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**EMPLOYER BRANDING IN THE PORTUGUESE NAVY**

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## Abstract

The shift from the compulsory military service to the voluntary professional regime changed the staffing paradigm for military institutions, that led to shortage of human resources to join their ranks. Building a positive employer brand became a critical asset to guarantee the attraction and retention of qualified personnel.

Drawing from Lievens *et al.*, (2005) model, this study tests with a sample of 173 young individuals that fulfil the requirements to apply for the Navy a sequentially mediated model between familiarity and employer attractiveness via organizational characteristics and brand personality.

After testing for psychometric quality of the measures the indirect sequential effects were tested using Process. Some sequential mediations were found, namely for social, structure and travel and overall, findings suggest a robust mediation from Navy familiarity to Navy attractiveness through brand personality.

Results are discussed at the light of the theory and suggestions made as regards leveraging attractiveness through employer branding.

**JEL Classification:** M12 (Personnel Management)

**Keywords:** Recruitment, organizational attractiveness, employer branding, employer knowledge, employer familiarity, Portuguese Navy

## Resumo

A mudança do regime de serviço militar obrigatório para o serviço profissional voluntário modificou o paradigma de recrutamento para as instituições militares que gerou carência de recursos humanos associados. Construir uma marca de empregador positiva tornou-se um activo crítico que garante a atração e retenção de indivíduos qualificados.

Com base no modelo de Lievens *et al.*, (2005), este estudo testou com uma amostra de 173 jovens que preenchem os requisitos para se candidatarem à Marinha, um modelo mediado sequencial entre a familiaridade e a atratividade de empregador através das características organizacionais e da personalidade de marca.

Depois de testar a qualidade psicométrica das medidas, foram testados os efeitos indiretos sequenciais utilizando o Process. Algumas mediações sequenciais foram encontradas, nomeadamente para a dimensão social, estrutura e viagens e, na globalidade, os resultados sugeriram a existência de uma mediação robusta da familiaridade com a Marinha para a atratividade através da personalidade de marca.

Os resultados são discutidos à luz da teoria e realizam-se sugestões com o intuito de alavancar a atratividade através da marca de empregador.

**Classificação JEL:** M12 (Gestão de pessoal)

**Palavras-chave:** Recrutamento, atratividade organizacional, marca de empregador, conhecimento do empregador, familiaridade com o empregador, Marinha Portuguesa.



## I. Introduction

A decade and a half after the disappearance of the compulsory military service, the Portuguese Armed Forces are faced with a shortage of human resources to join their ranks. The branch of the Portuguese Navy has not been able to attract the necessary and enough young people to fill the totality of open positions in the classification and selection processes for the provision of service in the modality of contract regime.

According to the former Chief of the Naval Staff, Admiral António Silva Ribeiro, only 45% of the more than 800 vacancies existing in 2016 for the Navy were filled by volunteers, figures that fall short from the organizational needs (Freire, 2017).

The recruitment policies within this military institution have followed a secular strategy that offers stability, security and identification with collective causes. Although the inert nature of these recruitment practices has survived the test of time, and has stand successive social, economic, political and technological changes, there have been increasing difficulties in attracting and retaining human resources.

This situation is not only of practical interest, but also of theoretical interest. The human resource management practices associated with employer branding may list guidelines that contribute to increase the attractiveness of the Portuguese Navy as an employer to young people. This construct is still underexplored in the military institutional domain despite the evident relevance and heuristic value in the field of military human resource policy formulation leading to the resolution of this problem.

This research targets the practices of employer branding that underlie the attractiveness of the Navy as an employer. Identify the employer brand activities and strategies in the Portuguese Navy and to analyse the determining factors of its organizational attractiveness are our purposes. It should be noted that the singularity of this study is not only due to the pioneering and relevant character it has within this military institution, but also in the Portuguese scientific repository in human resources. The theoretical contribution resulting from this research will be in a revised model of human resources management practices associated with employer branding. Finally, the empirical contribution may lead to the optimization of the efficiency and effectiveness of the recruitment process translated into a greater and better contingent upon entry and lower rate of voluntary turnover.

The study will develop the conceptual and theoretic framework crossing recruitment in military settings with attractiveness, employer branding and employer knowledge.

## II. Study background

### 2.1 Recruitment and organizational attractiveness

The abolition of compulsory military service and its increasing professionalism led to a gradual change in the model of military staffing, based exclusively on voluntary service. There has been a need to adjust the human resources management policy to the country's budgetary environment, as well as to the requirements of the Navy regarding recruitment and retention. Military decision makers have had the constant challenge of guaranteeing the necessary quantity of personnel to ensure the regular functioning of the branch. This challenge has undergone the need to redesign the model of recruitment in the Navy, as well as in the other branches of the Portuguese Armed Forces. In this context, the Ministry of National Defence developed a plan comprehending a range of policies organized into three priority areas of action: recruitment, retention, and reintegration. This plan has the objective of making the provision of military service more attractive and more compatible with the needs of the branches and the country.

Recruitment is one of the best-known practices in human resources management. Its importance is associated with the attraction and retention of potential candidates by the employer with the aim of attracting a certain number of candidates to fill one or more vacant posts. In this way, we seek to reflect on recruitment research and organizational attractiveness, as these are interspersed with the employer branding research (Gardner *et al.*, 2011).

We consider that the end of compulsory military service has forced military institutions to resort to the labour market to attract personnel into their ranks. This has given rise to increasing competition and "war for talent" (Stump & Tymon, 2001 *cit.*, Schreurs & Syed, 2011), at a time when public, private and military organizations compete in the labour market for attraction of more and more skilled individuals.

According to Schreurs and Syed (2011) research on recruitment has a longstanding practice on the part of the military. The latter are pioneers in this field, but also in the issues associated with the intentions to apply and actual enlistment in military institutions (Bachman *et al.*, 2000; Lievens *et al.*, 2005; Schreurs *et al.*, 2005). Many of the procedures and methods used in the practice of recruiting in various companies were inspired from the military context. For example, during World War II the method and process of recruitment and selection applied in the enlistment of US Air Force pilots was translated into a practice that had great success and provided a relevant reference in this field.

The literature suggests several definitions of recruitment, some similar, others less. Sara Rynes proposes that recruitment "encompasses organizational practices and decisions that affect the number, or types, of individuals who are willing to solicit or accept a certain vacancy" (Rynes, 1991: 429). James Breugh also presents an identical definition: "Recruitment of employees involves those organizational activities that influence the number and / or types of candidates who apply for a position and / or affect a job offer" (Breugh, 1992: 4). However, Alan Saks emphasizes the strategic relevance of the role that recruitment, as a human resource practice, plays: "Recruitment involves actions and activities taken by an organization to identify and attract individuals to an organization who have the ability to help them achieve their strategic goals" (Saks, 2005: 48).

However, we decided to follow Alison Barber's proposal, because not only is her work used as a basis for some of these definitions as she warns that one should not define recruitment in terms of its consequences. In this sense, "recruitment includes the practices and activities carried out by the organization with the main objective of identifying and attracting potential candidates" (Barber 1998: 5).

The policy of management of human resources in the Navy is defined annually by the Chief of the Naval Staff, through the Strategic Directive of the Navy, whose execution is ensured by the Superintendence of Personnel. "Improving the recruitment and retention capacity of human resources" (DEM, 2018) emerges as the second strategic objective of this branch for the year 2018. The Navy has resource mainly to external recruitment, since it is the most expressive method to guarantee the new branches. This type of recruitment involves a Classification and Selection Process (CSP), listed by the application, classification and selection phases, and enlistment.

In the first phase of the CSP the candidates submit their application in an online platform containing their identification and contact. The second phase involves handing some documents such as certificate of qualifications, criminal record, regularized military status statement and self-addressed health questionnaire. This phase also includes physical examinations, medical inspection, psychological assessment, classification and final selection of candidates. Subsequently, candidates considered fit are ordered to undergo military recruitment training. After this phase, they will be enlisted to a category and given a specialty.

Before and during the early stages of the recruitment process it is too early for candidates to know what it would be like to be a military person in the Navy. Therefore, it is natural for them to seek to interpret information about the institution as "signals" about how they may fit

in that organization. These "signs" will also help potential candidates formulate perceptions about organizational attractiveness towards the Navy as a potential employer.

According to the literature research, organizational attractiveness has deserved special attention on the part of some human resources researchers who have dedicated themselves to this topic (e.g. Barber, 1998; Cable & Turban, 2001; Lievens *et al.*, 2005; Gomes & Neves, 2011; Theurer *et al.*, 2018). These academics address this issue from theories and marketing research to analyse the impact of organizational activities on job seekers' applications and intentions. However, organizational attractiveness is influenced on the one hand by recruitment activities / practices, and on the other, by the perceptions of organizational attributes and work characteristics. Organizational attractiveness also has to do with how employers seek to leverage their strengths to attract candidates (Gomes & Neves, 2011).

Nevertheless, Gomes and Neves (2011) research confirms the critical role organizational attractiveness plays in the scope of recruitment. These authors sought to understand how perceptions of organizational attractiveness interfered with the candidate's assessment of a job search and their intention to apply. This research shows very clearly that organizational attractiveness can be determined by several factors such as characteristics, organizational attributes and perceptions of candidates about the attractiveness of an organization.

Therefore, the perceptions that the potential candidates have about the attractiveness of the Portuguese Navy as an employer is under scrutiny in this research. The empirical approach we use crosses Human resource related dimensions (recruitment and organizational attractiveness) with Marketing-based concept of employer brand, which will be examined in the following chapters.

## 2.2 Employer branding

Employer branding has been receiving special attention from military institutions, as the latter have shown difficulties in attracting, recruiting and retaining people. In this way, employer branding emerges as an initial approach to these recruitment and retention challenges as being an attractive employer in the military context is especially important for countries that have transitioned from compulsory military service to the volunteer. Examples are warlike powers such as, United Kingdom, United States of America, Australia, Belgium and India (Kaur & Pingle, 2018).

When we think about branding the first idea that comes up is associated with the brand of a product or service, how that brand helps a company to sell its product in the market. That is,

we can consider that branding is "the process of developing the identity of a particular brand" (Kotler & Lee, 2008, *cit.* Sokro, 2012: 164). Despite the gradual use of the employer branding concept in human resource management, the state of art reveals that there is no consensual definition. However, in our perspective, employer branding is concerned with building an image in the mind of the potential labour market, that a company stands out from the rest because it is a "great place to work" (Ewing *et al.*, 2002: 12).

According to Martin *et al.* (2005) employer branding began to be discussed first by marketing scholars and only later was deepened by human resources academics probably due to some resistance to the introduction of marketing concepts and practices into the discipline of human resource management (Aggerholm *et al.*, 2011). However, the literature suggests that it is important to distinguish two central concepts: employer branding, and employer branding process (Theurer *et al.*, 2018). The first concept was developed by Ambler and Barrow (1996) who defined it as "the package of functional, economic and psychological benefits provided by employment and identified with the employer" (Ambler & Barrow, 1996: 187). On the other hand, the employer branding process, from the perspective of Backhaus and Tikoo (2004) involves internally and externally the promotion of a clear vision of what makes a company recognized and attractive as an employer.

Another contribution is suggested by the Conference Board (2001) that the employer brand establishes the identity of the company as an employer. It encompasses the companies value system, policies, and behaviours in relation to the goals of attracting, motivating, and retaining the company's current and potential employees. Employer branding practices are based on the premise that a skilled investment in human capital has advantages for both the organization and its employees (Bergeron, 2001). On the part of the organization, it favours the attraction and retention of qualified employees, thus increasing productivity and the return on investment (Keefe, 2007). On the employees' side, it favours trust and self-esteem (Lievens *et al.*, 2007).

Backhaus and Tikoo (2004) also point out that the employer branding process consists of three stages. First, the organization designs a specific value proposition that provides potential and current employees. Secondly, it discloses externally the value proposition to attract the intended population. Thirdly, it transposes the proposal made for recruitment, incorporating it into the organizational culture of the institution.

Nearly all the researches carried out underpin the previously mentioned steps. Namely, Highhouse *et al.*, (1999), Lievens and Highhouse (2003), Lievens *et al.*, (2005) and Slaughter *et al.*, (2004) provided relevant insights into the importance of attributes that make an organization attractive, which materializes in the first step. Nevertheless, Collins and Stevens

(2002) observed the interest that external marketing can have in the various recruitment practices, thus highlighting the importance of the second stage. As for the third, the study by Cable and Turban (2003) highlights the great influence that the employer branding has on the pride of a collaborator in relation to the organizational culture.

To conclude, we presented some employer branding practices that are used by companies to develop employer knowledge. Although the literature does not tell us much about them, we know so far that they contribute to the development of both the employer's knowledge and the employer's brand potential at the individual and organizational levels (Gardner *et al.*, 2011). Particularly, according to research by Collins and Stevens (2002) the employer branding practices are at the level of early recruitment activities. Particularly publicity and publicity actions, influence the knowledge of the employer, the image of this, as well as the intention to apply for potential candidates. However, employer branding practices can be high or low involvement. We realize that the former may contain very detailed information about the organization and this requires a greater cognitive effort on the part of the potential candidates. While the latter, is associated with general recruitment advertisements that require little cognitive effort on the part of the recipient (Theurer *et al.*, 2018).

In relation to employer branding practices based on media and communication channels (e.g. websites, internet, social networks) these have a major impact on the development of employer knowledge (Baum & Kabst 2014). Especially at the level of perceptions, about the image and reputation of the employer, by potential candidates. The practices described above are usually controlled directly by organizations. However, the sources of information also integrate these practices, but do not depend directly on the organizations. For example, the spread of word-of-mouth information about a job or employer. Notwithstanding, only the conclusions of the Van Hoyer (2012) study have shown that the word-of-mouth effect has some credibility and influence on the organizational attractiveness of an institution.

## 2.3 Employer knowledge

The previous chapter highlighted the relevance that some employer brand practices have for organizations in developing employer knowledge of potential candidates. Despite this, there is some empirical evidence that the potential candidates' impression about an organization is a strong predictor of organizational attractiveness (Alniacik *et al.*, 2012; Berthon *et al.*, 2005; Cable & Turban 2001; Lievens *et al.*, 2005, Lievens 2007, Myrden & Kelloway, 2015, Turban, 2001). That is, organizational attractiveness works as a result of the employer's knowledge about potential job applicants.

Among the several conceptualizations about the employer knowledge, we decided to follow that of Cable and Turban, who defined it as "memories and associations of a job seeker in relation to an organization" (Cable & Turban, 2001: 123). These researchers suggest a model that involves three dimensions of employer knowledge that influence the attractiveness of a given organization. They differentiate the employer's familiarity, reputation, and image. In this way we were encouraged to follow the proposal of these researchers. In addition, analysing these dimensions is critical because during the various phases of the recruitment process, what potential candidates know or think they know about an organization influences how they will react throughout this process (Lievens *et al.*, 2005).

Familiarity is the first dimension of employer knowledge and concerns "the level of awareness that a job seeker has of an organization" (Cable & Turban, 2001: 124), considering the degree of exposure to the information to which it is subjected. This dimension allows collecting and storing information about an organization. In other words, a job seeker cannot be knowledgeable about an organization without having some familiarity or awareness of its existence. This dimension is divided into three distinct levels of awareness and recognition, a higher level in which the job applicant is sufficiently familiar with the employer i.e., the applicant remembers the name of the employer or some relevant fact about it. The intermediate level of familiarity in which the candidates recognize the name of the employer although they do not know much about it, given the little exposure of information to which they have been subjected. Finally, the lowest level of employer familiarity translates a complete absence of familiarity and lack of awareness about it. That is, the candidates have never heard of the organization (Cable & Turban, 2001).

Empirical evidence in the military context has shown that the employer's familiarity mediated by the other two dimensions of employer knowledge produces direct or indirect positive effects on the attractiveness of the military organization and on the intentions of the

candidate powers to compete for a particular job vacancy (Lievens *et al.*, 2005; Lievens, 2007; Kaur & Pingle, 2018). However, as Brooks *et al.* (2003) recall, research has neglected the paradox of familiarity, that is, the negative effects of familiarity when there are negative assessments about the employer.

Previous studies analysing the attractiveness of the armed forces have neglected in their research the specificities of each of the branches that integrate them. This approach entails a great methodological disadvantage because it does not consider the singularities of each branch (e.g. Navy, Army, Air Force). Each one has its own characteristics, such as: structure, identity, organizational culture, benefits, missions of different nature, distinct fields of action (sea, land, air). Therefore, the predictors of organizational attractiveness of branches of the armed forces will be distinct and should not be measured universally.

In this sense, our empirical research will seek to fill this gap. Therefore, we will use the employer knowledge model proposed by Cable and Turban (2001). With the objective of identifying the determining factors of the Portuguese Navy organizational attractiveness. For the formulation of hypotheses, we will replicate the study by Lievens *et al.* (2005) on the attractiveness of the Belgian armed forces, adapted to the Portuguese Navy. Thus, considering the theoretical and empirical evidence on the role of the employer familiarity dimension, we hypothesize that:

Hypothesis 1: Familiarity with the Navy as an employer will be positively related to the perceived attractiveness of the Navy as an employer.

The second dimension of the employer knowledge structure suggested by Cable and Turban refers to the reputation of the employer, rather than to the public assessment of the employer. These authors defined the employer reputation as a "job seekers belief in the organizations affective assessment of the organization" (Cable & Turban, 2001; 127). However, the research by Slaughter *et al.* (2004) also illustrates that the potential candidates attribute traits and characteristics to the organizations. For example, when people refer to some organizations labelling them as prestigious employers. Such organizational traits differ from information about the employer and job. First, they describe organizations in abstract, subjective, and intangible terms. Secondly, they disseminate symbolic and figurative information about the organization that candidates assign to them (Lievens & Highhouse, 2003).



However, the literature highlights that people attribute traits to organizations, or to brands that are usually associated with human characteristics. The research conducted by Aaker (1997) illustrates this symbolic use of human traits to characterize several brands. This author developed a scale to measure the personality of the brand, based on the structure of the human personality, through a set of dimensions. Also, Lievens (2007) followed this approach in his study on attractiveness of the Belgian army, in which potential candidates, current candidates and military servants were invited to attribute human traits to characterize this branch of the military. These brand personality traits were represented by the dimensions of Aaker (1997) namely: sincerity, excitement, cheerfulness, competence, prestige, and robustness. A reasonable approach to address this issue could be assigning these dimensions of the employer brand personality function as a first "signal" that is conveyed by potential candidates, revealing the perceptions individuals have about an organization. In this sense, we hypothesize that:

Hypothesis 2: Navy's brand personality as an employer will be positively related to the perceived attractiveness of the Navy as an employer.

The employer image integrates the third dimension of the employer knowledge. This dimension represents "the content of the beliefs held by a job seeker over an employer" (Cable & Turban, 2001: 125). While employer reputation conveys the beliefs of other candidates who evaluate the organization, the employer image is concerned with the beliefs of potential candidates (Yu & Cable, 2012). This dimension developed from the concept of brand image among marketing scholars (Aaker, 1996; Keller, 1993) and pertain implicit perceptions and associations about itself and concerning the memory of consumers. It thus emerges in the context of recruitment as a range of associations that potential candidates have about the characteristics that an organization possesses as an employer.

Lievens, *et al*, (2005), Lievens (2007), Kaur and Pingle (2018) have shown the relevance that this dimension has acquired in the context of military recruitment. By contrast, in his survey of recruitment in the Belgian army, Lievens (2007) examined perceptions of the employer image. He investigated the importance of associations that are made to the image of the army as an employer. However, the literature proposes other ways of categorizing these characteristics (Theurer *et al.*, 2018) that are implicit to the image of the employer. We opted to follow the structure proposed by Lievens and Highhouse (2003) in another study. These authors explained the structure of the image of the employer through instrumental and symbolic attributes. The instrumental refers to them in terms of objective or tangible characteristics that

the organization or work can provide the candidate. Namely, career, job security and rewards. The symbolic attributes were understood as subjective or psychological attributes that carry the perceptions that the candidates attribute to the organization. Particularly, satisfaction and favour of the personal image.

Therefore, the associations and perceptions that are built relative to the employer end up shaping their image, which, therefore, influences their attractiveness. The researches of Lievens (2007), Kaur and Pingle (2018) corroborate this premise as their studies examined the attraction of potential candidates early in the recruitment process. They confirmed that organizational attractiveness is influenced by candidates' associations and perceptions about employment or organizational characteristics such as rewards, career, organizational structure and job security. Considering the relevance of this dimension, we hypothesize that:

Hypothesis 3: The perceptions of employment and organizational characteristics of the Navy will be positively associated with the perceived attractiveness of the Navy as an employer.

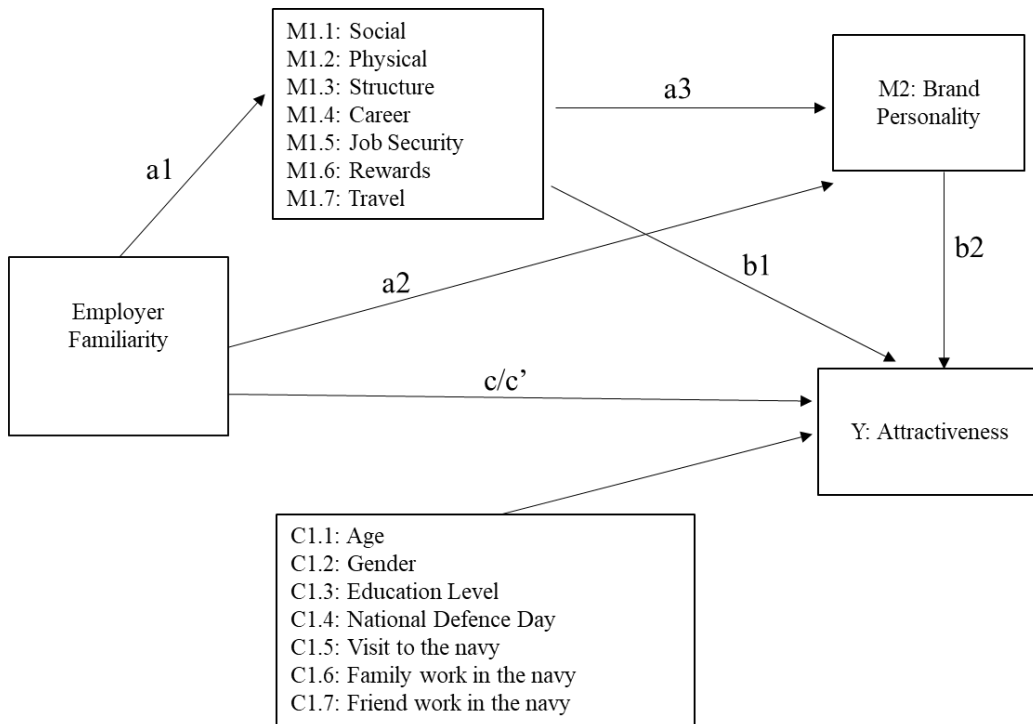
Overall, the hypotheses suggest that between familiarity and employer attractiveness there is a sequential mediation by organizational characteristics and brand personality and consequently we hypothesize that:

H4: Employer familiarity is positively related to employer attractiveness through a sequential indirect effect via enhanced organizational characteristics and subsequent brand personality

Finally, we identify in the literature the possibility of the existence of relations of influence between these three dimensions of the knowledge of the employer, leading us to believe that these have a reciprocal relationship between them. Cable and Turban (2001) think that the image is influenced by the employer's familiarity and reputation and that the image affects reputation and organizational attraction. In this sense it will also be the purpose of this research to analyse the relationship between the three dimensions of the employer knowledge and the attractiveness of the Navy.

The integrated set of hypotheses is depicted in the following model of research.

Figure 1 – Sequential multiple mediation model



### III. Method

#### 3.1 Sample and Procedure

As mentioned, this study addresses research issues related to employer knowledge dimensions and organizational attractiveness. It is based on a mixed method, qualitative and quantitative research. We begin with a phase of exploratory research of a qualitative nature, in which a semi-structured interview (cf. Appendix I) was conducted with a key interlocutor in the human resources area of the Portuguese Navy. The purpose of the interview was to identify employer brand strategies and activities in the Portuguese Navy, as well as other associated issues. Prior to the study, the interviewee was informed in detail about the type of study, how it would be analysed and what its purpose was.

A sample was also collected for this study, in which participants consisted of potential candidates for the Portuguese Navy aged between 18 and 30 as the conditions of admission require it. Bearing in mind that a possible application decision is probably set with some antecedence we opted to widen the age range of our sample from 17 to 30 years old.

The questionnaires were created on the Qualtrics Online Survey Software platform and spread on social and professional networks namely LinkedIn, Facebook, Instagram and Twitter over a 30-day period from May 9 to June 7, 2019. From an initial sample of 261 participants, 173 subjects were considered valid responses corresponding to a 66.27% response rate. The sample is gender balanced (50.3% women) averaging 24.81 (SD = 4.55) years old.

#### 3.2 Measures

Except where stated, all scales were answered in a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Employer attractiveness was measured with three items from Highhouse *et al.* (2003) in the adapted version of Lievens, *et al.* (2005). The CFA for this sort of factors is not suitable due to just-identification (Schumacker & Lomax, 2010). Following the recommendations of Ribeiro, Bender, Selby, Hames and Joiner (2011) we tested for the significance ( $p < .001$ ) of each loading (Item1=.900, Item2=.800, Item3=.628) and computed the CR (.825) and Average Variance Extracted (AVE=.616). The values show that items aggregate significantly and logically into a single factor and thus they may be treated as components of employer attractiveness.

Employer familiarity was measured with three items from Turban (2001). Due to just-identification (Schumacker & Lomax, 2010) we tested for the significance ( $p < .001$ ) of each

loading (Item1=.569, Item2=.631, Item3=.975) and computed the CR (.781) and AVE (.558). Also, in this case, the values indicate items aggregate into a single factor and thus they may be treated as components of employer familiarity.

Organizational characteristics were measured with Lievens *et al.* (2005) scale that comprehends 21 items distributed by 8 factors as follows: Social/team activities (3 items, e.g. "...offers the possibility to work in teams"), Physical activities (3 items, e.g. "... offers a lot of physical challenges"), Structure (3 items, e.g. "... offers the possibility to work in a well-defined structure"), Career/Advancement (3 items, e.g. "... offers the possibility to build a career"), Job security (2 items, e.g. "...offers job security"), Rewards (2 items, e.g. "... offers the possibility to make a lot of money"), Travel opportunities (3 items, e.g. "... offers the possibility to travel a lot"), and Educational opportunities (2 items, e.g. "offers the possibility to escape from school"). The CFA showed unacceptable fit indices ( $\chi^2/135=2.280$ ,  $p<.001$ ; CFI=.919; TLI=.898; RMSEA=.087; SRMR=.0770). By using Lagrange multipliers, we removed two items (namely one from Physical and one from Career factor) as well as both items from "educational opportunities" because they truly do not reflect the search for education but instead an escape from education. Therefore, we were left with 17 items distributed by a seven-factor solution that corresponds to a valid CFA ( $\chi^2/102=1.780$ ,  $p<.001$ ; CFI=.956; TLI=.942; RMSEA=.067; SRMR=.0519).

All the factors have good convergent validity ( $AVE_{\text{Social}}=.532$ ,  $AVE_{\text{Physical}}=.874$ ,  $AVE_{\text{Structure}}=.635$ ,  $AVE_{\text{Career}}=.723$ ,  $AVE_{\text{JobSecurity}}=.617$ ,  $AVE_{\text{Rewards}}=.757$ ,  $AVE_{\text{Travel}}=.747$ ). Additionally, multifactor constructs should have divergent validity, which is tested by comparing the interfactor correlation with the squared AVE of the factors under analysis. A given solution is deemed valid under this criterion if the interfactor correlation is smaller than its respective squared AVEs (Fornell & Larcker, 1981). Table 1 shows all interfactor correlations as well as the squared AVEs and the results support the assertion that the solution has good divergent validity. Furthermore, the solution has good reliability ( $CR_{\text{Social}}=.772$ ,  $CR_{\text{Physical}}=.933$ ,  $CR_{\text{Structure}}=.839$ ,  $CR_{\text{Career}}=.839$ ,  $CR_{\text{JobSecurity}}=.763$ ,  $CR_{\text{Rewards}}=.862$ ,  $CR_{\text{Travel}}=.898$ ).

Table 1 - Divergent validity of job and organizational characteristics

	1	2	3	4	5	6	7
1. Social	<b>.729</b>						
2. Physical	.448	<b>.934</b>					
3. Structure	.718	.696	<b>.796</b>				
4. Career	.325	.619	.620	<b>.850</b>			
5. Job Security	.423	.416	.478	.760	<b>.785</b>		
6. Rewards	.125	.537	.444	.725	.494	<b>.870</b>	

7. Travel	.488	.510	.573	.530	.591	.358	<b>.864</b>
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**Brand personality** was measured with and adapted version of Lievens *et al.* (2005) scale with 13 items where the CFA showed poor fit indices for a five-factor solution ( $\chi^2/57=3.007$ ,  $p<.001$ ; CFI=.948; TLI=.929; RMSEA=.108; SRMR=.0369). By closely analysing data we found strong shared variance across factors which suggested either a single global factor or a 2<sup>nd</sup> order factor. Lagrange Multipliers indicated the removal of one item (friendly) but the CFA for a single factor rejected this solution ( $\chi^2/54=6.942$ ,  $p<.001$ ; CFI=.837; TLI=.801; RMSEA=.186; SRMR=.0691). Due to high interfactor correlations, we tested the 2<sup>nd</sup> order factor solution with these items, which showed good fit indices ( $\chi^2/50=1.991$ ,  $p<.001$ ; CFI=.975; TLI=.967; RMSEA=.076; SRMR=.0333). The valid solution thus comprehends 12 items distributed by five 1<sup>st</sup> order factors organized under a 2<sup>nd</sup> order factor as follows: honesty (2 items, “honesty”, “transparent” CR=.879, AVE=.783), cheerfulness (2 items, “cheerful”, “original” CR=.879, AVE=.784), excitement (3 items, “daring”, “exciting”, and “thrilling”, CR=.890, AVE=.729), competence (2 items, “competent”, and “sophisticated”, ” CR=.862, AVE=.759), and prestige (3 items, “high status”, “highly regarded”, and “well respected” CR=.935, AVE=.828). The 2<sup>nd</sup> order factor has both good convergent validity (AVE=.834) and reliability (CR=.961).

## IV. Results

The study in question was developed, as mentioned, for two purposes. To identify the employer brand activities and strategies in the Portuguese Navy and to analyse the determining factors of its organizational attractiveness. Regarding the first goal, Table 2 shows which set of employer brand strategies can be deployed to increase employer knowledge.

Table 2 - Employer branding strategies in the Portuguese Navy

Employer branding strategies	Early recruitment activities	Presence of publicity teams at job fairs.
		Publicity actions in schools, polytechnics, universities and public spaces.
	High and low-involvement strategies	High-involvement strategies require greater cognitive consumer involvement (e.g. detailed printed recruitment advertisements); Curricular stages: for professional and higher education level.
		Low-involvement strategies involve little effort in consumer search and processing, simple printed recruitment advertisements, slogans (e.g. "embark on a job"; "challenge yourself"); Open day Lisbon Naval Base, Warship Visits.
		Interactive recruitment website;
	Media and communications channels	Presence in social networks (e.g. <i>facebook</i> , <i>instagram</i> , <i>twitter</i> , <i>youtube</i> ).
		Promotional videos about the recruiting process.
Interpersonal source information	Word-of-mouth by navy employees effect on application decisions.	

Adapted from Theurer *et al.*, (2018)

According to the information gathered during the interview with the Head of the Portuguese Navy Recruitment and Selection Office, we can list a set of employer brand strategies that serve to improve employer awareness and develop employer brand potential.

The Portuguese Navy seeks to strategically communicate its image as an employer to potential candidates through early recruitment activities, through outreach actions at job fairs and educational establishments. We can see from Table 2 that high and low involvement strategies are also two practices in use in the Portuguese Navy with the purpose of influencing the application intent of a candidate pool. Another of the identified employer brand strategies is the media and communication channels through which the Portuguese Navy seeks to impact on candidates' image beliefs. Finally, sources of personal information, although not directly controlled by the organization, are a strategy in use in the Portuguese Navy, whereby employees are required to publicity recruitment and admission competitions by word-of-mouth.

Table 3 - Results of sequential multiple mediations analysis to explain attractiveness

Mediator	Path	Beta	SE	t	CI95 (lower)	CI95 (upper)	Total effect model	Full model with mediators
Social	a1	.384	.064	4.00***	.130	.385	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.434 F(10, 162)=12.44***
	a2	.252	.068	2.70**	.050	.321		
	a3	.448	.079	6.18***	.334	.648		
	b1	.121	.092	1.62	-.032	.334		
	b2	.587	.082	8.04***	.500	.826		
	c	.215	.086	2.47*	.043	.386		
	c'	-	.074	-0.42	-.177	.114		
			.031					
	a1*b1	.039	.027		-.009	.098		
	a2*b2	.123	.052		.020	.230		
a1*a3*b2	.084	.036		.028	.168			
Physical	a1	.095	.095	.937	-.098	.276	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.425 F(10, 162)=11.98***
	a2	.374	.061	4.47***	.154	.398		
	a3	.517	.050	8.07***	.309	.509		
	b1	-	.067	-0.12	-.142	.125		
			.009					
	b2	.644	.088	8.22***	.553	.902		
	c	.215	.086	2.47*	.043	.386		
	c'	-	.074	-0.16	-.158	.134		
			.011					
	a1*b1	-	.008		-.020	.016		
a2*b2	.201	.052		.104	.309			
a1*a3*b2	.026	.032		-.031	.097			
Structure	a1	.264	.072	2.63**	.047	.331	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.652 F(10, 162)=11.98***
	a2	.274	.060	3.32**	.082	.323		
	a3	.564	.064	8.97***	.453	.709		
	b1	.007	.092	.093	-.174	.191		
	b2	.635	.091	7.84***	.536	.897		
	c	.215	.086	2.47*	.043	.386		
	c'	-	.073	-0.14	-.156	.134		
			.010					
	a1*b1	.001	.018		-.036	.038		
	a2*b2	.145	.047		.058	.243		
a1*a3*b2	.079	.040		.009	.166			
Career	a1	.175	.085	1.80	-.014	.323	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.441 F(10, 162)=12.81***
	a2	.319	.059	3.96***	.118	.352		
	a3	.598	.053	9.37***	.396	.608		
	b1	.178	.077	2.18*	.016	.323		
	b2	.534	.091	6.60***	.423	.484		
	c	.215	.086	2.47*	.043	.386		
	c'	.001	.072	0.01	-.143	.144		
			.026		-.006	.078		
	a1*b1	.026	.022		-.006	.078		
	a2*b2	.142	.046		.061	.243		
a1*a3*b2	.046	.031		-.009	.115			

\*\*\* p<.001 \*\* p<.01 \* p<.05



Table 3 (cont.) - Results of sequential multiple mediations analysis to explain attractiveness

Job security	a1	.191	.080	1.79	-.014	.301	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.425 F(10, 162)=12.01***
	a2	.339	.064	3.87***	.122	.378		
	a3	.441	.062	6.95***	.310	.557		
	b1	.025	.077	0.36	-.124	.180		
	b2	.626	.085	8.30***	.539	.875		
	c	.215	.086	2.47*	.043	.386		
	c'	-.010	.073	-0.13	-.155	.134		
	a1*b1	.004	.013		-.018	.039		
	a2*b2	.177	.050		.081	.278		
	a1*a3*b2	.044	.030		-.007	.114		
Rewards	a1	-.047	.085	-0.48	-.210	.127	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.425 F(10, 162)=11.99***
	a2	.447	.064	5.15***	.203	.456		
	a3	.484	.058	6.98***	.292	.523		
	b1	.013	.072	0.17	-.130	.156		
	b2	.632	.085	8.38***	.546	.883		
	c	.215	.086	2.47*	.043	.386		
	c'	-.008	.075	-0.10	-.156	.140		
	a1*b1	-.001	.009		-.025	.017		
	a2*b2	.235	.052		.141	.346		
	a1*a3*b2	-.012	.028		-.068	.045		
Travel	a1	.342	.071	3.38***	.101	.383	R <sup>2</sup> =.094 F(8, 164)=2.14*	R <sup>2</sup> =.426 F(10, 162)=12.04***
	a2	.244	.063	2.83**	.054	.035		
	a3	.526	.067	8.18***	.416	.682		
	b1	.042	.090	0.54	-.129	.228		
	b2	.616	.088	7.83***	.520	.871		
	c	.215	.086	2.47*	.043	.386		
	c'	-.014	.073	-0.19	-.160	.131		
	a1*b1	.012	.024		-.027	.070		
	a2*b2	.125	.045		.037	.218		
	a1*a3*b2	.092	.037		.030	.175		

\*\*\* p<.001 \*\* p<.01 \* p<.05

About the second goal findings concerning the proposed multiple mediated sequential model examining the direct and indirect effects of Navy familiarity on Navy attractiveness is depicted in Table 3. For clarity sake we did not show covariates in the Table 3, but they were all included (cf. Appendix IV, with process outputs). Because the model includes seven organizational characteristics, we detail findings for each separately.

For **social mediator** findings show one embedded mediation (between familiarity, brand personality, and attractiveness) as well as the full sequential mediation from familiarity to attractiveness through social and brand personality, explaining 43.4% of variance [F<sub>(10, 162)</sub>=12.44, p<.01] with an effect of .084 CI95 [.028; .168]. Although familiarity is directly

associated with attractiveness ( $B=.215$ ,  $CI95 [.043; .386]$ ), when the mediators are included the coefficient drops to non-significant ( $B= -.031$ ,  $CI95 [-.177; .114]$ ). Additionally, both education ( $B=.203$ ,  $p<.05$ ,  $CI95 [.040; .366]$ ) and visit to the navy ( $B=.302$ ,  $p<.05$ ,  $CI95 [.007; .597]$ ) are associated to brand personality. Overall, findings **support** a total sequential mediation for the 3-path model through social and brand personality.

For **physical mediator** findings show one embedded mediation (between familiarity, brand personality, and attractiveness) which is able to account for 42.5% of attractiveness variance [ $F_{(10, 162)}=11.98$   $p<.001$ ] with an effect of  $.201$   $CI95 [.104; .309]$ . Again, familiarity is directly associated with attractiveness ( $B=.215$ ,  $CI95 [.043; .386]$ ) but the inclusion of brand personality as a mediator, makes it non-significant ( $B= -.011$ ,  $CI95 [-.158; .134]$ ). Additionally, Navy visit ( $B=.646$ ,  $p<.01$ ,  $CI95 [.221; 1.072]$ ) is associated to physical dimension and age is associated with brand personality ( $B= -.033$ ,  $p<.05$ ,  $CI95 [-.065; -.001]$ ). Overall, findings suggest a total mediation only for the paths  $a_2*b_2$  and thus **did not support** an indirect effect for the full 3-path sequential mediation model.

For **structure mediator** findings show one embedded mediation (between familiarity, brand personality, and attractiveness) as well as the full sequential mediation from familiarity to attractiveness through structure and brand personality, explaining 65.2% of variance [ $F_{(10, 162)}=11.98$ ,  $p<.001$ ] with an effect of  $.079$   $CI95 [.009; .166]$ . Although familiarity is directly associated with attractiveness ( $B=.215$ ,  $CI95 [.043; .386]$ ), when the mediators are included the coefficient drops to non-significant ( $B= -.010$ ,  $CI95 [-.036; .038]$ ). Additionally, both Education level ( $B=.204$ ,  $p<.05$ ,  $CI95 [.025; .382]$ ) and Navy visit ( $B=.335$ ,  $p<.05$ ,  $CI95 [.012; .657]$ ) are associated to structure dimension and Friends in Navy is associated with brand personality ( $B=.236$ ,  $p<.05$ ,  $CI95 [.006; .465]$ ). Overall, **findings support a total sequential mediation** for the 3-path through structure and brand personality.

For **career mediator** findings show a single embedded mediation (between familiarity, brand personality, and attractiveness) which accounts for 44.1% of attractiveness variance [ $F_{(10, 162)}=12.81$   $p<.001$ ] with an effect of  $.142$   $CI95 [.061; .243]$ . Again, familiarity is directly associated with attractiveness ( $B=.215$ ,  $CI95 [.043; .386]$ ) and the inclusion of brand personality as a mediator, makes it non-significant ( $B= .001$ ,  $CI95 [-.143; .144]$ ). Additionally, both age ( $B=-.121$ ,  $p<.001$ ,  $CI95 [-.165; -.078]$ ) and education ( $B=.428$ ,  $p<.001$ ,  $CI95 [.216; .640]$ ) are associated to career dimension. Overall, findings suggest a total mediation only for the paths  $a_2*b_2$  and thus findings **did not support** an indirect effect for the full 3-path sequential mediation model.

For **job security mediator** findings show the same single embedded mediation as previously seen (between familiarity, brand personality, and attractiveness) accounting for 42.5% of attractiveness variance [ $F_{(10, 162)}=12.01$   $p<.001$ ] with an effect of .177 CI95 [.081; .278]. Again, familiarity is directly associated with attractiveness ( $B=.215$ , CI95 [.043; .386]) and the inclusion of brand personality as a mediator, again, makes it non-significant ( $B= -.010$ , CI95 [-.155; .134]). Additionally, both age ( $B=-.053$ ,  $p<.01$ , CI95 [-.086; -.021]) and Navy visit ( $B=.394$ ,  $p<.1$ , CI95 [.107; .681]) are associated to brand personality dimension. Overall, findings suggest a total mediation only for the paths  $a2*b2$  and thus findings **did not support** an indirect effect for the full 3-path sequential mediation model.

For **rewards mediator** findings follow a very similar profile than the previous test highlighting the same single embedded mediation (between familiarity, brand personality, and attractiveness) accounting for 42.5% of attractiveness variance [ $F_{(10, 162)}=11.99$   $p<.001$ ] with an effect of .235 CI95 [.141; .346]. Again, familiarity is directly associated with attractiveness ( $B=.215$ , CI95 [.043; .386]) and the inclusion of brand personality as a mediator, again, makes it non-significant ( $B= -.008$ , CI95 [-.156; .140]). Additionally, age is associated to rewards ( $B=-.110$ ,  $p<.001$ , CI95 [-.154; -.067]) and Navy visit is associated to brand personality ( $B=.349$ ,  $p<.05$ , CI95 [.062; .636]). Overall, findings suggest a total mediation only for the paths  $a2*b2$  and thus findings **did not support** an indirect effect for the full 3-path sequential mediation model.

For **travel mediator** findings show one embedded mediation (between familiarity, brand personality, and attractiveness) as well as the full sequential mediation from familiarity to attractiveness through travel and brand personality, explaining 42.6% of variance [ $F_{(10, 162)}=12.04$ ,  $p<.001$ ] with an effect of .092 CI95 [.030; .175]. Familiarity again is directly associated with attractiveness ( $B=.215$ , CI95 [.043; .386]) but when the mediators are included the coefficient drops to non-significant ( $B= -.014$ , CI95 [-.027; .070]). Additionally, age is associated both to travel ( $B=-.057$ ,  $p<.01$ , CI95 [-.093; -.021]) and brand personality ( $B=-.035$ ,  $p<.05$ , CI95 [-.067; -.003]). Overall, findings **support a total sequential mediation** for the 3-path model through travel and brand personality.

Taken all findings together, the tests show a direct positive association between familiarity and attractiveness that supports H1. Likewise, in all tested models, brand personality was always positively and significantly associated with employer attractiveness ( $b2$ ), thus supporting H2. On the other hand, organizational characteristics are never associated with employer attractiveness ( $b1$ ) to the exception of career mediator where it shows a significant positive coefficient. This does not support H3.

Findings strongly suggest a robust mediation from Navy familiarity to Navy attractiveness through Brand personality. The corresponding indirect effect is observed in all models tested. Additionally, organizational characteristics seem to play a mediating role in the full sequential model for the cases of social, structure, and travel mediators even after controlling for sociodemographic and professional covariates. Thus, H4 is supported.

## V. Discussion and conclusion

The identification of employer branding activities and strategies deployed in the Portuguese Navy reveals the efforts that this institution has been making to become knowledgeable and attractive to potential young candidates. Early recruitment activities are an example of this, and employer knowledge is critical at this early stage. We realize that high and low involvement strategies are another approach used by the Portuguese Navy to reach potential candidates. On the one hand, through high involvement strategies (e.g. prospects with information and recruitment notices) containing detailed information about the attributes of the organization, which require more cognitive effort on the part of the recipients. On the other hand, low involvement practices, which require less cognitive effort on the part of the recipients (e.g. slogans, open days, ship visits).

Communication channels such as media and social networks are also mechanisms this institution uses to disseminate information about job characteristics in order to increase their image, reputation and attractiveness of candidates.

The sources of personal information are also an employer branding strategy used in the Portuguese Navy, as it stressed to its employees the importance they have in promoting organizational attractiveness.

We conclude that Cable and Turban's (2001) employer knowledge model used in this study is very comprehensive, but the proposed sequential structuring of the variables at stake between employer familiarity and employer attractiveness found empirical support in the mediational tests performed. In line with the study by Lievens *et al.* (2005) the three dimensions of employer knowledge were also empirically supported as they were positively related to the perceived attractiveness of the Belgian armed forces.

The results obtained in our study partially corroborate the validity of this structure. We found empirical support for the dimensions of employer familiarity (brand awareness) and employer reputation (brand personality). The study supports the importance of building brand awareness among the potential employers as we find that this enhances the attractiveness of the Portuguese Navy. It also supports the relevance that employer reputation has (brand personality) i.e. the public assessment of the organization by positively relating to attractiveness.

However, we did not find empirical support for the third dimension, the employer image, since organizational characteristics are never associated with employer attractiveness beyond the career dimension. We conclude that there is a robust mediation of navy familiarity with navy attractiveness through brand personality. Just as organizational characteristics seem to play a mediating role in the sequential model of this research. However, as covariates are not only controlled in the macro Process, but also identified as potential predictors, we can assess the relative effectiveness that each activity has led to increasing brand awareness and increasing awareness of organizational characteristics.

We recognize the existence of limitations in this study. Firstly, although we have a sample of 173 individuals, which technically allows for the use of robust data analysis techniques, we consider that its size may be insufficient to guarantee the representation of Portuguese young people aged between 17 and 30 years with potential to apply for the Navy. Thus, we suggest that in future research it is advantageous to have a larger sample to lead to a more robust generalization of results.

Secondly this study is applied only to the Portuguese Navy. We believe that overall military institution may benefit from future studies that are able to examine other European navies as they face constant challenges in attractiveness, quantity and quality of staff to join their ranks.

Finally, we recognize that the fact that there are individuals who are not attracted to the military context will at first evaluate those attributes as low, while individuals who are attracted will rank higher regardless of their beliefs about the organization. as an employer. Thus, we admit that future research could prevent this situation by adopting a research design that is not cross-sectional in nature or that allows for the establishment of causal nexus.

## VI. References

- Aggerholm, H., Andersen, S., Thomsen, C. (2011), "Conceptualising employer branding in sustainable organisations", *Corporate Communications: An International Journal*, Vol. 16 Iss: 2, pp.105-123.
- Ambler, T., and Barrow, S. (1996), "The employer brand", *Journal of Brand Management*, Vol. 4, pp.185-206.
- Bachman, J.G., Segal, D.R., Freedman-Doan, P. and O'Malley, P.M. (2000), "Who chooses military service? Correlates of propensity and enlistment in the US Armed Forces", *Military Psychology*, Vol. 12 No. 1, pp.1-30.
- Backhaus, K., Tikoo, S. (2004), "Conceptualizing and researching employer branding", *Career Development International*, Vol. 9 No. 5, pp.501-17.
- Baum, M. and Kabst, R. (2014). "The effectiveness of recruitment advertisements and recruitment websites: indirect and interactive effects on applicant attraction". *Human Resource Management*, No. 53, pp.353–378
- Bergeron, D. M. (2001). "Valuing the employer brand: Attracting talent that fits". Proceedings of Academy of Human Resource Development (AHRD) conference, Tulsa, OK, Feb. 28-March 4.
- Breaugh, J.A. (1992), *Recruitment: Science and Practice*, PWS-Kent, Boston, MA.
- Brooks, M.E., Highhouse, S., Russell, S.S. and Mohr, D.C. (2003). "Familiarity, ambivalence, and firm reputation: is corporate fame a double-edged sword?" *Journal of Applied Psychology*, No. 88, pp.904–914
- Cable, D.M., Turban, D.B. (2003), "The value of organizational reputation in the recruitment context: a brand-equity perspective", *Journal of Applied Psychology*, Vol. 33 No. 11, pp.2244-2266.
- Collins, C. J., Stevens, C. K. (2002). "The relationship between early recruitment-related activities and the application decisions of new labor-market entrants: A brand equity approach to recruitment". *Journal of Applied Psychology*, No. 87(6), pp.1121.
- Conference Board (2001), *Engaging Employees through Your Brand*, The Conference Board, New York.
- DEM, (2018). *Diretiva Estratégica da Marinha*, Lisboa: Gabinete do Chefe do Estado-Maior da Armada.
- Ewing, M.T., Pitt, L.F., de Bussy, N.M., Berthon, P. (2002) "Employment branding in the knowledge economy". *International Journal of Advertising*, No. 21(1), pp.3-22.

- Fornell, C., Larcker, D. F. (1981). "Evaluating structural equation models with unobservable variables and measurement error". *Journal of marketing research*, No. 18(1), pp.39-50.
- Freire, M. C. (2017) "Mais de metade das vagas na Marinha ficaram por preencher em 2016" in *Diário de Notícias*.
- Highhouse, S., Zickar, M. J., Thorsteinson, T. J., Stierwalt, S. L., Slaughter, J. E. (1999). "Assessing company employment image: An example in the fast food industry". *Personnel Psychology*, No. 52(1), pp.151-172.
- Kaur, R., Pingle, S. (2018). "Employer Branding in the Indian Armed Forces Context: A Comparative Study of Potential Defence Applicants and Defence Employees". *Vision*, No. 22(2), pp.199-210.
- Keefe, T. J. (2007). "Know thyself: Developing a strong employer brand". *American Water Works Association Journal*, No. 99(8), pp.20-21.
- Lievens, F. (2007), "Employer branding in the Belgian army: the importance of instrumental and symbolic beliefs for potential applicants, actual applicants, and military employees", *Human Resource Management*, Vol. 46, pp. 51-69.
- Lievens, F., Highhouse, S. (2003). "The relation of instrumental and symbolic attributes to a company's attractiveness as an employer". *Personnel Psychology*, No. 56(1), pp.75-102.
- Lievens, F., Van Hoye, G., and Schreurs, B. (2005). "Examining the relationship between employer knowledge dimensions and organizational attractiveness: An application in a military context". *Journal of Occupational and Organizational Psychology*, No. 78, pp.553-572.
- Lievens, F., Van Hoye, G., Anseel, F. (2007). "Organizational identity and employer image: Towards a unifying framework". *British Journal of Management*, No. 18(s1), pp.S45-S59.
- Martin, G., Beaumont, P., Doig, R., & Pate, J. (2005). "Branding: A new performance discourse for HR?" *European Management Journal*, No. 23(1), pp.76-88.
- Myrden, S.E., Kelloway, K. (2015). "Young workers' perception of brand image: main and moderating effects". *Journal of Organizational Effectiveness: People and Performance*, No. 2, pp.267-281
- Rego, A., Cunha, M., Gomes, J., Cunha, R., Cabral-Cardoso, C. e Marques, C. (2015). *Manual de Gestão de Pessoas e do Capital Humano*. Lisboa: Edições Sílabo, pp.186-224.
- Ribeiro, J. D., Bender, T. W., Selby, E. A., Hames, J. L., & Joiner, T. E. (2011). "Development and validation of a brief self-report measure of agitation: The Brief Agitation Measure". *Journal of personality assessment*, No. 93(6), pp.597-604.



- Rynes, S.L. (1991), "Recruitment, job choice, and post-hire consequences: a call for new research directions", in Dunnette, M.D. and Hough, L.M. (Eds), *Handbook of Industrial and Organizational Psychology*, 2nd ed., Consulting Psychologists Press, Palo Alto, CA, pp.399-444.
- Saks, A.M. (2005), "The impracticality of recruitment research", in Evers, A., Anderson, N. and Voskuijl, O. (Eds), *Handbook of Personnel Selection*, Blackwell, Oxford, pp. 419-39.
- Schreurs, B., Derous, E., De Witte, K., Proost, K., Andriessen, M., Glabeke, K. (2005), "Attracting potential applicants to the military: the effects of initial face-to-face contacts", *Human Performance*, Vol. 18 No. 2, pp.105-22.
- Schumacker, R. E., Lomax, R. G. (2010). *A beginner's guide to structural equation modeling*. (3rd ed). New York : Routledge
- Slaughter, J. E., Zickar, M. J., Highhouse, S., Mohr, D. C. (2004). "Personality trait inferences about organizations: Development of a measure and assessment of construct validity". *Journal of Applied Psychology*, No. 89(1), pp.85-103.
- Sokro, E. (2012). "Impact of employer branding on employee attraction and retention". *European Journal of Business and Management*, 4(18), pp.164-173.
- Theurer, C. P., Tumasjan, A., Welp, Isabell M.; and Lievens, Filip. "Employer branding: A brand equity-based literature review and research agenda". (2018). *International Journal of Management Reviews*. No. 20, (1), pp.155-179.
- Van Hoye, G. (2012). "Recruitment sources and organizational attraction: a field study of Belgian nurses. *European Journal of Work and Organizational Psychology*", 21, pp.376–391
- Yu, K.Y.T., Cable, D.M. (2012). "Recruitment and competitive advantage: a brand equity perspective". In Kozlowski, S.W.J. (ed.), *The Oxford Handbook of Organizational Psychology*. Oxford: Oxford University Press, pp.197-220.

## Appendix I

### **Interview Guide**

#### **Guião de entrevista ao Chefe da Repartição de Recrutamento e Seleção da Marinha Portuguesa.**

Gostaria de agradecer em primeiro lugar a sua disponibilidade para a participação nesta entrevista, realizada no âmbito da minha dissertação de Mestrado em Políticas de Desenvolvimento de Recursos Humanos do ISCTE-IUL. Cujo tema é *“Employer Branding in the Portuguese Navy”*.

O propósito desta entrevista visa identificar práticas/atividades que potenciem o conhecimento da Marinha Portuguesa enquanto empregadora.

**A Marinha está inserida no mercado de trabalho e concorre com outras organizações para obtenção de pessoas. Segundo um estudo recente da Randstad sobre employer brand em Portugal, 67% dos inquiridos considerou que o critério mais importante que têm em conta na escolha de um empregador é “salário atrativo e benefícios”.**

**Considera que a remuneração e os benefícios que decorrem da prestação de serviço militar na Marinha vão ao encontro das expectativas das novas gerações de jovens?**

**Quais as atividades que foram desenvolvidas para incrementar o conhecimento sobre a Marinha enquanto empregador junto dos jovens?**

**Na sua opinião que influência tem a imagem da Marinha nos jovens?**

**Quais as medidas devem ser tomadas para aumentar a atratividade da Marinha enquanto empregador junto dos jovens?**

*Agradeço mais uma vez a sua colaboração ao participar nesta entrevista.*

## Appendix II

### Interview transcript

May 13, 2019

Interview with the Head of the Portuguese Navy Recruitment and Selection Office (Head of RSO).

**\*\*\*start of transcription\*\*\***

**Interviewer:** A Marinha está inserida no mercado de trabalho e concorre com outras organizações para obtenção de pessoas. Segundo um estudo recente da Randstad sobre employer brand em Portugal, 67% dos inquiridos considerou que o critério mais importante que têm em conta na escolha de um empregador é “salário atrativo e benefícios”.

**Considera que a remuneração e os benefícios que decorrem da prestação de serviço militar na Marinha vão ao encontro das expectativas das novas gerações de jovens?**

**Head of RSO:** *É uma pergunta interessante quer dizer... em determinadas fases... julgo que numa fase inicial de recrutamento não é talvez o fator mais diferenciador, as remunerações de uma forma geral, na Marinha e nas Forças Armadas não são atrativas, mas para quem nos procura numa fase inicial. Muitas vezes até são os próprios pais que “empurram” os miúdos para a Marinha, no sentido de esperar que a Marinha lhes dê formação profissional e que os prepare o melhor para a vida, numa fase inicial entendem que essa parte é talvez mais importante. Aquilo que eu verifico é que não sendo um elemento tão importante à data de entrada, durante o período que eles fazem o contrato inicial que são de 3 anos, eles vão se apercebendo que efetivamente a remuneração que lhes é dada em função daquilo que lhes é exigido, nomeadamente para quem está embarcado ou quem está numa unidade de fuzileiros, sempre em missão ou sempre operacional é pouco, em função daquilo que outras profissões conforme referiu em competição com aquilo que se passa cá fora oferecem. Nomeadamente um exemplo que a dra. Helena Carreiras costuma utilizar muito é que “enquanto um soldado ganhar o mesmo que um caixa de supermercado vai ser muito difícil motivá-los em questões salariais”.*

*Julgo que numa fase inicial em que eles tem uma expectativa muito elevada em relação às Forças Armadas aquilo que poderão fazer na Marinha neste caso em particular vai se esbatendo ao longo dos três anos de contrato e ele vai dando cada vez mais importância às questões salariais e chega à conclusão que efetivamente aquilo que ele sofre e aquilo que lhe é exigido não é razoável e portanto temos tido alguma dificuldade de retenção, mais de metade das pessoas que iniciam um contrato com a Marinha não renova esse contrato, ou desiste antes de terminar o contrato a que estava obrigado, indemnizando a Marinha neste caso. Portanto o salário, na minha opinião é claramente um elemento de muita importância e que não é neste momento, comparativamente que é praticado no exterior é cada vez menos atrativo e isso é um processo que tem sido gradual nos últimos anos, à medida que os ordenados estagnaram, desde da entrada da troika nunca mais houve aumentos e ter havido um aumento progressivo do salário mínimo nacional. Neste momento um indivíduo que termine a recruta está praticamente a ganhar o ordenado mínimo nacional e efetivamente isso não é um ordenado que seja atrativo.*

**Interviewer:** Quais são as medidas que a Marinha está a tomar no sentido de colmatar estes obstáculos?

**Head of RSO:** *A Marinha esta a tentar que as condições que são oferecidas em termos de alojamento, alimentação de fardamento sejam cada vez melhores e que permitem às pessoas uma sensação de bem estar, julgo que também há muito a fazer nesta área, quer nas condições de habitabilidade que proporcionamos às pessoas e também julgo que tem de ser feito um grande esforço na Marinha em questões de planeamento e previsibilidade daquilo que é a vida das pessoas. Portanto uma das coisas que temos identificado que é a imprevisibilidade nomeadamente em termos de planeamento de quem está embarcado em unidades navais e que hoje está aqui e que amanhã tem de saltar para o navio B, porque falta pessoal num determinado navio, essa inconstância do planeamento provoca uma grande desmotivação das pessoas que servem a Marinha. E também no fundo aquele cuidado que todos os comandantes devem ter com os seus subordinados, no verdadeiro exercício do dever de tutela em garantir que as pessoas são bem tratadas, são acarinhadas. E sabendo nós que não podemos atuar na parte remuneratória, de pelo menos sentir que as pessoas que estão na organização se identifiquem com os objetivos da organização e sejam no fundo bem tratadas pela organização, para que possam fazer o seu contrato na sua plenitude e eventualmente considerarem entrar para os quadros permanentes e continuar na organização. Só haverá uma melhoria significativa nessas pessoas, se elas continuarem a estudar e puderem efetivamente mudar de categoria,*

*seja para sargentos seja para a categoria de oficial. Portanto empenhamo-nos e tem sido feito um esforço para que as pessoas continuem a estudar, que melhorem os seus níveis de formação e por via disso possam ascender a outras categorias. Por último a direção de pessoal também criou aquilo que nós chamamos umas equipas de tutoria e mentoria para quem entrou recentemente na Marinha. O tutor e o mentor vão verificando quais são as dificuldades das pessoas, quais são as hipóteses de melhoria que é possível e que lhes tenta no fundo alertar para a necessidade de continuarem a sua formação sobretudo para aqueles militares que entram na Marinha e nem sequer têm o 12º ano. Para que por via disso possam por um lado concorrer aos quadros permanentes ou à categoria de sargento ou à categoria de oficial, se no caso de tiverem uma licenciatura. Tem sido feito esse esforço que não tem diretamente a ver com a parte salarial e que julgo eu, é uma preocupação de todos. Do comandante, em primeiro lugar, motivar as pessoas que trabalham e que elas se sintam importantes e valorizadas porque efetivamente conforme lhe referi, à medida que essas pessoas vão ficando na Marinha, há uma perceção cada vez maior de que a remuneração que auferem em função daquilo que estamos a exigir às pessoas em termos de empenhamento nas unidades navais e nas unidades de fuzileiros. Naqueles primeiros anos de contrato é muitíssimo elevado e por comparação com a remuneração é questionável que as pessoas sejam efetivamente bem remuneradas.*

**Interviewer: O gabinete de recolocação externa também acaba por ser uma forma de após o seu período de contrato, ajudar o militar a projetá-lo na sociedade civil.**

**Head of RSO:** *Sim.*

**Interviewer: Quais as atividades que foram desenvolvidas para incrementar o conhecimento sobre a Marinha enquanto empregador junto dos jovens?**

**Head of RSO:** *Há atualmente um projeto piloto do Estado-Maior General das Forças Armadas que tenciona dar palestras aos vários níveis de escolaridade, sobre a missão das Forças Armadas, questões de cidadania e defesa no fundo o objetivo é o “efeito sementinha”, portanto é desde muito cedo aos jovens começar a alertá-los para as missões das Forças Armadas e aquilo que eles poderão encontrar nas Forças Armadas enquanto empregadora. Por outro lado, o próprio Dia da Defesa Nacional é feito um esforço pelos ramos, embora não seja um evento dedicado a questões de recrutamento. Portanto é aproveitado pelos três ramos para mostrar aquilo que por um lado é a missão por outro lado quais são as oportunidades que eles têm no caso de optarem pela carreira militar, em particular neste caso na Marinha. Por outro lado, nós em termos de ações de divulgação, temos uma equipa de divulgação que vai a todas as grandes feiras de empregabilidade para os jovens, vamos a muitas escolas e praticamente acedemos a todos os grupos, escolas secundarias, politécnicos, universidades, sempre que são instados a participar temos participado e também em eventos de grande mobilidade a nível nacional desde a OVIBEJA à FIAP. E depois as coisas mais destinadas aos jovens temos sempre uma equipa de divulgação que participa nesses eventos. Uma vez por iniciativa nossa, outras vezes sempre que nos é solicitado pelas escolas participamos, temos incrementado brutalmente. Só houve uns anos de quebra significativa, porque não tínhamos concursos abertos, quando foram os anos da troika 2011, 2012 e 2014 é que não existiram quaisquer concursos na Marinha e portanto era um pouco surreal estar a divulgar neste caso o recrutamento e as Forças Armadas e a Marinha em particular não havendo qualquer abertura de concursos nesses anos e aí houve um decréscimo significativo naquilo que foram as nossas ações de divulgação. Tudo o resto desde de 2015 temos assistido a um incremento anual de um reforço da equipa de divulgadores que neste momento é chefiada por uma comandante de Marinha e que tenta estar próximo de todas as áreas que nós tendencialmente procuramos recrutar, desde do secundário aos politécnicos inclusivamente às universidades, neste caso aos oficiais TSN temos feito esse esforço e temo-lo feito tão bem que quando temos concursos abertos passemos ainda mais ativos nesses períodos em que os concursos estão efetivamente abertos.*

**Interviewer: Os protocolos que a Marinha estabelece ao nível dos estágios também é uma forma de incrementar e potenciar...**

**Head of RSO:** *Sim, sim verifica-se que muitos dos estagiários acabam por concorrer à Marinha.*

**Interviewer: Uma medida piloto idêntica ao DDN, é um dia num dos ramos das FA...**

**Head of RSO:** *Sim esse projeto começou na Madeira e julgo que a intenção do CEMGFA é espalhar isso. Julga-se que esse projeto piloto teve bons resultados na Madeira. Cada um dos ramos terá uma dessas áreas específicas. No dia 10 de junho a Marinha ficou com tema “cidadania e Forças Armadas”, com palestras os militares deslocam-se às escolas que foram identificadas. Portanto tentam colmatar alguma insuficiência que existe no*

*próprio sistema de educação em Portugal para divulgar aquilo que é a missão das Forças Armadas, aquilo que as Forças Armadas fazem e aquilo que são as oportunidades que existem nas Forças Armadas de os jovens poderem progredir em termos daquilo que é a sua formação e empregabilidade nas Forças Armadas.*

**Interviewer: Na sua opinião que influência tem a imagem da Marinha junto dos jovens?**

**Head of RSO:** *Total importância para quem decide. O que nós temos verificado nos estudos é que mais fácil recrutar em áreas onde a Marinha tem uma presença física forte. Neste caso em Lisboa, mais de 60% dos nossos candidatos são da região de Lisboa e Setúbal, julgamos que isso tem a ver com a presença física da Marinha, com a base naval, com toda a estrutura que existe porque isso é importante em termos de mobilidade, porque muitas vezes se verifica quem tem as maiores taxas de candidatura é a GNR, porque é quem tem a maior dispersão geográfica a nível nacional. Tem um pouco de tudo em todo o país, cerca de 500 pontos que têm para prestar serviço sem terem de se deslocar para Lisboa. A Marinha infelizmente está muito confinada à zona de Lisboa e a esmagadora presença da Marinha é em Lisboa, Almada e mais algumas unidades à volta de Lisboa. Voltando um bocadinho atrás a imagem da Marinha é fundamental, porque se houver uma má imagem torna-se muito mais difícil de recrutar. Também temos verificado que no recrutamento o passo a palavra é importante, há um laço familiar ou de amigos, se há um militar que não está satisfeito com a organização a imagem que ele vai transmitir da Marinha não será a melhor e potencialmente não vai recomendar a Marinha a outros potenciais candidatos, daí que a forma com nós tratamos as pessoas cá dentro também se vai refletir naquilo que será o recrutamento. Nós, qualquer marinheiro terá que ser um embaixador positivo neste processo. Porque se os militares da Marinha não estiverem satisfeitos com a organização, obviamente não irão recomendar a Marinha a ninguém, daí que esse esforço da imagem é esforço de todos.*

**Interviewer: Quais as medidas devem ser tomadas para aumentar a atratividade da Marinha enquanto empregador junto dos jovens?**

**Head of RSO:** *Em primeiro lugar tem de melhorar claramente as condições salariais que oferece aos jovens que ingressam nos postos mais baixos na Marinha, conforme lhe referi aquilo que é a decalagem entre o salário mínimo nacional e aquilo que nós oferecemos nos primeiros anos aos grumetes e marinheiros é claramente insuficiente, na minha opinião e depois há todo um conjunto de benefícios que se traduz no regulamento de incentivos que tem de ser efetivamente eficaz e que as pessoas sintam que o tempo que aqui prestaram serviço vai ser uma mais valia na sua reentrada no mercado de trabalho. Portanto julgo que isso é absolutamente vital. Depois é preciso que as unidades ofereçam boas condições às pessoas, habitabilidade, disponibilidade de rede wireless, boas condições de alojamento, facilidades na mobilidade das pessoas e sobretudo tendo em conta que a esmagadora maioria que nós recrutamos no regime de contrato são indivíduos que permanecem ou nos navios, ou nas unidades operacionais de fuzileiros, é aquilo que lhe falei a previsibilidade do planeamento, muito importante e missões atrativas. No caso dos fuzileiros missões nas forças nacionais destacadas, que permitam que os militares não tenham apenas aquela não de que treinam e não são empenhados em missões verdadeiramente operacionais. É muito importante que eles sejam empenhados em missões interessantes ao serviço de Portugal, verdadeiramente úteis e onde sintam esta relevância de estar a fazer o serviço pela pátria. Para um jovem que na casa dos pais, um ordenado que é menos importante, abraçar a missão dos QP e tencionar constituir família, o ordenado aí passa a ser um grande entrave porque ele sabe enquanto for praça que aquilo que é a sua posição salarial será sempre muito inferior aquilo que ele poderá auferir, no mesmo nível de qualificações e de empenhamento que é exigido noutras atividades igualmente remuneradas ou semelhante daquilo que ele desempenha, enquanto um marinheiro ou soldado ganhar aquilo que atualmente ganha é difícil que eles permaneçam. Tendo o seu devido valor, mercado, daquilo que são as suas capacidades é muito difícil que depois concorram aos quadros permanentes, mas isso é a minha opinião portanto daí que eles normalmente cumprem os três anos de contrato e depois temos uma taxa elevadíssima de pessoas, que mesmo com perspetivas de entrar para os quadros permanentes, face aquilo que são as condições remuneratórias que a Marinha pode oferecer, optam por procurar algo mais bem remunerado no exterior.*

**Interviewer: A Marinha considera que o alargamento da duração máxima dos contratos, de seis para dezoito anos, do ponto de vista do recrutamento vai trazer alguns benefícios.**

**Head of RSO:** *Poderá ter alguma vantagem se recrutar diretamente para os quadros permanentes. Poderá ser vantagem em algumas áreas, como médicos dentistas, psicólogos, que lhes permite enfim mais tempo para concorrer aos quadros permanentes e por outro lado uma experiência maior na sua preparação futura, porque depois um indivíduo que depois sai num regime destes de contrato, provavelmente vai ter muito mais dificuldades*

*no mercado de trabalho aos 40 anos do que terá aos 30. Julgo que é vantajoso, é mais uma medida, mas nós neste momento temos vagas para os quadros permanentes que não são preenchidas, o que significa não é por via da oferta de um vínculo mais estável que nós não conseguimos reter as pessoas. O nosso problema é claramente um problema de retenção mais do que recrutamento.*

**Interviewer:** Um jovem que termine o seu período de contrato na Marinha e queira regressar à vida civil como vê valorizada a sua permanência profissional na Marinha?

**Head of RSO:** *A direção de formação tem feito um esforço muito grande em certificar os cursos que são ministrados da Marinha, por exemplo aqueles que querem continuar a sua vida profissional na Marinha mercante, o processo decorre na direção geral dos recursos do mar, a certificação STCW - Serviço de Quartos para os Marítimos. Quer em áreas como a mecânica, eletricidade, condutores, taifas. Esse esforço esta a ser perseguido e já tem resultados.*

**\*\*\*end of transcript\*\*\***

## Appendix III

### The questionnaire for potential applicants

#### Atratividade da marca do empregador na Marinha Portuguesa

Este breve questionário procura compreender que representações tem a população jovem, com idade compreendida entre os 17 e os 30 anos, sobre a Marinha Portuguesa enquanto potencial empregador de interesse.

A sua participação traduzir-se-á num grande contributo para a materialização desta investigação que integra a minha dissertação de Mestrado em Políticas de Desenvolvimento dos Recursos Humanos no ISCTE - Instituto Universitário de Lisboa.

Este estudo permitirá identificar os potenciais fatores que influenciam a atratividade desta instituição militar enquanto empregadora. A sua participação é anónima e a informação recolhida destina-se exclusivamente para fins académicos. Levará cerca de 3 minutos a responder às questões.

Muito obrigado pela sua participação! Nelson Albano

Idade

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Sexo

- Masculino (1)
- Feminino (2)

Grau de escolaridade completo

- Ensino básico (9º ano) (1)
- Ensino secundário (12º ano) (2)
- Licenciatura (3)
- Mestrado (4)
- Doutoramento (5)
-

Já participou no Dia da Defesa Nacional?

Sim (1)

Não (2)

Alguma vez visitou instalações militares da Marinha Portuguesa (p.ex: navios de guerra, bases militares)?

Sim (1)

Não (2)

Tem (ou já teve) familiares seus a prestar serviço na Marinha Portuguesa?

Sim (1)

Não (2)

Não sei (3)

Tem (ou já teve) amigos seus a prestar serviço na Marinha Portuguesa?

Sim (1)

Não (2)

Não sei (3)

Por favor indique em que medida concorda ou discorda com cada afirmação assinalando na escala a sua opção.

Para mim, a Marinha Portuguesa seria...

Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
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	1	2	3	4	5
...um bom lugar para trabalhar. (1)					
...um empregador muito atrativo. (2)					
...uma organização a que me candidatava, se estivesse à procura de emprego. (3)					
...uma escolha para trabalhar, mas só em último recurso. (4)					

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
Consigo reconhecer a Marinha Portuguesa entre diversos empregadores. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visitei pelo menos um dos canais de comunicação oficial em que a Marinha Portuguesa está presente (p.ex: facebook, instagram, twiter, youtube). (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tenho conhecimento de como é trabalhar na Marinha Portuguesa, através de pessoas que nela trabalham. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estou muito familiarizado com a Marinha Portuguesa enquanto empregadora. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A Marinha Portuguesa...

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
...oferece a possibilidade de trabalhar em conjunto com pessoas diferentes. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...dá a possibilidade de trabalhar em equipa. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece a oportunidade de fazer muitos amigos. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece a possibilidade de participar em exercícios militares. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...dá a oportunidade de praticar muito desporto. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece muitos desafios físicos. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A Marinha Portuguesa...

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
...permite estar vinculado a regras claras. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece a oportunidade de ganhar alguma disciplina. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...dá a possibilidade de trabalhar numa estrutura hierárquica bem definida. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A Marinha Portuguesa...

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
...dá muitas oportunidades de progressão profissional. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece perspectivas para ascender a patentes mais altas. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...dá a oportunidade de construir uma carreira. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...assegura a possibilidade de ingresso nos quadros permanentes. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece um emprego seguro. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece a possibilidade de ganhar muito dinheiro. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...permite auferir um salário muito acima do salário mínimo nacional. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A Marinha Portuguesa...

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
...oferece a oportunidade de conhecer o mundo. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...permite fazer muitas missões no estrangeiro. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...oferece a possibilidade de viajar muito. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...é uma alternativa para quem está cansado da escola. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...dá a possibilidade de escolher entre uma gama diversificada de especialidades e especializações. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

As questões seguintes procuram examinar a Marinha Portuguesa enquanto empregadora, através de atributos. Por favor, indique em que medida os seguintes adjetivos caracterizam a Marinha Portuguesa na sua opinião. Considero que a Marinha Portuguesa enquanto empregadora é...

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
...honestas. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...transparentes. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...alegres. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...agradáveis. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...genuínas. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...audazes. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...emocionantes. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...sensacionais. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...competentes. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...sofisticadas. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...rígidas. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Penso que a Marinha Portuguesa é considerada por outras pessoas como um empregador...

	Discordo totalmente (1)	Discordo parcialmente (2)	Não concordo nem discordo (3)	Concordo parcialmente (4)	Concordo totalmente (5)
...de grande reputação. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...altamente prestigiado. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...muito respeitado. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*\*\* Muito obrigado pela sua colaboração ! \*\*\*

## Appendix IV

### Process outputs

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D.      www.afhayes.com  
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

\*\*\*\*\*

Model : 6  
Y : Attract  
X : Familiar  
M1 : EC\_Soc  
M2 : BPersona

Covariates:

age      gender      educatio      DefenseD      VisitNav      FamilyNa      FriendsN

Sample

Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:

EC\_Soc

Model Summary

R	R-sq	MSE	F	df1	df2	p
,4834	,2337	,6117	6,2516	8,0000	164,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,7363	,6988	5,3471	,0000	2,3566	5,1161
Familiar	,2584	,0646	4,0010	,0001	,1309	,3859
age	-,0143	,0165	-,8676	,3869	-,0469	,0183
gender	,0981	,1318	,7441	,4579	-,1622	,3584
educatio	-,0123	,0811	-,1522	,8792	-,1724	,1477
DefenseD	,1255	,1302	,9639	,3365	-,1316	,3826
VisitNav	,1729	,1465	1,1803	,2396	-,1163	,4620
FamilyNa	-,1897	,1189	-1,5951	,1126	-,4246	,0451
FriendsN	-,1865	,1249	-1,4932	,1373	-,4332	,0601

Standardized coefficients

	coeff
Familiar	,3841
age	-,0747
gender	,0564
educatio	-,0138
DefenseD	,0701
VisitNav	,0956
FamilyNa	-,1265
FriendsN	-,1211

\*\*\*\*\*

OUTCOME VARIABLE:

BPersona

Model Summary

R	R-sq	MSE	F	df1	df2	p
,5877	,3454	,6321	9,5577	9,0000	163,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	,5343	,7697	,6941	,4886	-,9857	2,0542
Familiar	,1861	,0688	2,7053	,0075	,0503	,3219
EC_Soc	,4913	,0794	6,1894	,0000	,3346	,6480
age	-,0600	,0168	-3,5684	,0005	-,0932	-,0268
gender	,1851	,1342	1,3787	,1699	-,0800	,4502
educatio	,2034	,0824	2,4674	,0146	,0406	,3661
DefenseD	-,0234	,1327	-,1764	,8602	-,2855	,2387
VisitNav	,3024	,1495	2,0230	,0447	,0072	,5977

FamilyNa	,1589	,1218	1,3041	,1940	-,0817	,3995
FriendsN	,2200	,1278	1,7210	,0871	-,0324	,4724

Standardized coefficients  
coeff

Familiar	,2522
EC_Soc	,4481
age	-,2856
gender	,0970
educatio	,2068
DefenseD	-,0119
VisitNav	,1526
FamilyNa	,0966
FriendsN	,1303

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6592	,4345	,7007	12,4463	10,0000	162,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,0269	,8117	1,2652	,2076	-,5759	2,6297
Familiar	-,0315	,0740	-,4255	,6710	-,1777	,1147
EC_Soc	,1510	,0929	1,6252	,1061	-,0325	,3344
BPersona	,6635	,0825	8,0455	,0000	,5007	,8264
age	,0036	,0184	,1950	,8457	-,0327	,0399
gender	-,2625	,1422	-1,8466	,0666	-,5433	,0182
educatio	-,0573	,0884	-,6487	,5174	-,2319	,1172
DefenseD	,1654	,1398	1,1836	,2383	-,1106	,4414
VisitNav	-,2162	,1594	-1,3568	,1767	-,5310	,0985
FamilyNa	,0982	,1289	,7619	,4472	-,1564	,3529
FriendsN	-,2246	,1358	-1,6539	,1001	-,4928	,0436

Standardized coefficients

	coeff
Familiar	-,0378
EC_Soc	,1219
BPersona	,5875
age	,0151
gender	-,1219
educatio	-,0516
DefenseD	,0746
VisitNav	-,0966
FamilyNa	,0529
FriendsN	-,1178

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3080	,0948	1,1079	2,1479	8,0000	164,0000	,0341

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1634	,9404	3,3639	,0010	1,3065	5,0202
Familiar	,2152	,0869	2,4760	,0143	,0436	,3868
age	-,0431	,0222	-1,9386	,0543	-,0869	,0008
gender	-,0929	,1774	-,5238	,6011	-,4433	,2574
educatio	,0717	,1091	,6572	,5120	-,1437	,2872
DefenseD	,2097	,1752	1,1970	,2330	-,1363	,5557
VisitNav	,0669	,1971	,3393	,7348	-,3223	,4560
FamilyNa	,1132	,1601	,7072	,4805	-,2029	,4292
FriendsN	-,1676	,1681	-,9971	,3202	-,4995	,1643

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
,2152	,0869	2,4760	,0143	,0436	,3868	,1992	,2583

Direct effect of X on Y



Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,0315	,0740	-,4255	,6710	-,1777	,1147	-,0292	-,0378

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2467	,0642	,1277	,3786
Ind1	,0390	,0277	-,0093	,0988
Ind2	,1235	,0527	,0209	,2307
Ind3	,0842	,0365	,0285	,1686
(C1)	-,0845	,0620	-,2081	,0377
(C2)	-,0452	,0429	-,1458	,0212
(C3)	,0392	,0696	-,1104	,1654

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2284	,0565	,1228	,3434
Ind1	,0361	,0256	-,0086	,0917
Ind2	,1143	,0486	,0188	,2131
Ind3	,0780	,0323	,0276	,1513
(C1)	-,0782	,0575	-,1911	,0352
(C2)	-,0419	,0390	-,1316	,0199
(C3)	,0363	,0645	-,1016	,1539

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2961	,0749	,1556	,4513
Ind1	,0468	,0333	-,0108	,1192
Ind2	,1482	,0632	,0248	,2759
Ind3	,1011	,0423	,0356	,1984
(C1)	-,1014	,0744	-,2472	,0456
(C2)	-,0543	,0506	-,1707	,0255
(C3)	,0471	,0835	-,1316	,1987

Specific indirect effect contrast definition(s):

(C1)	Ind1	minus	Ind2
(C2)	Ind1	minus	Ind3
(C3)	Ind2	minus	Ind3

Indirect effect key:

Ind1	Familiar	->	EC_Soc	->	Attract
Ind2	Familiar	->	BPersona	->	Attract
Ind3	Familiar	->	EC_Soc	->	BPersona
				->	Attract

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

NOTE: Variables names longer than eight characters can produce incorrect output.

Shorter variable names are recommended.

----- END MATRIX -----

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
 Documentation available in Hayes (2018). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 6  
 Y : Attract  
 X : Familiar  
 M1 : EC\_Phys  
 M2 : BPersona

Covariates:

age gender educatio DefenseD VisitNav FamilyNa FriendsN

Sample

Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:

EC\_Phys

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3723	,1386	1,3242	3,2996	8,0000	164,0000	,0016

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,9109	1,0281	4,7766	,0000	2,8808	6,9409
Familiar	,0891	,0950	,9377	,3498	-,0985	,2767
age	-,0828	,0243	-3,4080	,0008	-,1307	-,0348
gender	,1343	,1940	,6924	,4896	-,2487	,5173
educatio	,1724	,1193	1,4455	,1502	-,0631	,4080
DefenseD	-,1956	,1916	-1,0212	,3087	-,5739	,1826
VisitNav	,6469	,2155	3,0023	,0031	,2215	1,0724
FamilyNa	-,1557	,1750	-,8897	,3749	-,5012	,1898
FriendsN	-,1693	,1838	-,9213	,3583	-,5322	,1936

Standardized coefficients

	coeff
Familiar	,0954
age	-,3112
gender	,0556
educatio	,1386
DefenseD	-,0787
VisitNav	,2579
FamilyNa	-,0748
FriendsN	-,0792

\*\*\*\*\*

OUTCOME VARIABLE:

BPersona

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6500	,4224	,5577	13,2467	9,0000	163,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	,3612	,7121	,5072	,6127	-1,0450	1,7674
Familiar	,2766	,0618	4,4729	,0000	,1545	,3987
EC_Phys	,4090	,0507	8,0715	,0000	,3090	,5091
age	-,0332	,0163	-2,0352	,0435	-,0654	-,0010
gender	,1783	,1261	1,4146	,1591	-,0706	,4273
educatio	,1268	,0779	1,6272	,1056	-,0271	,2806
DefenseD	,1183	,1247	,9482	,3444	-,1280	,3645
VisitNav	,1227	,1436	,8546	,3940	-,1609	,4064
FamilyNa	,1294	,1138	1,1364	,2574	-,0954	,3542
FriendsN	,1976	,1196	1,6527	,1003	-,0385	,4338

Standardized coefficients

	coeff
Familiar	,3749
EC_Phys	,5177
age	-,1580
gender	,0935
educatio	,1289
DefenseD	,0602
VisitNav	,0619
FamilyNa	,0787
FriendsN	,1170

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6522	,4253	,7121	11,9896	10,0000	162,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,4807	,8053	1,8388	,0678	-,1095	3,0709

Familiar	-,0119	,0740	-,1611	,8723	-,1581	,1343
EC_Phys	-,0087	,0677	-,1287	,8978	-,1425	,1251
BPersona	,7281	,0885	8,2264	,0000	,5533	,9028
age	,0050	,0187	,2695	,7879	-,0318	,0419
gender	-,2616	,1433	-1,8253	,0698	-,5446	,0214
educatio	-,0704	,0887	-,7937	,4285	-,2457	,1048
DefenseD	,1802	,1413	1,2751	,2041	-,0989	,4593
VisitNav	-,2095	,1627	-1,2880	,1996	-,5307	,1117
FamilyNa	,0640	,1291	,4956	,6208	-,1910	,3190
FriendsN	-,2625	,1362	-1,9270	,0557	-,5316	,0065

Standardized coefficients

	coeff
Familiar	-,0143
EC_Phys	-,0098
BPersona	,6447
age	,0212
gender	-,1214
educatio	-,0634
DefenseD	,0813
VisitNav	-,0936
FamilyNa	,0345
FriendsN	-,1377

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3080	,0948	1,1079	2,1479	8,0000	164,0000	,0341

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1634	,9404	3,3639	,0010	1,3065	5,0202
Familiar	,2152	,0869	2,4760	,0143	,0436	,3868
age	-,0431	,0222	-1,9386	,0543	-,0869	,0008
gender	-,0929	,1774	-,5238	,6011	-,4433	,2574
educatio	,0717	,1091	,6572	,5120	-,1437	,2872
DefenseD	,2097	,1752	1,1970	,2330	-,1363	,5557
VisitNav	,0669	,1971	,3393	,7348	-,3223	,4560
FamilyNa	,1132	,1601	,7072	,4805	-,2029	,4292
FriendsN	-,1676	,1681	-,9971	,3202	-,4995	,1643

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
,2152	,0869	2,4760	,0143	,0436	,3868	,1992	,2583

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,0119	,0740	-,1611	,8723	-,1581	,1343	-,0110	-,0143

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2271	,0626	,1105	,3559
Ind1	-,0008	,0086	-,0208	,0168
Ind2	,2014	,0523	,1045	,3096
Ind3	,0265	,0325	-,0317	,0971
(C1)	-,2021	,0543	-,3142	-,1027
(C2)	-,0273	,0352	-,1080	,0326
(C3)	,1748	,0592	,0645	,2965

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2102	,0555	,1052	,3239
Ind1	-,0007	,0079	-,0192	,0154
Ind2	,1864	,0468	,0983	,2840
Ind3	,0246	,0298	-,0295	,0884
(C1)	-,1871	,0487	-,2889	-,0960
(C2)	-,0253	,0324	-,0989	,0313
(C3)	,1618	,0540	,0599	,2707

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2726	,0731	,1354	,4206

```

Ind1      -,0009      ,0103      -,0250      ,0197
Ind2      ,2417      ,0612      ,1265      ,3682
Ind3      ,0319      ,0387      -,0380      ,1153
(C1)     -,2426      ,0636      -,3747      -,1243
(C2)     -,0328      ,0420      -,1281      ,0397
(C3)      ,2099      ,0699      ,0770      ,3499

```

Specific indirect effect contrast definition(s):

```

(C1)      Ind1      minus      Ind2
(C2)      Ind1      minus      Ind3
(C3)      Ind2      minus      Ind3

```

Indirect effect key:

```

Ind1 Familiar -> EC_Phys -> Attract
Ind2 Familiar -> BPersona -> Attract
Ind3 Familiar -> EC_Phys -> BPersona -> Attract

```

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

NOTE: Variables names longer than eight characters can produce incorrect output.  
Shorter variable names are recommended.

----- END MATRIX -----

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2018). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

```

Model : 6
Y : Attract
X : Familiar
M1 : EC_Struc
M2 : BPersona

```

Covariates:

```

age      gender      educatio DefenseD VisitNav FamilyNa FriendsN

```

Sample

Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:

```

EC_Struc

```

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,4022	,1618	,7594	3,9572	8,0000	164,0000	,0003

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,0942	,7785	5,2587	,0000	2,5569	5,6314
Familiar	,1896	,0720	2,6349	,0092	,0475	,3317
age	-,0693	,0184	-3,7664	,0002	-,1056	-,0330
gender	,1990	,1469	1,3546	,1774	-,0911	,4890
educatio	,2041	,0903	2,2595	,0252	,0257	,3825
DefenseD	,1247	,1451	,8593	,3914	-,1618	,4111
VisitNav	,3350	,1632	2,0529	,0417	,0128	,6572
FamilyNa	-,0021	,1325	-,0157	,9875	-,2637	,2596
FriendsN	-,1853	,1392	-1,3318	,1848	-,4601	,0895

Standardized coefficients

```

coeff
Familiar      ,2645
age           -,3393

```

gender ,1074  
 educatio ,2137  
 DefenseD ,0653  
 VisitNav ,1739  
 FamilyNa -,0013  
 FriendsN -,1130

\*\*\*\*\*

OUTCOME VARIABLE:

BPersona

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6775	,4590	,5225	15,3635	9,0000	163,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-,0101	,6981	-,0144	,9885	-1,3886	1,3684
Familiar	,2028	,0609	3,3281	,0011	,0825	,3231
EC_Struc	,5813	,0648	8,9750	,0000	,4534	,7092
age	-,0268	,0159	-1,6843	,0940	-,0582	,0046
gender	,1176	,1225	,9599	,3385	-,1243	,3596
educatio	,0787	,0761	1,0337	,3028	-,0716	,2289
DefenseD	-,0342	,1206	-,2838	,7769	-,2724	,2039
VisitNav	,1926	,1371	1,4053	,1618	-,0780	,4633
FamilyNa	,0669	,1099	,6086	,5436	-,1502	,2839
FriendsN	,2361	,1161	2,0344	,0435	,0069	,4653

Standardized coefficients

	coeff
Familiar	,2749
EC_Struc	,5648
age	-,1275
gender	,0617
educatio	,0800
DefenseD	-,0174
VisitNav	,0972
FamilyNa	,0407
FriendsN	,1398

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6521	,4253	,7121	11,9882	10,0000	162,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,4288	,8150	1,7531	,0815	-,1806	3,0383
Familiar	-,0109	,0735	-,1482	,8824	-,1561	,1343
EC_Struc	,0086	,0924	,0926	,9263	-,1740	,1911
BPersona	,7171	,0914	7,8420	,0000	,5365	,8977
age	,0056	,0187	,2996	,7649	-,0314	,0426
gender	-,2619	,1434	-1,8260	,0697	-,5452	,0213
educatio	-,0715	,0891	-,8026	,4234	-,2475	,1045
DefenseD	,1813	,1408	1,2870	,1999	-,0969	,4594
VisitNav	-,2138	,1610	-1,3278	,1861	-,5317	,1042
FamilyNa	,0661	,1285	,5145	,6076	-,1876	,3198
FriendsN	-,2581	,1372	-1,8809	,0618	-,5290	,0129

Standardized coefficients

	coeff
Familiar	-,0131
EC_Struc	,0074
BPersona	,6350
age	,0236
gender	-,1216
educatio	-,0644
DefenseD	,0817
VisitNav	-,0955
FamilyNa	,0356
FriendsN	-,1353

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3080	,0948	1,1079	2,1479	8,0000	164,0000	,0341

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1634	,9404	3,3639	,0010	1,3065	5,0202
Familiar	,2152	,0869	2,4760	,0143	,0436	,3868
age	-,0431	,0222	-1,9386	,0543	-,0869	,0008
gender	-,0929	,1774	-,5238	,6011	-,4433	,2574
educatio	,0717	,1091	,6572	,5120	-,1437	,2872
DefenseD	,2097	,1752	1,1970	,2330	-,1363	,5557
VisitNav	,0669	,1971	,3393	,7348	-,3223	,4560
FamilyNa	,1132	,1601	,7072	,4805	-,2029	,4292
FriendsN	-,1676	,1681	-,9971	,3202	-,4995	,1643

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
,2152	,0869	2,4760	,0143	,0436	,3868	,1992	,2583

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,0109	,0735	-,1482	,8824	-,1561	,1343	-,0101	-,0131

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2261	,0622	,1118	,3583
Ind1	,0016	,0182	-,0365	,0385
Ind2	,1454	,0477	,0586	,2437
Ind3	,0790	,0400	,0095	,1666
(C1)	-,1438	,0543	-,2568	-,0430
(C2)	-,0774	,0460	-,1845	-,0066
(C3)	,0664	,0609	-,0565	,1870

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2093	,0547	,1060	,3218
Ind1	,0015	,0168	-,0343	,0360
Ind2	,1346	,0435	,0547	,2249
Ind3	,0732	,0359	,0092	,1492
(C1)	-,1331	,0496	-,2357	-,0402
(C2)	-,0717	,0416	-,1684	-,0063
(C3)	,0615	,0566	-,0517	,1745

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2714	,0721	,1365	,4203
Ind1	,0019	,0218	-,0442	,0463
Ind2	,1746	,0565	,0705	,2888
Ind3	,0949	,0468	,0120	,1948
(C1)	-,1726	,0643	-,3050	-,0521
(C2)	-,0929	,0541	-,2176	-,0084
(C3)	,0797	,0730	-,0674	,2226

Specific indirect effect contrast definition(s):

(C1)	Ind1	minus	Ind2
(C2)	Ind1	minus	Ind3
(C3)	Ind2	minus	Ind3

Indirect effect key:

Ind1	Familiar	->	EC_Struc	->	Attract
Ind2	Familiar	->	BPersona	->	Attract
Ind3	Familiar	->	EC_Struc	->	BPersona -> Attract

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

NOTE: Variables names longer than eight characters can produce incorrect output.

Shorter variable names are recommended.

----- END MATRIX -----

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. www.afhayes.com  
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

\*\*\*\*\*

Model : 6  
Y : Attract  
X : Familiar  
M1 : EC\_Caree  
M2 : BPersona

Covariates:

age gender educatio DefenseD VisitNav FamilyNa FriendsN

Sample

Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:

EC\_Caree

Model Summary

R	R-sq	MSE	F	df1	df2	p
,4565	,2084	1,0748	5,3965	8,0000	164,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,2803	,9263	4,6211	,0000	2,4514	6,1092
Familiar	,1541	,0856	1,8002	,0737	-,0149	,3231
age	-,1218	,0219	-5,5664	,0000	-,1650	-,0786
gender	,0281	,1748	,1606	,8726	-,3170	,3731
educatio	,4284	,1075	3,9866	,0001	,2162	,6407
DefenseD	,0341	,1726	,1979	,8434	-,3066	,3749
VisitNav	,3368	,1941	1,7347	,0847	-,0466	,7201
FamilyNa	-,0261	,1577	-,1656	,8686	-,3374	,2852
FriendsN	,0397	,1656	,2399	,8107	-,2872	,3667

Standardized coefficients

	coeff
Familiar	,1756
age	-,4874
gender	,0124
educatio	,3664
DefenseD	,0146
VisitNav	,1428
FamilyNa	-,0134
FriendsN	,0198

\*\*\*\*\*

OUTCOME VARIABLE:

BPersona

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6890	,4747	,5072	16,3689	9,0000	163,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	,2177	,6765	,3218	,7480	-1,1180	1,5535
Familiar	,2355	,0594	3,9659	,0001	,1183	,3528
EC_Caree	,5028	,0536	9,3736	,0000	,3969	,6088
age	-,0058	,0164	-,3543	,7235	-,0382	,0266
gender	,2192	,1201	1,8254	,0698	-,0179	,4563
educatio	-,0181	,0773	-,2344	,8149	-,1708	,1346
DefenseD	,0211	,1186	,1777	,8592	-,2131	,2552
VisitNav	,2180	,1346	1,6201	,1071	-,0477	,4838
FamilyNa	,0788	,1083	,7277	,4678	-,1351	,2927
FriendsN	,1084	,1138	,9528	,3421	-,1162	,3330

Standardized coefficients

```

coeff
Familiar      ,3193
EC_Caree     ,5981
age          -,0276
gender       ,1149
educatio    -,0184
DefenseD     ,0107
VisitNav    ,1100
FamilyNa    ,0479
FriendsN    ,0642
    
```

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

```

R          R-sq      MSE      F      df1      df2      p
,6646     ,4417     ,6918    12,8150  10,0000  162,0000  ,0000
    
```

Model

```

coeff      se      t      p      LLCI      ULCI
constant  1,0065   ,7903   1,2736   ,2046   -,5541   2,5670
Familiar   ,0000   ,0726   ,0006   ,9995   -,1434   ,1435
EC_Caree  ,1696   ,0777   2,1818   ,0306   ,0161   ,3230
BPersona  ,6039   ,0915   6,6014   ,0000   ,4232   ,7845
age        ,0181   ,0191   ,9440   ,3466   -,0197   ,0559
gender    -,2386   ,1416  -1,6842   ,0941   -,5183   ,0411
educatio  -,1201   ,0903  -1,3296   ,1855   -,2984   ,0583
DefenseD  ,1809   ,1385   1,3059   ,1934   -,0926   ,4544
VisitNav  -,2241   ,1584  -1,4148   ,1591   -,5370   ,0887
FamilyNa  ,0780   ,1267   ,6152   ,5393   -,1722   ,3282
FriendsN  -,2519   ,1332  -1,8904   ,0605   -,5150   ,0112
    
```

Standardized coefficients

```

coeff
Familiar      ,0001
EC_Caree     ,1786
BPersona     ,5347
age          ,0762
gender       -,1107
educatio    -,1082
DefenseD     ,0816
VisitNav    -,1001
FamilyNa    ,0420
FriendsN    -,1321
    
```

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

```

R          R-sq      MSE      F      df1      df2      p
,3080     ,0948     1,1079    2,1479    8,0000  164,0000  ,0341
    
```

Model

```

coeff      se      t      p      LLCI      ULCI
constant  3,1634   ,9404   3,3639   ,0010   1,3065   5,0202
Familiar   ,2152   ,0869   2,4760   ,0143   ,0436   ,3868
age        -,0431   ,0222  -1,9386   ,0543   -,0869   ,0008
gender    -,0929   ,1774   -,5238   ,6011   -,4433   ,2574
educatio  ,0717   ,1091   ,6572   ,5120   -,1437   ,2872
DefenseD  ,2097   ,1752   1,1970   ,2330   -,1363   ,5557
VisitNav  ,0669   ,1971   ,3393   ,7348   -,3223   ,4560
FamilyNa  ,1132   ,1601   ,7072   ,4805   -,2029   ,4292
FriendsN  -,1676   ,1681  -1,9971   ,3202   -,4995   ,1643
    
```

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

```

Effect      se      t      p      LLCI      ULCI      c_ps      c_cs
,2152     ,0869    2,4760   ,0143   ,0436     ,3868     ,1992     ,2583
    
```

Direct effect of X on Y

```

Effect      se      t      p      LLCI      ULCI      c'_ps      c'_cs
,0000     ,0726    ,0006   ,9995   -,1434     ,1435     ,0000     ,0001
    
```



Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2151	,0653	,0949	,3500
Ind1	,0261	,0221	-,0065	,0788
Ind2	,1422	,0465	,0614	,2430
Ind3	,0468	,0315	-,0092	,1151
(C1)	-,1161	,0559	-,2309	-,0087
(C2)	-,0207	,0261	-,0835	,0186
(C3)	,0954	,0533	-,0060	,2083

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,1992	,0581	,0915	,3167
Ind1	,0242	,0204	-,0061	,0716
Ind2	,1316	,0418	,0588	,2222
Ind3	,0433	,0286	-,0086	,1050
(C1)	-,1075	,0511	-,2112	-,0078
(C2)	-,0191	,0239	-,0762	,0178
(C3)	,0883	,0490	-,0053	,1924

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2583	,0764	,1161	,4161
Ind1	,0314	,0265	-,0078	,0934
Ind2	,1707	,0547	,0747	,2878
Ind3	,0562	,0372	-,0111	,1367
(C1)	-,1394	,0664	-,2742	-,0103
(C2)	-,0248	,0310	-,0996	,0229
(C3)	,1146	,0634	-,0069	,2487

Specific indirect effect contrast definition(s):

(C1)	Ind1	minus	Ind2
(C2)	Ind1	minus	Ind3
(C3)	Ind2	minus	Ind3

Indirect effect key:

Ind1 Familiar	->	EC_Caree	->	Attract
Ind2 Familiar	->	BPersona	->	Attract
Ind3 Familiar	->	EC_Caree	->	BPersona -> Attract

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

NOTE: Variables names longer than eight characters can produce incorrect output.  
Shorter variable names are recommended.

----- END MATRIX -----

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. www.afhayes.com  
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

\*\*\*\*\*

Model : 6  
Y : Attract  
X : Familiar  
M1 : EC\_Secur  
M2 : BPersona

Covariates:  
age gender educatio DefenseD VisitNav FamilyNa FriendsN

Sample  
Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:

EC\_Secur

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2264	,0513	,9420	1,1080	8,0000	164,0000	,3604

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1746	,8671	3,6612	,0003	1,4625	4,8868
Familiar	,1436	,0801	1,7916	,0750	-,0147	,3018
age	-,0307	,0205	-1,5006	,1354	-,0712	,0097
gender	,0425	,1636	,2596	,7955	-,2806	,3655
educatio	,1673	,1006	1,6627	,0983	-,0314	,3659
DefenseD	,1755	,1616	1,0859	,2791	-,1436	,4945
VisitNav	-,0161	,1817	-,0884	,9297	-,3749	,3428
FamilyNa	,0296	,1476	,2005	,8413	-,2618	,3210
FriendsN	-,0533	,1550	-,3439	,7313	-,3594	,2528

Standardized coefficients

	coeff
Familiar	,1914
age	-,1438
gender	,0219
educatio	,1673
DefenseD	,0879
VisitNav	-,0080
FamilyNa	,0177
FriendsN	-,0310

\*\*\*\*\*

OUTCOME VARIABLE:

BPersona

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6136	,3765	,6021	10,9372	9,0000	163,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	,9919	,7210	1,3757	,1708	-,4318	2,4156
Familiar	,2507	,0647	3,8750	,0002	,1229	,3784
EC_Secur	,4341	,0624	6,9531	,0000	,3108	,5574
age	-,0537	,0165	-3,2573	,0014	-,0863	-,0211
gender	,2148	,1308	1,6422	,1025	-,0435	,4732
educatio	,1247	,0811	1,5373	,1262	-,0355	,2849
DefenseD	-,0379	,1296	-,2925	,7703	-,2939	,2181
VisitNav	,3943	,1453	2,7140	,0074	,1074	,6812
FamilyNa	,0528	,1180	,4478	,6549	-,1802	,2859
FriendsN	,1515	,1240	1,2222	,2234	-,0933	,3963

Standardized coefficients

	coeff
Familiar	,3398
EC_Secur	,4415
age	-,2556
gender	,1126
educatio	,1268
DefenseD	-,0193
VisitNav	,1989
FamilyNa	,0321
FriendsN	,0897

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6525	,4257	,7116	12,0093	10,0000	162,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,3987	,7884	1,7742	,0779	-,1581	2,9556
Familiar	-,0102	,0735	-,1388	,8898	-,1553	,1349
EC_Secur	,0278	,0773	,3601	,7192	-,1248	,1804
BPersona	,7073	,0852	8,3064	,0000	,5392	,8755

age	,0052	,0185	,2819	,7784	-,0313	,0417
gender	-,2591	,1434	-1,8070	,0726	-,5423	,0240
educatio	-,0725	,0888	-,8163	,4155	-,2479	,1029
DefenseD	,1778	,1410	1,2613	,2090	-,1006	,4562
VisitNav	-,2067	,1615	-1,2798	,2025	-,5256	,1122
FamilyNa	,0659	,1284	,5134	,6084	-,1876	,3194
FriendsN	-,2569	,1354	-1,8977	,0595	-,5243	,0104

Standardized coefficients

	coeff
Familiar	-,0122
EC_Secur	,0251
BPersona	,6263
age	,0220
gender	-,1203
educatio	-,0653
DefenseD	,0802
VisitNav	-,0923
FamilyNa	,0355
FriendsN	-,1347

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3080	,0948	1,1079	2,1479	8,0000	164,0000	,0341

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1634	,9404	3,3639	,0010	1,3065	5,0202
Familiar	,2152	,0869	2,4760	,0143	,0436	,3868
age	-,0431	,0222	-1,9386	,0543	-,0869	,0008
gender	-,0929	,1774	-,5238	,6011	-,4433	,2574
educatio	,0717	,1091	,6572	,5120	-,1437	,2872
DefenseD	,2097	,1752	1,1970	,2330	-,1363	,5557
VisitNav	,0669	,1971	,3393	,7348	-,3223	,4560
FamilyNa	,1132	,1601	,7072	,4805	-,2029	,4292
FriendsN	-,1676	,1681	-,9971	,3202	-,4995	,1643

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
,2152	,0869	2,4760	,0143	,0436	,3868	,1992	,2583

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,0102	,0735	-,1388	,8898	-,1553	,1349	-,0094	-,0122

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2254	,0628	,1098	,3559
Ind1	,0040	,0138	-,0187	,0393
Ind2	,1773	,0506	,0816	,2782
Ind3	,0441	,0307	-,0071	,1140
(C1)	-,1733	,0551	-,2829	-,0666
(C2)	-,0401	,0318	-,1161	,0076
(C3)	,1332	,0556	,0185	,2395

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2086	,0555	,1044	,3235
Ind1	,0037	,0127	-,0169	,0366
Ind2	,1641	,0458	,0778	,2555
Ind3	,0408	,0278	-,0066	,1026
(C1)	-,1604	,0501	-,2595	-,0619
(C2)	-,0371	,0288	-,1048	,0072
(C3)	,1233	,0517	,0170	,2208

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2706	,0730	,1347	,4206
Ind1	,0048	,0165	-,0221	,0473
Ind2	,2129	,0598	,0988	,3305
Ind3	,0529	,0362	-,0083	,1342

```
(C1)      -,2081      ,0653      -,3364      -,0797
(C2)      -,0481      ,0375      -,1377      ,0093
(C3)      ,1599      ,0669      ,0217      ,2867
```

Specific indirect effect contrast definition(s):

```
(C1)      Ind1      minus      Ind2
(C2)      Ind1      minus      Ind3
(C3)      Ind2      minus      Ind3
```

Indirect effect key:

```
Ind1 Familiar  ->  EC_Secur  ->  Attract
Ind2 Familiar  ->  BPersona  ->  Attract
Ind3 Familiar  ->  EC_Secur  ->  BPersona  ->  Attract
```

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

NOTE: Variables names longer than eight characters can produce incorrect output.  
Shorter variable names are recommended.

----- END MATRIX -----

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D.            www.afhayes.com  
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

\*\*\*\*\*

```
Model   : 6
Y       : Attract
X       : Familiar
M1      : EC_Rewar
M2      : BPersona
```

Covariates:  
age        gender    educatio DefenseD VisitNav FamilyNa FriendsN

Sample  
Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:  
EC\_Rewar

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,4543	,2064	1,0725	5,3304	8,0000	164,0000	,0000

Model	coeff	se	t	p	LLCI	ULCI
constant	4,5366	,9252	4,9031	,0000	2,7096	6,3635
Familiar	-,0412	,0855	-,4823	,6302	-,2101	,1276
age	-,1109	,0219	-5,0753	,0000	-,1541	-,0678
gender	,1882	,1746	1,0778	,2827	-,1565	,5329
educatio	,1957	,1074	1,8231	,0701	-,0163	,4077
DefenseD	,0031	,1724	,0179	,9857	-,3373	,3435
VisitNav	,0931	,1939	,4803	,6317	-,2898	,4760
FamilyNa	,1615	,1575	1,0256	,3066	-,1494	,4725
FriendsN	-,0605	,1654	-,3661	,7148	-,3871	,2660

Standardized coefficients

```
coeff
Familiar  -,0471
age       -,4449
gender    ,0831
educatio ,1678
DefenseD ,0013
VisitNav ,0396
```

FamilyNa ,0828  
 FriendsN -,0302

\*\*\*\*\*

OUTCOME VARIABLE:

BPersona

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6147	,3778	,6008	10,9991	9,0000	163,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	,5178	,7415	,6983	,4860	-,9464	1,9821
Familiar	,3299	,0640	5,1501	,0000	,2034	,4563
EC_Rewar	,4083	,0584	6,9854	,0000	,2929	,5237
age	-,0218	,0176	-1,2367	,2180	-,0565	,0130
gender	,1565	,1311	1,1933	,2345	-,1024	,4154
educatio	,1174	,0812	1,4466	,1499	-,0429	,2777
DefenseD	,0370	,1290	,2866	,7748	-,2178	,2918
VisitNav	,3493	,1452	2,4052	,0173	,0625	,6361
FamilyNa	-,0003	,1182	-,0021	,9983	-,2337	,2332
FriendsN	,1531	,1238	1,2362	,2182	-,0915	,3976

Standardized coefficients

	coeff
Familiar	,4472
EC_Rewar	,4844
age	-,1036
gender	,0820
educatio	,1194
DefenseD	,0188
VisitNav	,1762
FamilyNa	-,0002
FriendsN	,0907

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6522	,4254	,7120	11,9921	10,0000	162,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,4114	,8085	1,7458	,0827	-,1851	3,0079
Familiar	-,0080	,0752	-,1065	,9153	-,1565	,1405
EC_Rewar	,0128	,0725	,1765	,8601	-,1304	,1560
BPersona	,7148	,0853	8,3824	,0000	,5464	,8831
age	,0063	,0192	,3262	,7447	-,0317	,0443
gender	-,2621	,1434	-1,8281	,0694	-,5452	,0210
educatio	-,0718	,0889	-,8077	,4204	-,2474	,1038
DefenseD	,1824	,1405	1,2979	,1962	-,0951	,4598
VisitNav	-,2112	,1609	-1,3126	,1912	-,5289	,1065
FamilyNa	,0642	,1287	,4985	,6188	-,1900	,3184
FriendsN	-,2586	,1354	-1,9091	,0580	-,5261	,0089

Standardized coefficients

	coeff
Familiar	-,0096
EC_Rewar	,0134
BPersona	,6329
age	,0265
gender	-,1217
educatio	-,0647
DefenseD	,0822
VisitNav	-,0943
FamilyNa	,0346
FriendsN	-,1356

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
---	------	-----	---	-----	-----	---

,3080 ,0948 1,1079 2,1479 8,0000 164,0000 ,0341

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1634	,9404	3,3639	,0010	1,3065	5,0202
Familiar	,2152	,0869	2,4760	,0143	,0436	,3868
age	-,0431	,0222	-1,9386	,0543	-,0869	,0008
gender	-,0929	,1774	-,5238	,6011	-,4433	,2574
educatio	,0717	,1091	,6572	,5120	-,1437	,2872
DefenseD	,2097	,1752	1,1970	,2330	-,1363	,5557
VisitNav	,0669	,1971	,3393	,7348	-,3223	,4560
FamilyNa	,1132	,1601	,7072	,4805	-,2029	,4292
FriendsN	-,1676	,1681	-,9971	,3202	-,4995	,1643

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
,2152	,0869	2,4760	,0143	,0436	,3868	,1992	,2583

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,0080	,0752	-,1065	,9153	-,1565	,1405	-,0074	-,0096

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2232	,0640	,1056	,3572
Ind1	-,0005	,0099	-,0251	,0178
Ind2	,2358	,0527	,1414	,3463
Ind3	-,0120	,0280	-,0686	,0456
(C1)	-,2363	,0524	-,3491	-,1434
(C2)	,0115	,0293	-,0495	,0739
(C3)	,2478	,0571	,1453	,3661

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2066	,0564	,0994	,3208
Ind1	-,0005	,0093	-,0237	,0165
Ind2	,2182	,0458	,1360	,3127
Ind3	-,0111	,0259	-,0633	,0412
(C1)	-,2187	,0457	-,3144	-,1365
(C2)	,0107	,0270	-,0454	,0687
(C3)	,2294	,0508	,1385	,3347

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2679	,0740	,1261	,4189
Ind1	-,0006	,0119	-,0301	,0215
Ind2	,2830	,0601	,1735	,4055
Ind3	-,0144	,0333	-,0809	,0532
(C1)	-,2836	,0600	-,4088	-,1730
(C2)	,0138	,0347	-,0581	,0899
(C3)	,2975	,0656	,1790	,4315

Specific indirect effect contrast definition(s):

(C1)	Ind1	minus	Ind2
(C2)	Ind1	minus	Ind3
(C3)	Ind2	minus	Ind3

Indirect effect key:

Ind1	Familiar	->	EC_Rewar	->	Attract
Ind2	Familiar	->	BPersona	->	Attract
Ind3	Familiar	->	EC_Rewar	->	BPersona -> Attract

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

NOTE: Variables names longer than eight characters can produce incorrect output.  
Shorter variable names are recommended.

----- END MATRIX -----

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.2.01 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. www.afhayes.com  
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

\*\*\*\*\*

Model : 6  
Y : Attract  
X : Familiar  
M1 : EC\_Trave  
M2 : BPersona

Covariates:  
age gender educatio DefenseD VisitNav FamilyNa FriendsN

Sample  
Size: 173

\*\*\*\*\*

OUTCOME VARIABLE:  
EC\_Trave

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,3887	,1511	,7484	3,6480	8,0000	164,0000	,0006

Model	coeff	se	t	p	LLCI	ULCI
constant	3,9190	,7729	5,0705	,0000	2,3929	5,4452
Familiar	,2420	,0714	3,3880	,0009	,1010	,3831
age	-,0578	,0183	-3,1660	,0018	-,0938	-,0218
gender	,2647	,1458	1,8152	,0713	-,0232	,5527
educatio	,1142	,0897	1,2737	,2046	-,0629	,2913
DefenseD	-,2035	,1440	-1,4129	,1596	-,4879	,0809
VisitNav	,2567	,1620	1,5846	,1150	-,0632	,5765
FamilyNa	-,0014	,1316	-,0105	,9917	-,2611	,2584
FriendsN	-,1070	,1382	-,7746	,4397	-,3798	,1658

Standardized coefficients

	coeff
Familiar	,3423
age	-,2871
gender	,1448
educatio	,1212
DefenseD	-,1081
VisitNav	,1351
FamilyNa	-,0009
FriendsN	-,0661

\*\*\*\*\*

OUTCOME VARIABLE:  
BPersona

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,6534	,4270	,5533	13,4960	9,0000	163,0000	,0000

Model	coeff	se	t	p	LLCI	ULCI
constant	,2167	,7148	,3031	,7622	-1,1948	1,6281
Familiar	,1800	,0635	2,8337	,0052	,0546	,3055
EC_Trave	,5494	,0671	8,1831	,0000	,4169	,6820
age	-,0353	,0162	-2,1821	,0305	-,0672	-,0034
gender	,0878	,1266	,6936	,4889	-,1622	,3379
educatio	,1345	,0775	1,7363	,0844	-,0185	,2876
DefenseD	,1500	,1246	1,2043	,2302	-,0960	,3961
VisitNav	,2463	,1404	1,7551	,0811	-,0308	,5235
FamilyNa	,0664	,1131	,5874	,5578	-,1569	,2898
FriendsN	,1872	,1190	1,5726	,1177	-,0478	,4222

Standardized coefficients

	coeff
Familiar	,2441
EC_Trave	,5266

age - ,1679  
gender ,0460  
educatio ,1368  
DefenseD ,0764  
VisitNav ,1243  
FamilyNa ,0404  
FriendsN ,1108

\*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6529	,4263	,7108	12,0390	10,0000	162,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,3204	,8104	1,6294	,1052	-,2799	2,9207
Familiar	-,0146	,0738	-,1975	,8437	-,1602	,1311
EC_Trave	,0495	,0904	,5480	,5844	-,1290	,2280
BPersona	,6957	,0888	7,8368	,0000	,5204	,8710
age	,0064	,0186	,3467	,7293	-,0303	,0432
gender	-,2684	,1438	-1,8667	,0637	-,5522	,0155
educatio	-,0712	,0886	-,8035	,4229	-,2463	,1038
DefenseD	,1932	,1418	1,3623	,1750	-,0869	,4733
VisitNav	-,2153	,1606	-1,3411	,1818	-,5324	,1017
FamilyNa	,0676	,1283	,5264	,5994	-,1859	,3210
FriendsN	-,2516	,1359	-1,8513	,0660	-,5200	,0168

Standardized coefficients

	coeff
Familiar	-,0175
EC_Trave	,0420
BPersona	,6161
age	,0272
gender	-,1246
educatio	-,0641
DefenseD	,0871
VisitNav	-,0962
FamilyNa	,0364
FriendsN	-,1319

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Attract

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3080	,0948	1,1079	2,1479	8,0000	164,0000	,0341

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,1634	,9404	3,3639	,0010	1,3065	5,0202
Familiar	,2152	,0869	2,4760	,0143	,0436	,3868
age	-,0431	,0222	-1,9386	,0543	-,0869	,0008
gender	-,0929	,1774	-,5238	,6011	-,4433	,2574
educatio	,0717	,1091	,6572	,5120	-,1437	,2872
DefenseD	,2097	,1752	1,1970	,2330	-,1363	,5557
VisitNav	,0669	,1971	,3393	,7348	-,3223	,4560
FamilyNa	,1132	,1601	,7072	,4805	-,2029	,4292
FriendsN	-,1676	,1681	-,9971	,3202	-,4995	,1643

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
,2152	,0869	2,4760	,0143	,0436	,3868	,1992	,2583

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,0146	,0738	-,1975	,8437	-,1602	,1311	-,0135	-,0175

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2298	,0631	,1163	,3659
Ind1	,0120	,0245	-,0274	,0709



Ind2	,1253	,0456	,0371	,2183
Ind3	,0925	,0374	,0303	,1752
(C1)	-,1133	,0554	-,2203	,0001
(C2)	-,0805	,0420	-,1756	-,0130
(C3)	,0327	,0585	-,0905	,1378

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2127	,0556	,1094	,3304
Ind1	,0111	,0225	-,0255	,0646
Ind2	,1159	,0423	,0356	,2034
Ind3	,0856	,0331	,0288	,1572
(C1)	-,1048	,0516	-,2067	,0001
(C2)	-,0745	,0379	-,1595	-,0121
(C3)	,0303	,0546	-,0832	,1317

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,2758	,0733	,1416	,4300
Ind1	,0144	,0292	-,0330	,0834
Ind2	,1504	,0551	,0456	,2630
Ind3	,1111	,0433	,0372	,2052
(C1)	-,1360	,0670	-,2672	,0002
(C2)	-,0967	,0495	-,2075	-,0153
(C3)	,0393	,0706	-,1076	,1700

Specific indirect effect contrast definition(s):

(C1)	Ind1	minus	Ind2
(C2)	Ind1	minus	Ind3
(C3)	Ind2	minus	Ind3

Indirect effect key:

Ind1 Familiar	->	EC_Trave	->	Attract
Ind2 Familiar	->	BPersona	->	Attract
Ind3 Familiar	->	EC_Trave	->	BPersona -> Attract

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

NOTE: Variables names longer than eight characters can produce incorrect output.  
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----- END MATRIX -----