from sleep to frantic excitement. Finally, dominance is a reflection of the extent to which the individual feels in control of or overpowered by his environment. The PAD scheme is measured on a 5-point Likert scale ranging from one to five, with the larger scores representing recruiters' greater positive affect to applicant.

3.3.2. Recruiter Attitude towards Applicants

In measuring recruiters' attitude towards applicant, this study uses a five-point

Likert scale to ask the participants to make responses, "How would you rate the applicant along the scale?" The measurement items are adapted from the study of Hallahan (1999) with some items modified to suit this study. Ranging from one to five, the larger scores represent recruiters' more positive attitudes toward applicant.

3.3.3. Hiring Recommendation

We measured recruiters' behavioral outcome by using hiring recommendation to evaluate the likelihood of recruiters' recommending the applicant. The measurement items developed by Higgins and Judge (2004) are adopted for this study. A five-point Likert scale asks the participants to make responses such as "I would evaluate this applicant positively". Hiring recommendation scores range from one to five, and higher scores indicate a greater likelihood of the applicant being recommended by recruiters.

3.4. Recruiter's Need for Cognition

Need for cognition, a stable individual difference in a person's method of engaging in effortful cognitive activity, is categorized as the moderating variable in this study. Participants are asked to reflect on their engagement in effortful thought. The NFC scale (Cacioppo, Petty, & Kao, 1984) is implemented to measure the participants' NFC. Participants responded to items such as "I prefer complex to simple problems" and "The notion of thinking abstractly seems appealing to me" on a 5-point Likert scale ranging from 1 (not at all possible) to 5 (extremely probable).

3.5. Data Analyses

We followed the two-step procedure suggested by Anderson and Gerbing (1988), to test the hypothesized relationships. First, we performed a confirmatory factor analysis (CFA) to supply a confirmatory test of the theoretical model and provide statistics that accounts for how well the factor specification matches the reality. In a second step, a multi-group structural equation modeling (SEM) served as the basis for exploring the relationships in the model by group. We analyzed the structural model for the four-résumé groups (high-low competency vs. high-low physical attractiveness), then for the two high-low NFC groups. The sample size (n = 134) was acceptable as it was within the suggested minimum range of 100 - 200 subjects for SEM (Anderson, Narus, & Narayandas, 2009a).

4. Results

4.1. Descriptive Statistics

Table 1 presents the means, standard deviations, correlations, and reliabilities of the study's variables. Correlations between applicants' competency and physical attractiveness and hiring recommendations were both positive and significant

		М	SD	1	2	3	4	5	6	7
1	Applicant Competency	3.09	1.16	(.98)						
2	Applicant Facial Attractiveness	3.02	1.29	.05	(.99)					
3	Recruiter Cognitive Responses	3.17	.97	.78**	.35**	(.96)				
4	Recruiter Affective Responses	2.73	.82	.44**	.86**	.02	(.95)			
5	Recruiter Attitude	3.02	1.04	.38**	.83**	.45**	.90**	(.95)		
6	Hiring Recommendation	2.93	1.18	.49**	.74**	.53**	.83**	.88**	(.98)	
7	Recruiter's NFC	3.70	.68	.01	11	06	06	.60	.01	(.88)

Table 1. Means, standard deviations, correlations, and reliabilities among variables.

^aValues that appear on the diagonal in parentheses are Cronbach's alphas. *p < .05; **p < .01.

(r = .49 and .74, p < .01). In addition, cognitive and affective responses were both positively and significantly correlated with hiring recommendations (r = .53 and .83, p < .01). The correlation between recruiter's need for cognitive and hiring recommendations was not significant.

4.2. ANOVA

The results of the one-way ANOVA (**Table 2**) present a significant mean difference between four resume types on the constructs of recruiters' cognitive responses, recruiters' affective responses and hiring recommendation (F = 104.854; F = 111.994; F = 62.272, p <.000). According to the post-hoc analysis, between the four résumés types, it was interestingly discovered that the recruiters prefer to hire the facially attractive applicant with lack of work-related competency rather than hire the facially unattractive applicant with better competency despite the fact that they have perceived higher cognitive ability with higher level of competency. The result again confirmed that physical attractiveness does make sense in recruiter's hiring recommendation.

4.3. Confirmatory Factor Analysis

Since common source bias can threaten the validity of paths that link two variables measured in a single survey instrument, we first performed a confirmatory factor analysis by loading all of the variables in the study into a single factor. The result showed that the one-factor model did not fit well in our sample (χ^2/df = 19.8, CFI = 0.54, RMSEA = 0.38). We then employed the marker variable technique as an additional test for common method variance. The results show that after controlling for the common marker, explained variance in the dependent

variable	F value	significance	Post-Hoc comparisons*		
Cognitive Responses	104.854	.000	1 > 2 > 3 > 4		
Affective Responses	111.994	.000	1 > 3 > 2 > 4		
Hiring Recommendation	62.272	.000	1 > 3 > 2 > 4		

Table 2. Results of ANOVA analysis.

*1: High CP High PA group; 2: High CP Low PA group; 3: Low CP High PA group; 4: Low CP Low PA group.

variables decreases, but the drop is not substantial (i.e., 2 to 5 percent). In addition, the factor loadings between the hypothesized five factors and corresponding items were still statistically significant after partialling out the method effects. The relationships between the hypothesized five factors remained unchanged. These results demonstrate that common method bias is not a concern in our data set.

The confirmatory factor analyses generally support the measurement models posed. All of the fit indices meet the acceptable standard: $\chi^2/df < 3.0$, GFI > 0.9, AGFI > 0.8, and CFI > 0.90. Thus, the fit indices overall, as such show at least moderate fit for all study constructs.

4.4. Model Fit

Prior research maintains that CFI is a good index for smaller sample sizes and posits that RMSEA is among the most informative criteria in covariance structure modeling (Byrne, 2001). Consistent with extant literature, a well-fitting model should meet the requirement of a RMSEA lower than .06 and a CFI greater than .95 (Holbert & Stephenson 2002). The results from our multi-group SEM analysis with the measurement parts of the model indicate a good fit of the model according to standards recommended by Bentler and Bonett (1980): $\chi^2 = 16.72$, df = 12, p = .2, $\chi^2/df = 1.39$; CFI = .97; IFI = .98; RMSEA = .05. Thus, the proposed model fits the data well.

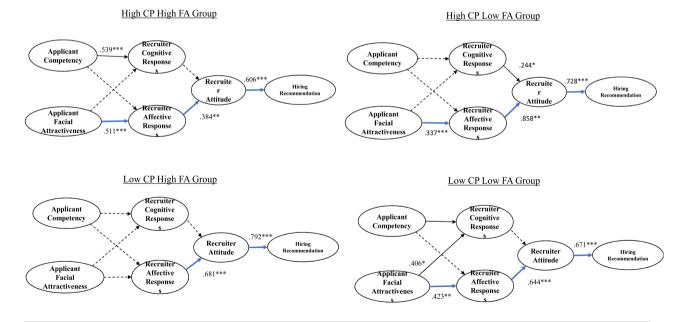
4.5. Multi-Group Analysis

We performed the multi-group SEM analysis on four samples, 2 (competency: high/low) × 2 (photograph: attractive/unattractive) to test whether the pattern of relationships outlined in the theoretical model (**Figure 2**) differs on different groups of résumés. SEM was used as a technique that allowed the analysis of relationships between exogenous (explanatory) and endogenous (dependent) variables simultaneously. Furthermore, it offered the ability to incorporate latent (unobserved) variables in the model, which were approximated by observed or measured variables (Anderson et al., 2009b). To test whether the measurement models differ across the four groups, we used the χ^2 difference statistic to assess whether there are significant differences between the unconstrained and the fully constrained models. Our result showed that the χ^2 difference ($\chi^2 = 61.3$, df = 24)

is significant between the unconstrained model ($\chi^2 = 27.7$, df = 28) and the fully constrained model ($\chi^2 = 89$, df = 52). This test for invariance points to significant differences in the structural model for the four-group résumés. It is therefore important to analyze and compare the structural parameters of the model in the different subgroups.

To assess whether the relationships among the latent variables differed on the four resume groups, we performed path-by-path comparisons to examine the path difference among the four groups. The results of these tests are presented in Table 3 respectively. The results indicate that when applicants are facially attractive (group 1 and group 2), recruiters make favorable hiring recommendations via the peripheral (affective) route (physical attractiveness \rightarrow affective to applicants' \rightarrow hiring recommendation), no matter whether the applicants have high or low level of competency. The results for group 3 and group 4 show that recruiters still took the peripheral route and gave lower ratings of hiring recommendation when applicants are less facially attractiveness, even though the applicants have high level of competency. We found interestingly that despite recruiters could distinguish the four groups with different levels of competency and physical attractiveness; they finally followed the affective route to make the hiring recommendations. Therefore, affective responses to applicants dominate recruiter's decision-making process during selection and recruitment in service industries, while cognitive responses to applicant barely take place.

4.6. The Moderating Effect of Recruiter's Need for Cognition



We performed a two-group SEM analysis to examine whether high NFC recruiters

 $\chi^2 = 27.17, d.f. = 28, p = .48, CFI = .99, IFI = .98, GFI = .95, RMSEA = .01$

* p < .05, ** p < .01, *** p < .001 Blue line is the main path and insignificant paths are depicted as dotted lines.

Figure 2. Path analysis for the four groups.

Path	χ^{2a}	df	significance	Difference for four groups	
Applicant Competency → Recruiter Cognitive Responses	31.2	31	<i>p</i> < .05	Yes	
Applicant Competency → Recruiter Affective Responses	30.7	31	<i>p</i> < .05	Yes	
Applicant Facial Attractiveness → Recruiter Cognitive Responses	30	31	<i>p</i> > .1	No	
Applicant Facial Attractiveness → Recruiter Affective Responses	36	31	<i>p</i> < .05	Yes	
Recruiter Cognitive Responses → Recruiter Attitude	53	31	<i>p</i> < .01	Yes	
Recruiter Affective Responses → Recruiter Attitude	54.4	31	<i>p</i> < .01	Yes	
Recruiter Attitude → Hiring Recommendation	32.1	31	<i>p</i> < .05	Yes	

Table 3. Path by path comparisons for the four groups.

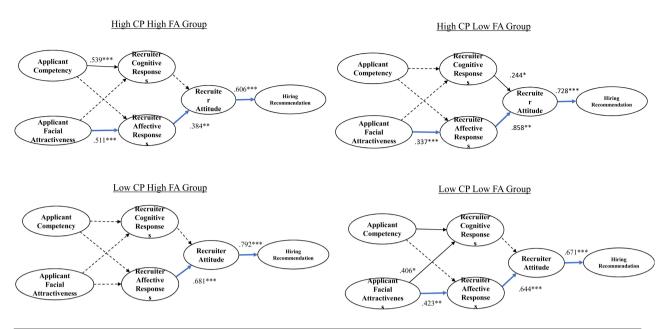
 $^{a}\chi^{2}$ threshold for comparison is 30.41.

are more likely to follow the cognitive route than low NFC recruiters. The results of the across-group equivalence of the measurement models for the two groups (high/low recruiter's NFC) showed that the χ^2 difference ($\Delta\chi^2 = 13.5$, df = 8) is significant between the unconstrained model ($\chi^2 = 11.59$, df = 4) and the fully constrained model ($\chi^2 = 25.1$, df = 12). This indicates that recruiter's need for cognition has a positive and significant moderating effect in the two-group structural model.

In addition, the results from our multi-group SEM analysis with the constrained measurement parts of the model indicate a good fit of the model (χ^2 = 11.59, *df* = 4, p = .2; CFI = .98; IFI = .98; RMSEA = .02). Path analysis for the two groups is presented in **Figure 3** respectively. We also performed path-by-path comparisons to examine the path difference between the two groups. **Table 4** shows that recruiters with high NFC take cognitive information processing to make the hiring recommendation, whereas recruiters with low NFC took the affective route in the decision-making process.

5. Discussion

By shedding new light on recruiter attitudes through the lens of the ELM, this study delves into how recruiters' information processing influences their decision-making in the hiring process when considering both factual information and peripheral cues from applicants' resumes. Despite the majority of recruiters emphasizing competency as their primary concern, the study reveals a tendency to favor facially attractive applicants. Some recruiters even express the belief that



 $\chi^2 = 27.17, d.f. = 28, p = .48, CFI = .99, IFI = .98, GFI = .95, RMSEA = .01$

* p < .05, ** p < .01, *** p < .001 Blue line is the main path and insignificant paths are depicted as dotted lines.

Figure 3. Path analysis for the two groups.

Table 4. Path by path comparisons for the four groups.

Path	χ^{2a}	df	significance	Difference for four groups
Applicant Competency → Recruiter Cognitive Responses	11.6	5	<i>p</i> > .05	No
Applicant Competency → Recruiter Affective Responses	10.2	5	<i>p</i> > .05	No
Applicant Facial Attractiveness → Recruiter Cognitive Responses	11.9	5	<i>p</i> > .05	No
Applicant Facial Attractiveness → Recruiter Affective Responses	11.6	5	<i>p</i> > .05	No
Recruiter Cognitive Responses \rightarrow Recruiter Attitude	19.6	5	<i>p</i> < .05	Yes
Recruiter Affective Responses \rightarrow Recruiter Attitude	12.7	5	<i>p</i> > .05	No
Recruiter Attitude \rightarrow Hiring Recommendation	14.3	5	<i>p</i> < .05	Yes

 $^{a}\chi^{2}$ threshold for comparison is 13.8.

attractive individuals are likely to experience more success and smoother lives, particularly in service industries. Moreover, certain participants in the main experiments acknowledge the prevalent issue of high turnover in service industries is because the organization doesn't focus on professionalism, only on appearance. The study suggests that recruiters' preference for attractiveness may contribute to bias, as attractive employees may lack the competence necessary to thrive in service-oriented occupations. Consequently, the findings underscore the importance for organizations in service industries to address recruiter per-

ception issues, assess recruiters' Need for Cognition (NFC) levels, and carefully weigh the proportions of applicant competency and physical attractiveness in selection procedures. This strategic approach aims to facilitate longer retention and enhance overall performance in the hiring process.

According to our multi-group analysis, while we distinguished two routes of recruiter's attitude based on ELM, we found that for the group with high competency and high physical attractiveness, recruiters affectively loaded information of applicants' physical attractiveness and followed the affective route to make favorable evaluations towards the applicants. For applicants with high competency and low physical attractiveness, they ignore the fact of high competency and still followed the affective route to make low evaluation on the applicants. For the group with low competency and high physical attractiveness recruiters dismissed the fact of low competency and make favorable hiring recommendation. Of course, the group with low competency and low physical attractiveness leads recruiters to follow the affective route and reject this group of applicants. This evidence of our study is consistent with the point made by Acker (2006) and Kirton and Healy (2009), that competence involves judgment from the assessors in the recruitment and selection process. Our results affirm that in the selection process, even the recruiter processes the message content cognitively, the cognition has an affective core, that is, even though the recruiter rated applicants as high cognitive ability, the hiring recommendation is still made based on the recruiter's affective attitude towards the applicants' physical attractiveness.

Fortunately, according to our results of multi-group analysis for the two groups (high and low NFC recruiters), we found that high NFC recruiters showed expending more cognitive effort in evaluating applicant's competency messages, whereas low NFC recruiters evaluated applicants based on their physical attractiveness (Figure 3). As such, in the context of high NFC, recruiters' thoughts about the cogency of the issue-relevant information (competency) are the primary determinant of persuasion. While we tested our theory in the context of physical attractiveness premium, we believed our model may explain various instances of discrimination in selection decisions, because in the psychological processes associated with discrimination selection bias is that; recruiters make judgments based on peripheral cues, such as race, age, religion, and physical attractiveness, lacking requisite motivation or ability to scrutinize the message content carefully (Watkins & Johnston, 2000). The NFC construct was linked to a model of attitude change processes (the ELM), in order to predict how certain aspects of applicant information would influence attitudes formed by recruiters. The results from our studies provide support for the hypothesis that high NFC recruiters tend to process arguments contained in résumés more extensively cognitive than low need for cognition recruiters. This observation is consistent with Palmer and Feldman's (2005) findings that raters high in NFC produced ratings with low positive halo, whether held accountable or not in performance ratings.

6. Limitation

In addition to these major findings depicted above, this study is not without its limitations and future studies are necessary for a better understanding of why recruiters' information processing impacts the outcomes of the employment for the labor market. First, despite this study chose the competency-needed position of restaurant management associate (MA), physical attractiveness is considered one of the key characteristics for employees in service industries to raise business sales and enhance customer satisfactions. Future studies may test the hypothesized model with positions from other types of organizations, professions, and industries, which may not consider employee's appearance the essential element for career success.

A second potential concern of the current study is that participants are asked to browse the simple-designed resume with the competency information along with the black-and-white photo attached and to subsequently respond to questions about their perceptions of the applicant. Although it is assumed that the designed experimental process largely reflects the selection procedure, participants have scrutinized only a limited amount of information without interviewing the candidates in person. Future studies may improve this limitation by using the videotaping method to record recruiters under the context of selection and examine their evaluation on the real job seekers either in the first-round or the following interview situations.

Third, this study uses only two independent variables, namely, applicants' competency and physical attractiveness as the cognitive information and peripheral cues respectively. Future studies can identify several factors such as applicants' bio data, pre-hire attitude, personality traits, educational background, and their former work tenure that might influence recruiters' hiring recommendation under the context of selection.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Acker, J. (2006). Inequality Regimes: Gender, Class, and Race in Organizations. *Gender & Society, 20*, 441-464. https://doi.org/10.1177/0891243206289499
- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin, 103*, 411-423. https://doi.org/10.1037/0033-2909.103.3.411
- Anderson, J. C., Narus, J. A., & Narayandas, D. (2009a). Business Market Management: Understanding, Creating, and Delivering Value. Prentice Hall.
- Anderson, M. I., Simpson, G. K., Morey, P. J., Mok, M. M., Gosling, T. J., & Gillett, L. E. (2009b). Differential Pathways of Psychological Distress in Spouses vs. Parents of People

with Severe Traumatic Brain Injury (TBI): Multi-Group Analysis. *Brain Injury, 23,* 931-943. https://doi.org/10.3109/02699050903302336

- Bentler, P. M., & Bonett, D. G. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychological Bulletin, 88*, 588-606. https://doi.org/10.1037/0033-2909.88.3.588
- Braunstein, L. A., & Stull, W. A. (2001). Employer Benefits of, and Attitudes toward Postsecondary Cooperative Education. *Journal of Cooperative Education*, *36*, 7-22.
- Bye, D., & Pushkar, D. (2009). How Need for Cognition and Perceived Control Are Differentially Linked to Emotional Outcomes in the Transition to Retirement. *Motivation* and Emotion, 33, 320-332. <u>https://doi.org/10.1007/s11031-009-9135-3</u>
- Byrne, B. M. (2001). Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming.
- Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The Efficient Assessment of Need for Cognition. *Journal of Personality Assessment, 48*, 306-307. <u>https://doi.org/10.1207/s15327752jpa4803_13</u>
- Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional Differences in Cognitive Motivation: The Life and Times of Individuals Varying in Need for Cognition. *Psychological Bulletin*, *119*, 197-253. https://doi.org/10.1037/0033-2909.119.2.197
- Cacioppo, J. T., Petty, R. E., Kao, C. F., & Rodriguez, R. (1986). Central and Peripheral Routes to Persuasion: An Individual Difference Perspective. *Journal of Personality and Social Psychology, 51*, 1032-1043. https://doi.org/10.1037//0022-3514.51.5.1032
- Cao, X., Liu, Y., Zhu, Z., Hu, J., & Chen, X. (2017). Online Selection of a Physician by Patients: Empirical Study from Elaboration Likelihood Perspective. *Computers in Human Behavior, 73*, 403-412. https://doi.org/10.1016/j.chb.2017.03.060
- Chen, C. C., Huang, Y. M., & Lee, M. I. (2011). Test of a Model Linking Applicant RÉSumÉ Information and Hiring Recommendations. *International Journal of Selection and As*sessment, 19, 374-387. <u>https://doi.org/10.1111/j.1468-2389.2011.00566.x</u>
- Chiu, R. K., & Babcock, R. D. (2002). The Relative Importance of Physical Attractiveness and Gender in Hong Kong Selection Decisions. *International Journal of Human Resource Management*, 13, 141-155. https://doi.org/10.1080/09585190110092857
- Dion, K. K., Berscheid, E., & Walster, E. (1972). What Is Beautiful Is Good. Journal of Personality and Social Psychology, 24, 285-290. <u>https://doi.org/10.1037/h0033731</u>
- Freeman, J. B., & Johnson, K. L. (2016). More Than Meets the Eye: Split-Second Social Perception. *Trends in Cognitive Sciences*, 20, 362-374. https://doi.org/10.1016/j.tics.2016.03.003
- Goodman, J. R., Morris, J. D., & Sutherland, J. C. (2008). Is Beauty a Joy Forever? Young Women's Emotional Responses to Varying Types of Beautiful Advertising Models. *Journalism & Mass Communication Quarterly, 85*, 147-168. https://doi.org/10.1177/107769900808500110
- Gugushvili, A., & Bulczak, G. (2023). Physical Attractiveness and Intergenerational Social Mobility. Social Science Quarterly, 104, 1360-1382. <u>https://doi.org/10.1111/ssqu.13320</u>
- Hallahan, K. (1999). Content Class as a Contextual Cue in the Cognitive Processing of Publicity versus Advertising. *Journal of Public Relations Research*, 11, 293-320. https://doi.org/10.1207/s1532754xjprr1104_02
- Higgins, C. A., & Judge, T. A. (2004). The Effect of Applicant Influence Tactics on Recruiter Perceptions of Fit and Hiring Recommendations: A Field Study. *Journal of Applied Psychology*, 89, 622-632. https://doi.org/10.1037/0021-9010.89.4.622

- Holbert, R. L., & Stephenson, M. T. (2002). Structural Equation Modeling in the Communication Sciences, 1995-2000. *Human Communication Research*, 28, 531-551. https://doi.org/10.1111/j.1468-2958.2002.tb00822.x
- Insko, C. A., & Schopler, J. (1972). *Experimental Social Psychology: Text with Illustrative Readings*. Academic Press.
- Kanazawa, S. (2011). Intelligence and Physical Attractiveness. *Intelligence, 39*, 7-14. https://doi.org/10.1016/j.intell.2010.11.003
- Kirton, G., & Healy, G. (2009). Using Competency-Based Assessment Centres to Select Judges—Implications for Equality and Diversity. *Human Resource Management Journal, 19,* 302-318. <u>https://doi.org/10.1111/j.1748-8583.2009.00099.x</u>
- Kuo, J. C., Horng, D. J., Lin, C. L., & Lee, S. H. (2012). The Causal Relationship between Need for Cognition and Advertising Recall. *Social Behavior and Personality: An International Journal*, 40, 1025-1032. https://doi.org/10.2224/sbp.2012.40.6.1025
- Kwan, S., & Trautner, M. N. (2011). Judging Books by Their Covers: Teaching About Physical Attractiveness Biases. *Teaching Sociology*, *39*, 16-26. https://doi.org/10.1177/0092055X10390655
- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A Longitudinal Study on the Early Development of Leader-Member Exchanges. *Journal of Applied Psychology*, 78, 662-674. https://doi.org/10.1037/0021-9010.78.4.662
- Macias, W. (2003). A Preliminary Structural Equation Model of Comprehension and Persuasion of Interactive Advertising Brand Web Sites. *Journal of Interactive Advertising*, *3*, 36-48. <u>https://doi.org/10.1080/15252019.2003.10722072</u>
- Mehrabian, A. (1996). Pleasure-Arousal-Dominance: A General Framework for Describing and Measuring Individual Differences in Temperament. *Current Psychology*, 14, 261-292. <u>https://doi.org/10.1007/BF02686918</u>
- Montoya, R. M. (2014). You're Better Than I If You're Hotter Than I: The Role of Objective Physical Attractiveness in the Physical Attractiveness Stereotype. *Revue Internationale de Psychologie Sociale—International Review of Social Psychology, 27*, 109-122.
- Morris, J. D., Woo, C., & Singh, A. J. (2005). Elaboration Likelihood Model: A Missing Intrinsic Emotional Implication. *Journal of Targeting, Measurement and Analysis for Marketing*, 14, 79-98. <u>https://doi.org/10.1057/palgrave.jt.5740171</u>
- Njus, D., & Johnson, D. R. (2008). Need for Cognition as a Predictor of Psychosocial Identity Development. *The Journal of Psychology: Interdisciplinary and Applied, 142,* 645-655. <u>https://doi.org/10.3200/JRLP.142.6.645-655</u>
- Palmer, J. K., & Feldman, J. M. (2005). Accountability and Need for Cognition Effects on Contrast, Halo, and Accuracy in Performance Ratings. *The Journal of Psychology*, 139, 119-138. https://doi.org/10.3200/JRLP.139.2.119-138
- Petty, R. E., & Cacioppo, J. T. (1981). *Attitudes and Persuasion: Classic and Contemporary Approaches.* WC Brown Co.
- Petty, R. E., & Cacioppo, J. T. (1986a). The Elaboration Likelihood Model of Persuasion (pp. 1-24). Springer New York. <u>https://doi.org/10.1007/978-1-4612-4964-1_1</u>
- Petty, R. E., & Cacioppo, J. T. (1986b). The Elaboration Likelihood Model of Persuasion. Advances in Experimental Social Psychology, 19, 123-205. https://doi.org/10.1016/S0065-2601(08)60214-2
- Ryabov, I. (2019). How Much Does Physical Attractiveness Matter for Blacks? Linking Skin Color, Physical Attractiveness, and Black Status Attainment. *Race and Social Problems*, 11, 68-79. <u>https://doi.org/10.1007/s12552-018-9245-1</u>
- Sicilia, M., Ruiz, S., & Reynolds, N. (2006). Attitude Formation Online: How the Con-

sumer's Need for Cognition Affects the Relationship between Attitude towards the Website and Attitude towards the Brand. *International Journal of Market Research, 48,* 139-154. https://doi.org/10.1177/147078530604800204

- Verplanken, B., Hofstee, G., & Janssen, H. J. W. (1998). Accessibility of Affective Versus Cognitive Components of Attitude. *European Journal of Social Psychology, 28*, 23-35. <u>https://doi.org/10.1002/(SICI)1099-0992(199801/02)28:1<23::AID-EJSP843>3.0.CO;2-</u>Z
- Watkins, L. M., & Johnston, L. (2000). Screening Job Applicants: The Impact of Physical Attractiveness and Application Quality. *International Journal of Selection and Assessment*, 8, 76-84. https://doi.org/10.1111/1468-2389.00135
- Welbourne, T. M., Johnson, D. E., & Erez, A. (1998). The Role-Based Performance Scale: Validity Analysis of a Theory-Based Measure. Academy of Management Journal, 41, 540-555. <u>https://doi.org/10.2307/256941</u>
- Wolfe, M.T., & Patel, P. C. (2024). Image Isn't Everything: Personality Attractiveness, Physical Attractiveness, and Self-Employment Earnings. *Small Business Economics*, 62, 807-831. <u>https://doi.org/10.1007/s11187-023-00784-0</u>