Employer Branding: Testing some key assumptions

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CHAPTER 1

INTRODUCTION

In recruitment research, there has been a dramatic increase of interest in better understanding the attributes that people associate with organizations as an employer and the antecedents and consequences of these associations. At around the same time, this scientific interest was mirrored by the rise of employer branding as one of the hot topics in human resource management practices. The present dissertation contributes to the literature and practice of recruitment by testing some key assumptions underlying employer branding. The first chapter provides an introduction to the domain of employer branding. Drawing on relevant previous research, this introduction concludes by discussing the key assumptions guiding the present dissertation and the empirical studies that aim to address these assumptions.
INTRODUCTION

Effective recruitment practices enable organizations to bring the necessary talent into the organization. As recruitment influences the quantity and quality of the applicant pool, it also has important implications for all other human resource practices (Barber, 1998). Specifically, if recruitment fails, potential applicants never enter subsequent recruitment and selection phases. As a result, when organizations are not able to identify the attributes that influence job seekers’ initial attraction they might lose human capital, one of their most important assets driving their strategy, growth, and helping them outperform competitors (Barber, 1998; Cable, 2007; Cable & Yu, 2013; Edwards, 2010).

Moreover, regardless of economical fluctuations the labor market remains tight. Demographical changes like the retirement of the baby boom generation and the shortage of young employees enables this trend to continue (Ployhart, 2006). Hence, in the future it might even be more difficult to find and attract suitable employees, obliging organizations to do their utmost best to be attractive (Van Hoye & Lievens, 2009). Thus, recruitment will remain a crucial human resource function for organizations in attracting human capital (Derous & De Fruyt, 2016; Dineen & Soltis, 2011; Martin, Gollan, & Grigg, 2011; Van Hoye & Saks, 2011). As a consequence the attention for recruitment, both in practice and academic research, has dramatically increased in the last years (Breaugh, 2008, 2013).

However, being an attractive employer is not sufficient anymore. In addition and equally important, organizations have to stand out and differentiate themselves from their competitors to become an employer of choice (Ambler & Barrow, 1996; Backhaus & Tikoo, 2004; Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Lievens & Highhouse, 2003; Martin et al. 2011; Ployhart, 2006). Organizations that wish to attract highly desired and talented applicants have no choice but to participate in the “war for talent”. In this battle for talent, job seekers can choose from a wide variety of jobs and organizations each with their own set of specific attributes.

As job seekers seem to make similar choices and decisions as consumers in high-involvement situations with high-risk products, researchers have suggested to apply marketing principles to the area of recruitment (Ambler & Barrow, 1996;
Backhaus & Tikoo, 2004; Cable & Turban, 2001; Collins & Han, 2004; Collins & Stevens, 2002; Edwards, 2010; Highhouse, Brooks, & Greguras, 2009; Lievens, 2007; Lievens & Highhouse, 2003; Martin et al., 2011). Given that employer branding reconciles principles from the fields of marketing and recruitment, a growing interest in organizations’ image as an employer and both internal (i.e., employees) and external (i.e., applicants) employer branding has emerged. Along these lines, Martin et al. (2011) suggested:

*We have come to regard employer branding as a key topic for integrating HR policies and practice, and for helping build much needed bridges between HR, reputation management, marketing, communications and information and communications technologies. Research in this field needs to catch up with practice as well as to inform it, so it is worth much more academic ‘airtime’ than it gets at present (p. 3634).*

Moreover, in forecasting the future of recruitment Cable and Yu (2013) suggested that:

*Recruitment practices – that is, processes deliberately intended to attract people to apply and join a firm – may be relatively easy to study but relatively difficult to predict effects. Thus, although formal recruitment practices and decisions are important, the broader organizational image and practices experienced by potential applicants may determine much about recruitment success. At a minimum, it is important to consider the effects of recruitment practices in the context of broader organizational investments, decisions, and the associations that potential applicants make regarding an employer’s image and reputation (Cable & Turban, 2001; Collins, 2007) (p. 527).*

Hence, we should move toward including broader recruitment factors and consider predictors of why potential applicants are attracted to organizations and are willing to apply when studying recruitment. This integration should allow both researchers and practitioners to get a more comprehensive picture of what
recruitment is in the broader context of employer branding efforts (Cable & Yu, 2013). Therefore, the main objective of this doctoral dissertation is to test some key assumptions of employer branding. By doing so we hope to provide both researchers and practitioners with a more comprehensive view on employer branding.

This chapter provides an introduction to the domain of employer branding and an overview of relevant previous research. On the basis of this comprehensive literature review, the key assumptions guiding the present dissertation are identified at the end of this chapter. In addition, we outline the empirical studies of this dissertation.

THE EMPLOYER BRAND

Brand Definitions in Marketing

In a marketing context, a brand can be defined as “a set of assets linked to a brand’s name or symbol that adds to the value provided by a product or service to that firm’s customers” (Aaker, 1996, p. 7-8). Moreover, Keller (1998) defined a brand as “a name, term, sign, symbol, or design, or a combination of them intended to identify the goods and services of one seller or groups of sellers and to differentiate them from those of competition” (p. 2). Thus, both definitions emphasize that the key to create a brand is to choose attributes that identify a product and/or service and distinguishes it from others. These brand attributes can come in many forms and may be rational and tangible (i.e., related to product/service performance of the brand) or more emotional and intangible (i.e., related to what the brand represents) (Katz, 1960; Keller, 1998). As brands can offer a number of benefits to consumers (e.g., signal of product/service quality; simplification for product/service decisions) and organizations (e.g., differentiation; intellectual property rights), prior brand marketing research indicated that they are valuable organizational assets that need to be carefully managed (Aaker, 1996; Keller, 1998). Although organizations commonly focus their branding efforts towards product branding, branding can also be used in the area of human resource management (Ambler & Barrow, 1996; Backhaus & Tikoo, 2004; Edwards, 2010; Ewing, Pitt, de Bussy, & Berthon, 2002).
Employer Brand Definitions and Related Constructs

In a first attempt to examine synergies between brand marketing and human resource management, Ambler and Barrow (1996) reported about the relevance of branding within the context of employment (i.e., findings of semi-structured depth interviews with respondents from 27 companies). They described the employer brand as “the package of functional, economic, and psychological benefits provided by employment and identified with the employing company” (p. 8). In a similar vein Dell and Ainspan (2001) proposed, “the employer brand establishes the identity of the firm as an employer. It encompasses the firm’s value system, policies, and behaviors toward the objectives of attracting, motivating, and retaining the firm’s current and potential employees” (p. 10). The specific association of the employment offer with the organization is also emphasized in a widely cited definition by Backhaus and Tikoo (2004): “The employment brand highlights the unique aspects of the firm’s employment offerings or environment … and is a concept of the firm that differentiates it from its competitors.” (p. 502). As we will discuss later, these unique aspects of the employment offer, or “the package of reward features or employment advantages and benefits offered to employees” (Edwards, 2010, p. 7), are often referred to as the employer value proposition (Barrow & Mosley, 2005).

In line with previous conceptualizations we define an employer brand as an individual’s bundle of associations and perceptions of what is distinctive, central, and enduring about the organization as a place to work (Collins & Kanar, 2013; Highhouse et al., 2009; Lievens & Slaughter, 2015). In contrast, employer branding describes the process of “promoting, both within and outside the firm, a clear view of what makes a firm different and desirable as an employer” (Backhaus & Tikoo, 2004, p. 502; Edwards, 2010). However, as there is a myriad of related concepts that makes this area of research an example of Byzantine complexity, we first need to make a clear distinction between employer brand and employer branding versus employer familiarity, employer image, employer reputation, and employer identity.

Employer familiarity. Employer familiarity is “the level of awareness that a job seeker has of an organization” (Cable & Turban, 2001, p. 124). The level of familiarity may vary from a complete lack of familiarity (i.e., unawareness), to
recognizing the name of the organization (i.e., recognition), and finally the ability to recall not only the name but also more information about the organization (i.e., top of mind awareness). Familiarity is a necessary prerequisite of an employer brand, because without a fundamental awareness of an organization’s existence a job seeker does not have a template to collect and store information about the employer (Aaker, 1996; Cable & Turban, 2001; Lievens & Slaughter, 2015).

**Employer image.** Image is denoted by individuals’ perceptions about a brand, as reflected by different types of associations (Keller, 1998). An employer image can then be defined as “the content of beliefs held by a job seeker about an employer. Stated differently, employer image is the set of beliefs that a job seeker holds about the attributes of an organization (i.e. what type of organization is it?)” (Cable & Turban, 2001, p. 125).

**Employer reputation.** According to Fombrun (1996) reputation is a resilient and enduring evaluation that is anchored in core characteristics of the organization. Cable and Turban (2001) defined employer reputation as “a job seeker’s belief about the public’s affective evaluation of the organization” (p. 127). Upon reviewing different reputation definitions, Highhouse et al. (2009) referred to employer reputation as a global, temporally stable, evaluative judgment about an organization that is shared by the general public or by multiple constituencies such as job seekers or consumers. To be clear employer reputation is distinguished from employer image in four important ways: (1) employer image does not include an affective or even emotional evaluative component whereas employer reputation does, (2) employer reputation is a job seeker’s belief about how the organization is evaluated by others, while employer image consists of a job seeker’s own beliefs about the organization, (3) employer reputation represents a more enduring evaluation, whereas an employer image might fluctuate, and (4) employer reputation is an overall impression whereas employer image targets specific aspects of the employment experience.

**Employer identity.** An organization’s identity refers to its central, enduring, and distinctive characteristics. Identity is what key insiders (i.e., employees) perceive to be core characteristics, whereas image deals with an outsider’s (i.e., job seekers) specific beliefs (Gioia, Schultz, & Corley, 2000; Lievens & Slaughter, 2015).
In conclusion, organizations’ employer image refers to an outsiders’ mental representation of attributes related to organizations as an employer and is similar to the *external employer brand*. Conversely, the *internal employer brand* or an insider’s mental representation of attributes related to organizations as an employer corresponds to organizations’ identity. *External employer branding* can then be considered to be a synonym for employer image management and *internal employer branding* for identity management. The current dissertation will focus on external employer branding or employer image management. In the following, employer brand(ing) and employer image (management) will be used interchangeable.

**Origin of Employer Brand**

The idea of an employer brand emerged in the 1980s early 1990s. Belt and Paolillo (1982) were one of the first to acknowledge the relationship between an organization’s image and the responses to recruitment advertisement. Specifically, they found that “the corporate image of the advertiser significantly influenced the likelihood of reader response” (Belt & Paolillo, 1982, p. 105). However, these authors did not distinguish between different types of brands, this distinction was first made by Ambler and Barrow (1996) in their article *The employer brand* in which they acknowledged the existence of a corporate brand, product brand, and employer brand. Nonetheless, the roots of the concept lie in the early recruitment communication industry and in the changing needs and aspirations of employees (e.g., psychological contract).

**Recruitment communication.** Recruitment communication emerged as a specialism within the advertising industry in the 1960s. Although recruitment communication existed before, specialized teams and businesses that tried to meet the desires of organizations’ specific recruitment campaign needs appeared from around 1958 onwards (Edwards, 2010). This trend gave rise to a remarkable change in the way vacancies were communicated. Moreover, as the specialism of recruitment communication matured, practitioners realized they could learn from classical marketing principles (Barrow & Mosley, 2005). In the academic world, a parallel development took place: Brand management was becoming recognized as a legitimate discipline and the ‘people dimensions’ of an organization’s brand were being acknowledged and debated. In his influential book *Marketing*
management: Analysis, planning, and control, Kotler (1967) recognized the assumption that human capital brings value to the organization, and that through skillful investment in human capital, an organization’s performance can be enhanced. Barney’s resource-based view (1991) further supported this notion, suggesting that characteristics of an organization’s resources can contribute to sustainable competitive advantage. Specifically, when organizations possess resources that are rare, valuable, non-substitutable, and difficult to imitate this may allow organizations to move ahead of their competitors (Barney 1991; Cable, 2007). Consequently, organizations started to look at their people as consumers and to view the relationships between employer and employees in terms of consuming a career or job. It was a shift in perspective that opened up all sorts of questions and possibilities. If employees are consumers:

*How should organizations create, define, and package the employer brand?*

*What sales and marketing strategies should organizations adopt towards the employer brand?*

*How should the employer brand be managed?*

**Changing needs and aspirations of employees.** At the same time as the changes in recruitment communication and brand management, the needs and aspirations of employees changed. First, technical innovations have changed what employees need to do. Alongside with the need for technical individual skills the need for improved delegation and empowerment emerged. As business life today is too complex to put time into intense supervision, a greater need for trust in employees is critical. Specifically, once they know what to do and which standards that are expected, employees should be able to know what they can do without recourse to management (Edwards, 2010; Martin et al., 2011). Second, most jobs today demand a need for customer service and the presence of sufficient emotional intelligence in dealing with other people (Ambler & Barrow, 2005). Finally, and maybe even most important is the power of personal expectations or the personal contract between employees and employers. In the traditional concept of the psychological contract between employees and employers, employees promised loyalty to the organization in exchange for job security
(Hendry & Jenkins, 1997). People at work today are active CV builders and career planners from an early stage and so the consumers of jobs have changed too. Job security is a thing of the past as companies grow and shrink, hire and fire. Employees in turn have more choice and less affiliation to a single employer. They know they must attain transferable skills, push themselves, and assess the competition.

Moreover, employees are becoming increasingly combative. They are now confident and more able to afford professional advice when they believe they have been treated unfairly. These trends have imposed a new form of psychological contract in which employers provide workers with marketable skills through training and development in exchange for effort and flexibility (Baruch, 2004). When people hold negative perceptions of the organization as an employer, employer branding campaigns can be used to advertise the benefits organizations still offer (e.g., training, career opportunities, personal growth and development). Thus, employer branding campaigns can be designed to change people’s perceptions of the organization (Backhaus & Tikoo, 2004).

**Differences With Other Brands**

Still, there is no such thing as the organization’s brand, as organizations have different roles in society (e.g., employer, producer of goods and services, investment opportunity) and different stakeholders (e.g., job seekers, employees, consumers, investors) who are likely to have different views on what constitutes the organization. Hence, the multidimensional construct of an organizational brand consist of at least four different images (Highhouse et al., 2009; Jones & Willness, 2013; Lievens, 2007; Lievens & Slaughter, 2015). As already mentioned, a first image is an organization’s brand or image as an employer (Fombrun, 1996; Highhouse et al., 2009; Highhouse, Zickar, Thorsteinson, Stierwalt, & Slaughter, 1999). Second, an organization’s product or service brand is the image hold by consumers or clients of the organization as provider of goods and services (e.g., product quality and employee friendliness) (Fombrun, 1996; Jones & Willness, 2013). Specifically, a favorable product image may increase job seekers’ familiarity with the organization and may be related to the formation of positive perceptions of organizational attractiveness. Applied to a recruitment context, prior research found that organizations with familiar products and/or
services were seen in a more positive light than unfamiliar organizations (Barber, 1998; Cable & Turban, 2001; Collins & Han, 2004; Collins & Stevens, 2002). Next, there are the perceptions about the organization’s corporate social performance or the image of an organization as a “good citizen” and a socially and environmentally responsible performer in the general society (Jones & Willness, 2013; Jones, Willness, & Madey, 2014). Turban and Greening (1997) found that ratings of corporate social performance image were related to organizations’ attractiveness, suggesting that organizations’ corporate social performance image may provide a competitive advantage in attracting applicants. Finally, there is the image held by investors about the organization’s financial standing, profitability, and growth or an organization’s financial image (Fombrun, 1996). It seems that financially stable organizations are better able to distinguish themselves from competitors, attract more attention, and in the end become more attractive for job seekers (Carvalho & Areal, 2015; de Waal, 2007). Although financial performance image may be positively associated with an organization’s attractiveness as an employer, because people expect to experience positive outcomes from being employed by an organization with a stable financial performance image, prior research did not include this image.

There are some similarities between the employer brand and the other brands, but there are also two key differences. First, the employer brand is employment specific, characterizing the organization’s image and identity as an employer. Second, an employer brand is directed at both internal (i.e., employees; employer identity) and external audiences (i.e., job seekers; employer image) whereas the other branding efforts are primarily directed at an external audience (e.g., consumers, investors). One important similarity between an employer brand and other organizational brands, is that all organizational brands are not static and typically develop over time. Organizations are, therefore, advised to audit their images. During such an image audit the aim is to carefully determine which attributes make up organizations’ image among the diverse stakeholders (Cable, 2007; Collins & Kanar, 2013; Jones & Willness, 2013; Lievens, 2006). Although multiple organizational images may influence organizations’ abilities to recruit and retain talented employees (Highhouse, Thronbury, & Little, 2007; Rao, Agarwal, & Dahlhoff, 2004), recruitment research’s main focus has been on the
attributes or dimensions that make up the employer brand (e.g., Highhouse et al., 1999; Lievens & Slaughter, 2015).

**EMPLOYER BRAND DIMENSIONS**

**Employer Brand Conceptualizations**

As the definition above indicates, an organizations’ image as an employer reflects an amalgamation of mental representations and associations regarding an organization as an employer. This means that an employer image is made up of specific attributes that individuals associate with the organization as a place to work. Prior research has referred to these associations as complex associations because they require cognitive processing and are not automatic (Collins & Kanar, 2013). However, there exists great variation in the way previous studies have conceptualized these different associations, suggesting the need for a common theoretical framework to study organizations’ image as an employer (Barber, 1998; Cable & Turban, 2001). On the basis of a well-known and longstanding categorization in marketing and social and consumer psychology between functional (i.e., instrumental), symbolic, and experiential attributes (Ambler & Barrow, 1996; Katz, 1960; Keller, 1998) Lievens and Highhouse (2003) introduced the instrumental-symbolic framework to recruitment research to conceptualize the main attributes underlying an organization’s image as an employer.

**Instrumental-symbolic framework.** In this framework, the instrumental image attributes represent traditional job or organizational attributes that are inherent of the organization (e.g., benefits and advancement). These image attributes describe the organization in terms of objective, concrete, and factual attributes that an organization either has or does not have (Lievens, Van Hoye, & Anseel, 2007). Applicants are attracted to instrumental image attributes such as pay and advancement on the basis of their utilitarian need to maximize benefits and minimize costs (Katz, 1960). Conversely, the symbolic image attributes represent subjective and intangible traits (e.g., sincerity and prestige) and are also referred to as personality trait inferences (Slaughter, Zickar, Highhouse, & Mohr, 2004). In other words, the organization’s image is determined by the symbolic meaning that people associate with the organization and the inferences they make.
about their perceptions (Lievens & Highhouse, 2003). Applicants are attracted to, for example, prestigious, organizations because it enables them to maintain their self-identity, to enhance their self-image, or to express themselves (Aaker, 1996; Highhouse et al., 2007).

In general, the main findings of prior studies using the instrumental-symbolic framework can be summarized as follows. First, applicants’ perceptions of both instrumental image attributes and symbolic trait inferences are related to their attraction to organizations as an employer (Lievens & Highhouse, 2003; Van Hoye, Bas, Cromheecke, & Lievens, 2013). Moreover, both instrumental and symbolic image attributes are associated with employees’ organizational identification and recommendation intentions (Lievens, Van Hoye, & Schreurs, 2005; Van Hoye, 2008). Second, symbolic traits account for incremental variance beyond instrumental image attributes in predicting organizational attractiveness (Lievens & Highhouse, 2003; Van Hoye et al., 2013; Van Hoye & Saks, 2011). Third, in one specific industry (i.e., banking industry) there was evidence that it was easier to differentiate among organizations on the basis of symbolic traits versus instrumental image attributes (Lievens & Highhouse, 2003).

These findings indicate that, on the basis of the instrumental-symbolic framework, recruitment research has made substantial progress in understanding and predicting the attitudes potential applicants (i.e., organizational attractiveness) hold towards an organization as an employer. However, as previous studies mainly focused on one applicant group at a time and mostly used student samples, we do not know whether these findings also occur across broader applicant groups. Furthermore, too little research focused on the differential impact of these image attributes on objective pre-hire (e.g., application decisions) outcomes and the image attributes underlying organizations’ distinctiveness as an employer.

Employer Brand Measurement

In their recent literature review of employer image and employer branding, Lievens and Slaughter (2015) identified two employer brand measurement perspectives: An elementalistic perspective and a holistic perspective.

Elementalistic perspective. The elementalistic perspective makes a distinction between separate organizational attributes and thus typically focuses on the instrumental and symbolic image attributes.
**Instrumental attributes.** As instrumental image attributes might differ across jobs and organizations most researchers have used an inductive strategy for determining and measuring the different attributes. For example, in a commercial context, the opportunity to interact with costumers might be key, but not in other sectors. Accordingly, instrumental attribute scales have typically been constructed ad hoc for a specific organization or industry. For example, Lievens and Highhouse (2003) developed different instrumental attribute scales for the banking and military sectors in Belgium. Other examples are the employer image scale developed by Berthon, Ewing, and Hah (2005) that was used in Australia, the job and organizational characteristics scale developed by Carless and Imber (2007), or the scale from Agrawal and Swaroop (2009) in India. Finally, Slaughter and Greguras (2009) used a two-step process (i.e., a literature review and a pilot study) to assemble a list of 14 different instrumental job attributes.

**Symbolic attributes.** In a similar vein, various measures were developed to capture symbolic attributes. Lievens and Highhouse (2003) drew upon Aaker’s earlier work to develop scales for measuring innovativeness, competence, sincerity, prestige, and robustness. Slaughter et al. (2004) conducted a comprehensive study to map the symbolic trait inferences across personality and marketing domains. They developed a brand personality measure with five dimensions namely, boy scout, innovativeness, dominance, thrift, and style. Davies, Chun, da Silva, and Roper’s (2004) corporate character scale contained seven scales: Agreeableness, competence, enterprise, ruthlessness, chic, informal, and machismo. A study by Cable and Yu (2006) adapted Schwartz’s (1987) circumplex model of personal values to identify the traits that are ascribed by job seekers to organizations. Their organizational image circumplex included eight scales: Powerful, achievement oriented, stimulating, self-directed, universal, benevolent, traditional, and conforming. Finally, Otto, Chater, and Stott (2011) aimed to incorporate the study of organizational perceptions into the longstanding research on the key psychological dimensions underlying people’s representations of objects. Their corporate personality scale had the following four scales: Honesty, prestige, innovation, and power.

**Holistic perspective.** Complementing the previous elementalistic perspective, it is also possible to adopt a more holistic view to the measurement
of employer brands. Collins and Stevens (2002) posited that associations regarding an employer could be broken down in both perceived attributes (i.e., instrumental and symbolic image attributes) and attitudes. They defined attitudes as general positive feelings that job seekers hold towards an organization and conceptualized these as organizational attractiveness. As these associations seem to be more automatic and require less cognitive processing compared with the associations about the specific image attributes, they are also called surface employer image associations (Collins & Kanar, 2013; Collins & Stevens, 2002). Hence, organizational attractiveness represents an attitudinal construct and refers to, in the narrow sense, an organization’s general attractiveness as an employer and feelings of what it is like to work for the organization exemplified by an item such as “I would like to work for this organization” (Collins & Kanar, 2013; Collins & Stevens, 2002; DelVecchio, Jarvis, Klink, & Dineen, 2007; Highhouse, Lievens, & Sinar, 2003). In a broader sense, organizational attractiveness can also encompass an individual’s intentions towards an organization as an employer, as expressed by a typical item as “I would exert a great deal of effort to work for this organization” (Highhouse et al., 2003). Previous recruitment studies mostly used a single measure of organizational attractiveness combining attitudes and intentions items (e.g., Turban & Keon, 1993).

As organizational attractiveness can be measured in the first phase of recruitment, it is a frequently studied outcome in recruitment literature which has been found to be related to application decisions and job choice decisions in later phases (Chapman et al., 2005; Collins & Stevens, 2002; Highhouse et al., 2003; Judge & Cable, 1997). Specifically, in most prior studies the measure of overall organizational attractiveness served as a dependent variable whereas the measures of the singular image attributes (i.e., instrumental and symbolic image attributes) served as independent variables (Collins & Kanar, 2013; Highhouse et al., 1999). Given the importance of organizational attractiveness, organizations try to actively manage their employer image to become the employer of choice, also known as employer branding or employer brand management.
EMPLOYER BRAND MANAGEMENT

In recent years, employer branding has emerged as a popular approach for organizations interested in managing their image as an employer among external (i.e., applicants) and internal constituents (i.e., employees). Furthermore, it is now regularly discussed as a weapon of choice in the war for talent. Given its importance and growth in the human resource practitioner literature, the concept of employer branding has become an issue that cannot be ignored by human resource academics (Backhaus & Tikoo, 2004; Collins & Kanar, 2013; Edwards, 2010). Employer branding can be defined as “a firm’s efforts to promote, both within and outside the organization, a clear view of what makes an organization different and desirable as an employer” (Backhaus & Tikoo, 2004, p. 501) and can be described as a cyclical three-steps process.

Employer Branding Process

**Value proposition.** First, organizations use information about different organizational characteristics (e.g., organization’s culture, management style, qualities of current employees, and instrumental and symbolic image dimensions) to develop a “value proposition”. This value proposition should be a true representation of what the organization offers to its current and future employees (Backhaus & Tikoo, 2004; Eisenberg, Kilduff, Burleigh, & Wilson, 2001). In this context, Cable (2007) emphasized the importance of building a great organization through the development of a “strange” employer image.

*To nail down a competitive advantage, your organization needs to do or create something distinctive that customers find valuable. In other words, you can’t be great if you just do what everyone else does, you have to do something unique and out of the ordinary. If you want to stand out above your competitors, you can’t just be normal* (Cable, 2007, p. xix).

So organizations are recommended to ask the right questions about what makes them attractive as (future) employers and distinct from their competitors in the labor market. According to Cable, companies need to create a “special sauce” that is hard to imitate for competitors and loved by employees. Further, this
“special sauce” may enable (future) employees to “develop a set of assumptions about employment with the firm, thereby supporting the firm’s values and enhancing their commitment to the firm” (Backhaus & Tikoo, 2004, p. 503). This commitment may ensure that employees embody the organization’s brand promise vis-à-vis other stakeholders (Jones & Willness, 2013; Mosley, 2007).

**Internal marketing.** Second, following the development of the value proposition, the employer brand should be incorporated into the organizational culture (i.e., internal marketing) (Frook, 2001). The internal employer brand will be sculptured around the values and organizational goals by systematically exposing employees to the value proposition. The goal of internal marketing is to develop a workforce that is committed to the values and organizational goals established by the organization and is hard for other organizations to imitate (Cable, 2007). If this distinctive, unique, and strange workforce, is sustainable it can be an important source of competitive advantage (Aaker, 1996; Barney, 1991; Keller, 1998). Furthermore, when the internal employer brand is used to reinforce the concept of quality employment and contributes to employees’ willingness to stay with the organization it also contributes to employee retention (Ambler & Barrow, 1996).

**External marketing.** Finally, simultaneous with internal marketing, externally promoting their attractive and distinctive employer image is the final step of employer branding. Specifically, the organization externally markets the value proposition to its targeted potential applicants, recruitment agencies, placement counselors, and the like (Backhaus & Tikoo, 2004). External marketing of the employer image establishes the organization as an employer of choice and thereby enables it to attract the best possible workers. The assumption is that the distinctiveness of the image allows the organization to acquire employees, who fit in the organizational culture and resemble the desired organizational brand. In that respect, strong, favorable, and unique associations with the organization may provide the foundation for “brand equity” (i.e., “the marketing effects uniquely attributable to the brand - for example, when certain outcomes result from the marketing of a product or service because of its brand name that would not occur if the same product or service did not have that name” Cable & Turban, 2003, p. 2245). If organizations are able to create employer brand equity, they can increase
the likelihood that they will become “the employer of choice” and that their jobs will be chosen over similar jobs at other organization (Aaker, 1996; Cable, 2007; Keller, 1998; Porter, 1985).

**Target Populations**

**Human resource cycle perspective.** On the basis of a human resource cycle perspective and the cyclical three-steps process described above, the employer branding target population has comprised job seekers (e.g., new entrants, unemployed job seekers, and employed job seekers, Boswell, Zimmerman, & Swider, 2012) for recruitment and current employees for retention and productivity (Backhaus & Tikoo, 2004; Cable & Turban, 2001; Ewing et al., 2002).

**Job-market perspective.** Ewing et al. (2002) proposed that employer branding works effectively in high value-added, knowledge intensive service businesses versus large-scale manufacturing companies. Specifically, in industries such as consulting and banking professional skills and development are essential and talent is rare whereas in manufacturing companies individual differences are less relevant (Ambler & Barrow, 1996; Ewing et al., 2002). Hence, on the basis of a job-market perspective employer branding is particularly relevant in highly competitive job markets (Hughes & Rog, 2008).

**Functional organizational perspective.** From a functional organizational perspective, employer branding can serve as a tool for impression management in the communication of organizational values or as a framework for career management programs (Avery & McKay, 2006; Backhaus & Tikoo, 2004; Hughes & Rog, 2008). For instance, employer branding has been proposed to play a role in corporate social responsibility and to be a sustainable development communication tool (Aggerholm, Andersen, & Thomsen, 2011).

**Differences With Traditional Recruitment**

On the basis of our literature review we can identify three important differences between recruitment (i.e., “those practices and activities carried on by the organization with the primary purpose of identifying and attracting potential employees”, Barber, 1998, p. 5) and employer branding. First, the ultimate goal of recruitment and employer branding differs. While the focus of recruitment is on identifying and attracting potential applicants, employer branding focusses on
the promotion of a clear view of what makes an organization desirable and different as an employer. As such, the scope of employer branding is broader than just attracting potential applicants. Second, as suggested by the human resource cycle perspective and the cyclical three-steps process, employer branding targets both internal (i.e., employees) and external (i.e., potential applicants) constituents. Conversely, recruitment only targets external constituents and as such (1) aims to identify potential applicants and persuade them to apply to the organization, (2) tries to persuade applicants to remain interested until organizations make a final choice, and (3) wants to persuade selectees to accept job offers and become new employees. Finally, while recruitment finishes when the selectee has accepted the job offer, the employer brand should be deeply imbedded in the everyday functioning of the organization, from HR-practices, through leadership and communication. Specifically, Mosley (2007) postulated:

_In many respects, the notion of employer brand management simply completes a journey that began with a disciplined approach to managing the total product brand experience, progressed through an application of the same principles to service brands (more complex, more people oriented) and arrives at the most complex and involving brand relationship most people ever experience, their employer brand._ (p. 132).

Thus, given the importance of employer branding, a natural question becomes: What can organizations do to influence the employer brand hold by their different constituents?

**How Can Organizations Manage Their Employer Brand?**

To address this key issue some studies focused on image audits, or organizations trying to understand the images that job seekers hold towards them. For example, Highhouse et al. (1999) laid out a five-step plan to identify the dimensions of _company employment image_ and where an organization stands relative to its competitors. These steps include the elicitation of the dimensions of an organization’s employment image through a forced choice procedure. Specifically, participants are presented with pairs of companies in the same industry and asked why they would prefer to work at one place over another. Once
the dimensions have been developed, items can be written and the focal organization can then be benchmarked against its competitors in the labor market.

As identifying the employer brand attributes is only the first step, other studies have tried to determine how organizations might influence their employer brand. Such strategies include sponsorship of university activities (e.g., Collins & Han, 2004; Collins & Stevens, 2002); strategic design of websites, job ads, recruitment media, and social media (e.g., Allen, Van Scotter, & Otundo, 2004; Cable & Yu, 2006; Dineen & Williamson, 2012; Van Hoye & Lievens, 2007; Williamson, Lapak, & King, 2003); and hiring and training recruiters (e.g., Slaughter, Cable, & Turban, 2014).

Moreover, some studies showed that the effectiveness of employer branding strategies are likely to be dependent upon the type of organization and the specific job seekers an organization is trying to attract. For instance, Collins and his colleagues (e.g., Collins, 2007; Collins & Han, 2004; Collins & Stevens, 2002) found that the effectiveness of different practices depends on how familiar people are with the organization due to its size, its existing reputation, and its general advertising. Low-involvement practices (e.g., sponsorship of university events) are more powerful for organizations with weaker advertising practices and reputations; high-involvement practices (e.g., employee testimonials) will be more powerful for organizations with better existing reputations. Furthermore, in some cases, strategies outside of the traditional recruitment and employer branding literature can also be useful. For example, in the world of retailing, where job seekers often walk in stores to apply for positions in person, organizational decision makers are often concerned about direct staff word of mouth. In this context, Keeling, McGoldrick, and Sadhu (2013) recommended organizations to research formal and informal channels to find out what employees are saying and to inform employees by equipping them with information that is relevant to job seekers. Although this strategy is specifically aimed at improving staff word of mouth, these recommendations are also relevant to employer brand management in a more general context. Despite these compelling examples, recruitment research has paid little attention as to how organizations can manage their image in term of recruitment activities (Breaugh, 2013).
THE PRESENT DISSERTATION

Generally, this concise review of the literature indicates that a growing interest in organizations’ image as an employer and employer branding has emerged. Furthermore, in recent years, employer branding has become a weapon of choice in the war for talent and a key topic for integrating human resource policies and practices. Consequently, researchers have acknowledged that the success of recruitment practices may be determined by the broader organizational image and employer branding practices experienced by potential applicants. However, further research is needed to provide both researchers and practitioners with a more comprehensive view on what recruitment is in the broader context of employer branding efforts (Cable & Yu, 2013; Edwards, 2010). Therefore, this dissertation focuses on the first recruitment phase and considers organizations’ image as an employer, with a specific focus on the instrumental-symbolic framework as a method to measure organizations’ employer image, to examine why external applicants are attracted to organizations and are willing to apply. Specifically, on the basis of our literature review we identify five key assumptions of employer branding that need further investigation.

First, even though prior research using the instrumental-symbolic framework has made substantial progress in understanding and predicting organizational attractiveness (Barber, 1998; Chapman et al., 2005; Jones & Willness, 2013), most previous studies examined these relationships in specific contexts (e.g., military or banking industry) mostly using student samples. In order to contribute to the development of employer branding, this dissertation further investigates whether employer branding makes organizations attractive. Second, besides being attractive as an employer, employer branding is also about the brand attributes that make an organization different from its nearest competitors (Backhaus & Tikoo, 2004; Cable & Turban, 2003; Lievens & Highhouse, 2003). However, too little research focused on the image attributes underlying organizations’ distinctiveness as an employer. Hence, we investigate whether employer branding makes organizations distinct from their competitors. Third, organizations are concerned about outcomes such as the number of actual applicants and the quality of applicants who apply for positions. However, too
often employer branding research has focused on perceptual pre-hire outcomes (Harold, Uggerslev, & Kraichy, 2013; Saks, 2005). Therefore, this dissertation investigates whether employer branding influences objective pre-hire outcomes. Fourth, as mentioned by Cable (2007) organizations need to do something distinctive to create a competitive advantage. Hence, we examine whether organizations should manage their employer brand by standing out. Finally, as noted before an organizations’ employer image is only one of the multiple images of an organization. Although conceptual papers about the need of aligning an organization’s employer image with other organizational images exist (e.g., Foster, Punjaisri, & Cheng, 2010), empirical research is scarce in the recruitment domain. Hence, we investigate whether organizations should be aware that job seekers may develop positive or negative perceptions about organizations’ attractiveness based on their exposure to different practices and messages organizations communicate.

**Key Assumption 1:** Employer branding makes organizations attractive.

**Key Assumption 2:** Employer branding makes organizations distinct from their competitors in the labor market.

**Key Assumption 3:** Employer branding influences not only perceptual but also objective outcomes.

**Key Assumption 4:** Organizations should manage their employer brand by standing out.

**Key Assumption 5:** Organizations should align employer branding with other image management efforts.

**Overview of the Chapters**

This introduction will be followed by four empirical chapters and a general conclusion. Each chapter presents a separate study and can be read independently from the other chapters. Consequently, some overlap may occur in the literature review and theoretical background of recruitment, employer image, and employer branding research. Table 1 provides an overview of the different empirical chapters in the current dissertation.
Chapter 2, titled “Is being attractive enough to stand out from the crowd? A large-scale study of organizations’ image as an employer across industries and applicant groups” presents a large-scale employer branding study. Although the capstone of employer branding is to promote an attractive as well as distinctive image of an organization as an employer, prior research typically focused only on the attractiveness side (Baber, 1998; Chapman et al., 2005; Highhouse et al., 2003; Jones & Willness, 2013; Ployhart, 2006). Hence, little is known about which attributes influence an organization’s distinctiveness as an employer (Collins & Kanar, 2013; Lievens & Highhouse, 2003; Uggerslev, Fassina, & Kraichy, 2012). Therefore, this study relies on the instrumental-symbolic framework to conceptualize the key attributes underlying organizations’ image as an employer and investigates the attractiveness as well as the distinctiveness of these employer image attributes across industries and applicant groups. By doing so we hope to provide a more comprehensive picture with respect to the attractiveness and distinctiveness of employer brands (Lievens & Highhouse, 2003; Van Hoye et al., 2013).

Chapter 3, titled “The relationships between multiple organizational images and organizations’ attractiveness: Does an umbrella perspective make sense?” examines the effects of multiple organizational images on organizational attractiveness, namely organizations’ product image, organizations’ corporate social performance image, organizations’ financial image, and organizations’ employer image, (Fryxell & Wang, 1994; Highhouse et al., 2009; Jones & Willness, 2013; Jones et al., 2014; Lievens & Highhouse, 2003). Prior recruitment research has typically focused on one of these organizational brands at a time. However, in the first recruitment phase, job seekers only have rudimentary knowledge of what it is like to work at a particular organization (Barber, 1998), so they may develop positive or negative perceptions about organizations’ attractiveness as a place to work based on their exposure to different practices and messages organizations communicate (Collins & Stevens, 2002; Highhouse et al., 2009; Jones & Willness, 2013; Rao et al., 2004; Wernerfelt, 1988). So, multiple organizational images might simultaneously influence recruitment outcomes. Therefore, our purpose is to study the joint effects of multiple organizational images on people’s organizational attractiveness perceptions.
<table>
<thead>
<tr>
<th>Chapters</th>
<th>Key assumptions</th>
<th>Independent variables</th>
<th>Dependent variables</th>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 2</td>
<td>1 and 2</td>
<td>Organizations’ image as an employer - Instrumental image attributes - Symbolic image attributes</td>
<td>Attractiveness of organizations’ image attributes Distinctiveness of organizations’ image attributes</td>
<td>Across six industries and three applicant groups</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>1 and 5</td>
<td>Organizations’ image as an employer - Instrumental image attributes - Symbolic image attributes Organizations’ product image Organizations’ corporate social performance image - Social - Environmental Organizations’ financial performance image</td>
<td>Organizations’ attractiveness</td>
<td>Multiple image management Relative importance of multiple organizational images Test of interactions between multiple organizational images</td>
</tr>
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<td>Chapter 4</td>
<td>1, 3, and 4</td>
<td>Recruitment medium - E-mail - Postcard</td>
<td>Applicant pool quantity Applicant pool quality</td>
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</tr>
<tr>
<td>Chapter 5</td>
<td>1 and 3</td>
<td>Organizations’ image as an employer - Instrumental image attributes - Symbolic image attributes Recruitment source characteristics - Credibility - Informativeness</td>
<td>Application decisions</td>
<td>Adaptation of implicit content theories (Behling, Labovits, &amp; Gainer, 1968) Relative importance of implicit content factors</td>
</tr>
</tbody>
</table>
Furthermore we also investigate the relative importance of each organizational image in determining organizational attractiveness and investigate possible interactions between different organizational images.

The field experiment described in Chapter 4, entitled “Changing things up in recruitment: Effects of a “strange” recruitment medium on applicant pool quantity and quality”, contributes to the employer branding literature by conducting a field experiment in which the effect of a strange and unusual recruitment medium (i.e., picture postcard) on organizational attraction was compared to the effect of a more common and even overused recruitment medium (i.e., e-mail) (Cable, 2007). Another contribution is that we were able to assess these effects via actual measures of applicant pool quantity and quality. As strange recruitment media are likely to attract more attention (Corbetta & Shulman, 2002; Smith & Collins, 2009), it was expected that a strange recruitment medium would result in better recruitment outcomes such as higher quantity and quality of the applicant pool. To examine whether this effect could indeed be attributed to the strangeness of the medium, a follow-up study was conducted, assessing participants’ perceptions of both recruitment media.

Chapter 5, titled “Moving beyond attitudes and intentions: Objective attributes, subjective attributes, and recruitment communication characteristics as predictors of actual application decisions” describes a field study that breaks new grounds by investigating, on the basis of implicit content theories introduced by Behling, Labovits, and Gainer (1968), possible factors affecting potential applicants’ application decisions. Behling et al. (1986) identified three streams of theories that described possible predictors of decision outcomes: Objective factors theories (i.e., objective image attributes; Lievens & Highhouse, 2003), subjective factors theories (i.e., subjective image attributes; Lievens & Highhouse, 2003), and critical contact theories (i.e., recruitment communication characteristics; Allen et al., 2004; Collins, 2007; Walker & Hinojosa, 2013). Recruitment research has found that these three factors influenced applicants’ decisions in the third phase of recruitment or applicants’ job choice decisions (Barber, 1998; Harold et al., 2013). As these factors seem to influence applicants’ decisions in latter recruitment phases, they might offer some promising possibilities for studying the factors that influence applicants’ decisions in earlier phases of recruitment. Hence,
in this study we respond to the need for recruitment research to move beyond attitudes and intentions, by investigating the differential impact of objective image attributes, subjective image attributes, and recruitment communication characteristics on applicants’ actual application decisions. Furthermore, we try to determine the relative importance of each factor in determining actual application decisions and examine how recruitment communication characteristics may interact with the other two factors (i.e., objective image attributes and subjective image attributes).

Finally, Chapter 6 entails a general discussion of the previous chapters. Several key findings from the empirical chapters are summarized, thereby clarifying the theoretical contributions of this dissertation. In addition, some strengths, caveats, and future research directions are identified. This dissertation ends with a discussion of implications for recruitment and employer branding practices.
REFERENCES


CHAPTER 2

IS BEING ATTRACTIVE ENOUGH TO STAND OUT FROM THE CROWD? A LARGE-SCALE STUDY OF ORGANIZATIONS’ IMAGE AS AN EMPLOYER ACROSS INDUSTRIES AND APPLICANT GROUPS

Although the capstone of employer branding is to promote an attractive as well as distinctive image of an organization as an employer, prior research typically focused only on the attractiveness side. On the basis of the instrumental-symbolic framework, this study conceptualizes the key attributes underlying employer image and investigates their attractiveness as well as distinctiveness across six industries and three applicant groups. In a large sample of $N = 7,171$, the same instrumental (job content, working conditions, and compensation) and symbolic (innovativeness, robustness, and competence) image attributes were consistently used in ascertaining organizations’ attractiveness as an employer across industries and applicant groups. Yet, we did observe significant differences across applicant groups and industries in people’s perceptions of how organizations scored on these factors. In light of these two main results, the image attributes that were associated with attractiveness were not necessarily the same as the image attributes that made organizations distinct from one another across and within industries. Implications of these results for image surveys and recruitment campaigns’ distinctiveness in an employer branding context are discussed.
INTRODUCTION

In recent years, employer branding has emerged as a popular approach for organizations interested in managing their image as an employer among external (applicants) and internal constituents (employees). Employer branding can be defined as promoting, both within and outside the organization, a clear view of what makes an organization different and desirable as an employer (Backhaus & Tikoo, 2004). Hence, in theories on employer branding it is emphasized that being an attractive employer alone is not sufficient because it is equally important to differentiate oneself from other organizations or to have some points-of-difference to become the employer of choice (Cable, 2007; Collins & Kanar, 2013; Edwards, 2010; Keller, 1998; Lievens & Highhouse, 2003; Martin, Gollan, & Grigg, 2011). So, the goal of employer branding is to promote not only an attractive but also a distinctive image through which potential applicants are persuaded to apply to the organization and current employees want to stay working for the organization (Backhaus & Tikoo, 2004; Collins & Kanar, 2013; Keller, 1998). This idea of companies seeking a value-creating strategy that is different from their competitors in order to gain a competitive advantage is similar to the fundamental principle behind the resource-based theory of the firm (Barney, 1991; Newbert, 2007).

So far, empirical research has focused mainly on the employer image attributes of organizations’ attractiveness as a place to work (Barber, 1998; Breaugh & Starke, 2000; Cable & Turban, 2001; Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Highhouse, Lievens, & Sinar, 2003; Jones & Willness, 2013; Ployhart, 2006). Little is known about whether these attributes also influence an organization’s distinctiveness as an employer (Collins & Kanar, 2013; Lievens & Highhouse, 2003). If research is available, the evidence is limited because it dealt with differentiation in only one specific industry (i.e., bank industry, see Lievens & Highhouse, 2003).

Therefore, this large-scale study aims to move the employer branding literature forward by simultaneously examining the underlying image attributes of both organizations’ attractiveness and distinctiveness as an employer across different industries and applicant groups. Accordingly, we aim to provide a more
comprehensive insight into the attractiveness \textit{and} distinctiveness of employer brands. The context of this study is a nationwide project aimed at identifying the best employer in Belgium. It includes 24 organizations from six industries and three applicant groups.

\textbf{Organizations’ Image as an Employer and Underlying Attributes}

In a marketing context, a brand can be defined as “a set of assets linked to a brand’s name or symbol that adds to the value provided by a product or service to that firm’s customers” (Aaker, 1996, p. 7-8). Keller (1998) identified two types of associations with brands: Points-of-parity and points-of-difference. Points-of-parity, are associations that are not unique to the brand and might be shared by some or all the competitors, as they mostly include the basic necessities for a brand to be considered in a particular category (Keller, 1998). In other words, they represent necessary, but not sufficient conditions to choose the brand. Therefore, once a brand has established its points-of-parity (i.e., to be considered in a specific brand category and negated its competitors’ advantage) the next step is to develop and highlight its own advantage in the brand category (i.e., points-of-difference). Points-of-difference are “associations that are unique to the brand and that are also strongly held and favorably evaluated by consumers” (Keller, 1998, p. 116). Moreover, consumers’ actual brand choices often depend on the brand’s perceived uniqueness. As such, strong, favorable, and unique associations with the brand provide the foundation for customer-based brand equity (Porter, 1985). If organizations are able to create brand equity, they can increase the likelihood that their products or services will be chosen over similar products or services (Aaker, 1996; Keller, 1998; Swystun, 2007).

As job seekers make similar choices and decisions as consumers in high-involvement situations with high-risk products, branding principles have been applied to recruitment (Backhaus & Tikoo, 2004; Cable & Turban, 2001; Collins & Han, 2004; Collins & Kanar, 2013; Collins & Stevens, 2002; Dineen & Soltis, 2011; Highhouse, Brooks, & Greguras, 2009; Lievens, 2007; Lievens & Highhouse, 2003). This has led to the emergence of employer branding (Ambler & Barrow, 1996; Backhaus & Tikoo, 2004; Edwards, 2010; Martin et al., 2011).
In employer branding, an organization’s image as an employer plays a critical role. An organization’s employer image can be defined as an individual’s bundle of perceptions of what is distinctive, central, and enduring about the organization as a place to work (Collins & Kanar, 2013; Lievens & Highhouse, 2003).

To conceptualize the main attributes underlying an organization’s image as an employer, Lievens and Highhouse (2003) relied on the instrumental-symbolic framework from social and consumer psychology (Katz, 1960; Keller, 1998). They posited that an organization’s image as an employer consists of both instrumental and symbolic attributes. Instrumental image attributes represent traditional job or organizational attributes that are inherent to the organization. These image attributes describe the organization in terms of objective, concrete, and factual attributes that an organization either has or does not have (Lievens, Van Hoye, & Anseel, 2007). Applicants are attracted to instrumental image attributes such as pay or advancement on the basis of their utilitarian need to maximize benefits and minimize costs (Katz, 1960). Prior recruitment research extensively studied these traditional job and organizational attributes and found evidence for their relationship with organizational attractiveness (Breaugh, 2013; Chapman et al., 2005; Turban, Forret, & Hendrickson, 1998; Turban & Keon, 1993; Uggerslev, Fassina, & Kraichy, 2012).

Conversely, the symbolic image attributes represent subjective, abstract, and intangible traits (e.g., sincerity and innovativeness) and are also referred to as personality trait inferences (Slaughter & Greguras, 2009; Slaughter et al., 2004). In other words, an organization’s image as an employer is also determined by the symbolic meanings that people associate with the organization and the inferences they make about their perceptions (Lievens & Highhouse, 2003). Applicants are attracted to, for example, prestigious organizations because it might enable them to maintain their self-identity, to enhance their self-image, or to express themselves (Aaker, 1996; Highhouse, Thornbury, & Little, 2007).

In general, the main findings of prior studies using the instrumental-symbolic framework can be summarized as follows. First, applicants’ perceptions of instrumental and symbolic image attributes are related to their attraction to organizations as an employer (Lievens & Highhouse, 2003; Van Hoye, Bas, Cromheecke, & Lievens, 2013) and their recommendation intentions (Lievens,
Van Hoye, & Schreurs, 2005; Van Hoye, 2008). Second, symbolic image attributes account for incremental variance beyond instrumental image attributes in predicting organizational attractiveness (Lievens & Highhouse, 2003; Van Hoye & Saks, 2011). Third, one study so far found that it is easier to differentiate among organizations (i.e., banks) on the basis of symbolic image attributes than on the basis of the instrumental image attributes (Lievens & Highhouse, 2003).

Thus, previous recruitment research has shown the importance of organizations’ image as an employer, operationalized in terms of the instrumental-symbolic framework, in relation to organizational attractiveness. In other words, the instrumental and symbolic image attributes can serve as points-of-parity, allowing organizations to be considered as an employer of choice. In addition, in one specific industry (i.e., the banking industry) there was evidence for the discriminative power of the symbolic image attributes but we do not know which image attributes may allow organizations to stand out from the crowd in other industries. Hence, there may be image attributes that are unique to an organization and serve as points-of-difference, allowing organizations to become the employer of choice. Furthermore, as previous studies mainly focused on one applicant group at a time and mostly used student samples, we do not know whether these findings also occur across broader applicant groups. In the next sections, we argue why the attractiveness of employer image attributes as well as their ability to differentiate might not be the same across industries and applicant groups and formulate our research questions.

**ATTRACTIVENESS AND DISTINCTIVENESS OF EMPLOYER IMAGE ATTRIBUTES ACROSS INDUSTRIES**

On the basis of the three-sector theory of economy, economies can be divided into three main sectors of activity each with different specific industries (see Table 1). First, the primary sector of the economy directly uses natural resources and includes agriculture, forestry, fishing, and extraction industries (Marelli, 2004). The secondary sector of the economy takes the output of the primary sector and produces a finished or usable product and includes economic industries such as production and manufacturing. This sector is an important source of well-paying jobs for the middle class, which facilitates greater social
mobility for successive generations (Marelli, 2007; Neven & Gouyette, 1995). Finally, the key characteristic of the tertiary sector relates to people offering their knowledge and time (also known as affective labor) to improve the productivity, performance, and sustainability of others. Examples of services include warehousing activities and financial businesses. The tertiary sector is now the largest sector of the economy in the Western world and is also the fastest-growing one (Dietrich, 2012).

Table 1
Overview of Industries

<table>
<thead>
<tr>
<th>Sector</th>
<th>Industrial classification</th>
<th>Description</th>
<th>Number of ratings per organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>1. Extraction</td>
<td>Extraction of minerals occurring naturally as solids (i.e., coal and ores), liquids (i.e., petroleum) or gases (i.e., natural gas), and supplementary activities aimed at preparing the crude materials for marketing which are often carried out by the units that extracted the resource and/or others located nearby.</td>
<td>1=376; 2=368; 3=323; 4=268</td>
</tr>
<tr>
<td>Secondary</td>
<td>2. Automotive</td>
<td>Manufacturing of motor vehicles and various parts and accessories for motor vehicles.</td>
<td>1=117; 2=97; 3=141; 4=155</td>
</tr>
<tr>
<td></td>
<td>3. Chemical</td>
<td>Transformation of organic and inorganic raw materials by a chemical process and the formation of products.</td>
<td>1=192; 2=178; 3=123; 4=131</td>
</tr>
<tr>
<td>Tertiary</td>
<td>4. Finance</td>
<td>Monetary intermediation, insurance, pension funding, and other financial services.</td>
<td>1=268; 2=269; 3=196; 4=143</td>
</tr>
<tr>
<td></td>
<td>5. Leisure</td>
<td>Recreational activities and activities of a wide range of units that operate facilities or provide services to meet the varied recreational interests (e.g., food and beverage, accommodation, and amusement) of people.</td>
<td>1=703; 2=782; 3=756; 4=583</td>
</tr>
<tr>
<td></td>
<td>6. Logistics</td>
<td>Warehousing and support activities for transportation, such as operating of transport infrastructure (e.g., airports, tunnels, bridges), and the activities of transport agencies and cargo handling.</td>
<td>1=501; 2=225; 3=140; 4=136</td>
</tr>
</tbody>
</table>

These sectors and industries do not only differ in terms of the type of activity, but also in productive structure, technical progress, employment structure,
use of human capital, and knowledge intensity. In addition, as economies continuously develop, sectors and industries’ contribution to economy can change over time (Ewing, Pitt, de Bussy, & Berthon, 2002; Marelli, 2004). According to the three-sector theory of economy, the main focus of an economy’s activity shifts from the primary, through the secondary, and finally to the tertiary sector (i.e., tertiarization). Tertiarization is essentially positive as it accompanies the increase in quality of life, social security, blossoming of education and culture, higher level of qualifications, humanization of work, and avoidance of unemployment (Dietrich, 2012; Marelli, 2004). Moreover, this process also involves considerable changes regarding the employment structure. As the employment structure influences the demand and supply of workforces, this process of tertiarization also influences the labor market. Specifically, the primary (e.g., extraction industry) and secondary (e.g., automotive and chemical industries) sectors are increasingly dominated by automation, and so the demand for workforce decreases in these sectors. It is replaced by the growing demands of the highly competitive knowledge based tertiary sector (e.g., finance industry, leisure industry, and logistics industry) (Dineen & Williamson, 2012; Ewing et al., 2002; Marelli, 2007).

As this process of tertiarization further evolves, it might be that, across and within industries, this process not only influences the labor market structure but also the image dimensions that potential applicants associate with organizations’ attractiveness and distinctiveness. This may result in differences across industries with regard to (1) the image attributes that determine applicants’ organizational attractiveness perceptions and (2) the extent to which these image attributes have the ability to differentiate between industries and organizations. Therefore, we formulate the following research questions:

**Research Question 1:** Do the direction and the strength of the relationships of instrumental and symbolic image attributes with organizational attractiveness differ across industries?

**Research Question 2:** Which of the instrumental and symbolic image attributes differentiate organizations from each other across and within industries?
ATTRACTIVENESS AND DISTINCTIVENESS OF EMPLOYER IMAGE
ATTRIBUTES ACROSS APPLICANT GROUPS

Boswell, Zimmerman, and Swider (2012) identified three different populations of job seekers or applicants (i.e., new entrants, unemployed job seekers, and employed job seekers). Although each group works towards a common goal (i.e., pursuing employment), they act out of different personal and situational values (e.g., employment commitment), motives (e.g., to work for a prestigious organization), and needs (e.g., to earn money) (Kanfer, Wanberg, & Kantrowitz, 2001). To date, only a few studies have simultaneously explored employer brand beliefs of different groups of applicants (i.e., Lievens, 2007; Lievens & Highhouse, 2003; Lievens et al., 2007). This is unfortunate because a successful employer branding strategy necessitates insight in the employer image attributes that these different groups value. Specifically, what may be necessary attributes to be attractive (i.e., points-of-parity) and finally choose the organization as an employer (i.e., points-of-difference) may vary across applicant groups ranging from new entrants to unemployed and employed job seekers (Boswell et al., 2012; Lievens & Highhouse, 2003; Van Hoye & Saks, 2008).

New Entrants

The first group, new entrants, includes people who are looking for their first job after a period of education. This first experience of searching for and ultimately finding a job will color new entrants’ future perceptions of employability, labor market conditions, and the challenges that accompany the job search process (Barber, 1998; Boswell et al., 2012; Kanfer, et al. 2001). Despite the considerable importance of the search process for new entrants’ future careers, prior research showed that new entrants are not familiar with the labor market’s complex environment (Turban, Stevens, & Lee, 2009). Organizations respond to this lack of knowledge by actively distributing information on campus (e.g., sponsoring classrooms and equipment and hosting social activities on campus) to influence new entrants’ job searches, to pull them into positions, and to become an employer of choice (Barber, 1998; Collins & Stevens, 2002). This general information will typically be more trait-like (e.g., sponsoring smart boards may reflect an organization’s innovativeness) instead of factual. Specifically,
Barber (1998) stated that: “Advertisements, postings, and other initial recruitment contacts often provide very little information, so applicants may rely on general impressions of the organization in lieu of more specific knowledge” (p. 34). As such these general impressions, often in the form of symbolic trait inferences, may affect new entrants’ overall perceptions of organizations’ attractiveness and distinctiveness (Lievens, 2007).

Unemployed Job Seekers

A second group of applicants in recruitment research consists of unemployed job seekers (Boswell et al., 2012). Unemployed job seekers are people who have recently lost their job and actively search to find reemployment. As unemployed job seekers do not have the income of employed job seekers, their financial need is often argued to be the primary motivator of job search (Blau, 1994; Boswell et al., 2012; Kanfer et al., 2001). However, this is only one side of the coin because situational and individual factors may play an important role for unemployed job seekers as compared to other types of job seekers. Specifically, losing a job has a negative impact on people’s self-image (Audhoe, Hoving, Sluiter, & Frings-Dressen, 2010; Blau, 1994; Boyce, Wood, Daly, & Sedikides, 2015). Thus, as unemployed job seekers are driven by financial and psychological needs in their search for new employment, organizations that possess favorable instrumental (e.g., salary) and symbolic (e.g., prestige) image attributes might stand out from their competitors and become more attractive for unemployed job seekers (Boswell et al., 2012).

Employed Job Seekers

Third, contrary to the groups discussed above that are searching for employment, employed job seekers are looking for alternative job opportunities. Partially due to this key difference, employed job seekers’ search processes and motives are quite distinct from those of new entrants and unemployed job seekers. The general motive that drives employed job seekers is dissatisfaction with their present employment situation leading to withdrawal cognitions, a search for and evaluation of alternatives, and ultimately a decision to quit or stay (Blau, 1994; Kanfer et al., 2001). When job search has the purpose of changing jobs, this is referred to as the separation-seeking objective (Boswell, Boudreau, & Dunford, 2004; Van Hoye & Saks, 2008). However, employed job seekers’ search for new
job opportunities does not always lead to turnover. The leverage-seeking search objective postulates that employed job seekers can also search for the purpose of obtaining leverage against one’s current employer. Independent of their search objective, employed job seekers’ search for greener pastures mainly focusses on instrumental image attributes (Van Hoye & Saks, 2008).

It seems that these three distinct groups of applicants differ in their perceptions of an organization’s image and attractiveness as an employer. These differences may hold important consequences for organizations during recruitment. Specifically, if organizations want to attract one specific group of applicants (i.e., targeted recruitment), they need to know (1) which organizational image attributes attract this group of applicants and (2) how this applicant group’s perceptions of organizational image attributes differ from other groups of applicants. Therefore, we formulate the following research questions:

**Research Question 3:** Do the direction and the strength of the relationships of instrumental and symbolic image attributes with organizational attractiveness differ across applicant groups?

**Research Question 4:** Which of the instrumental and symbolic image attributes differentiate between applicant groups?

**METHOD**

**Sample and Procedure**

Each year, a well-known global HR-consultancy company identifies the most attractive employers in 23 different countries on the basis of potential applicants’ perceptions of organizations’ employer image attributes. Private organizations that employed over 1,000 employees in the country of interest are automatically included in this top employer competition.

In this study, we focused on data from this competition. From September until November 2013, an external market research agency sent e-mails to approximately 15,000 Belgian residents, between 18 and 64 years old and active in the labor market, inviting them to participate in the study. Participation was anonymous and voluntary and no incentives were provided. When someone
agreed to participate, they could click on a link to start the questionnaire. The questionnaire then listed 30 randomly selected organizations and participants had to select the organizations they were familiar with. Next, participants were asked to rate these organizations’ attractiveness as a place to work. Subsequently, participants were asked to indicate the extent to which instrumental and symbolic image attributes were descriptive of these organizations. Every participant rated a minimum of one and a maximum of seven organizations. However, to avoid spill-over effects only participants’ ratings of the first organization they were familiar with, were used in this study.

Via the coordinators of this nationwide project we received data on organizations’ image as an employer from a sub-sample of 24 organizations from three sectors and six different industries. Note that Belgium can be situated in a tertiary civilization with workforce quotas of 23% for the primary sector, 26% for the secondary sector, and 51% for the tertiary sector (Eurostat, 2015; Hollanders & ter Weel, 2002; Marelli, 2004, 2007). Proportionate with these workforce quotas, the six industries in this study are distributed as follows across these sectors: One industry in the primary sector, two industries in the secondary sector, and three industries in the tertiary sector. Specifically, these industries were: Extraction, Automotive, Chemical, Finance, Leisure, and Logistics (Table 1).

The sample included responses from 7,171 participants. About half (52.3%) of the participants were female and the mean age was 36.7 years ($SD = 12.09$). Of the participants, 39% indicated they had followed high school education and 61% of the respondents were higher educated. In our sample of participants, 17% were new entrants (61% female; $M_{age} = 22.5$ years, $SD = 2.91$; 74% higher educated), 12% were unemployed job seekers (55% female; $M_{age} = 35.8$ years, $SD = 12.4$; 40% higher educated), and 71% were employed job seekers (50% female; $M_{age} = 39.3$ years, $SD = 10.99$; 61% higher educated). Our sample reflects fairly well the composition of the Belgian population at the moment of surveying: 51% women; mean age = 41.1 years; 70% higher educated; 20% new entrants, 9% unemployed job seekers, and 71% employed job seekers (Eurostat, 2015).

**Measures**

Unless stated otherwise, items were rated on a 5-point Likert scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*. As in this survey most
participants rated more than one organization and to ensure that each organization received a sufficient amount of ratings, the survey had to be limited in length. Due to these space limitations we were able to include only one item for each instrumental image attribute and an organization’s perceived attractiveness as an employer (see Highhouse, Zickar, Thorsteinson, Stierwalt, & Slaughter (1999) and Cable & Yu (1996) for some evidence supporting the validity of using one item scales for measuring employer image attributes and attractiveness). As the symbolic image attributes are measured with single adjectives it was possible to include multiple items for each symbolic image attribute.

**Instrumental image attributes.** On the basis of previous research and meta-analyses (e.g., Chapman et al., 2005; Lievens & Highhouse, 2003; Uggerslev et al., 2012; Van Hoye et al., 2013) and in close consultation with the project leaders of the best employer competition, we identified seven relevant instrumental image attributes: Compensation (i.e., “offers a competitive compensation package [salary, fringe benefits]”), job security (i.e., “offers long-term job security”), training and development (i.e., “offers high-quality training and development opportunities”), advancement (i.e., “offers opportunities for career advancement”), work-life balance (i.e., “enables employees to create a good balance between work and private life”), working conditions (i.e., “offers a pleasant working environment”), and job content (i.e., “offers interesting work”). Potential applicants were asked to rate the extent to which they agreed that organizations possessed each of these seven image attributes.

**Symbolic image attributes.** Symbolic image attributes were measured with the scale of Lievens and Highhouse (2003). They adapted Aaker’s (1996) brand personality scale and found that five distinct factors can be used to describe the personality traits that people associate with organizations as an employer: Sincerity (e.g., “honest”, 3 items, $\alpha = .85$), innovativeness (e.g., “daring”, 3 items, $\alpha = .88$), competence (e.g., “intelligent”, 3 items, $\alpha = .84$), prestige (e.g., “prestigious”, 3 items, $\alpha = .88$), and robustness (e.g., “strong”, 3 items, $\alpha = .76$). Respondents were asked to indicate the extent to which they agreed that these traits were descriptive of the organization as an employer. A confirmatory factor analysis conducted with Mplus 7.31 using maximum likelihood estimation indicated that the five-factor model acceptably fitted the data, $\chi^2(80;7,171) =$
4,040.85, \( p < .001; \) RMSEA = .08; CFI = .95; SRMR = .04. Thus, in the following we used the sum scores of each symbolic attribute.

In addition, we conducted some additional CFA’s to investigate the structure of our data. First, we combined the seven instrumental image attributes and the five symbolic image attributes into a 1-factor model. This 1-factor model produced a poor fit to the data, \( \chi^2(209;7,171) = 25,650.84, p < .001; \) RMSEA = .13; CFI = .79; SRMR = .07. Next, we tested our proposed 12-factor model (i.e., seven instrumental image attributes and five symbolic image attributes), the results confirmed that this model produced a good fit to the data, \( \chi^2(150;7,171) = 4,499.96, p < .001; \) RMSEA = .06; CFI = .96; SRMR = .03.

**Organizational attractiveness.** An organization’s perceived attractiveness as an employer was measured with the item: “This organization is attractive to me as a place for employment” (Highhouse et al., 2003; Turban & Keon, 1993).

**Analyses**

We conducted a series of model invariance tests using Mplus 7.31, to investigate our research questions (Cheung, 1999; Vandenbega & Lance, 2000). Specifically, we specified nested models (i.e., on the basis of our 12-factor model) organized in a hierarchical order and added parameter constraints one at a time (i.e., subsequent models had decreasing numbers of free parameters or increasing degrees of freedom). This entails that each subsequent model contained additional equality constraints or became more invariant. As each additional model is nested in the previous model, invariant models became increasingly more restrictive. These increasingly restrictive models were then tested by comparing the fit and parsimony of the nested model with the fit and parsimony of the model in which it was nested. Specifically, with decreasing numbers of free parameters (increasing degrees of freedom) the model chi-square (\( \chi^2 \)) will worsen and the goodness-of-fit indices that account for parsimony (i.e., BIC and AIC) can either improve (i.e., decrease) or worsen (i.e., increase). On the basis of these different fit and parsimony indices the constraints were either accepted (i.e., the parameters do not differ across industries or applicant groups) or rejected (i.e., the parameters in question differed across industries or applicant groups) (Cheung & Rensvold, 2012; Steenkamp & Baumgartner, 1998).
Regression weights invariance. We specified models with equality constraints on the regression weights to investigate whether the direction and the strength of the relationships between instrumental and symbolic image attributes on the one hand and organizational attractiveness on the other hand differ across industries (i.e., Research Question 1) and across applicant groups (i.e., Research Question 3). An overview and description of these different models can be found in the first parts of Table 3 and Table 7.

Means invariance. Two sets of models were used to investigate which instrumental and symbolic image attributes differentiate organizations across and within industries (i.e., Research Question 2) and between applicant groups (i.e., Research Question 4). An overview and description of these different models can be found in the second parts of Table 3 and Table 7. First, we used the same models as described above but with equality constraints on the means of the image attributes. Furthermore, for the analyses related to industries (see second part of Table 3), we defined three additional, less constrained, organizational level models (Models B1, B2’, and B3’) to get a more detailed picture of the similarities or differences in the means of the instrumental and symbolic image attributes across organizations (Cheung & Rensvold, 2002; Ployhart & Oswald, 2004; Steinmetz, 2013; Vandenberg & Lance, 2000). Second, we compared a baseline model (i.e., Model B1 or Model F1) and invariant models of each specific image attribute (i.e., mean of one instrumental or symbolic image attribute is equivalent) to further investigate which image attribute differentiated (see Table 5, 6, 8 and 9). Finally, we also calculated the average fit increase for the seven instrumental image attributes (i.e., sum up the AIC and BIC values and divide by seven) and the five symbolic image attributes (i.e., sum up the AIC and BIC values and divide by five) (Cheung, 1999; Cheung & Rensvold, 2002; Steinmetz, 2013; Vandenberg & Lance, 2000).

To evaluate and compare the different models, we reported a selection of goodness-of-fit indices suggested in the literature (Byrne, 2012; Cheung & Rensvold, 2002; Hu & Bentler, 1998): Model chi-square ($\chi^2$); Chi-square difference test ($\Delta \chi^2(df)$); Akaike’s Information Criterion (AIC); Bayes Information Criterion (BIC); Root Mean Square Error of Approximation (RMSEA); and Comparative Fit Index (CFI). Although we reported several
goodness-of-fit indices for our model comparisons, we focused on the chi-square difference tests to evaluate model fit and on the information criteria \( AIC \) and \( BIC \) to compare model fit and parsimony (Cheung & Rensvold, 2002). Given the large sample size we used a more conservative \( \alpha < .001 \) as significance level.

**RESULTS**

Table 2 presents the descriptive statistics and correlations of the study variables.

### Industries

**Regression weights invariance.** To test whether the instrumental and symbolic image attributes are differently related to organizations’ attractiveness across industries (i.e., Research Question 1) we compared different nested models. The model goodness-of-fit indices are summarized in Table 3. Model A1 was used as a starting point for the nested model tests. The chi-square difference tests (i.e., non-significant) and information criteria (i.e., they are lower) indicate that Model A3, in which neither the instrumental nor the symbolic image attributes are differently related to organizations’ attractiveness across industries best fitted the data. Hence, the fit indices indicate that the same key image attributes seem to predict attractiveness, regardless of the industry in which organizations are active. We investigated the regression weights to ascertain which image attributes are related to organizations’ attractiveness (Table 4). Job content \((\beta = .311, p < .001)\) had the strongest positive relationship with organizations’ attractiveness. Regarding the other instrumental image attributes working conditions \((\beta = .118, p < .001)\) and compensation \((\beta = .072, p < .001)\) were also positively associated with organizational attractiveness. Furthermore, there were two symbolic image attributes that were positively related to organizations’ attractiveness: Innovativeness \((\beta = .188, p < .001)\) and competence \((\beta = .093, p < .001)\). Finally, the symbolic image attribute robustness \((\beta = -.096, p < .001)\) was negatively associated with organizations’ attractiveness across industries.
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<td>16.Advancement</td>
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<tr>
<td>17.Work-life balance</td>
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<td>-.01</td>
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<td>21.Innovativeness</td>
<td>2.85</td>
<td>0.94</td>
<td>-.01</td>
<td>-.08</td>
<td>-.04</td>
<td>-.02</td>
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<tr>
<td>22.Competence</td>
<td>3.14</td>
<td>0.87</td>
<td>-.01</td>
<td>-.03</td>
<td>-.03</td>
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<td>23.Prestige</td>
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<td>-.04</td>
<td>.00</td>
<td>.07</td>
<td>-.05</td>
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<td>.69</td>
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<tr>
<td>24.Robustness</td>
<td>3.07</td>
<td>0.86</td>
<td>-.03</td>
<td>-.06</td>
<td>-.01</td>
<td>-.03</td>
<td>.06</td>
<td>-.02</td>
<td>.17</td>
<td>.13</td>
<td>.08</td>
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<td>.63</td>
<td>.70</td>
<td>.72</td>
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<tr>
<td>25.Attractiveness</td>
<td>2.87</td>
<td>1.21</td>
<td>-.02</td>
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<td>.00</td>
<td>.02</td>
<td>.05</td>
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<td>.42</td>
<td>.47</td>
<td>.46</td>
<td>.46</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. * 0 = male, 1 = female; 0 = high school, 1 = higher education. Three dummy variables were created for the applicant groups. Six dummy variables were created for the industries. Underlined correlations are significant at p < .10, correlations in italics are significant at p < .05, correlations in bold are significant at p < .001.

Table 2: Means, Standard Deviations, and Correlations Among Study Variables
Table 3

**Goodness-of-Fit Indices for the Models Invariance Tests Across Industries**

<table>
<thead>
<tr>
<th>Model</th>
<th>Instrumental</th>
<th>Symbolic</th>
<th>Interpretation</th>
<th>$\chi^2$ (df)</th>
<th>$\Delta\chi^2$ (df)</th>
<th>AIC</th>
<th>BIC</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Variant</td>
<td>Variant</td>
<td>I and S are differentially related to attractiveness across industries.</td>
<td>0 (0)</td>
<td>/</td>
<td>19,814.73</td>
<td>20,392.47</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td>A2</td>
<td>Variant</td>
<td>Industry invariant</td>
<td>I not S are differentially related to attractiveness across industries.</td>
<td>43.41* (25)</td>
<td>43.41* (25)</td>
<td>19,808.15</td>
<td>20,213.94</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>A2'</td>
<td>Industry invariant</td>
<td>Variant</td>
<td>S not I are differentially related to attractiveness across industries.</td>
<td>32.08 (35)</td>
<td>32.08 (35)</td>
<td>19,776.81</td>
<td>20,113.83</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td>A3</td>
<td>Industry invariant</td>
<td>Industry invariant</td>
<td>Neither I nor S are differentially related to attractiveness across industries.</td>
<td>78.28 (60)</td>
<td>78.28 (60)</td>
<td>19,773.01</td>
<td>19,938.08</td>
<td>.02</td>
<td>0.99</td>
</tr>
</tbody>
</table>

RQ 1: Do the direction and the strength of the relationships of I and S with organizational attractiveness differ across industries?

Equality constraints on regression weights.

<table>
<thead>
<tr>
<th>Model</th>
<th>Instrumental</th>
<th>Symbolic</th>
<th>Interpretation</th>
<th>$\chi^2$ (df)</th>
<th>$\Delta\chi^2$ (df)</th>
<th>AIC</th>
<th>BIC</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Variant</td>
<td>Variant</td>
<td>I and S differentiate between organizations.</td>
<td>348.17** (276)</td>
<td>/</td>
<td>183,969.77</td>
<td>199,238.48</td>
<td>.02</td>
<td>0.97</td>
</tr>
<tr>
<td>B2</td>
<td>Variant</td>
<td>Industry invariant</td>
<td>I differentiate between organizations, S differentiate between industries.</td>
<td>1,455.26*** (366)</td>
<td>1,107.09*** (90)</td>
<td>184,896.86</td>
<td>199,546.57</td>
<td>.10</td>
<td>0.61</td>
</tr>
<tr>
<td>B2'</td>
<td>Variant</td>
<td>Invariant</td>
<td>I differentiate between organizations, S differentiate neither across industries nor between organizations.</td>
<td>2,611.58*** (391)</td>
<td>2,263.41*** (115)</td>
<td>186,003.18</td>
<td>200,480.95</td>
<td>.14</td>
<td>0.21</td>
</tr>
<tr>
<td>B3</td>
<td>Industry invariant</td>
<td>Variant</td>
<td>S differentiate between organizations, I differentiate between industries.</td>
<td>1,580.39*** (402)</td>
<td>1,232.22*** (126)</td>
<td>184,949.99</td>
<td>199,352.10</td>
<td>.10</td>
<td>0.58</td>
</tr>
<tr>
<td>B3'</td>
<td>Invariant</td>
<td>Variant</td>
<td>S differentiate between organizations, I differentiate neither across industries nor between organizations.</td>
<td>2,507.48*** (437)</td>
<td>2,159.31*** (161)</td>
<td>185,807.08</td>
<td>199,968.47</td>
<td>.13</td>
<td>0.27</td>
</tr>
<tr>
<td>B4</td>
<td>Industry invariant</td>
<td>Industry invariant</td>
<td>I and S differentiate between industries.</td>
<td>2,066.15*** (492)</td>
<td>1,717.98*** (216)</td>
<td>185,255.75</td>
<td>199,038.86</td>
<td>.10</td>
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</tr>
<tr>
<td>B5</td>
<td>Invariant</td>
<td>Invariant</td>
<td>Neither S nor I differentiate across industries and between organizations.</td>
<td>3,776.37*** (552)</td>
<td>3,428.20*** (276)</td>
<td>186,845.97</td>
<td>200,216.41</td>
<td>.14</td>
<td>0.00</td>
</tr>
</tbody>
</table>

RQ 2: Which of the I and S differentiate organizations from each other across and within industries?

Equality constraints on means.

*Note. RQ = Research Question. I = Instrumental image attributes. S = Symbolic image attributes. $\chi^2$ (df) = Model chi-square. $\Delta\chi^2$ (df) = Chi-square difference test. AIC = Akaike’s Information Criterion. BIC = Bayes Information Criterion. RMSEA = Root Mean Square Error of Approximation. CFI = Comparative Fit Index. df = Degrees of freedom. * $p < .05$. ** $p < .01$. *** $p < .001$. 


Table 4
Regression Weights for the Invariant Industry and Applicant Pool Models

<table>
<thead>
<tr>
<th>Variable</th>
<th>Industries</th>
<th>Applicant groups</th>
</tr>
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<tbody>
<tr>
<td>Instrumental image attributes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compensation</td>
<td>.072***</td>
<td>.067***</td>
</tr>
<tr>
<td>Job security</td>
<td>.050**</td>
<td>.043*</td>
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<tr>
<td>Training and development</td>
<td>-.003</td>
<td>.002</td>
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<tr>
<td>Advancement</td>
<td>.046*</td>
<td>.044*</td>
</tr>
<tr>
<td>Work-life balance</td>
<td>.025</td>
<td>.009</td>
</tr>
<tr>
<td>Working conditions</td>
<td>.118***</td>
<td>.117***</td>
</tr>
<tr>
<td>Job content</td>
<td>.311***</td>
<td>.324***</td>
</tr>
<tr>
<td>Symbolic image attributes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sincerity</td>
<td>.028</td>
<td>.037</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>.188***</td>
<td>.204***</td>
</tr>
<tr>
<td>Competence</td>
<td>.093***</td>
<td>.097***</td>
</tr>
<tr>
<td>Prestige</td>
<td>.061*</td>
<td>.050*</td>
</tr>
<tr>
<td>Robustness</td>
<td>-.096***</td>
<td>-.103***</td>
</tr>
</tbody>
</table>

Note. As we firstly aggregated the means at the industry level and secondly at the applicant group level, the beta-values are different. * $p < .05$. ** $p < .01$. *** $p < .001$. 
Means invariance. We used two sets of models to investigate which image attributes contributed to differentiating an organization from its competitors across and within industries (i.e., Research Question 2). As shown by Table 3 the baseline model B1 (i.e., significant chi-square difference tests and lowest \( AIC \) and \( BIC \) values), in which the instrumental and symbolic image attributes differentiate between organizations, best fitted the data as compared to the other models.

Furthermore, to evaluate which image attributes contributed the most to the differentiation between organizations we defined different nested models and compared the goodness-of-fit indices of the constrained and unconstrained models. The models for the separate instrumental image attributes are shown in Table 5. Table 6 shows the results for the separate symbolic image attributes. With respect to the instrumental image attributes, the fit discrepancies indicate that job content followed by compensation, training and development, and advancement may allow organizations to differentiate themselves from one another. The following symbolic image attributes differentiate the most between organizations: Robustness, innovativeness, and prestige. When comparing the relative fit discrepancies, the instrumental image attributes seem to be somewhat more important for differentiation (\( \Delta AIC = 580.09; \Delta BIC = 421.91 \)) than the symbolic image attributes (\( \Delta AIC = 496.91; \Delta BIC = 338.73 \)). Hence, the instrumental image attributes appear to be the most important attributes that may allow organizations to differentiate from their competitors across and within industries.
### Table 5
Goodness-of-Fit Indices for the Instrumental Image Attributes’ Nested Models of the Means Invariance Analyses Across Industries

<table>
<thead>
<tr>
<th>Model</th>
<th>(\chi^2 (df))</th>
<th>AIC</th>
<th>BIC</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model B1: Baseline model(^a)</td>
<td>348.17(^*) (276)</td>
<td>183,969.77</td>
<td>199,238.48</td>
<td>.02</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td></td>
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</tr>
<tr>
<td>Model C1: Means are invariant</td>
<td>1,246.28(^***)(299)</td>
<td>184,821.88</td>
<td>199,932.41</td>
<td>.10</td>
<td>0.66</td>
</tr>
<tr>
<td>Comparison: Model C1 vs. Model B1</td>
<td>898.11(^***)(23)</td>
<td>852.11</td>
<td>693.93</td>
<td>.08</td>
<td>-0.31</td>
</tr>
<tr>
<td><strong>Job security</strong></td>
<td></td>
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</tr>
<tr>
<td>Model C2: Means are invariant</td>
<td>709.94(^***)(299)</td>
<td>184,285.54</td>
<td>199,396.07</td>
<td>.07</td>
<td>0.85</td>
</tr>
<tr>
<td>Comparison: Model C2 vs. Model B1</td>
<td>361.77(^***)(23)</td>
<td>315.77</td>
<td>157.58</td>
<td>.05</td>
<td>-0.12</td>
</tr>
<tr>
<td><strong>Training and development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model C3: Means are invariant</td>
<td>1,111.57(^***)(299)</td>
<td>184,687.17</td>
<td>199,797.69</td>
<td>.10</td>
<td>0.71</td>
</tr>
<tr>
<td>Comparison: Model C3 vs. Model B1</td>
<td>763.40(^***)(23)</td>
<td>717.40</td>
<td>559.21</td>
<td>.08</td>
<td>-0.26</td>
</tr>
<tr>
<td><strong>Advancement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model C4: Means are invariant</td>
<td>1,044.13(^***)(299)</td>
<td>184,619.73</td>
<td>199,730.26</td>
<td>.09</td>
<td>0.74</td>
</tr>
<tr>
<td>Comparison: Model C4 vs. Model B1</td>
<td>695.96(^***)(23)</td>
<td>649.96</td>
<td>491.78</td>
<td>.07</td>
<td>-0.23</td>
</tr>
<tr>
<td><strong>Work-life balance</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Model C5: Means are invariant</td>
<td>627.33(^***)(299)</td>
<td>184,202.92</td>
<td>199,313.45</td>
<td>.06</td>
<td>0.88</td>
</tr>
<tr>
<td>Comparison: Model C5 vs. Model B1</td>
<td>279.16(^***)(23)</td>
<td>233.15</td>
<td>74.97</td>
<td>.04</td>
<td>-0.09</td>
</tr>
<tr>
<td><strong>Working conditions</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Model C6: Means are invariant</td>
<td>730.96(^***)(299)</td>
<td>184,306.56</td>
<td>199,417.08</td>
<td>.07</td>
<td>0.85</td>
</tr>
<tr>
<td>Comparison: Model C6 vs. Model B1</td>
<td>382.79(^***)(23)</td>
<td>336.79</td>
<td>178.60</td>
<td>.05</td>
<td>-0.12</td>
</tr>
<tr>
<td><strong>Job content</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model C7: Means are invariant</td>
<td>1,349.62(^***)(299)</td>
<td>184,925.22</td>
<td>200,035.75</td>
<td>.11</td>
<td>0.63</td>
</tr>
<tr>
<td>Comparison: Model C7 vs. Model B1</td>
<td>1,001.45(^***)(23)</td>
<td>955.45</td>
<td>797.27</td>
<td>.09</td>
<td>-0.34</td>
</tr>
</tbody>
</table>

\(^a\) Means in this model are organization specific. \(\chi^2(df)\) = Model chi-square. AIC = Akaike’s Information Criterion. BIC = Bayes Information Criterion. RMSEA = Root Mean Square Error of Approximation. CFI = Comparative Fit Index. df = Degrees of freedom. \(^*\) p < .05. \(^**\) p < .01. \(^***\) p < .001.

\(\chi^2\) = Model chi-square. AIC = Akaike’s Information Criterion. BIC = Bayes Information Criterion. RMSEA = Root Mean Square Error of Approximation. CFI = Comparative Fit Index. df = Degrees of freedom. \(^*\) p < .05. \(^**\) p < .01. \(^***\) p < .001.
Table 6
Goodness-of-Fit Indices for the Symbolic Image Attributes’ Nested Models of the Means Invariance Analyses Across Industries

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2 (df)$</th>
<th>AIC</th>
<th>BIC</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model B1: Baseline model*a</td>
<td>348.17** (276)</td>
<td>183,969.77</td>
<td>199,238.48</td>
<td>.02</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Sincerity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model D1: Means are invariant</td>
<td>586.40*** (299)</td>
<td>184,162.00</td>
<td>199,272.52</td>
<td>.06</td>
<td>0.90</td>
</tr>
<tr>
<td>Comparison: Model D1 vs. Model B1</td>
<td>238.23***(23)</td>
<td>192.23</td>
<td>34.04</td>
<td>.04</td>
<td>-0.07</td>
</tr>
<tr>
<td><strong>Innovativeness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model D2: Means are invariant</td>
<td>1,025.02*** (299)</td>
<td>184,600.62</td>
<td>199,711.14</td>
<td>.10</td>
<td>0.75</td>
</tr>
<tr>
<td>Comparison: Model D2 vs. Model B1</td>
<td>676.85***(23)</td>
<td>630.85</td>
<td>472.66</td>
<td>.08</td>
<td>-0.22</td>
</tr>
<tr>
<td><strong>Competence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model D3: Means are invariant</td>
<td>786.96***(299)</td>
<td>184,362.56</td>
<td>199,473.09</td>
<td>.07</td>
<td>0.83</td>
</tr>
<tr>
<td>Comparison: Model D3 vs. Model B1</td>
<td>438.79***(23)</td>
<td>392.79</td>
<td>234.61</td>
<td>.05</td>
<td>-0.14</td>
</tr>
<tr>
<td><strong>Prestige</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model D4: Means are invariant</td>
<td>973.81***(299)</td>
<td>184,549.41</td>
<td>199,659.93</td>
<td>.09</td>
<td>0.76</td>
</tr>
<tr>
<td>Comparison: Model D4 vs. Model B1</td>
<td>625.64***(23)</td>
<td>579.64</td>
<td>421.45</td>
<td>.07</td>
<td>-0.21</td>
</tr>
<tr>
<td><strong>Robustness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model D5: Means are invariant</td>
<td>1,083.23***(299)</td>
<td>184,658.83</td>
<td>199,769.35</td>
<td>.09</td>
<td>0.72</td>
</tr>
<tr>
<td>Comparison: Model D5 vs. Model B1</td>
<td>735.06***(23)</td>
<td>689.06</td>
<td>530.87</td>
<td>.07</td>
<td>-0.25</td>
</tr>
</tbody>
</table>

Note. * Means in this model are organization specific. $\chi^2(df)$ = Model chi-square. AIC = Akaike’s Information Criterion. BIC = Bayes Information Criterion. RMSEA = Root Mean Square Error of Approximation. CFI = Comparative Fit Index. df = Degrees of freedom. * $p < .05$. ** $p < .01$. *** $p < .001$. 
Applicant Groups

**Regression weights invariance.** To investigate whether the instrumental and symbolic image attributes are differentially related to organizations’ attractiveness across applicant groups (i.e., Research Question 3) we compared four different models (Table 7). Model E1 was used as the baseline model. Our results indicate that Model E3, in which neither the instrumental nor the symbolic image attributes are differentially related to attractiveness across applicant groups, best fitted the data (i.e., non-significant chi-square difference tests and lowest BIC value). Thus, our results show that the same key image attributes seem to predict attractiveness, regardless of the applicant group an organization targets. Table 4 shows the regression weights across applicant groups. In line with the results across industries, job content ($\beta = 0.324$, $p < .001$), working conditions ($\beta = 0.117$, $p < .001$), and compensation ($\beta = 0.067$, $p < .001$) were positively associated with applicants’ perceptions of organizational attractiveness. In addition, the following symbolic image attributes were related to organizational attractiveness across applicant groups: Innovativeness, ($\beta = 0.204$, $p < .001$), competence ($\beta = 0.097$, $p < .001$), and robustness ($\beta = -0.103$, $p < .001$).

**Means invariance.** Research Question 4 questioned whether the instrumental and symbolic image attributes differentiate between applicant groups. Therefore, we specified nested models in which the means of the image attributes became more constrained one at a time. The goodness-of-fit indices (i.e., significant chi-square difference tests and lowest AIC value) in Table 7 show that the baseline Model F1, in which the instrumental and symbolic image attributes differentiate between applicant groups, acceptably fitted the data as compared to the invariant models.

Table 8 shows that work-life balance followed by job security and working conditions were the instrumental image attributes on which applicant groups’ perceptions differed the most. Regarding the symbolic image attributes (Table 9), applicant perceptions differed the most on prestige, robustness, and competence. When comparing the relative values of the $\Delta AIC$ and $\Delta BIC$, applicant groups differed more in their perceptions of symbolic image attributes ($\Delta AIC = 17.64$; $\Delta BIC = 3.90$) than instrumental image attributes ($\Delta AIC = 16.50$; $\Delta BIC = 2.75$).
### Table 7

*Goodness-of-Fit Indices for the Models Invariance Tests Across Applicant Groups*

<table>
<thead>
<tr>
<th>Model</th>
<th>Instrumental</th>
<th>Symbolic</th>
<th>Interpretation</th>
<th>$\chi^2 (df)$</th>
<th>$\Delta \chi^2 (df)$</th>
<th>$AIC$</th>
<th>$BIC$</th>
<th>$RMSEA$</th>
<th>$CFI$</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>Variant</td>
<td>Variant</td>
<td>I and S are differentially related to attractiveness across applicant groups.</td>
<td>0(0)</td>
<td>/</td>
<td>19,783.67</td>
<td>20,072.54</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td>E2</td>
<td>Variant</td>
<td>Applicant group invariant</td>
<td>I not S are differentially related to attractiveness across applicant groups.</td>
<td>15.16** (10)</td>
<td>15.16** (10)</td>
<td>19,778.84</td>
<td>19,998.93</td>
<td>.02</td>
<td>1.00</td>
</tr>
<tr>
<td>E2'</td>
<td>Applicant group invariant</td>
<td>Variant</td>
<td>S not I are differentially related to attractiveness across applicant groups.</td>
<td>34.76*** (14)</td>
<td>34.76*** (14)</td>
<td>19,790.44</td>
<td>19,983.02</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>E3</td>
<td>Invariant</td>
<td>Invariant</td>
<td>Neither I nor S are differentially related to attractiveness across applicant groups.</td>
<td>44.68*** (24)</td>
<td>44.68*** (24)</td>
<td>19,780.35</td>
<td>19,904.15</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>F1</td>
<td>Variant</td>
<td>Variant</td>
<td>I and S differentiate between applicant groups.</td>
<td>44.68*** (24)</td>
<td>/</td>
<td>188,767.23</td>
<td>190,748.04</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>F2</td>
<td>Variant</td>
<td>Applicant group invariant</td>
<td>I not S differentiate across applicant groups.</td>
<td>97.28*** (34)</td>
<td>52.60*** (10)</td>
<td>188,799.84</td>
<td>190,711.86</td>
<td>.03</td>
<td>0.98</td>
</tr>
<tr>
<td>F2'</td>
<td>Applicant group invariant</td>
<td>Variant</td>
<td>S not I differentiate across applicant groups.</td>
<td>134.51*** (38)</td>
<td>89.83*** (14)</td>
<td>188,829.07</td>
<td>190,713.58</td>
<td>.03</td>
<td>0.97</td>
</tr>
<tr>
<td>F3</td>
<td>Invariant</td>
<td>Invariant</td>
<td>Neither I nor S differentiate across applicant groups.</td>
<td>171.98*** (48)</td>
<td>127.30*** (24)</td>
<td>188,846.53</td>
<td>190,662.27</td>
<td>.03</td>
<td>0.96</td>
</tr>
</tbody>
</table>

**RQ 1:** Do the direction and the strength of the relationships of I and S with organizational attractiveness differ across applicant groups?

Equality constraints on regression weights.

**RQ 2:** Which of the I and S differentiate between applicant groups?

Equality constraints on means.

---

*Note.* RQ = Research Question. I = Instrumental image attributes. S = Symbolic image attributes. $\chi^2 (df)$ = Model chi-square. $\Delta \chi^2 (df)$ = Chi-square difference test. $AIC$ = Akaike’s Information Criterion. $BIC$ = Bayes Information Criterion. $RMSEA$ = Root Mean Square Error of Approximation. $CFI$ = Comparative Fit Index. $df$ = Degrees of freedom. * $p < .05$. ** $p < .01$. *** $p < .001$. 
Table 8
Goodness-of-Fit Indices for the Instrumental Image Attributes’ Nested Models of the Means Invariance Analyses Across Applicant Groups

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ (df)</th>
<th>AIC</th>
<th>BIC</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model F1: Baseline model*</td>
<td>44.68*** (24)</td>
<td>188,767.23</td>
<td>190,748.04</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G1: Means are invariant</td>
<td>53.96*** (26)</td>
<td>188,772.52</td>
<td>190,739.57</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model G1 vs. Model F1</td>
<td>9.29*** (2)</td>
<td>5.29</td>
<td>-8.47</td>
<td>.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Job security</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G2: Means are invariant</td>
<td>68.36*** (26)</td>
<td>188,786.91</td>
<td>190,753.97</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model G2 vs. Model F1</td>
<td>23.68*** (2)</td>
<td>19.68</td>
<td>5.93</td>
<td>.01</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Training and development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G3: Means are invariant</td>
<td>54.85*** (26)</td>
<td>188,773.40</td>
<td>190,740.45</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model G3 vs. Model F1</td>
<td>10.17*** (2)</td>
<td>6.17</td>
<td>-7.59</td>
<td>.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Advancement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G4: Means are invariant</td>
<td>54.62*** (26)</td>
<td>188,773.18</td>
<td>190,740.23</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model G4 vs. Model F1</td>
<td>9.95*** (2)</td>
<td>5.95</td>
<td>-7.81</td>
<td>.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Work-life balance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G5: Means are invariant</td>
<td>109.63*** (26)</td>
<td>188,828.19</td>
<td>190,795.24</td>
<td>.04</td>
<td>0.98</td>
</tr>
<tr>
<td>Comparison: Model G5 vs. Model F1</td>
<td>64.96*** (2)</td>
<td>60.96</td>
<td>47.20</td>
<td>.02</td>
<td>-0.01</td>
</tr>
<tr>
<td><strong>Working conditions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G6: Means are invariant</td>
<td>67.62*** (26)</td>
<td>188,786.18</td>
<td>190,753.23</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model G6 vs. Model F1</td>
<td>22.95*** (2)</td>
<td>18.95</td>
<td>5.19</td>
<td>.01</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Job content</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model G7: Means are invariant</td>
<td>47.20*** (26)</td>
<td>188,765.76</td>
<td>190,732.81</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model G7 vs. Model F1</td>
<td>2.53*** (2)</td>
<td>-1.47</td>
<td>-15.23</td>
<td>.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Note. * Means in this model are applicant group specific. $\chi^2$(df) = Model chi-square. AIC = Akaike’s Information Criterion. BIC = Bayes Information Criterion. RMSEA = Root Mean Square Error of Approximation. CFI = Comparative Fit Index. df = Degrees of freedom. * $p < .05$. ** $p < .01$. *** $p < .001$. 
Table 9  
*Goodness-of-Fit Indices for the Symbolic Image Attributes’ Nested Models of the Means Invariance Analyses Across Applicant Groups*

<table>
<thead>
<tr>
<th>Model</th>
<th>χ² (df)</th>
<th>AIC</th>
<th>BIC</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model F1: Baseline model&lt;sup&gt;a&lt;/sup&gt;</td>
<td>44.68*** (24)</td>
<td>188.767.23</td>
<td>190.748.04</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td><strong>Sincerity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model H1: Means are invariant</td>
<td>61.89*** (26)</td>
<td>188.780.45</td>
<td>190.747.50</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model H1 vs. Model F1</td>
<td>17.22*** (2)</td>
<td>13.20</td>
<td>-0.54</td>
<td>.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Innovativeness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model H2: Means are invariant</td>
<td>56.52*** (26)</td>
<td>188.775.08</td>
<td>190.742.13</td>
<td>.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model H2 vs. Model F1</td>
<td>11.84*** (2)</td>
<td>7.80</td>
<td>-5.91</td>
<td>.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Competence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model H3: Means are invariant</td>
<td>67.79*** (26)</td>
<td>188.786.34</td>
<td>190.753.39</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model H3 vs. Model F1</td>
<td>23.11*** (2)</td>
<td>19.10</td>
<td>5.35</td>
<td>.01</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Prestige</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model H4: Means are invariant</td>
<td>74.24*** (26)</td>
<td>188.792.79</td>
<td>190.759.85</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model H4 vs. Model F1</td>
<td>29.56*** (2)</td>
<td>25.56</td>
<td>11.81</td>
<td>.01</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Robustness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model H5: Means are invariant</td>
<td>71.24*** (26)</td>
<td>188.789.79</td>
<td>190.756.85</td>
<td>.03</td>
<td>0.99</td>
</tr>
<tr>
<td>Comparison: Model H5 vs. Model F1</td>
<td>26.56*** (2)</td>
<td>22.56</td>
<td>8.81</td>
<td>.01</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Note.* *Means in this model are applicant group specific. χ²(df) = Model chi-square. AIC = Akaike’s Information Criterion. BIC = Bayes Information Criterion. RMSEA = Root Mean Square Error of Approximation. CFI = Comparative Fit Index. df = Degrees of freedom. * p < .05. ** p < .01. *** p < .001.
DISCUSSION

The capstone of employer branding consists of promoting an attractive as well as distinctive image of an organization as a place to work vis-à-vis competitors. However, prior research mainly focused on the determinants of organizations’ attractiveness as an employer and ignored whether the instrumental and symbolic image attributes associated with employers’ image differentiate organizations from the crowd. To the best of our knowledge, this study was the first to provide a large-scale test of this key assumption underlying employer branding. To this end, we relied on the instrumental-symbolic framework for simultaneously investigating perceptions of organizations’ image, attractiveness, and distinctiveness as an employer across six industries and three applicant groups. This study yields several important findings that enhance our knowledge of organizations’ image as an employer.

First, we found evidence that across industries and applicant groups the same set of instrumental and symbolic image attributes are used by people to ascertain whether an organization is attractive. Specifically, across industries and applicant groups, organizations were seen as more attractive when they were perceived as offering interesting work, a pleasant working environment, a competitive compensation package, and as being innovative, competent, and not robust. Regarding the instrumental image attributes our results show that, although the most important image attribute is intrinsic in nature (i.e., job content), applicants are also attracted to organizations with favorable extrinsic (i.e., compensation and working conditions) image attributes. These results are in line with previous studies indicating that perceptions of job content, working conditions, and compensation are positively related to job and organizational attractiveness (Chapman et al., 2005; Lievens, 2007; Lievens & Highhouse, 2003; Lievens et al., 2007; Van Hoye et al., 2013). Furthermore, in line with prior research, our results indicate that symbolic image attributes are not always positively related to organizations’ attractiveness. Specifically, although innovativeness and competence were positively associated with organizations’ attractiveness, robustness was negatively related to an organization’s attractiveness as an employer (Lievens et al., 2007; Lievens, 2007). It is important
to state that this study was the first to find evidence for these relationships across different settings. So, despite noticeable differences between industries (i.e., labor market structure) and applicant groups (i.e., search process) the importance of these image attributes in organizations’ attractiveness is relatively invariant. In other words, these image attributes may serve as points-of-parity across industries and applicant groups (Keller, 1998).

It is important to consider this first key conclusion in tandem with our second one. That is, although the same factors were used in ascertaining organizational attractiveness across industries and applicant groups, this does not imply that in the minds of applicants organizations significantly differ on these attributes. Indeed, all our latent mean models favored industry-specific and applicant group-specific solutions. We further discovered that despite particular image attributes being related to the attractiveness of organizations as a place to work, these image attributes were not necessarily useful for discriminating (i.e., points-of-difference) organizations from others. For instance, a pleasant working environment and competence were generally perceived as attractive image attributes across and within industries but they discriminated less between organizations. Furthermore, the opportunity for training and development and the provision of advancement opportunities, discriminated between organizations but were not seen as attractive. Compensation, job content, robustness, and innovativeness were the only attributes that were related to organizations’ attractiveness as an employer and differentiated between organizations across and within industries. So this study provided concrete insight into the image attributes that organizations can use to be attractive and differentiate themselves from their competitors across and within industries.

Third, when comparing which image attributes differentiated the most between organizations, perceptions of instrumental image attributes discriminated more than symbolic image attributes. This is not in line with previous findings in the banking industry (e.g., Lievens & Highhouse, 2003). An explanation may be the fact that we used six different industries instead of one industry. Specifically, across industries these instrumental image attributes may be good discriminators because there are larger and more pronounced differences on these image attributes across than within industries (Dietrich, 2012; Ewing et al., 2002;
Marelli, 2002). For example, the chemical industry is in general known for their better compensation packages as compared to other industries which makes them an attractive industry and allows them to differentiate from other industries (Grund, 2015).

Fourth, our results indicate that perceptions of the instrumental and symbolic image attributes also differed across applicant groups. So, insight into the perceived differences in instrumental and symbolic image attributes may not only allow organizations to stand out from their competitors across and within industries but may also help them attracting specific groups of applicants (Lievens, 2007; Lievens & Highhouse, 2003; Van Hoye et al., 2013). Working conditions, robustness, and competence were related to organizations’ attractiveness and applicant groups’ perceptions of these image attributes differed. Generally, perceptions of the symbolic image attributes differed the most between applicant groups. The differences in perceptions can be understood on the basis of the job search process (Barber, 1998; Blau, 1994; Boswell et al., 2012). Specifically, due to differences in experience, needs, and motives between applicant groups, their perceptions of image attributes may differ (Barber, 1998; Blau, 1994; Boswell et al., 2004; Turban et al., 2009; Van Hoye & Saks, 2008). As such, some applicants may perceive some image attributes higher and others may perceive some image attributes lower than the actual employer brand. Hence, explicitly promoting their actual image attributes during recruitment campaigns may allow organizations to align applicants’ perceptions with their real employer brand.

**Limitations**

In terms of limitations, we acknowledge that our sample consisted of only private organizations. Therefore, we encourage future research to examine whether our findings generalize to public organizations. In addition, as image and attractiveness perceptions were measured at the same point in time, it is possible that the results in this study are due in part to common method variance. Furthermore, given the cross-sectional nature of the data we cannot rule out the possibility of reverse causality. Specifically, participants who rated the organization as more (or less) attractive might have rated all of the image attributes higher (or lower) even if they do not have accurate information on which
to build their perceptions (Lievens, 2007). However, we tried to minimize this effect by having participants rate organizations that they were familiar with and by using only their first rating in our analyses. Our approach is consistent with previous research that examined employer image perceptions as a precursor of organizational attraction and not vice versa (Chapman et al., 2005; Harold, Uggerslev, & Kraichy, 2013; Uggerslev et al., 2012). Nonetheless, it would be useful for future research to apply a longitudinal design. This would provide insight into the causal relationships between employer image and organizations’ attractiveness and distinctiveness as an employer and the dynamic nature of these relationships because applicants’ personal and situational goals, motives, and needs might change as they move through job search contexts (Boswell et al., 2012; Harold & Ployhart, 2008; Kanfer et al., 2001). Finally, as most participants rated more than one organization and to ensure that each organization received a sufficient amount of ratings, the survey used was limited in length. Due to these space limitations we could include only one item per instrumental image attribute and organizational attractiveness.

Implications for Future Research and Practice

As attractiveness and distinctiveness of employer brands are crucial in employer branding, we advocate that more studies in the recruitment field include both of them as important outcomes in their future studies (Backhaus & Tikoo, 2004; Lievens & Highhouse, 2003; Martin et al., 2011). This large-scale study can serve as a first step in providing both researchers and practitioners with a more comprehensive insight into the attractiveness and distinctiveness of instrumental and symbolic image attributes.

A second area of research is to investigate the influence of individual differences as moderators of the relationships between instrumental and symbolic image attributes and organizations’ attractiveness and distinctiveness as an employer (Judge & Cable, 1997; Slaughter & Greguras, 2009). In this study, we did not account for these personal differences. However, individuals’ personal traits and values may moderate the relationships between their perceptions of the image attributes and the attractiveness and distinctiveness of organizations as an employer. Furthermore, in this study we assumed that the different applicant groups act out of different personal and situational values, motives, and needs.
(Boswell et al., 2012; Kanfer et al., 2001). However, this assumption was not tested. Therefore, future studies should examine the influence of personal and situational variables on the relationships of instrumental and symbolic image attributes with organizations’ attractiveness and distinctiveness as an employer.

This study has also several implications for practice. As noted above, our results indicate that the specific image attributes that people use in ascertaining organizations’ attractiveness as an employer are generalizable across industries and applicant groups. That is, across industries and applicant groups compensation, working conditions, job content, innovativeness, competence, and robustness are the key predictors of organizational attractiveness. This result has two important implications. First, it suggests that best employer competitions should at the very least include these factors in their yearly surveys. Second, organizations benefit from including information on these image attributes in their recruitment materials.

Moreover, our study alerts practitioners that just being an attractive employer is not enough to differentiate oneself from other organizations. Organizations should be aware that what is related to organizations’ attractiveness may not always allow them to stand out from their competitors in the labor market. Thus, there might be some overlapping image attributes (i.e., points-of-parity) in the employer images, but if in the end they are not distinct from each other (i.e., points-of-difference), then the employer images do not have any differentiating value or effect on the external (applicants) and internal constituents (employees). This implies that organizations should ascertain not only how they score in attractiveness but also in terms of distinctiveness. It is key to take both aspects into account in image surveys.

Finally, as there were also noticeable differences between the perceptions of the different applicant groups, organizations might highlight different attributes depending on these groups to ameliorate their perceptions about the employment experience. For example, organizations that want to attract new entrants might benefit from not only hosting social activities on campus but also from actively highlighting information about their working conditions.
Conclusion

This large-scale study on the attractiveness and distinctiveness of instrumental and symbolic image attributes indicates that attractiveness alone is not enough to stand out from the crowd. Hence, we encourage organizations to promote, both within and outside the organization, an attractive and distinctive image through which applicants are persuaded to apply to the organization.
REFERENCES


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CHAPTER 3

THE RELATIONSHIPS BETWEEN MULTIPLE ORGANIZATIONAL IMAGES AND ORGANIZATIONS’ ATTRACTIVENESS: DOES AN UMBRELLA PERSPECTIVE MAKE SENSE?

In the first recruitment phase job seekers have only rudimentary knowledge of what it is like to work at a particular organization. Therefore, this study applied multiple image management perspectives from marketing literature to recruitment research to investigate the relationships between different organizational images and organizations’ attractiveness. In different samples involving actual organizations we investigated apart from an organizations’ employer image (i.e., instrumental and symbolic images) the relationships of organizations’ product image, corporate social performance image (i.e., social involvement and pro-environmental images), and financial performance image with organizational attractiveness. We found that social involvement image and the instrumental and symbolic employer images were positively related to organizations’ attractiveness. Moreover, employer image explained significant incremental variance over and above the other organizational images. Relative importance analysis showed that employer image, social involvement image, and product image substantially contributed to the variance in organizational attractiveness, whereas pro-environmental and financial performance images did not. Implications of the results for multiple image management in a recruitment context are discussed.
INTRODUCTION

Prior recruitment research has extensively studied the relationship between an organization’s image as an employer and job seekers’ attractiveness perceptions in the first recruitment phase (Chapman, Uggerslev, Carroll, & Piasentin, 2005; Uggerslev, Fassina, & Kraichy, 2012). However, as the first recruitment phase is characterized by little interpersonal contact between the different parties, job seekers have only rudimentary knowledge of what it is like to work at a particular organization (Barber, 1998). Therefore, organizations should be aware that job seekers may develop positive or negative perceptions of organizations’ attractiveness based on their exposure to different practices and messages organizations communicate (Collins & Stevens, 2002; Jones & Willness, 2013). Indeed, evidence from marketing research indicates that, especially in the absence of complete information, multiple organizational images influence people’s perceptions (Aaker, 1996; Ambler et al., 2002; Rao, Agarwal, & Dahlhoff, 2004). So, in a recruitment context it might be important to know whether and how multiple organizational images are related to organizations’ attractiveness and as such influence organizations’ abilities to recruit and retain talented employees (Backhaus & Tikoo, 2004; Highhouse, Thornbury, & Little, 2007; Jones & Willness, 2013). For instance, apart from organizations’ image as an employer, job seekers perceptions of product and/or service quality or poor corporate social performance may also influence organizations’ attractiveness. Moreover, when multiple organizational images are related to organizations’ attractiveness, this might have important implications for organizations’ image management efforts.

Hence, to address some important unanswered questions with respect to multiple organizational images in a recruitment context, this study investigates (1) how four well-known organizational images that have typically been studied apart from each other (i.e., apart from employer image, product image, corporate social performance image, and financial performance image were included) relate to organizations’ attractiveness, (2) the relative importance of each organizational image in predicting attraction, and (3) possible interactions between employer image and the organizational images. As such, we aim to provide both researchers
and practitioners with a more comprehensive picture of the relationships between organizational images and organizations’ attractiveness and multiple image management in a recruitment context. Our data were collected from different samples to avoid common method variance and involved actual organizations.

**Multiple Organizational Images**

Organizational image can be defined as “people’s loose structures of knowledge and beliefs about an organization” (Lievens, 2006, p. 568). It represents the cognitive reactions to and associations with an organization’s name held by the organization’s stakeholders including job seekers, customers, investors, and employees. These reactions and associations result from stakeholders’ evaluations of an organization’s practices relating to specific activities and are influenced by news stories, people’s and societies’ opinions, and communication on the part of the organization (Fombrun, 1996; Lievens, 2006; Jones & Willness, 2013). By creating positive associations through appropriate communication and advertising strategies (i.e., image management; Aaker, 1996; Keller, 1998; Swystun, 2007) organizations can establish strong relationships with their different stakeholders.

**Umbrella Branding Perspective**

Marketing literature suggest that these relationships may not be that straightforward. In particular, Wernerfelt, (1988) suggests that people use their experience with one organizational brand as a signal for the quality of another organizational brand. The transferability of associations from one brand to another is reflected in the umbrella branding marketing perspective, involving the use of one single brand for the sale of two or more related products. In other words, people’s experiences with one product are expected to affect their quality perceptions of new products that share the same brand name (Aaker & Erich, 2000; Wernerfelt, 1988). This seems to be especially true in situations where people do not have sufficient information to make a good judgement of the new product. As such, people’s perceptions and even their subsequent buying behaviors are influenced by multiple products of the organization (Aaker, 1996; Erdem, 1998; Wernerfelt, 1988). Hence, organizations benefit from advertising efficiencies since umbrella branding focuses on the promotion of a single brand rather than
multiple ones (Aaker & Keller, 1990). For example, The Coca-Cola Company adds new products to their line (e.g., Coca-Cola, Diet Coke, Cherry Coke, Vanilla Coke, Coca-Cola Zero and Coca-Cola Life) and benefits from past marketing, because customers use previous information to make an inference about a product with the same brand name.

Still, this is only one side of the equation with regard to the transferability of associations. Specifically, some organizations deliberately use individual brand names to market products, in order to avoid the transferability of associations (Aaker & Keller, 1990). As such organizations can focus on specific niche markets without the risk that possible negative image spillovers occur. Moreover, for consumers it is more difficult to make associations between the corporate brand name and the specific product brands (Aaker, 1996; Aaker & Erich, 2000; Rao et al., 2004). For instance, in the last years different media published about the forest destruction of Procter & Gamble. Although these environmental scandals cast a slur on Procter & Gamble’s corporate image, consumers do not directly link these scandals to the products they use (e.g., Braun, Gillette, Swiffer, Vicks).

Applied to a recruitment context, this means that organizations’ image management efforts to communicate, differentiate, and enhance organizational images other than their image as an employer may also relate to organizations’ attractiveness (Ambler et al., 2002; Foster, Punjairsri, & Cheng, 2010; Gatewood, Gowan, & Lautenschlager, 1993; Kim, Jeon, Jung, Lu, & Jones, 2012; Jones & Willness, 2013). For instance, a negative product image may also be related to perceptions of organizations’ attractiveness as an employer (Barber, 1998; Lemmink, Schuijf, & Streukens, 2003). Moreover, this may be especially true during the first recruitment phase when job seekers have limited information about the organization as an employer. Although such spill-over effects between multiple organizational images may influence organizations’ abilities to recruit and retain talented employees (Highhouse et al., 2007; Rao et al., 2004; Wilden, Gudergan, & Lings, 2010), prior recruitment research tended to focus on one of these organizational images at a time. However, there were some attempts to incorporate sub-dimensions of multiple organizational images into one overall organizational image assessment. For instance, Turban and Greening (1997)
developed an overall corporate social performance scale that included product quality and employee relations as sub-dimensions. In a similar vein, Highhouse, Zickar, Thorsteinson, Stierwalt, and Slaughter (1999) included product quality as an employer image dimension. Nevertheless, to date, we know of only one unpublished study that explicitly explored how the effects of multiple organizational images on people’s attractiveness perceptions relate and compare with each other. In a policy-capturing study Dineen and Wu (2014) found that employer image, product image, and corporate social performance image of fictitious organizations were related to their attractiveness as an employer. Although Dineen and Wu’s (2014) study was innovative, it also had a number of limitations: (1) the researchers used a fictitious organization, (2) the sample consisted of students, and (3) a potential key image, namely financial performance image, was not included.

Hence, although prior research provided preliminary evidence, further research is needed that applies a multiple image management perspective to recruitment and employer branding research. First, from a conceptual point of view it is important to know whether and how multiple organizational images are related to job seekers’ perceptions of organizations’ attractiveness. Specifically, when apart from organizations’ image as an employer other organizational images are related to organizations’ attractiveness, it seems necessary and pivotal to align organizations’ image management efforts. Moreover, from a practical point of view, this might imply that, during image management and recruitment practices, organizations should take more organizational images (i.e., multiple image management) into account than solely their image as an employer (i.e., employer image management). Thus, when multiple organizational images are related to organizations’ attractiveness this might have important implications for organizations’ image management efforts and the effectiveness of their recruitment processes.

Therefore, this study will investigate the relationships between existing organizations’ images and their attractiveness as an employer. Specifically, on the basis of prior research (e.g., Brooks & Highhouse, 2006; Fombrun, 1996; Highhouse, Brooks, & Greguras, 2009; Jones & Willness, 2013) we identified four organizational images that may be relevant in recruitment contexts: (1)
financial performance image, (2) product image, (3) corporate social performance image, and (4) employer image. We will discuss each of the organizational images and their expected relationships with organizations’ attractiveness in detail below.

Product Image

Kotler (1997) defined product image as “a seller’s promise to consistently deliver a specific set of features, benefits, and services to buyers” (p. 443). Marketing literature indicates that the beliefs people hold about the organization as a provider of goods and services determine whether products and/or services will be purchased, generate positive or negative reactions towards the organization, create points of differentiation, and reasons to choose the brand over its competitors (Aaker, 1996; Keller, 1998; Rao et al., 2004). Applied to a recruitment context, a favorable product image may increase job seekers’ familiarity with the organization and may be related to the formation of positive perceptions of organizational attractiveness (Barber, 1998; Cable & Turban, 2001; Collins & Han, 2004; Collins & Stevens, 2002; Lemmink et al., 2003). For instance, prior recruitment research found evidence for the role of product familiarity (i.e., “the extent to which job seekers are likely to be familiar with the company’s products or services through either direct exposure or advertising efforts”, Collins, 2007, p. 181), in influencing job seekers’ application behaviors (Cable & Turban, 2001). Specifically, organizations with familiar products and/or services were seen in a more positive light than unfamiliar organizations (Barber, 1998; Gatewood et al., 1993).

Thus, people may begin to develop perceptions of organizations’ attractiveness as an employer through direct exposure to organizations’ products and/or services (Barber, 1998; Kim et al., 2012; Rao et al., 2004) or through exposure to organizations’ product advertising (Cable, Aiman-Smith, Mulvey, & Edwards, 2000). Specifically, prior research in the service sector found that consumers made inferences about how employees are treated and which behaviors the organization rewards, supports, and expects on the basis of how they were treated by the employees (Mosley, 2007, 2014; Schneider, 1987; Schneider & Bowen, 1993). For example, the perception that banks are overly competitive working environments might result from consumers who experienced several bank clerks as unfriendly and forceful salesmen. Thus, we expect that people are
likely to transfer their perceptions of organizations’ products and/or services to other organizational activities (e.g., employment experience) and that as such an organization’s product image might also be related to organizations’ attractiveness as an employer:

*Hypothesis 1: Product image will be positively related to organizations’ attractiveness.*

**Corporate Social Performance Image**

Corporate social performance (CSP) image can be defined as people’s perceptions of “the organization’s commitment to principles, policies, and practices relating to its social responsibilities and relationships with stakeholders” (Jones, Willness, & Madey, 2014, p. 383). As CSP image concerns the perceptions of an organization’s community involvement and its concern for the environment, it is different from an organization’s employer and product image (Highhouse et al., 2009; Orlitzky, Schmidt, & Rynes, 2003). Moreover, prior research suggests that an organization’s CSP image might influence perceptions of organizational attractiveness (Backhaus, Stone, & Heiner, 2002; Greening & Turban, 2000; Turban & Greening, 1997). Turban and Greening (1997) were one of the first to investigate the effect of CSP image in a recruitment context. These authors found that ratings of CSP image were related to organizations’ attractiveness, suggesting that organizations’ CSP image may provide a competitive advantage in attracting applicants.

This study will focus on both social involvement image and pro-environmental image because researchers have conceptualized social involvement and pro-environmental practices as the core business activities of CSP image (Backhaus et al., 2002; Jones et al., 2014). Furthermore, social involvement and pro-environmental practices have been found to have positive effects on organizational outcomes. Specifically, prior research suggested that organizations who are trying to positively influence their community and try to reduce their impact on the environment might be perceived as more attractive employers (Jones et al., 2014; Mosley, 2014; Orlitzky et al., 2003; Turban & Greening, 1997). Jones et al. (2014) suggested that job seekers receive signals
from an organization’s CSP image that inform three signal-based mechanisms that ultimately affect organizational attractiveness. Indeed, they found support for job seekers’ anticipated pride from being affiliated with the organization, their perceived value fit with the organization, and their favorable expectations about how the organization treats its employees as signal-based mechanisms. Moreover, in the absence of information that clearly differentiates organizations as an employer, job seekers might give more consideration to the available CSP image information that they might have otherwise largely ignored (Jones et al., 2014). Therefore we expect that, in addition to the other organizational images, CSP image will be positively related to organizations’ attractiveness as an employer because people expect to experience positive outcomes from being employed by an organization that engages in more socially and environmentally responsible actions.

*Hypothesis 2a: Social involvement image will be positively related to organizations’ attractiveness.*

*Hypothesis 2b: Pro-environmental image will be positively related to organizations’ attractiveness.*

**Financial Performance Image**

Prior research indicates that potential applicants perceive award-winning organizations or organizations that are highly ranked in “great place to work” rankings, as more attractive employers. As such, being perceived as a great place to work might create a competitive advantage for organizations during recruitment (Fulmer, Gerhart, & Scott, 2003; Joo & Mclean, 2006; Love & Sing, 2011; Wayne & Casper, 2012). However, prior research has questioned the theoretical underpinnings of these rankings (Highhouse et al., 2009). Specifically, Fryxell and Wang (1994) examined the structure of the “Fortune Most Admired Companies” survey. They found that, despite the breadth of dimensions, its usefulness is limited to measuring the extent to which a firm is perceived as striving for financial goals. This observation is also called the financial performance “halo effect” and seems to dominate “great place to work” rankings. As a result, it might be the perceived financial performance of an organization
that influences people’s perceptions of organizational attractiveness (Cable & Graham, 2003; Highhouse et al., 2009; Orlitzky et al., 2003). As a consequence, to have a comprehensive picture of the determinants of people’s attractiveness perceptions, their perceptions of organizations’ financial performance image should be taken into account.

Financial performance image can be defined as people’s perceptions of an organization’s financial viability and stability, or the extent to which an organization’s financial performance is excellent (Fombrun & Shanley, 1990; Highhouse, et al., 2009; Orlitzky et al., 2003). As financial stable organizations are more able to develop unique strategies compared to their competitors, these organizations generally provide better products and/or services and better fulfill the needs of customers and employees. In other words, superior financial performance indicates an organization’s dominance, prestige, and ability to treat its employees well (Carvalho & Areal, 2015; Flanagan & O’Shaughnessy, 2005; Lease, Musgrove, & Axelrod, 2002; Mosley, 2014). Thus, financially stable organizations are able to distinguish themselves from competitors, attract more attention, and in the end become more attractive for job seekers (Carvalho & Areal, 2015; de Waal, 2007; Orlitzky et al., 2003). Therefore, we expect that financial performance image will be positively associated with an organization’s attractiveness as an employer because people will expect to experience positive outcomes from being employed by an organization with a viable and stable financial performance image.

**Hypothesis 3:** Financial performance image will be positively related to organizations’ attractiveness.

**Employer Image**

An organization’s employer image can be defined as “an amalgamation of transient mental representations of specific aspects of a company as an employer as hold by individual constituents” (Lievens & Slaughter, 2015, p. 5). Lievens and Highhouse (2003) relied on the instrumental-symbolic framework from social and consumer psychology (Katz, 1960; Keller, 1998) to conceptualize the main attributes underlying an organization’s image as an employer. They posited that
an organization’s image as an employer consists of both an instrumental and a symbolic image. The instrumental image refers to objective, concrete, and factual attributes that an organization either has or does not have (Lievens, 2007; Lievens, Van Hoye, & Anseel, 2007). Applicants are attracted to this instrumental image on the basis of their utilitarian need to maximize benefits and minimize costs (Katz, 1960).

Conversely, the symbolic image represents subjective, abstract, and intangible traits and are also referred to as personality trait inferences (Slaughter & Greguras, 2009; Slaughter, Zickar, Highhouse, & Mohr, 2004). In other words, an organization’s employer image is also determined by the symbolic meanings that people associate with the organization and the inferences they make about their perceptions (Lievens & Highhouse, 2003). These personality trait inferences are related to people’s social identity and refer to their need to enhance their self-image and to express themselves in the broader social context (Aaker, 1996; Highhouse et al., 2007). Prior recruitment research studied people’s perceptions of instrumental (Breaugh, 2013; Chapman et al., 2005; Turban & Keon, 1993; Uggerslev et al., 2012) and symbolic employer images (Lievens & Highhouse, 2003; Van Hoye, Bas, Cromheecke, & Lievens, 2013) and found evidence for their relationships with organizational attractiveness. We expect that, even when the relationships between other organizational images and organizational attractiveness are taken into account, instrumental and symbolic employer images will still be positively related to organizations’ attractiveness as an employer:

Hypothesis 4a: Organizations’ employer image will explain incremental variance over and above organizations’ product image, corporate social performance image, and financial performance image in explaining organizations’ attractiveness.

Hypothesis 4b: Instrumental employer image will be positively related to organizations’ attractiveness.

Hypothesis 4c: Symbolic employer image will be positively related to organizations’ attractiveness.
Relative Importance of Organizational Images

As already mentioned, we postulate that, in a recruitment context, multiple images might simultaneously influence organizations’ attractiveness as an employer (Foster et al., 2010; Highhouse et al., 2009; Jones & Willness, 2013; Kim et al., 2012; Wilden et al., 2010). However, it may be that the relationships between some of the organizational images and organizational attractiveness are stronger than others, or that the impact of a particular image is reduced when the other images are taken into account. Therefore, we examine the relative importance of organizational images’ employer, product, CSP, and financial performance image in determining people’s attractiveness perceptions. Although we expect that employer image may be most important, we do not have firm expectations about the relative importance of the other organizational images. Hence, we formulate the following research question:

*Research Question 1: What is the relative importance of product image, corporate social performance image, financial performance image, and employer image in explaining organizations’ attractiveness?*

Interactions Between Organizational Images

Apart from an organization’s image as an employer, the other organizational images might simultaneously influence organizations’ attractiveness (Foster et al., 2010; Highhouse et al., 2009; Jones & Willness, 2013; Kim et al., 2012; Wilden et al., 2010). Thus, it is also worthwhile to investigate possible interactions between employer image and the other organizational images (Dineen & Wu, 2014). Specifically, people’s perceptions of one organizational image might strengthen or weaken the relationship between an organization’s employer image and organizational attractiveness (Ambler et al., 2002; Foster et al., 2010; Kim et al., 2012; Rao et al., 2001). For example, when an organization has already established a favorable employer image and receives some media attention for its efforts in trying to reduce its impact on the environment (e.g., a new office building that allows a considerable reduction in the eco “footprint”), this concern for the environment (i.e., pro-environmental image) might strengthen the relationship between the organization’s image as an
employer and the organization’s attractiveness. Hence, we explore the effects of employer image combined with the other organizational images:

*Research Question 2: How does employer image interact with product image, corporate social performance image, and financial performance image?*

**METHOD**

**Sample and Procedure**

We collected data from two different samples that we split up into seven separate sub-samples in total, in order to measure each organizational image (component) as well as overall attractiveness as an employer in a different group of people. This allowed us to overcome possible common method bias associated with single-source data (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

To collect data on people’s perceptions of organizations’ image as an employer and their attractiveness, an external market research agency sent e-mails to Belgian residents, between 18 and 64 years old, inviting them to participate in a top employer competition. Participation was anonymous, voluntary, and no incentives were provided. When someone agreed to participate they could click on a link to start the questionnaire. The questionnaire started with a list of 30 randomly selected organizations and participants had to select the organizations they were familiar with. Next, participants were asked to rate organizations’ attractiveness as a place to work. Subsequently, participants were asked to indicate whether the instrumental and symbolic employer images were descriptive of these organizations. We received data on organizations’ image as an employer from a sub-sample of 50 organizations and 11,031 individual participants. About half (50.6%) of the participants were female and the mean age was 40.5 years ($SD = 13.9$). Of the participants, 42.6% indicated they had followed high school education and 57.4% of the respondents obtained a university degree. Professional status was distributed as follows: 59.2% were working, 9.6% were unemployed job seekers, 3.8% were housekeepers, 9.9% were early retirees, 12.1% were students, and 5.4% selected other. As every participant rated a minimum of one
and a maximum of ten organizations, we obtained a total of 26,956 different ratings of organizations’ image as an employer and their attractiveness. From this first sample, three random subsamples were subtracted, as we will discuss later.

We collected data about organizations’ product, CSP, and financial performance images using an online questionnaire from a global panel provider who charges a fixed fee per completed questionnaire, sampling people aged between 25 and 56 years. As a first step, participants were presented with a weighted random subsample (i.e., weights were assigned based on the first sample, such that well-known organizations were under-sampled and relatively unknown organizations were over-sampled) of 15 organizations. For each of the organizations, participants indicated their familiarity with the organization. In subsequent pages of the questionnaire, participants answered questions about the organizations they knew well, rating their product image, CSP image (i.e., social involvement and pro-environmental images), and financial performance image. Of the participants \((N = 774)\) 53.0% were women, mean age was 41.2 years \((SD = 9.1)\), 45.0% obtained a university degree, and professional status was distributed as follows: 76.0% working, 7.7% unemployed job seeker, 5.7% housekeeper, 1.8% early retiree, 1.2% student, and 7.6% other. Four random subsamples were subtracted from this second sample, as detailed below.

### Table 1

**Description of the Random Subtracted Subsamples Used in This Study**

<table>
<thead>
<tr>
<th>Sample</th>
<th>(N)</th>
<th>Range</th>
<th>Median</th>
<th>(\alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer image</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental image</td>
<td>1452</td>
<td>3-68</td>
<td>26</td>
<td>.75</td>
</tr>
<tr>
<td>Symbolic image</td>
<td>1513</td>
<td>4-61</td>
<td>28</td>
<td>.69</td>
</tr>
<tr>
<td>Product image</td>
<td>925</td>
<td>4-59</td>
<td>18</td>
<td>.82</td>
</tr>
<tr>
<td>CSP image</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social involvement image</td>
<td>897</td>
<td>3-49</td>
<td>19</td>
<td>.84</td>
</tr>
<tr>
<td>Pro-environmental image</td>
<td>872</td>
<td>3-47</td>
<td>17</td>
<td>.90</td>
</tr>
<tr>
<td>Financial performance image</td>
<td>927</td>
<td>7-62</td>
<td>18</td>
<td>.84</td>
</tr>
<tr>
<td>Dependent variable</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational attractiveness</td>
<td>1451</td>
<td>3-69</td>
<td>26</td>
<td>.83</td>
</tr>
</tbody>
</table>

**Note.** CSP = Corporate social performance. Range and median concern the amount of different respondents. \(\alpha\) = Cronbach’s alpha for each organizational image and organizational attractiveness with organization as unit of analysis and the subsamples as variables.
Analyses

In total, we subtracted seven random subsamples from our original two samples (see Table 1). In each subsample an organization was rated by at least three different respondents and the median ranged from 17 for pro-environmental image to 28 for symbolic employer image. First, we used the data that we obtained from the external market research agency to extract three random subsamples. In a first randomly subtracted subsample, we averaged participants’ individual scores on the instrumental image items to create an organizational-level instrumental employer image variable. A second random subsample was subtracted to create an organizational-level symbolic employer image variable based on the individual-level symbolic image items. Finally, a third random subsample was subtracted to calculate average scores for organizational attractiveness. Subsequently, the data from the online questionnaire was used to create four random subsamples for the remaining organizational images. In each randomly subtracted subsample we averaged participants’ individual scores on the respective organizational image to create an organizational-level product image variable, social involvement image variable, pro-environmental image variable, and financial performance image variable. Finally, these seven randomly subtracted subsamples led to a new data set of 50 organizations in which each case represented a different organization with averaged scores on the organizational images and attractiveness (see Figure 1).

This approach addresses concerns of common method bias, given that respondents who assessed the organizational images were different from those who rated its attractiveness and there were no artificial relationships between different organizational images. Thus, our results were not artificially inflated due to the same respondents scoring both sets of variables at the same time for the same organization (Anderson, Haar, & Gibb, 2010; Podsakoff et al., 2003; Van Hoye et al., 2013). To ensure that aggregation was justified (i.e., individuals gave ratings that were sufficiently similar to justify combining their ratings together) we computed interrater group agreement (i.e., Cronbach’s alpha for each organizational image and organizational attractiveness with organization as unit of analysis and the subsamples as variables; Anderson et al., 2010; Gibson & Birkinshaw, 2004). As for each organizational image and organizational
attractiveness the interrater group agreement was considerably higher (from .69 to .96 with a minimum of three different ratings per organization) than the .60 cutoff frequently used in the literature, a reliable aggregated measurement is ensured (Anderson et al., 2010; LeBreton & Senter, 2008; also see Table 1).

Structure of original data sets

<table>
<thead>
<tr>
<th>Participant</th>
<th>Organization</th>
<th>Product image</th>
<th>CSP image</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Randomly subtracted

Structure of new data set

<table>
<thead>
<tr>
<th>Organization</th>
<th>Product image</th>
<th>CSP image</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3.00</td>
<td>3.67</td>
</tr>
<tr>
<td>B</td>
<td>3.67</td>
<td>4.00</td>
</tr>
</tbody>
</table>

**Figure 1.**

*Example of the Procedure Followed to Subtract the Random Subsamples*

**Measures**

Unless stated otherwise, items were rated on a 5-point Likert scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

**Employer image.**

*Instrumental image.* On the basis of previous research and meta-analyses (e.g., Chapman et al., 2005; Lievens & Highhouse, 2003; Uggerslev et al., 2012; Van Hoye et al., 2013), we identified six items to measure instrumental image ($\alpha = .92$): Organization X (1) offers a competitive compensation package (salary, fringe benefits), (2) offers long-term job security, (3) offers high-quality training and development opportunities, (4) offers opportunities for career advancement, (5) offers a pleasant working environment, and (6) offers interesting work.
Potential applicants were asked to rate the extent to which they agreed that the organization possessed each of these six items.

**Symbolic image.** Symbolic image was measured with five items from the scale of Lievens and Highhouse (2003; α = .89): (1) down-to-earth, (2) exciting, (3) intelligent, (4) well-respected, and (5) strong. Respondents were asked to indicate the extent to which they agreed that these traits were descriptive of the organization as an employer.

**Product image.** On the basis of the definition of Kotler (1997) (i.e., “a seller’s promise to consistently deliver a specific set of features, benefits, and services to buyers”, p. 443) and other research in the marketing area (Keller, 1998; Aaker, 1996) we used “Organization X is well-known for its qualitative products and/or services” to measure an organization’s product image.

**Corporate social performance image.** We used two items from the scale developed by Jones et al. (2014) to measure an organization’s CSP image. The item “Organization X contributes something to society (locally, nationally, and/or internationally)” was used to measure social involvement image and “Organization X is an environmentally friendly organization” was used to measure pro-environmental image.

**Financial performance image.** On the basis of previous research (e.g., Flanagan & O’Shaughnessy, 2005; Fombrun & Shanley, 1990; Lusch & Brown, 1996; Orlitzky et al., 2003; Roberts & Dowling, 2002) we used “Organization X is financially healthy” to measure an organization’s financial performance image.

**RESULTS**

**Descriptive Statistics**
Table 2 presents the descriptive statistics and correlations of the study variables. As our final sample consisted out of 50 organizations and to ensure a sufficient power level, we used α < .10 as a significance level. Product image, social involvement image, instrumental employer image, and symbolic employer image were positively and significantly correlated with organizational attractiveness. Contrary to our expectations pro-environmental image and financial performance image were not significantly related to organizations’ attractiveness.
Among the organizational images we found positive and significant correlations between product image and (1) social involvement image, (2) instrumental employer image, and (3) symbolic employer image. Moreover, social involvement image was positively and significantly related to both instrumental and symbolic employer image.

Table 2

Means, Standard Deviations, and Correlations Between Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Product image</td>
<td>3.59</td>
<td>.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSP image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Social involvement</td>
<td>3.44</td>
<td>.36</td>
<td>.37**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pro-environmental</td>
<td>2.94</td>
<td>.39</td>
<td>-.01</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Financial performance image</td>
<td>3.50</td>
<td>.31</td>
<td>.10</td>
<td>-.13</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer Image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Instrumental</td>
<td>3.22</td>
<td>.31</td>
<td>.41**</td>
<td>.39**</td>
<td>.08</td>
<td>.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Symbolic</td>
<td>3.19</td>
<td>.31</td>
<td>.46**</td>
<td>.30</td>
<td>.08</td>
<td>.02</td>
<td>.42**</td>
<td></td>
</tr>
<tr>
<td>Dependent variable</td>
<td>2.95</td>
<td>.45</td>
<td>.34*</td>
<td>.42**</td>
<td>.05</td>
<td>-.11</td>
<td>.46**</td>
<td>.46**</td>
</tr>
</tbody>
</table>

Note. N = 50. CSP = Corporate social performance. † p < .10. * p < .05. ** p < .01.

Test of Hypotheses

To test our hypotheses, we conducted a hierarchical regression analysis. Product image, CSP image (i.e., social involvement and pro-environmental images), and financial performance image were entered in the first step and employer image (i.e., instrumental and symbolic images) was entered in the second step. The results of the hierarchical regression analysis are shown in Table 3. In the first step, the organizational images accounted for 22% (p = .023) of the variance in organizations’ attractiveness. People were more attracted by organizations who are trying to positively influence their community (β = .32, p = .034), providing support for Hypothesis 2a. Contrary to our expectations, product image (β = .23, p = .121), pro-environmental image (β = .01, p = .958), and financial performance image (β = -.09, p = .524) were not significantly related to organizations’ attractiveness as an employer. Hence, we found no support for Hypothesis 1, Hypothesis 2b, and Hypothesis 3. In the second step, employer image accounted for significant incremental variance (14%, p = .014), supporting Hypothesis 4a. Moreover, instrumental employer image (β = .28, p = .067) and
symbolic employer image ($\beta = .27$, $p = .071$) were positively related to organizational attractiveness, supporting Hypothesis 4b and Hypothesis 4c.

Table 3
Hierarchical Regression of Organizational Attractiveness on Employer, Product, Corporate Social Performance, and Financial Performance Image and Relative Weights Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Relative weights$^a$</th>
<th>90% CI$^b$</th>
<th>Percentage of predictable variance$^c$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product image</td>
<td>.23</td>
<td>.04</td>
<td>.04$^f$</td>
<td>[.01; .11]</td>
<td>10.66</td>
</tr>
<tr>
<td>CSP image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22.85$^e$</td>
</tr>
<tr>
<td>Social involvement</td>
<td>.32$^*$</td>
<td>.20</td>
<td>.08$^f$</td>
<td>[.01; .19]</td>
<td>22.63</td>
</tr>
<tr>
<td>Pro-environmental</td>
<td>.01</td>
<td>-.02</td>
<td>.00</td>
<td>[.00; .00]</td>
<td>0.22</td>
</tr>
<tr>
<td>Financial performance image</td>
<td>-.09</td>
<td>-.13</td>
<td>.02</td>
<td>[.00; .07]</td>
<td>4.38</td>
</tr>
<tr>
<td>Employer image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62.11$^c$</td>
</tr>
<tr>
<td>Instrumental</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbolic</td>
<td>.28$^f$</td>
<td>.11$^f$</td>
<td>[.03; .23]</td>
<td></td>
<td>31.59</td>
</tr>
</tbody>
</table>

$^a$ The relative weights and the percentages of predictable variance were computed using the analytical approach of Tonidandel and LeBreton (Johnson, 2000, 2004; Tonidandel & LeBreton, 2011, 2015; Tonidandel, LeBreton, & Johnson, 2009). We looked at the confidence interval tests of significance to see whether the relative weights were significant. $^b$ 90% confidence intervals around the relative weights. These confidence intervals explain the precision of the relative weights: Larger confidence intervals indicate less precision; smaller confidence indicate greater precision (Tonidandel & LeBreton, 2015). $^c$ These percentages were obtained by summing the predictable variance across a specific organizational image. $^* p < .10$. $^* * p < .05$. $^* * * p < .01$. 

Relative Importance Analysis

As noted above, organizational images can have a combined influence on organizational attractiveness. To determine the unique contribution of each organizational image (Research Question 1), we examined the relative importance of the four organizational images in determining organizational attractiveness. Given that regression coefficients are not interpretable as measures of relative importance when the predictor variables are interrelated as is the case in the present study (see Table 2), we conducted a relative weights analysis to determine the relative importance of product image, CSP image, financial performance
image, and employer image in predicting organizations’ attractiveness (Johnson, 2000, 2004; Tonidandel & LeBreton, 2011, 2015; Tonidandel et al., 2009). Relative weights are defined as the proportionate contribution that each predictor makes to $R^2$, considering both its unique contribution and its contribution when combined with the other predictor variables in the analysis (Johnson, 2000, 2004; Tonidandel & LeBreton, 2011, 2015). For ease of interpreting relative weights, it is also possible to express them as percentages of the predictable variance ($R^2$). The last three columns of Table 2 present the relative weights, the 90% confidence intervals around the raw weights, and the percentage of predictable variance.

Inspection of the relative weights showed that the combined employer image components made a large contribution to the predictable variance, namely 62.11%. However, social involvement image also contributed 22.63% to the variance and product image 10.66%. As the confidence intervals included zero, financial performance image (4.38%) and pro-environmental image (0.22%) did not significantly contribute to the predictable variance in organizational attractiveness.

**Interactions Between Organizational Images**

We investigated possible interaction effects between organizations’ image as an employer and the other organizational images. To this end, we computed the product term between two organizational images and entered it in the regression equation after entering the respective organizational images. In line with recommendations for dealing with problems of multicollinearity that arise from the use of cross-product terms, independent variables were standardized prior to computing their cross-product terms (Aiken & West, 1991). In total, we separately tested eight different interaction terms. We found only one significant interaction between symbolic image and product image ($\beta = -.23$, $p = .088$; $\Delta R^2 = .05$).

**DISCUSSION**

As in the first recruitment phase job seekers have only rudimentary knowledge of the employment experience at a particular organization, it is important to find out which image associations matter. At a practical level, this might also signal whether organizations can employ an umbrella branding perspective or not to recruit talented people. We expected that multiple
organizational images might be related to organizations’ attractiveness. To this end, we investigated the relationships between four well-known organizational images that have typically been studied apart from each other (i.e., product image, corporate social performance image, financial performance image, and employer image) and organizations’ attractiveness.

This study yields several theoretical and practical implications that provide a more comprehensive picture of organizational attractiveness. First, people’s perceptions of social involvement image were positively related to organizations’ attractiveness. Second, as expected, organizations’ image as an employer accounted for incremental variance over and above the other organizational images included in this study. Moreover, instrumental and symbolic employer images were positively related to organizations’ attractiveness as an employer. Hence, organizations that are trying to positively influence their community and possess a favorable employer image may be able to create a competitive advantage over their competitors and thus become an employer of choice. Contrary to our expectations, product image, pro-environmental image, and financial performance image were not related to organizations’ attractiveness as an employer. However, product image was significantly correlated with organizations’ attractiveness and accounted for substantial variance in organizations’ attractiveness as an employer. Hence, beyond the positive effects of employer image and social involvement image, organizations who are viewed as providing qualitative products and/or services, may be viewed as more attractive employers (Backhaus et al., 2002; Greening & Turban, 2000; Jones & Willness, 2013; Turban & Greening, 1997). In general, our results indicate that people’s attractiveness perceptions are colored by multiple organizational images.

Furthermore, although prior research indicated that people’s perceptions of an organization’s social involvement image and product image are unlikely to provide enough information about work conditions to directly affect their beliefs regarding the employment experience (Collins & Han, 2004), people seem to use this information to make inferences about the attractiveness of the organization as an employer. Thus, it seems that people may begin to develop employer knowledge prior to the influence of employer image management through exposure to information, or signals, conveyed to them through other
organizational activities (Barber, 1998; Highhouse et al., 2007). Moreover, it should be mentioned that in this study we found one significant interaction term indicating that one organizational image (i.e., product image) can strengthen or weaken the relationship between an organization’s image as an employer and organizational attractiveness. These results are in line with previous research in the service industry in which organizations’ service image was related to people’s perceptions of the organization as an employer and its attractiveness (Schneider, 1987; Schneider & Bowen, 1993).

Finally, we found moderate positive and significant correlations between product image, social involvement image, and employer image. This might indicate that people’s perceptions of organizations’ product and/or service quality, social involvement practices, and working environment are related. Hence, organizations’ image management efforts to communicate, differentiate, and enhance these specific organizational images might be interrelated (Ambler et al., 2002; Aaker & Keller, 1990). However, we did not find significant correlations between pro-environmental image, financial performance image, and the other organizational images. Overall, with regard to product image, social involvement image, and employer image our findings provide support for the applicability of an umbrella branding perspective to study organizations’ attractiveness (Dineen & Wu, 2014; Foster et al., 2010; Highhouse et al., 1999; Highhouse et al., 2009; Wilden et al., 2010).

Limitations

In terms of limitations, we acknowledge that to ensure that each organization received a sufficient amount of ratings, the questionnaires used were limited in length. Due to these space limitations we were able to only include one item for product image, CSP image, financial performance image, and an organization’s perceived attractiveness as an employer. This may call into question the reliability of our measurements, although we believe our shorter overall questionnaire format helped ensure participants’ attention in completing the questionnaires. Furthermore, the interrater group agreement, which was considerably higher (from .69 to .96, with a minimum of three different ratings per organization) than the .60 cutoff frequently used in the literature, indicates that our measurements are reliable (Anderson et al., 2010; LeBreton & Senter,
2008). Second, although our large samples allowed us to overcome problems with common method bias associated with single-source data, our aggregated sample consisted of 50 organizations. Our small sample size may have resulted in lower power to find significant effects, especially when studying the interactions between multiple organizational images. Hence, the generalizability of our results needs to be tested in future studies.

**Directions for Future Research**

This study can serve as an important step in providing both researchers and practitioners with a more comprehensive insight into the relationships between multiple organizational images and organizations’ attractiveness as an employer. First, as prior research found that people attach different meanings to information they receive from sources controlled by the organization versus other sources (Van Hoye & Lievens, 2005), it may be interesting to investigate the sources through which people receive information about organizational images. Specifically, prior research found that people are more receptive to information from sources that are not controlled by the organization (e.g., The Vault; independent product ratings) than information from sources that are controlled by the organization (e.g., recruitment communication; information about CSP on company website). As a result, people are more likely to be persuaded by this organization-independent information and these sources are more likely to influence people’s attitudes, cognitions, intentions, and even subsequent behavior (Eisend, 2004; Pornpitakpan, 2004). Hence, it may be interesting to investigate whether images that are formed on the basis of organization-independent sources are differentially related to organizations’ attractiveness as compared to organizational images that arise from organization-dependent sources.

A second area of research is to investigate how news stories in the media influence one or more specific organizational images. This can happen directly and at times indirectly when there occurs a spill-over into evaluations of other organizational images (Cable & Turban, 2001; Highhouse et al., 2009; Jones & Willness, 2013; Rao et al., 2004). For example, the news about a top-five ranking in a great place to work competition will be directly related to organizations’ image as an employer. However, there may also exists an indirect relationship between this ranking and organizations’ image as being an excellent financial
performer (Lievens & Slaughter, 2015). Hence, future research should investigate which news stories (in)directly initiate and sustain organizational images.

Furthermore, future research would benefit from investigating the relationships between organizational images as well as non-image factors with organizations’ attractiveness. For example, little is known about how disruptive (e.g., mergers and acquisitions) events impact organizational images and their relationship with organizational attractiveness (Ashforth & Kreiner, 2002).

Finally, further research can incorporate objective measures of organizational activities and performance as outcomes into their studies of organizational images. Prior studies that investigated the relationships between image management and financial performance can serve as exemplars (e.g., Fulmer et al., 2003; Rao et al., 2004).

**Implications for Practice**

This study has several implications for practice. First, we provide organizations with a more detailed and complete picture of how organizational image management efforts, comprising employer image, product image, CSP image, and financial performance image, influence important recruitment outcomes. Specifically, our results indicate that multiple images may be simultaneously associated with organizations’ attractiveness. Moreover, evidence from consumer research indicates that organizations’ images consistency and clarity may affect the credibility of organizational images (Erdem & Swait, 2004). So, consistency and clarity across multiple organizational images may be a prerequisite for organizations to generate higher levels of attractiveness (Ambler & Barrow, 1996; Wilden et al., 2010). Hence, organizations are advised to create some synergy between different organizational images (Backhaus & Tikoo, 2004; Foster et al., 2010; Mokina, 2014; Mosley, 2007; Wilden et al., 2010).

Moreover, in light of this first implication, we acknowledge that for practitioners it may be a difficult task to align and manage multiple organizational images. Important in this context is the link between the human resource department and the marketing department (Cable, 2007; Foster et al., 2010; Martin, Beaumont, Doig, & Pate, 2005; Rao et al., 2004). Both marketers and human resources specialist need to align their efforts and should be aware of the impact of their actions on each other’s image objectives. Furthermore, they need
to avoid unintended side effects such as creating confusion among stakeholders through inconsistent signals (Ashforth & Kreiner, 2002; Backhaus & Tikoo, 2004; Foster et al., 2010; Wilden et al., 2010). For example, organizations with lower product images may find it harder to attract highly skilled human capital, as job seekers are less aware of the organization as an employer. Similarly, if product brands are seen as unattractive, job seekers may be reluctant to consider employment with the organization. Hence, in a recruitment context, a coherent and aligned internal belief between different organizational departments and external image messages will be crucial for effective image management.

Finally, we should mention that the alignment of different organizational images should not be seen as a single best “multiple image management” practice in a recruitment context. Specifically, not every organizational image (i.e., pro-environmental and financial images) was related to organizations’ attractiveness and other organizational images. Hence, for these specific organizational images alignment may not be necessary and/or useful to recruit talented employees. Moreover, sometimes alignment between multiple organizational images may not be possible. For example, the spill-over between the product image of Douwe Egberts and its employer image was limited when the organization was owned by Sara Lee Corporations. Nowadays, as Douwe Egberts became an independent organization and employer, the association between its product and employer image may be more apparent.

**Conclusion**

This study provides evidence for the usefulness of an umbrella branding perspective in a recruitment context. Specifically, apart from organizations’ image as an employer their social involvement image and product image might also influence their ability to attract talented employees. For practitioners this implies that during recruitment they should take more organizational images into account than solely their image as an employer and as such are advised to apply, when relevant, a multiple image management approach.
REFERENCES


FOOTNOTES

1 There also exist official rankings of organizations’ financial performance. These rankings include objective measures of organizations’ profits, profit changes, revenue changes, and assets.

2 The subtraction of other random subsamples resulted in the same pattern of results.
ACKNOWLEDGEMENTS

We would like to thank Jan Denys, Jan Verhesen, Michaëla Stubbers, and Bert Weijters for the close cooperation during the data collection.
CHAPTER 4

CHANGING THINGS UP IN RECRUITMENT: EFFECTS OF A “STRANGE” RECRUITMENT MEDIUM ON APPLICANT POOL QUANTITY AND QUALITY \(^1,2,3\)

In a field experiment, we investigated the impact of a “strange” recruitment medium on the quantity and quality of the applicant pool. Recruiting through an unusual medium (i.e., postcard) was associated with higher applicant pool quantity, as compared to a more frequently used medium (i.e., e-mail). With respect to quality, applicants recruited through the strange medium were higher educated. A follow-up questionnaire confirmed that the media were perceived to differ in strangeness, not in media richness or credibility. These results suggest that “changing things up” in recruitment by employing strange recruitment media can positively affect key recruitment outcomes.


\(^2\)A previous version of this study was presented at the Annual Conference of the Society for Industrial and Organizational Psychology: Cromheecke, S., Van Hoye, G., & Lievens, F. (2012, April). Effects of “strange” recruitment media on applicant quantity and quality. In J. E. Slaughter (Chair), *New directions in research on recruitment in organizations*. Symposium conducted at the 27th Annual Conference of the Society for Industrial and Organizational Psychology, San Diego, CA, US.

\(^3\)A previous version of this study was presented at the Dutch-Flemish Research Meeting on Personnel Selection and Recruitment: Cromheecke, S., Van Hoye, G., & Lievens, F. (2011, October). *Employer branding: Differentiation through the recruitment medium*. Paper presented at the 6th Dutch-Flemish Research Meeting on Personnel Selection and Recruitment, Erasmus University, Rotterdam, Netherlands.
INTRODUCTION

Nowadays, organizations must stand out from their competitors to become an employer of choice, making recruitment one of the most crucial human resource functions for organizational success (Breaugh, 2013). Cable (2007) recommends that organizations ask the right questions about what makes them distinct from competing organizations and create a “special sauce” that is hard for competitors to imitate yet loved by consumers and employees. To this end, “strange” recruitment activities can be a valuable asset for organizations to attract potential applicants’ attention and stay competitive in the labor market. Strange is defined as “out of the ordinary; unusual or striking; differing from the normal” (Cable, 2007, p. 1).

So far, recruitment research has paid little attention as to how organizations can differentiate themselves in terms of recruitment activities (Breaugh, 2013). As one exception, Barber and Roehling (1993) found that unusual information in job advertisements received more attention than more common information. Their study focused on the effect of a strange recruitment message, whereas little is known about the impact of a strange recruitment medium on key recruitment outcomes.

Therefore, we conducted a field experiment comparing the effect of a strange recruitment medium on organizational attraction to a more common medium. Importantly, actual measures of applicant pool quantity and quality were assessed. To verify whether our findings could be attributed to the medium’s strangeness, a follow-up study was conducted, measuring potential applicants’ perceptions of both recruitment media.

STRANGE RECRUITMENT MEDIUM

Consistent with Cable (2007), we define a strange recruitment medium as an unusual and original way to recruit potential applicants that is clearly different from how most companies are communicating job vacancies. The social cognition literature offers theoretical evidence explaining why a strange recruitment medium may be a good way to improve applicant attraction. Specifically, social cognition research indicates that people use scripts that describe the sequences of
expected events in a given situation (e.g., recruitment). These scripts determine not only the sequences of behavior, but also the attention people devote to events. Information relevant for the situation but inconsistent with the script pops out and receives more attention (Smith & Collins, 2009).

Recruiting in a strange and unusual way is likely to be inconsistent with potential applicants’ recruitment scripts. This violation of existing scripts may make certain stimuli (e.g., recruitment media) more salient than others (Corbetta & Shulman, 2002). Therefore, strange recruitment media are expected to attract more attention from potential applicants, resulting in a higher number of people willing to apply for a job (i.e., applicant pool quantity).

*Hypothesis 1: A strange recruitment medium will be associated with higher applicant pool quantity than a more common medium.*

Moreover, we expect the use of a strange recruitment medium to also affect applicant pool quality (i.e., applicants’ characteristics such as education and work experience). Specifically, the population of high-quality applicants is characterized by high levels of employment (Boswell, Zimmerman, & Swider, 2012). As such, these much sought after candidates are typically not actively looking for new job opportunities (i.e., passive job seekers) and job openings distributed through common recruitment media will hardly be noticed (Breaugh, 2013). Hence, organizations might benefit from using strange recruitment media to attract the attention of these passive high-quality job applicants and as such promote their initial decisions to apply (Jones, Shultz, & Chapman, 2006). Therefore, we expect that more high-quality applicants will apply when strange media are used.

*Hypothesis 2: A strange recruitment medium will be associated with higher applicant pool quality than a more common medium.*
METHOD

Field Experiment

In this field experiment, we collaborated with the Belgian division of a well-established technology firm that struggled to recruit qualified engineers. As almost each organization recruiting engineers uses the same media, this organization sought a “strange” way to attract potential applicants’ attention. Therefore, in the first condition, we used a strange recruitment medium that differed from the usual way in which engineers are recruited. Specifically, a seemingly handwritten picture-postcard was sent to potential applicants’ home address. In the second condition, an e-mail was sent to potential applicants⁴. Nowadays, almost all organizations are using the Internet for recruiting applicants. Therefore, recruiting through e-mail can be considered as an often used and unsurprising medium. Given that we wanted to examine the effect of the recruitment medium, the job vacancy’s content and layout were kept constant across the two conditions.

To verify whether the postcard represented a “strange” recruitment medium, an online pilot survey asked 55 Belgian engineers (94.5% male; mean age = 36.7 years, SD = 9.2) to indicate the frequency of receiving job vacancies through various media in the past six months, using a five-point rating scale (1 = never; 5 = very frequently, Blau, 1994). As expected, a postcard (M = 1.07; SD = 0.26) was a significantly less frequently used medium for recruiting Belgian engineers than an e-mail (M = 3.09; SD = 1.02), t(54) = -14.08, p < .001, d = -3.83.

Sample and Procedure

Our data were collected during an actual recruitment process. A Belgian job site extracted a sample of 1,997 potential applicants (88% male; mean age = 33.5 years, SD = 8.7; 78% higher educated; 38% > ten years of work experience) from their database, who had indicated their interest in engineering jobs. About half (965) of the potential applicants were randomly assigned to the postcard condition, whereas the other 1,032 potential applicants were assigned to the e-mail condition. Statistical analyses revealed no significant differences between the two conditions in terms of demographic variables.
Applicant Pool Measures

We gathered indices of actual applicant behavior that were computed from the databases of the job site and the recruiting organization. The number of applicants (i.e., the number of people that applied for the job by submitting their resume) was used as an indicator of applicant pool quantity (Collins & Han, 2004). To test our hypothesis, we compared the ratio of the number of actual applicants relative to the number of potential applicants addressed in each condition.

In line with recommendations (Carlson, Connerley, & Mecham, 2002), multiple indices of applicant pool quality were selected (see Table 1). The first two measures, level of education and work experience, are widely accepted signals of applicant pool quality (Rynes & Barber, 1990). As a third indicator, recruiter’s quality perceptions were taken into account. That is, the recruiter evaluated applicants’ resumes and decided whether to invite them for a job interview.

Follow-Up Questionnaire

A follow-up study examined whether potential applicants perceived the postcard as significantly more strange than the e-mail but not differently in terms of media richness and credibility, ruling out potential alternative explanations (Cable & Yu, 2006). The 1,997 potential applicants from the field experiment were contacted by e-mail two weeks after receiving the postcard or e-mail. In total, 210 individuals (86% male; mean age = 35.5 years, \(SD = 8.7\); 85.6% higher educated; 50% > ten years of work experience) completed an anonymous follow-up questionnaire (response rate = 10.5%). Each condition contained 105 individuals, with no significant differences in terms of demographic variables.

The strangeness of the medium was measured with three items from the originality dimension of the Creativity Product Semantic Differential Scale (White & Smith, 2001) (see Table 2 for all items of the follow-up questionnaire). Media richness was assessed by Webster and Trevino’s (1995) scale, consisting of four subscales: language variety, multiplicity of cues, personal focus, and two-way communication. To measure the credibility of the medium, three items were used from Van Hoye and Lievens (2007).
### Table 1

**Comparison of Applicant Pool Quality Between the Postcard and E-mail Condition**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Postcard (N = 51)</th>
<th>E-mail (N = 11)</th>
<th>$\chi^2$</th>
<th>df</th>
<th>p</th>
<th>w</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of education</strong>a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school education</td>
<td>8 (16.30)</td>
<td>5 (45.50)</td>
<td>4.49</td>
<td>1</td>
<td>.03</td>
<td>.27</td>
</tr>
<tr>
<td>Higher education</td>
<td>41 (83.70)</td>
<td>6 (54.50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Work experience (Years)**b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1</td>
<td>4 (7.80)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 1 and 2</td>
<td>2 (3.90)</td>
<td>1 (9.10)</td>
<td>4.39</td>
<td>4</td>
<td>.36</td>
<td>.27</td>
</tr>
<tr>
<td>Between 3 and 5</td>
<td>10 (19.60)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 6 and 10</td>
<td>8 (15.70)</td>
<td>3 (27.30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 10</td>
<td>27 (52.90)</td>
<td>7 (63.60)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Invitation for job interview</strong>c</td>
<td></td>
<td></td>
<td>1.21</td>
<td>1</td>
<td>.27</td>
<td>.14</td>
</tr>
<tr>
<td>No</td>
<td>33 (64.70)</td>
<td>9 (81.80)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18 (35.30)</td>
<td>2 (18.20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Categories were defined by the organization. *a* For two applicants in the postcard condition this information was missing. *b* We measured the level of relevant engineering work experience. *c* The recruiter was blind for the recruitment source and evaluated potential applicants’ resumes to decide whether or not to invite them for a job interview.
Table 2

Results of the Follow-Up Questionnaire on Recruitment Medium Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Postcard ($N = 105$)</th>
<th>E-mail ($N = 105$)</th>
<th>$\alpha$</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strangeness$^a$</td>
<td>5.92 0.93</td>
<td>5.60 0.98</td>
<td>.77</td>
<td>2.43</td>
<td>208</td>
<td>.02</td>
<td>0.34</td>
</tr>
<tr>
<td>Media richness$^b$</td>
<td>4.84 1.03</td>
<td>4.87 0.94</td>
<td>.84</td>
<td>-0.23</td>
<td>208</td>
<td>.82</td>
<td>-0.03</td>
</tr>
<tr>
<td>Language variety</td>
<td>5.73 1.03</td>
<td>5.43 1.13</td>
<td>.77</td>
<td>2.01</td>
<td>208</td>
<td>.05</td>
<td>0.28</td>
</tr>
<tr>
<td>Multiplicity of cues</td>
<td>4.36 1.34</td>
<td>4.51 1.10</td>
<td>.70</td>
<td>-0.90</td>
<td>208</td>
<td>.37</td>
<td>-0.13</td>
</tr>
<tr>
<td>Personal focus</td>
<td>4.98 1.45</td>
<td>4.88 1.42</td>
<td>.68</td>
<td>0.48</td>
<td>208</td>
<td>.63</td>
<td>0.07</td>
</tr>
<tr>
<td>Two-way communication</td>
<td>4.26 1.39</td>
<td>4.65 1.21</td>
<td>.83</td>
<td>-2.17</td>
<td>208</td>
<td>.03</td>
<td>-0.30</td>
</tr>
<tr>
<td>Credibility$^c$</td>
<td>4.90 1.29</td>
<td>4.98 1.18</td>
<td>.83</td>
<td>-0.49</td>
<td>208</td>
<td>.62</td>
<td>-0.07</td>
</tr>
</tbody>
</table>

Note. Except for strangeness, the items were rated on a 7-point rating scale ranging from 1 (completely disagree) to 7 (completely agree). $^a$ Three items were rated on a semantic differential rating scale. I found the [postcard, e-mail]: overused (1) - novel (7); usual (1) - unusual (7); predictable (1) - surprising (7). $^b$ Each subscale included two items. Language variety: The [postcard, e-mail] used rich and varied language; transmitted varied symbols. Multiplicity of cues: The [postcard, e-mail] carried symbolic meaning in addition to the actual words; told me a lot about the organization beyond what was said. Personal focus: The [postcard, e-mail] was targeted to me personally; communicated to me with a great deal of interpersonal warmth. Two-way communication: The [postcard, e-mail] provided the opportunity to communicate with the organization; provided the opportunity to receive feedback. The CFA of the higher-order model (four lower-order factors loading on one higher-order factor) showed a good fit to the data, $\chi^2(16) = 31.45$, $p < .01$, $CFI = .977$, $RMSEA = .068$, $SRMR = .044$, $\chi^2/df = 1.97$. $^c$ The scale included three items: I found the [postcard, e-mail] accurate; believable; reliable.
RESULTS

Of the 1,997 potential applicants, 62 persons actually applied, with 51 (82%) coming from the postcard condition and 11 (18%) from the e-mail condition. Considering the ratio of actual versus potential applicants in each condition, 51 of 965 (5%) potential applicants receiving the postcard actually applied versus 11 of 1,032 (1%) potential applicants receiving the e-mail. In support of H1, the strange recruitment medium was associated with substantially higher applicant pool quantity than a more frequently used medium, $\chi^2(1) = 29.51, p < .001, w = 0.12$.

Next, we used the sample of actual applicants ($N = 62$) to test for differences in applicants’ quality characteristics (see Table 1). Applicants who applied after receiving the postcard were significantly more likely to be higher educated than applicants responding to the e-mail (84% versus 55%). Regarding recruiter’s quality ratings, 35% of the postcard applicants were invited for a job interview versus only 18% of the e-mail applicants. However, this difference did not reach statistical significance. Finally, we observed no significant difference between the two conditions in terms of work experience. So, there was partial support for H2.

As shown in Table 2, follow-up questionnaire analyses indicated that potential applicants perceived the postcard as significantly stranger than the e-mail. There were no differences in perceived overall media richness² and credibility.

DISCUSSION

This field experiment showed that using a strange recruitment medium generated considerably more applicants with a higher level of education than recruiting through a frequently used medium. In line with social cognition principles, recruiting in a strange way that differs from what competitors are doing is likely to be inconsistent with recruitment scripts, enhancing potential applicants’ attention, attraction, and intention to apply.

In terms of practical implications, this study suggests that organizations may increase recruitment effectiveness by “changing things up” and employing “strange” recruitment media (Cable, 2007). Specifically, we found that in this
particular study an unusual medium such as a postcard generated about five times more actual applicants than using a common medium such as an e-mail. Note that low application rates are typical when recruiting engineers, so that the 5% response for the postcard was regarded as high by the recruiting organization. On the basis of the utility calculations of Carlson et al. (2002), our finding implies that when the organization hires for instance ten of these applicants \(N\) who remain in their job for five years \(T\), the postcard is associated with a utility increase \(\Delta U\) of 23,352 euros over the e-mail, with education level as an indicator of applicant quality \(\Delta Z_x = .29\) and \(r_{xy} = .10\) and estimating the standard deviation of job performance \(SD_y\) at 16,540 euros (40% of the average gross annual salary of engineers with ten years of work experience in Belgium) and the additional cost of the postcard \(\Delta C\), printing and stamps) at 730 euros. Therefore, we encourage organizations to further experiment with unusual recruitment media to differentiate themselves in the labour market (e.g., Google billboard).\(^3\)

A limitation of this study is the small sample size of actual applicants resulting in lower power for the quality measures\(^4\). This is a result from our research design: It is inherent of a real-life recruitment context that at the end of the recruitment process sample sizes become small. As another limitation, our study deals with only one organization, one vacancy, and two recruitment media. In line with our definition of a strange recruitment medium, it is likely that what constitutes a strange medium depends on what direct competitors on the labor market are doing and therefore differs across jobs, companies, and industries. Thus, rather than identifying a single “best media practice”, this field experiment puts forth “media strangeness” as a more general evidence-based principle, which recruiters might take into account when selecting media for communicating job postings. Finally, to assess applicant pool quality, we were restricted to three indices provided by the organization. It would be interesting to investigate additional indicators of applicant quality in future research, such as person-organization fit.

Notwithstanding these limitations, our results are promising and warrant future research on the role of strange recruitment media and activities. For example, we encourage future research to investigate potential applicants’ image perceptions as a possible mediator of the relationship between strange recruitment
media and applicant pool characteristics. As organizational image perceptions are crucial factors explaining potential applicants’ attraction to organizations (Lievens, Van Hoye, & Schreurs, 2005), they might help to explain the positive effect of strange recruitment activities.
REFERENCES


FOOTNOTES

1 To avoid spam-filters, the e-mails were sent in the name of the recruiting organization but from the job site’s e-mail address. As all people deliberately subscribed to the job site, it was unlikely that e-mails were blocked.

2 There were neither significant differences between the postcard and e-mail on the higher-order factor media richness, nor on the subscales language variety, multiplicity of cues, and personal focus. We did observe a significant difference between the postcard and e-mail for two-way communication. However, the postcard scored lower on two-way communication than the e-mail, which makes sense given that it is probably easier to reply to an e-mail than to a postcard. As this effect is in the opposite direction, it cannot explain the observed differences between the two conditions in applicant pool quantity and quality.

3 In 2004, Google placed an anonymous billboard in Silicon Valley with "{first 10-digit prime found in consecutive digits of e}.com." on it. The answer "{7427466391}.com" led to another equation which in turn led to another one and so on. In the end, the few remaining contestants were invited for a job interview in the Google headquarters.

4 Post hoc power analyses were conducted utilizing G*Power3. With an alpha level of .05, a sample size of 62, and the observed effect sizes, achieved power was .58 for level of education, .35 for work experience, and .20 for recruiter’s evaluation.
ACKNOWLEDGEMENTS

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CHAPTER 5

MOVING BEYOND ATTITUDES AND INTENTIONS: OBJECTIVE ATTRIBUTES, SUBJECTIVE ATTRIBUTES, AND RECRUITMENT COMMUNICATION CHARACTERISTICS AS PREDICTORS OF ACTUAL APPLICATION DECISIONS

On the basis of implicit content theories developed for understanding job choices, this field study examines objective attributes, subjective attributes, and recruitment communication characteristics as predictors of job seekers’ actual application decisions in the first phase of recruitment. In a sample of 158 job seekers, we found that objective attributes (i.e., work-life balance, co-workers), subjective attributes (i.e., competence), and recruitment communication characteristics (i.e., informativeness) were positively related to actual application decisions. In addition, some of these relationships were strengthened by job seekers’ perceptions of the recruitment communication’s credibility. Relative importance analysis showed that objective factors made an important contribution to the variance in actual application decisions. From a theoretical point of view, these results support the role of implicit content theories to study job seekers’ decisions in the first phase of recruitment. At a practical level, implications for recruitment practices are discussed.

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1A previous version of this study was presented at the Annual Meeting of the Academy of Management: Cromheecke, S., Van Hoye, G., & Lievens, F. (2014, August). Beyond intention: Organizational image and job advertisements as predictors of application decisions. In G. Van Hoye & J. E. Slaughter (Chairs), New directions in employer branding research: Managing organizations’ image as an employer. Symposium conducted at the 74th Annual Meeting of the Academy of Management, Philadelphia, PA, US.
INTRODUCTION

We have virtually no information about how preferences and intentions are converted into actual job choices.” (Rynes, 1991, p. 436).

“It is exceedingly clear that recruitment research focusing on objective decision outcomes lags far behind existing research on attitudes and intentions” (Harold, Uggerslev, & Kraichy, 2013, p. 25).

These two quotes indicate that for the past 25 years recruitment research has primarily focused on attitudes (e.g., perceived organizational attractiveness) and intentions (e.g., application intentions), thereby largely neglecting actual decisions (e.g., actual application decisions). Indeed, prior recruitment research extensively studied the antecedents of organizational attractiveness and job seekers’ intentions to apply (Chapman, Uggerslev, Carroll, Piansentin, & Jones, 2005; Uggerslev, Fassina, & Kraichy, 2012). However, although attitudes and intentions may be important prerequisites for application decisions, positive attitudes and intentions do not ensure that an application will actually follow (Chapman et al., 2005; Harold et al., 2013; Uggerslev et al., 2012). For instance, even when job seekers find an organization attractive as an employer they may decide, for several reasons, not to apply. As these job seekers never enter subsequent recruitment phases, organizations might lose valuable human capital (Barber, 1998; Cable, 2007; Dineen & Soltis, 2011; Edwards, 2010). Despite the theoretical and practical importance of understanding job seekers’ decisions, possible factors that might influence their application decisions have remained virtually unexplored.

Therefore, researchers have expressed the need to move beyond attitudes and intentions by examining which factors are related to actual application decisions (Barber, 1998; Breaugh & Starke, 2000; Chapman et al., 2005; Harold et al., 2013; Ployhart, 2006). This study will use classic implicit content theories as a framework to elaborate on factors that are related to job seekers’ application decisions (Behling, Labovits, & Gainer, 1968; Chapman et al., 2005). Specifically, we respond to the need for recruitment research to move beyond
attitudes and intentions, by investigating the differential impact of objective attributes (Lievens & Highhouse, 2003), subjective attributes (Lievens & Highhouse, 2003), and recruitment communication characteristics (Allen, Van Scotter, & Otondo, 2004; Collins, 2007; Walker & Hinojosa, 2013) on application decisions. Furthermore, we try to determine the relative importance of each factor in determining job seekers’ application decisions and examine how recruitment communication characteristics may interact with objective and subjective attributes. Our hypotheses and research questions were tested in a sample of actual job seekers viewing an online job posting.

**APPLICATION DECISIONS**

Barber (1998) indicated that the recruitment process consists of three phases: (1) application generation, (2) maintaining applicants, and (3) influencing applicant status. During these phases both organizations and job seekers have to make important decisions that will influence the further course of recruitment. Specifically, job seekers must decide (1) to apply in the first phase, (2) to remain an active job applicant or to withdraw in the second phase, and (3) to accept or reject a job offer in the third phase. Hence, we define application decisions as the decisions that job seekers make during the first phase of recruitment in whether to submit an application of employment (Barber, 1998; Harold et al., 2013).

So far recruitment research has mainly made progress in understanding and predicting the attitudes job seekers hold towards an organization and their job pursuit intentions (Breaugh, 2013; Harold et al., 2013; Highhouse & Hoffman, 2001; Saks, 2005; Taylor & Collins, 2000; Uggerslev et al., 2012). Based on models of behavioral prediction (e.g., theory of reasoned action [Azjen & Fishbein, 1977] and theory of planned behavior [Ajzen, 1991]), previous recruitment studies assumed that job seekers’ attitudes towards an organization as an employer predict application intentions, which in turn predict application decisions. For instance, Allen et al. (2004) found that attitudes towards the organization were positively related to attitudes towards joining the organization \(r = .48\), which were positively related to intentions \(r = .51\), which were positively related to job choice decisions \(r = .24\). As prior research was optimistic about the predictive utility of intentions based on empirical research,
sometimes even reporting correlations in the .50 range between intentions and job choice, (Barber, 1998; Ajzen, 1991) these attitudes and intentions served as key dependent variables in most recruitment studies (Barber, 1998; Harold et al., 2013; Ployhart, 2006). For example, the meta-analysis of Chapman et al. (2005) included 38 predictors of organizational attractiveness and application intentions against only 13 predictors of job choice and zero predictors of application decisions. However, their results also indicate that the relationship between attitudes, intentions, and subsequent decisions (i.e., job choice decisions) might not be straightforward. As compared to the predictors of job seekers’ attitudes (mean $\rho = .32$) and intentions (mean $\rho = .33$), the predictors of job choice decisions had either small effects (mean $\rho = .11$) or were not significant (Chapman et al., 2005). This meta-analysis also indicates that prior recruitment studies have mainly focused on job choice decisions in the third phase of recruitment instead of application decisions in the first phase of recruitment.

Taken together, these results demonstrate that concrete factors related to job seekers’ decisions during the first phase of recruitment in whether to submit an application of employment remain underinvestigated. Therefore, this study applies implicit content theories, developed to predict job choice, to the first phase of recruitment to investigate the factors that are associated with job seekers’ application decisions (Behling et al., 1968; Chapman et al., 2005; Harold et al., 2013).

**Implicit Content Theories**

Implicit content theories focus on the attributes and information that job seekers use when deciding between multiple job offers. After reviewing the extant literature on the recruitment content affecting job choice decisions, Behling et al. (1968) identified three theories: Objective factors theories, subjective factors theories, and critical contact theories. As these theories constantly returned in different studies, Behling et al. (1968) labeled them “implicit content theories of position selection” (p. 14). Although implicit content theories were first introduced approximately four decades ago they still remain influential in the recruitment domain. We take these broad theories as point of departure to formulate hypotheses about the factors that may be related to job seekers’
application decisions because prior recruitment research (Barber, 1998; Harold et al., 2013) and the meta-analysis of Chapman et al. (2005) found that implicit content factors were related to job choice decisions. As these factors seem to influence decisions in the third recruitment phase, they might offer some promising possibilities for studying the factors that are associated with job seekers’ decisions in earlier phases of recruitment. Therefore, the current study adapts the terminology (see Table 1) of implicit content theories to the first recruitment phase (Barber, 1998; Behling et al., 1968; Chapman et al., 2005; Harold et al., 2013) and operationalizes the three implicit content factors as follows: Objective attributes, subjective attributes, and recruitment communication characteristics (Allen et al., 2004; Collins, 2007; Lievens & Highhouse, 2003; Walker & Hinojosa, 2013). Below we discuss each of these factors and their expected effects.

**Objective Attributes**

Behling et al. (1968) postulated that job seekers weight the costs and benefits associated with employment based on the different objective attributes and that the weightings of all these different attributes (i.e., attractiveness, advantages, disadvantages, and importance) sum up to an overall decision with respect to job choice. Applied to the first phase of recruitment, objective attributes are similar to the instrumental image attributes described in recent recruitment and organizational image research (Barber, 1998; Chapman et al., 2005; Harold et al., 2013). These attributes represent objective, concrete, and factual job or organizational characteristics (e.g., pay and promotion) that are inherent to organizations (Lievens, 2007; Lievens & Highhouse, 2003). They satisfy utilitarian needs of people by maximizing benefits and minimizing costs (Katz, 1960; Van Hoye, Bas, Cromheecke, & Lievens, 2013).

Generally, previous studies in the recruitment field demonstrated that objective attributes (e.g., job content and location) are positively related to job seekers’ perceptions of an organization’s attractiveness as an employer in the first phase of recruitment (Chapman et al., 2005; Lievens & Highhouse, 2003; Van Hoye et al., 2013; Uggerslev et al., 2012). Some pioneer studies conducted in the early eighties used a policy capturing approach and found evidence that location
and salary are related to major students’ application decisions (Rynes & Lawler, 1983; Rynes, Schwab, & Heneman, 1983).

Table 1
Overview of the Terminology Used in This Study

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Implicit content theories (1968)</th>
<th>Implicit content theories applied in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictors</td>
<td>Objective factors</td>
<td>Objective attributes</td>
</tr>
<tr>
<td></td>
<td>Subjective factors</td>
<td>Subjective attributes</td>
</tr>
<tr>
<td></td>
<td>Critical contact factors</td>
<td>Recruitment communication characteristics</td>
</tr>
<tr>
<td>Outcome</td>
<td>Job choice decisions</td>
<td>Actual application decisions</td>
</tr>
<tr>
<td>Recruitment phase</td>
<td>Third</td>
<td>First</td>
</tr>
<tr>
<td></td>
<td>Influencing applicant status</td>
<td>Application generation</td>
</tr>
<tr>
<td></td>
<td>Job seekers decide to accept or reject job offer</td>
<td>Job seekers decide to apply or not</td>
</tr>
<tr>
<td>Processes</td>
<td>Job seekers are not able to distinguish among employment opportunities on the basis of the objective and subjective factors because (1) they will have insufficient contact with the organization to gather information about these factors and (2) due to the efforts of the organizations to convey a positive image on the objective factors these factors will be perceived as fairly similar. Hence, job seekers will use the critical contact factors to make a final position selection.</td>
<td>The technological advances (e.g., websites like Glassdoor and The Vault) have made access to objective attributes and subjective attributes fairly effortless. Hence, objective attributes, subjective attributes, and recruitment communication characteristics can each simultaneously predict job seekers’ application decisions.</td>
</tr>
</tbody>
</table>

Furthermore, Collins and Stevens (2002) found that perceptions of objective attributes were positively associated with students’ self-reported application decisions. Finally, in the meta-analysis of Chapman et al. (2005) objective job and organizational attributes were one of the relatively better predictors of job choice ($\rho = .09$). Given the theoretical and empirical evidence for the role of objective attributes, we expect that job seekers’ perceptions of objective attributes will not only be positively related to job seekers’ attitudes, intentions, and latter job choice decisions but also to their initial application
decisions (Behling et al., 1968; Collins & Stevens, 2002; Lievens & Highhouse, 2003; Van Hoye & Saks, 2011).

**Hypothesis 1:** Job seekers’ perceptions of objective attributes will be positively associated with their actual application decisions.

**Subjective Attributes**

According to the subjective factors theory job choice decisions are also influenced by job seekers’ personal feelings, emotions, and motives (Behling et al., 1968). As people seek psychological need fulfillment by employment with an organization these subjective attributes are used to make assessments about the core values of the organization and the organization’s personality (Barber, 1998; Behling et al., 1968). Indeed, recent recruitment studies have revealed that, in the early phases of recruitment, job seekers ascribe traits to organizations. (Highhouse, Brooks, & Gregarus, 2009; Lievens & Highhouse, 2003; Slaughter, Zickar, Highhouse, & Mohr, 2004). For example, people referred to organizations as innovative, whereas others were seen as prestigious. Hence, these attributes represent subjective, abstract, and intangible traits (e.g., sincerity and competence) and are also referred to as personality trait inferences (Slaughter et al., 2004). These personality trait inferences are related to people’s social identity and refer to their need to enhance their self-image and to express themselves in the broader social context (Aaker, 1996; Highhouse, Thornbury, & Little, 2007).

Similar to the objective attributes, previous recruitment studies found that subjective attributes seem to be positively related to organizations’ attractiveness as an employer in the first phase of recruitment (Lievens & Highhouse, 2003; Highhouse et al., 2007; Schreurs, Druart, Proost, & De Witte, 2009; Van Hoye et al., 2013). Furthermore, Lievens (2007) found that subjective attributes were related to organizational attractiveness among potential applicants, actual applicants, and employees. However, despite their positive association with organizational attractiveness, researchers also mentioned that initial impressions of the subjective attributes might be differentially related to job seekers’ decisions in the different phases of recruitment (Ryan & Ployhart, 2000). Specifically, as during the first phase of recruitment job seekers only have limited information
about an organization as an employer that is typically more trait-like, subjective attributes may be more strongly associated with application decisions than with the decisions job seekers make in later recruitment phases (Barber, 1998). Hence, researchers have expressed the need to further investigate the relationship between subjective attributes and job seekers’ decisions in the first phase of recruitment (Chapman et al., 2005; Harold et al., 2013; Uggerslev et al., 2012). On the basis of this theoretical and empirical evidence, we expect that perceptions of subjective attributes will play a significant role in job seekers’ applications decisions.

_Hypothesis 2: Job seekers’ perceptions of subjective attributes will be positively associated with their actual application decisions._

**Recruitment Communication Characteristics**

Critical contact theory states that because job seekers only have limited information about an organization as an employer they must also rely on recruitment contacts to differentiate between organizations. As such, job seekers also focus on characteristics that are related to the recruitment process itself to make decisions and to distinguish among employment opportunities (Barber, 1998; Behling et al., 1968).

Applied to the first phase of recruitment it seems that job seekers not solely focus on the information they receive but also on _how_ they receive this information to make decisions. For example, the first recruitment phase is characterized by little interpersonal contact and communication between the different parties. Job seekers typically receive information through job postings, friends and acquaintances not directly associated with the organization, social media, or other more formal recruitment communication. Recruitment communication refers to the methods organizations use to attract their future employees and can influence job seekers’ reactions and perceptions of the job and the organization (Griffeth, Tenbrink, & Robinson, 2013). Previous recruitment research suggested that recruitment communication characteristics may influence organizations’ attractiveness as an employer (Cable & Yu, 2006; Collins, 2007; Collins & Stevens, 2002; Griffeth et al., 2013; Rynes, Bretz, & Gerhart, 1991).
For instance, an unclear job posting on an untrustworthy website may negatively stand out to job seekers, leading to withdrawal from the recruitment process (Allen et al., 2004; Barber & Roehling, 1993; Belt & Paolillo, 1982; Walker & Hinojosa, 2013). Therefore, in this study two key recruitment communication characteristics that are relevant in the context of decision outcomes will be taken into account: Perceived level of credibility and informativeness of recruitment communication (Allen et al., 2004; Cable & Yu, 2006; Ryan, Horvath, & Kriska, 2005; Williamson, Lepak, & King, 2003).

**Credibility.** Perceived credibility is based on individuals’ perceptions of accuracy, appropriateness, and believability of the communication they receive. As individuals attach varying degrees of credibility to communication, this may influence their acceptance of the information they receive (Eisend, 2004; Hovland, Irvin, & Harold, 1953; Pornpitakpan, 2004). Specifically, persuasion research indicated that if an individual perceives certain communication as having high credibility, the individual is more receptive to that communication and is more likely to be persuaded (Pornpitakpan, 2004). Prior research in the field of communication and persuasion showed a positive effect of credibility on individuals’ attitudes, cognitions, intentions, and even subsequent behavior (Eisend, 2004; Hovland et al., 1953; Pornpitakpan, 2004).

In addition, prior recruitment research showed that how recruitment communication is perceived in terms of credibility influenced job seekers’ attitudes and intentions (Cable & Turban, 2001; Fisher, Ilgen, & Hoyer, 1979; Van Hoye & Lievens, 2007, 2009). As recruitment communications may vary in the degree to which job seekers perceive them as providing credible information about the employment experience, this might also explain their differential effects on job seekers’ decisions (Allen et al., 2004; Cable & Turban, 2001; Cable & Yu, 2006; Fisher et al., 1979; Van Hoye & Lievens, 2007, 2009). Specifically, on the basis of the credibility framework, we expect that credible recruitment communication (i.e., providing credible information about the employment experience) is more persuasive and may positively influence job seekers’ application decisions (Allen et al., 2004; Cable & Turban, 2001; Eisend, 2004; Griffeth et al., 2013; Van Hoye & Lievens, 2009).
Hypothesis 3: Job seekers’ perceptions of the credibility of the recruitment communication will be positively associated with their actual application decisions.

**Informativeness.** Informativeness can be defined as the extent to which communication provides information that helps to discriminate between interpretations, alternatives, and categorizations. Communication that is perceived as informative is more likely to be used for judgment and choice than ambiguous communication (Feldman & Lynch, 1988; Herr, Kardes, & Kim, 1991; Williamson et al., 2003).

Hence, recruitment communication that allows job seekers to discriminate between possible employers will be perceived as informative (i.e., the recruitment communication is relevant, detailed, and sufficient for prospective employees to assess the employment experience; Ryan et al., 2005). In other words, recruitment communication is informative when it helps job seekers decide whether a specific organization might be a good or bad place to work (Belt & Paolillo, 1982; Collins, 2007; Feldman & Lynch, 1988; Ryan et al., 2005; Rynes, 1991). The higher the level of informativeness of the recruitment communication, the more likely that this communication will influence job seekers’ attitudes and later decisions. Indeed, prior recruitment research found that informativeness positively influenced job seekers’ attractiveness to the organization and their intentions to apply (Barber & Roehling, 1993; Ryan et al., 2005; Williamson et al., 2003). Furthermore, Lee, Hwang, and Yeh (2013) found recruitment communication’s concreteness and specificity (i.e., provides a detailed description of the organization as a place to work) to be an important influential factor for attracting and keeping job seekers’ attention. On the basis of these theoretical and empirical findings we expect that informative recruitment communication may positively influence job seekers’ actual application decisions (Barber & Roehling, 1993; Collins, 2007; Lee et al., 2013; Ryan et al., 2005; Williamson et al., 2003).

Hypothesis 4: Job seekers’ perceptions of the informativeness of the recruitment communication will be positively associated with their actual application decisions.
Relative Importance of Implicit Content Factors

Behling et al. (1968) posited that the three types of factors have a sequential influence on job seekers’ application decisions. Specifically, they assumed that job seekers first gather information about the objective attributes. Next, their focus shifts to information about the subjective attributes. However, job seekers would be unable to distinguish among employment opportunities solely on the basis of objective and subjective attributes (i.e., they are unable to gather enough differentiating information and the information will be strongly influenced by the organization) and gather (dis)confirming information about these attributes through critical and direct contact with the organization. However, implicit content theories were developed prior to the technological advances enjoyed in the twenty-first century (Barber, 1998; Harold et al., 2013). For instance, nowadays job seekers can see real employee salaries, read reviews of organizations as an employer, and consult employer rankings on social media websites such as “Glassdoor” and “The Vault”. As such, the contention that job seekers are “blank slates” when entering the recruitment process is probably no longer valid and job seekers’ decisions to apply may be based on different factors (Collins, 2007). Hence, objective attributes, subjective attributes, and recruitment communication characteristics might simultaneously influence job seekers’ application decisions (Allen et al., 2004; Barber, 1998; Barber & Roehling, 1993; Collins & Stevens, 2002; Ryan et al., 2005; Harold et al., 2013).

So far, no studies have explored how the effects of the three content factors on job seekers’ application decisions compare with each other. In other words, what is their relative importance in determining application decisions? Therefore, in this study we examine the relative importance of objective attributes, subjective attributes, and recruitment communication characteristics (i.e., credibility and informativeness) in determining job seekers’ application decisions. As we do not have firm expectations about the relative importance of the three factors, this part of the study is exploratory. Hence, we formulate the following research question:

Research Question 1: What is the relative importance of objective attributes, subjective attributes, and recruitment communication characteristics in explaining job seekers’ actual application decisions?
Interactions Between Implicit Content Factors

From the above discussion about the relationships among the three factors one can assume that recruitment communication characteristics may interact with objective and subjective attributes in their effects on job seekers’ application decisions. Specifically, as job seekers already have preliminary perceptions about the objective and subjective attributes when they come into contact with recruitment communication, the characteristics of the recruitment communication may either confirm or disconfirm their earlier perceptions (Harold et al., 2013). Which in turn, may influence job seekers’ application decisions. For example, imagine a job seeker who perceives an organization as high on competence and who receives the same information from a job posting on a website as “Glassdoor” (i.e., organization independent website is higher in credibility, Allen et al., 2004). Hence, this attractive subjective attribute in combination with the highly credible information may enhance (i.e., initial information is confirmed) the likelihood that the job seeker applies. Given that little research evidence is available, we conducted exploratory analyses to investigate how recruitment communication characteristics (i.e., credibility and informativeness) will interact with perceptions of objective and symbolic attributes. So we formulate the following research question:

Research Question 2: How do recruitment communication characteristics interact with perceptions of objective and subjective attributes?

Method

Sample and Procedure

Data were collected in collaboration with an online job board provider during the recruitment process of a public transportation company. When job seekers visited the job board provider or the public transportation company’s website to view one of the company’s technical job vacancies, a pop-up screen or banner appeared asking them to complete an anonymous online survey. In total, 158 job seekers (82% male; mean age = 37.9 years, SD = 10.9) completed the online survey about the public transportation company’s objective and subjective
attributes. Next, they were directed towards an actual online job posting (i.e., technical profile). After reading this job posting, job seekers were asked to rate its level of credibility and informativeness (i.e., recruitment communication characteristics), and had the opportunity to apply for this vacancy.

**Measures**

Unless stated otherwise, items were rated on a 5-point Likert scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

**Objective attributes.** On the basis of previous research (e.g., Carless & Imber, 2007; Chapman et al., 2005; Lievens, 2007; Lievens & Highhouse, 2003; Uggerslev et al., 2012) and in close consultation with the job board provider and public transportation company in question, we identified five relevant objective attributes: Pay and promotion (e.g., “offers a competitive compensation package”, 3 items, $\alpha = .88$), location (e.g., “has a desirable geographic location”, 2 items, $\alpha = .85$), job content (e.g., “offers challenging work”, 3 items, $\alpha = .87$), work-life balance (e.g., “offers flexible working hours”, 3 items, $\alpha = .84$), and co-workers (e.g., “employs competent and sociable co-workers”, 3 items, $\alpha = .93$). Job seekers had to indicate the degree to which they agreed that the organization possessed each of these instrumental attributes. A confirmatory factor analysis conducted with Mplus 7.4 using robust maximum likelihood estimation indicated that the five-factor model produced an acceptable fit to the data, $\chi^2(71;158) = 136.56$, $p < .001$; $RMSEA = .076$ (90% CI [.057,.096]); $CFI = .935$; $SRMR = .063$ (Byrne, 2012).

**Subjective attributes.** Subjective attributes were measured with the scale of Lievens and Highhouse (2003). They adapted Aaker’s (1996) brand personality scale and found that five distinct factors can be used to describe the subjective attributes people associate with organizations as an employer: Sincerity (e.g., “honest”, 2 items, $\alpha = .86$), innovativeness (e.g., “daring”, 5 items, $\alpha = .91$), competence (e.g., “intelligent”, 3 items, $\alpha = .90$), prestige (e.g., “prestigious”, 2 items, $\alpha = .87$), and robustness (e.g., “strong”, 2 items, $\alpha = .87$). Respondents were asked to indicate the extent to which they agreed that these subjective attributes were descriptive of the organization as an employer. A confirmatory factor analysis conducted with Mplus 7.4 using robust maximum likelihood estimation indicated that the five-factor model acceptably fitted the data, $\chi^2(71;158) = 170.73$,.
Recruitment communication characteristics.

Credibility. Three items (e.g., “The information in the job posting is trustworthy”, $\alpha = .80$) from Van Hoye and Lievens (2007) were used to measure the perceived credibility of the online job posting.

Informativeness. The perceived informativeness of the online job posting was assessed with three items from Williamson et al. (2003; $\alpha = .84$). A sample item is “The job posting provided information that is relevant for prospective employees”.

Actual application decision. After reading the online job posting and rating its credibility and informativeness, job seekers were asked whether they wanted to apply for this vacancy. If they decided to apply, they were directed towards the online application section of the public transportation company’s website to complete an application form. Application decision was coded as 0 = did not apply or 1 = applied.
Table 2
Means, Standard Deviations, and Correlations Between Study Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
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<th>3.</th>
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<td>1. Gender</td>
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<td>2. Age</td>
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<td>3. Pay and promotion</td>
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<td>-.03</td>
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<td>5. Job content</td>
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<td>-.07</td>
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<td>.62**</td>
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<td>6. Work-life balance</td>
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<td>.01</td>
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<td>7. Co-workers</td>
<td>3.58</td>
<td>0.92</td>
<td>.02</td>
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<td>8. Sincerity</td>
<td>3.51</td>
<td>1.04</td>
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<td>.06</td>
<td>.56**</td>
<td>.59**</td>
<td>.58**</td>
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<td>.62**</td>
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<td>9. Innovativeness</td>
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<td>0.96</td>
<td>.03</td>
<td>.07</td>
<td>.68**</td>
<td>.70**</td>
<td>.62**</td>
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<td>10. Competence</td>
<td>3.40</td>
<td>1.02</td>
<td>-.06</td>
<td>.03</td>
<td>.62**</td>
<td>.70**</td>
<td>.62**</td>
<td>.58**</td>
<td>.70**</td>
<td>.69**</td>
<td>.74**</td>
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<td>11. Prestige</td>
<td>2.81</td>
<td>1.00</td>
<td>-.04</td>
<td>.08</td>
<td>.63**</td>
<td>.59**</td>
<td>.52**</td>
<td>.53**</td>
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<td>12. Robustness</td>
<td>3.48</td>
<td>0.89</td>
<td>.07</td>
<td>.07</td>
<td>.45**</td>
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<td>Recruitment communication characteristics</td>
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<tr>
<td>13. Credibility</td>
<td>3.77</td>
<td>0.80</td>
<td>-.05</td>
<td>.03</td>
<td>.46**</td>
<td>.45**</td>
<td>.57**</td>
<td>.43**</td>
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<td>.37**</td>
<td>.32**</td>
<td>.80</td>
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<td>14. Informativeness</td>
<td>3.47</td>
<td>0.86</td>
<td>.00</td>
<td>.12</td>
<td>.58**</td>
<td>.60**</td>
<td>.57**</td>
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<td>15. Application decisions</td>
<td>.85</td>
<td>.35</td>
<td>-.04</td>
<td>-.07</td>
<td>.36**</td>
<td>.28**</td>
<td>.31**</td>
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<td>.36**</td>
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<td>.35**</td>
<td>.40**</td>
<td>.30**</td>
<td>.32**</td>
<td>.29**</td>
<td>.42**</td>
</tr>
</tbody>
</table>

Note. N=158. a0 = male, 1 = female. b0 = did not apply, 1 = applied. Reliabilities for scales are presented on diagonal. \( p < .10 \), \( p < .05 \), \( p < .01 \).
RESULTS

Test of Hypotheses

Table 2 presents the descriptive statistics and correlations of the study variables. The demographic variables age and gender were not significantly correlated with job seekers’ application decisions. Informativeness ($r = .42$), competence ($r = .40$), and work-life balance ($r = .39$) were the most highly correlated with job seekers’ application decisions.

To test our hypotheses, we conducted a hierarchical logistic regression analysis. In this analysis, the objective attributes were entered in the first step, the subjective attributes in the second step, and the recruitment communication characteristics in the third step. As the demographic variables age and gender were not related to actual application decisions they were not entered in the hierarchical logistic regression analysis. Furthermore, as post-hoc power analyses conducted with G*Power3 revealed that with an alpha level of .10, a sample size of 158, and the observed odd-ratios our achieved power (from .50 to .75) was higher than with an alpha level of .05 (from .43 to .66), we used $p < .10$ as significance level. The results are shown in Table 3.

Hypothesis 1 suggested that job seekers’ perceptions of objective attributes would be positively associated with their actual application decisions. As shown in Table 3, job seekers were more likely to apply when they perceived the organization as providing work-life balance ($\text{Exp}(B) = 2.20, p = .035$) and employing competent and sociable co-workers ($\text{Exp}(B) = 1.97, p = .079$). So, Hypothesis 1 was supported. Among the set of subjective attributes entered in the second step, only competence ($\text{Exp}(B) = 2.17, p = .097$) was positively related to job seekers’ application decisions. The likelihood that job seekers applied was higher when they perceived the organization as more competent, providing some support for Hypothesis 2. However, we should mention that, although the model was significant ($\chi^2(10;158) = 35.83, p < .001$), step 2 was not ($\chi^2(5;158) = 4.86, p = .443$). Finally in the third step, as the perceived credibility of the job posting ($\text{Exp}(B) = 0.95, p = .922$) was not significantly related to application decisions, Hypothesis 3 was not supported. In line with hypothesis 4, the higher the
perceived level of informativeness ($\text{Exp}(B) = 3.60, p = .013$), the more likely it was that job seekers applied.

Table 3

*Regression of Application Decisions on Objective Attributes, Subjective Attributes, and Recruitment Communication Characteristics and Relative Weights Analysis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Application decisions$^a$</th>
<th>Percentages of predictable variance$^b$</th>
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<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step 2</td>
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<tr>
<td>Objective attributes</td>
<td></td>
<td></td>
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<tr>
<td>Pay and promotion</td>
<td>1.69</td>
<td>1.74</td>
</tr>
<tr>
<td>Location</td>
<td>0.90</td>
<td>0.65</td>
</tr>
<tr>
<td>Job content</td>
<td>0.89</td>
<td>0.76</td>
</tr>
<tr>
<td>Work-life balance</td>
<td>2.20$^\dagger$</td>
<td>2.18$^\dagger$</td>
</tr>
<tr>
<td>Co-workers</td>
<td>1.97$^\dagger$</td>
<td>1.64</td>
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<tr>
<td>Subjective attributes</td>
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<tr>
<td>Sincerity</td>
<td></td>
<td>1.10</td>
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<tr>
<td>Innovativeness</td>
<td>0.90</td>
<td>1.09</td>
</tr>
<tr>
<td>Competence</td>
<td>2.17$^\dagger$</td>
<td>2.79$^*$</td>
</tr>
<tr>
<td>Prestige</td>
<td>0.73</td>
<td>0.69</td>
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<tr>
<td>Robustness</td>
<td>1.43</td>
<td>1.12</td>
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<td>Recruitment communication</td>
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<tr>
<td>Credibility</td>
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<tr>
<td>Informativeness</td>
<td>3.60$^*$</td>
<td>.07$^\dagger$</td>
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<tr>
<td>$\chi^2$</td>
<td>30.97$^{**}$</td>
<td>35.83$^{**}$</td>
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<td>(df)</td>
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<td>(10)</td>
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<tr>
<td>$\text{Nagelkerke } R^2$</td>
<td>.32$^{**}$</td>
<td>.36$^{**}$</td>
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<tr>
<td>$\Delta \text{Nagelkerke } R^2$</td>
<td>.32$^{**}$</td>
<td>.04$^*$</td>
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*Note. N=158. The values in the table are logistic regression odds ratios, $\text{Exp}(B)$. A significant odds ratio greater than 1 (less than 1) indicates that the odds of the outcome variable increase (decrease) when the predictor increases. Nagelkerke $R^2$ is a goodness-of-fit measure for a logistic regression model that approximates the $R^2$ for linear regression; it similarly ranges from 0 to 1. $^a$ 0 = did not apply, 1 = applied. $^b$ The relative weights and the percentages of predictable variance were computed using the analytical approach of Tonidandel and LeBreton (Tonidandel & LeBreton, 2010, 2015). We looked at the confidence interval tests of significance to see whether the relative weights were significant. $^c$ 90% confidence intervals around the relative weights. These confidence intervals explain the precision of the relative weights: Larger confidence intervals indicate less precision; smaller confidence indicate greater precision (Tonidandel & LeBreton, 2015). $^d$ These percentages were obtained by summing the predictable variance across a specific implicit content factor. $^\dagger$ $p < .10$; $^*$ $p < .05$; $^{**} p < .01$. 
Relative Importance Analysis

As noted above, the three implicit content factors can have a combined influence on job seekers’ application decisions. To determine the unique contribution of each (Research Question 1), we examined the relative importance of the three different implicit content factors in determining job seekers’ application decisions. Given that regression coefficients are not interpretable as measures of relative importance when the predictor variables are interrelated as is the case in the present study (see Table 2), we conducted relative weights analysis to determine the relative importance of the objective attributes, subjective attributes, and recruitment communication characteristics (i.e., perceived credibility and informativeness of the online job posting) in predicting application decisions (Johnson, 2000; Lievens, Van Hoye, & Schreurs, 2005; Tonidandel & LeBreton, 2010). Relative weights are defined as the proportionate contribution that each predictor makes to $R^2$, considering both its unique contribution and its contribution when combined with the other predictor variables in the analysis (Johnson, 2000; Tonidandel & LeBreton, 2010, 2015). For ease of interpreting relative weights, it is also possible to express them as percentages of the predictable variance ($R^2$). The last three columns of Table 3 present the relative weights, the 90% confidence intervals around the raw weights, and the percentages of predictable variance.

Inspection of the relative weights showed that all objective attributes contributed 37.40% to the predictable variance in application decisions. All subjective attributes combined contributed 36.55%. All the recruitment communication characteristics contributed 26.04% to the predictable variance in application decisions. Across the different implicit content factors, the perceived informativeness of the job posting (21.19%), perceptions of competence (14.28%), and perceptions of work-life balance (12.17%) made the largest contribution to the predictable variance in job seekers’ application decisions.

Interactions Between Implicit Content Factors

Finally, we investigated possible interaction effects of recruitment communication characteristics with objective and subjective attributes on job seekers’ application decisions. For example, we examined whether the interaction between work-life balance and informativeness was a significant predictor of
application decisions. To this end, we computed the product term between work-life balance and informativeness and entered it in the regression equation after entering work-life balance and informativeness. In line with recommendations for dealing with problems of multicollinearity when using cross-product terms, independent variables were standardized prior to computing their cross-product terms (Aiken & West, 1991; Tabachnick & Fidell, 2001). We followed the same approach for investigating all possible interaction effects between each recruitment communication characteristic (i.e., perceived credibility and informativeness of the online job posting) on the one hand and every objective and subjective attribute on the other hand. In total we tested 20 different interaction terms: Ten interactions for the objective attributes (i.e., two recruitment communication characteristics and five objective attributes) and ten for the subjective attributes (i.e., two recruitment communication characteristics attributes and five subjective).

Our examination of the possible interactions between recruitment communication characteristics and objective and subjective attributes revealed a fairly consistent picture. None of the ten interactions between the job posting’s perceived level of informativeness and job seekers’ perceptions of the objective and subjective attributes were significant. However, we did find five significant interactions between the perceived credibility of the job posting and objective and subjective attributes. The objective attributes job-content (Exp($B$) = 1.78, $p = .029$; $\Delta$Nagelkerke $R^2 = .06$), work-life balance (Exp($B$) = 1.62; $p = .051$; $\Delta$Nagelkerke $R^2 = .04$) and co-workers (Exp($B$) = 1.85, $p = .018$; $\Delta$Nagelkerke $R^2 = .06$) significantly interacted with credibility. Furthermore, the subjective attributes innovativeness (Exp($B$) = 1.69, $p = .077$; $\Delta$Nagelkerke $R^2 = .03$) and prestige (Exp($B$) = 2.26, $p = .013$; $\Delta$Nagelkerke $R^2 = .07$) significantly interacted with credibility. Interpretation of the odds ratios and the graphical plots leads to the same conclusion for every significant interaction. That is, the relationships between the attributes and application decisions were stronger when credibility was high. Conversely, the relationships between the attributes and application decisions were weaker or nonexistent when credibility was low.
DISCUSSION

This study responds to the need for recruitment research to move beyond attitudes and intentions. We relied on implicit content theories (Behling et al., 1968) as a conceptual framework for examining the factors that determine job seekers’ actual application decisions during the first phase of recruitment. This study yields several theoretical and practical implications that enhance our knowledge of job seekers’ application decisions.

First, we provide evidence for the relevance of implicit content theories to study decisions in the first phase of recruitment (Behling et al., 1968; Harold et al., 2013). Our findings indicate that objective attributes, subjective attributes, and recruitment communication characteristics (i.e., informativeness) are related to job seekers’ application decisions. Specifically, job seekers were more likely to apply if they perceived the organization as supporting employees’ work-life balance, as employing competent and sociable co-workers, and as competent. Furthermore, job seekers applied more when the perceived level of informativeness of the job posting was high. Hence, job postings that provide relevant and detailed information about the organization as an employer are positively related to job seekers’ application decisions. These results imply that objective attributes, subjective attributes, and recruitment communication characteristics are not only related to job choice decisions in the third phase of recruitment (Behling et al., 1968) but also to job seekers’ application decisions in the first phase of recruitment. Hence, when investigating what determines job seekers’ application decisions, objective attributes, subjective attributes, and recruitment communication characteristics should be included. Although our findings indicate that subjective attributes can be used to predict actual application decisions, it should be noted that only one attribute (i.e., competence) was significantly related to actual application decisions and that these attributes did not significantly account for incremental variance. In addition, contrary to our expectations we found no significant relationship between perceptions of the job posting’s credibility and actual application decisions.

Furthermore, this study also investigates the unique contribution of each implicit content factor in determining job seekers’ application decisions. We
found that, the combined objective attributes made a large contribution to the predictable variance in application decisions. However, when we inspect the separate attributes and recruitment communication characteristics, the perceived informativeness of the job posting made an important contribution to the predictable variance in actual application decisions. The finding that the informativeness of the job posting contributes to the variance in application decisions confirms and strengthens our previous conclusion that conceptualizations of what determines job seekers’ application decisions should be broadened to include recruitment communication characteristics.

Third, we explored possible interactions between objective attributes and subjective attributes and recruitment communication characteristics. We discovered that job-content, work-life balance, co-workers, innovativeness, and prestige had stronger relationships with application decisions when perceived credibility was high. A possible explanation may be that credibility perceptions enhance positive perceptions of the organization as an employer and as such increase the possibility that job seekers apply (Allen et al., 2004; Cable & Yu, 2006). Another possible explanation may be that credibility serves as a necessary prerequisite for informativeness (Feldman & Lynch, 1998; Williamson et al., 2003).

Finally, as we found modest correlations between objective attributes, subjective attributes, recruitment communication characteristics and application decisions, we can be optimistic about the predictive utility of objective attributes, subjective attributes, and recruitment communication characteristics. Specifically, our correlations are in line with prior studies that included attitudes and intentions as dependent variables (see meta-analyses of Chapman et al. (2005) and Uggerslev et al., 2012). Furthermore, the correlations found in this study seem to be higher than the correlations found in previous studies with job choice decisions as the outcome. Hence, it may be that it is easier to predict job seekers’ decisions in the first phase of recruitment on the basis of implicit content factors than to predict their decisions in the third phase of recruitment.

**Limitations**

In terms of limitations, our study’s results are based on self-reports gathered by a single survey. Therefore, common method variance may be an alternative
explanation for our results. As another limitation, our small sample size may have resulted in lower power to find significant effects. However, this is inherent to our research design, as in real life these vacancies are difficult to fill because few job seekers have the right qualifications for this kind of technical jobs. Furthermore, we focused on a limited set of objective attributes, symbolic attributes, and recruitment communication characteristics. Future research would benefit from investigating the relationship between other factors and job seekers’ application decisions. Finally, our study used an online job posting. Although a job posting is still one of the most frequently used forms of recruitment communication, other forms of recruitment communication (e.g., employee referrals, videos) may be differently related to actual application decisions. Therefore, we encourage future research to replicate our findings with other forms of recruitment communication than the one used in this study.

Directions for Future Research

Future studies are encouraged to use our adapted version of Behling et al.’s (1968) implicit content theories to identify factors determining job seekers’ application decisions. The inclusion of objective attributes, subjective attributes, and recruitment communication characteristics to study decisions in the first phase of recruitment seems to be particularly promising. It should be noted that the recruitment communication characteristics are broader than the two characteristics used in this study (e.g., media richness, strangeness; Cromheecke, Van Hoye, & Lievens, 2013). Future research could extend this study and increase the percentage of explained variance by incorporating other recruitment communication characteristics. It would be interesting to investigate whether other recruitment communication characteristics influence actual application decisions.

Another intriguing question for future research may be whether recruitment communication characteristics affect job seekers’ perceptions of the objective and subjective attributes (Harold et al., 2013; Van Hoye, 2012; Walker & Hinojosa, 2013). For example, future research could also include a pre- and post-measurement of the objective and subjective attributes to scrutinize whether recruitment communication characteristics change job seekers’ perceptions. It seems plausible, for instance, that an original or unusual job posting may change
job seekers’ perceptions of an organization (Cromheecke et al., 2013). Furthermore, longitudinal models of the recruitment process posit that in the early phases job seekers have only rudimentary knowledge about the organization as an employer (Barber, 1998; Harold & Ployhart, 2008). If this is the case, longitudinal studies are needed to examine the effects of recruitment communication characteristics on job seekers’ perceptions of the objective and subjective attributes in further recruitment phases.

A final interesting avenue for future research consists in further investigating the role of credibility. Perceived credibility was not significantly related to job seekers’ application decisions. However, it was positively correlated with application decisions and strengthened some of the relationships between objective and subjective attributes and application decisions. Lab studies that manipulate and control recruitment communication characteristics may provide a deeper understanding of the interplay between credibility, informativeness and other recruitment communication characteristics.

**Implications for Practice**

With respect to practical implications, this study provides evidence for the importance of implicit content theories in understanding application decision in the first phase of recruitment. Practitioners should be aware that job seekers are not blank slates, but actively look for information about an organization as an employer (Collins, 2007; Harold et al., 2013). Apparently, there exists an interplay between different factors related to organizations’ image as an employer and their recruitment communication and job applicants’ decisions during the first phase of recruitment. Organizations should actively and consistently manage these different factors to generate more applicants and stay competitive in the (labor) market.

Furthermore, our results show that both objective and subjective attributes are related to job seekers’ application decisions. For organizations, this implies that to attract employees and stay competitive in their business environment it may be advantageous to focus on objective and subjective attributes in their recruitment processes (Edwards, 2010; Highhouse et al., 2009; Lievens & Highhouse, 2003; Van Hoye et al., 2013). Moreover, the success of a recruitment campaign (i.e., quantity of job seekers that apply) is also influenced by the
recruitment communication characteristics. So organizations should take the informativeness of their recruitment processes into account. Organization could benefit from providing job seekers with relevant, detailed, and sufficient information about the organization as an employer through their recruitment processes. Recruitment information that helps job seekers discriminating between alternatives might help them to make an evaluation of the organization as an employer and convince them to apply (Lievens & Highhouse, 2003; Van Hoye et al., 2013). Hence, organizations should invest in the development of recruitment communication that is seen as informative. Including video messages on corporate websites may serve as a point of departure in providing job seekers with detailed and vivid information about the employment experience (Allen et al., 2004; Ryan et al., 2005; Williamson et al., 2003).

In conclusion, to enhance the effectiveness of their recruitment campaigns organizations should be aware that job seekers’ perceptions of objective attributes, subjective attributes, and recruitment communication characteristics are related to organizational attractiveness (Chapman et al., 2005; Uggerslev et al., 2012) but also, and maybe even more important, these factors are associated with job seekers’ application decisions in the first phase of recruitment. Furthermore, as the observed correlations between these factors and application decisions are comparable to the ones found in previous studies that used attitudes and intentions as predictors, these factors might offer some promising possibilities to study application decisions in the first phase of recruitment.
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CHAPTER 6

GENERAL DISCUSSION

This final chapter provides a summary and critical discussion of the main findings from the empirical studies in Chapter 2 through Chapter 5. The five key assumptions of this doctoral dissertation (cf. Chapter 1) will guide this overview and general discussion. The key assumptions were (1) employer branding makes organizations attractive, (2) employer branding makes organizations distinct from their competitors in the labor market, (3) employer branding influences not only perceptual but also objective outcomes, (4) organizations should manage their employer brand by standing out, and (5) organizations should align employer branding with other image management efforts. Furthermore, the strengths and limitations of this dissertation are acknowledged and directions for future research are identified. The chapter ends with implications for recruitment and employer branding practices.


**RESEARCH OVERVIEW**

In the face of the labor market that still remains tight and the global “war for talent”, a growing interest in organizations’ image as an employer and employer branding has emerged (Ambler & Barrow, 1996; Backhaus & Tikoo, 2004; Cable & Turban, 2001; Edwards, 2010; Lievens & Highhouse, 2003; Martin, Gollan, & Grigg, 2011). Therefore, to enhance recruitment research, this dissertation tested some key assumptions underlying employer branding and considered predictors of why potential applicants are attracted to organizations and are willing to apply. By doing so we hope to provide both researchers and practitioners with a more comprehensive view of what recruitment is in the broader context of employer branding efforts. Across four chapters we presented four empirical studies testing five key assumptions underlying employer branding. The question that arises at this point is which lessons can be derived from this dissertation to advance theory and practice. On the basis of our empirical studies, we briefly summarize the main findings of this dissertation in terms of the five key assumptions. In addition, we describe some strengths, identify caveats and directions for future research, and outline the practical implications of this dissertation.

**Key Assumption 1: Employer Branding Makes Organizations Attractive**

Even tough prior research found evidence for the relationships of employer branding and employer brands with organizations’ attractiveness (Barber, 1998; Chapman, Uggerslev, Carroll, Piansentin, & Jones, 2005; Jones & Willness, 2013) most previous studies examined these relationships in specific contexts (e.g., military or banking industry) mostly using student samples. In order to contribute to the development of employer branding, this dissertation further investigated whether employer branding makes organizations attractive.

In the large-scale study in *Chapter 2* we used the instrumental-symbolic framework to study the key attributes underlying employer image and investigated their attractiveness across six industries and three applicant groups. On the basis of noticeable differences between industries (i.e., labor market structure; Dineen & Williamson, 2012; Marelli, 2007) and applicant groups (i.e., search process; Boswell, Zimmerman, & Swider, 2012; Kanfer, Wanberg, &
Kantrowitz, 2001) we expected that the attractiveness of employer image attributes would not be the same. Surprisingly, we found that the same instrumental (job content, working conditions, and compensation) and symbolic (innovativeness, robustness, and competence) image attributes were consistently used to ascertain organizations’ attractiveness as an employer across industries and applicant groups. Although we did not expect to find these similarities, these results are in line with previous research that found significant relationships between these specific instrumental and symbolic image attributes and organizational attractiveness (e.g., Chapman et al., 2005; Lievens, 2007; Lievens & Highhouse, 2003; Lievens, Van Hoye, & Anseel, 2007; Van Hoye, Bas, Cromheecke, & Lievens, 2013). Hence, although there exist differences across industries and applicant groups, some image attributes seem to be consistently related to organizations’ attractiveness across these different contexts. Thus, it might be that not only the symbolic image attributes are generalizable across organizations, industries, and applicant groups (e.g., Kausel & Slaughter, 2011; Lievens, 2007; Van Hoye et al., 2013; Walker, Feild, Giles, Bernerth, & Short, 2011) but also the instrumental image attributes. Consequently, future research might use a more deductive strategy instead of the common inductive strategy to determine the instrumental image attributes.

The study described in Chapter 3 further confirms the importance of employer brands as both instrumental and symbolic employer images were related to organizations’ attractiveness. Moreover, employer image explained significant incremental variance over and above the other organizational images (i.e., product image, corporate social performance image, and financial performance image) included in this study. Although organizations’ attractiveness was not explicitly tested in the remaining chapters (Chapter 4 and Chapter 5) the results of these studies indicate that employer branding efforts are related to potential applicants’ attraction to organizations. Specifically, in Chapter 4 organizations were able to attract more applicants by standing out during recruitment (i.e., recruiting through an unusual recruitment medium). Providing further support in Chapter 5, work-life balance, co-workers, and competence were positively related to actual application decisions. As in most cases, positive attitudes serve as important prerequisites for application decisions, higher applicant pool quantity might
indicate that organizations are also seen as more attractive (Barber, 1998; Harold, Uggerslev, & Kraichy, 2013).

In summary, both instrumental and symbolic image attributes are related to organizations’ attractiveness, a key recruitment outcome in the applicant population that mediates most effects of recruitment activities on actual application and job choice decisions in later phases of recruitment (Chapman et al., 2005; Collins & Stevens, 2002; Highhouse, Lievens, & Sinar, 2003; Judge & Cable, 1997; Uggerslev, Fassina, & Kraichy, 2012). This is in line with prior research indicating that applicants’ perceptions of employer image attributes are related to their attraction to organizations’ as an employer (Lievens & Highhouse, 2003; Lievens, Van Hoye, & Schreurs, 2005; Van Hoye et al., 2013). However, this dissertation extends these findings across different industries, applicant groups, and beyond other organizational images. Therefore, our findings provide strong support for the relevance of employer branding as an influential asset affecting important recruitment outcomes and allowing organizations to become an employer of choice.

**Key Assumption 2: Employer Branding Makes Organizations Distinct From Their Competitors in the Labor Market**

As has been pointed out at the start of this dissertation, being an attractive employer represents only one side of the equation with regard to employer branding. Indeed, the goal of employer branding is to promote not only an attractive but also a distinctive employer brand (Backhaus & Tikoo, 2004; Collins & Kanar, 2013; Keller, 1998). Although marketing literature has been investigating so called brands’ points-of-difference associations (Aaker, 1996; Barney, 1991; Keller, 1998; Newbert, 2007; Porter, 1985), organizations’ distinctiveness as an employer has usually not been part of employer branding studies in the context of recruitment. Thus we know little about the image attributes underlying organizations’ distinctiveness as an employer. Therefore, this dissertation examined whether employer branding makes organizations distinct from their competitors in the labor market.

Specifically, in Chapter 2, we investigated the specific image attributes that might allow organizations to differentiate themselves from their competitors in the labor market. As mentioned above, we found some instrumental and symbolic
image attributes that people consistently used to ascertain organizations’ attractiveness. However, we did observe significant differences across applicant groups and industries in people’s perceptions of how organizations scored on these attributes. In light of these results the attributes that were associated with attractiveness were not necessarily the same as the image attributes that made organizations distinct from each other across and within industries. Specifically, compensation, job content, robustness, and innovativeness were the attributes that were related to organizations’ attractiveness as an employer and differentiated between organizations. These results are in line with marketing literature which postulated that brands need to have some points-of parity to be considered in a specific brand category (i.e., an employer of choice) and some points-of-difference on which actual buying decisions (i.e., the employer of choice) will depend (Aaker, 1996; Keller, 1998; Wilden, Gudergan, & Lings, 2010). Hence, as points-of difference associations allow organizations to stand out from their competitors (Cable, 2007; Mosley, 2014), our results made it possible to derive preliminary conclusions on which image attributes (i.e., compensation, job content, robustness, and innovativeness) might allow organizations to become the employer of choice. Moreover, perceptions of the instrumental and symbolic image attributes also differed across applicant groups. This indicates that image attributes should be positioned or adjusted with regard to the different (potential) applicant groups of an organization (e.g., employed vs. unemployed job seekers, internal vs. external candidates, blue collar vs. white collar; Avery & McKay, 2006).

In total, prior recruitment research was primarily concerned with the identification of relevant employer image attributes that were positively related to organizations’ attractiveness. However, our results indicate that some employer image attributes allow organizations to differentiate themselves from their competitors in the labor market. In addition, as we found differences in people’s perceptions of how organizations scored on the image attributes across organizations, industries, and applicant groups, researchers and practitioners might want to focus more on relative image attributes. Specifically, while the extant recruitment literature has mostly neglected these aspects, we propose that research also needs to consider both the distinctiveness and the relative
importance of employer image attributes (i.e., their importance in relation to different applicant segments or labor market competitors) to truly reflect the branding aspect of employer branding. Eventually, employer brands that are not only perceived as favorable and strong, but also unique will have the potential to increase the likelihood that organizations will become the employer of choice (Aaker, 1996; Cable, 2007; Keller, 1998).

**Key Assumption 3: Employer Branding Influences Not Only Perceptual But Also Objective Outcomes**

Prior employer branding research has mainly emphasized on perceptual pre-hire outcomes. Too often the measures have been applicants’ reactions, perceptions of attractiveness, application intentions, and job acceptance intentions (Harold et al., 2013; Hausknecht, 2013; Ryan & Ployhart, 2000; Rynes, 1991; Saks, 2005). However, from a practical perspective these outcomes do not address the main goal of recruitment: The identification and attraction of individuals to organizations. Hence, when it comes to recruitment, organizations are not so concerned about perceptual outcomes. Rather, they are concerned about outcomes such as the number of actual applicants and the quality of applicants who apply for positions (Ryan & Derous, 2016). Therefore, this dissertation investigated whether employer branding influences objective outcomes.

First, in the field experiment described in Chapter 4 we assessed actual measures of applicant pool quantity and quality. We found that using a strange recruitment medium generated considerably more and better applicants than recruiting through a frequently used medium. Second, in Chapter 5 we moved beyond attitudes and intentions and examined predictors of job seekers’ application decisions. On the basis of implicit content theories we identified three predictors of application decisions: Objective attributes, subjective attributes, and recruitment source characteristics (i.e., credibility and informativeness). Our results indicate that work-life balance, co-workers, and competence were positively related to actual application decisions. Moreover, the likelihood that potential applicants actually applied was higher when the perceived level of informativeness of the job posting was high. Hence, providing relevant and detailed information about the organization as an employer not only positively influenced potential applicants’ attitudes (Barber & Roehling, 1993; Collins,
2007) but also influenced their actual application decisions. Importantly, we discovered that the relationships between some of the image attributes with application decisions were stronger when perceived credibility was high. It may be that credibility perceptions enhance positive perceptions of the organization as an employer and as such increase the possibility that job seekers apply (Allen, Van Scotter, & Otondo, 2004; Cable & Yu, 2006).

Together these findings provide evidence for our third key assumption which states that employer branding not only influences perceptual but also objective recruitment outcomes. Specifically, during recruitment an organization’s employer brand and the recruitment source characteristics (i.e., strangeness, credibility, and informativeness) are related to applicant pool quantity and quality. As such this dissertation adds to the recruitment literature by practically strengthening the case for investments in employer branding.

**Key Assumption 4: Organizations Should Manage Their Employer Brand by Standing Out**

As mentioned by Cable (2007), organizations need to create or do something distinctive to create a competitive advantage. Doing what everyone else does will not allow an organization to stand out from their competitors in the labor market. On the basis of this fourth key assumption underlying employer branding we examined how organizations can differentiate themselves in terms of recruitment activities.

In Chapter 4 we applied principles of the social cognition literature to study whether standing out in terms of recruitment activities influenced objective recruitment outcomes. Specifically, we expected that an unusual recruitment medium (i.e., postcard), which is a violation of people’s existing recruitment scripts, would be more salient and attract more attention as compared to a common recruitment medium (i.e., e-mail) (Cable, 2007; Smith & Collins, 2009). Moreover, as among passive job seekers common recruitment media would be hardly noticed, we expected the postcard to attract more attention in this group of high-quality applicants (Boswell et al., 2012). In line with our hypotheses, we found that the postcard condition contained considerably more applicants and these applicants were significantly higher educated than applicants responding to the e-mail.
In conclusion, in line with social cognition principles, recruiting in a strange way that differs from what competitors are doing, is likely to be inconsistent with potential applicants’ recruitment scripts, enhancing their attention, attraction, and intention to apply. Moreover, our field experiment illustrates that standing out by using a strange recruitment medium influenced important objective recruitment outcomes. Consequently, to increase the likelihood that organizations’ become the employer of choice, they should not only have an employer brand that is perceived as favorable and unique, but also manage their brand by standing out (Aaker, 1996; Cable, 2007).

**Key Assumption 5: Organizations Should Align Employer Branding With Other Image Management Efforts**

As noted before (cf. *Chapter 1*), an organizations’ employer image is only one of the multiple images of an organization. As evidence from marketing literature indicates that multiple organizational images influence people’s perceptions (e.g., Aaker, 1996; Wernerfelt, 1988), organizations should be aware that job seekers may develop positive or negative perceptions about organizations’ attractiveness based on their exposure to different practices and messages organizations communicate (Collins & Stevens, 2002; Jones & Willness, 2013). Although there exist conceptual papers about the need of aligning an organization’s employer image with other organizational images (e.g., Foster, Punjaisri, & Cheng, 2010), empirical research is scarce in the recruitment domain.

Therefore, we investigated how four well-known organizational images relate to organizations’ attractiveness as an employer (*Chapter 2*). Moreover, we investigated the relative importance of each organizational image and examined possible interactions between organizations’ employer image and the other organizational images. In line with marketing literature (e.g., Aaker, 1996; Erdem, 1998; Wernerfelt, 1988), our results indicate that people’s attractiveness perceptions are colored by multiple organizational images. Although pro-environmental and financial performance images were not related to organizations’ attractiveness as an employer, organizations’ employer image, social involvement image, and product image were positively related to organizations’ attractiveness and significantly accounted for variance in organizational attractiveness.
Moreover, our results indicate that these organizational images are also mutually related.

In sum, as apart from organizations’ image as an employer, organizations’ social involvement and product image are associated with organizations’ attractiveness as an employer, it seems necessary and pivotal to align organizations’ image management efforts regarding these organizational images. However, for some organizational images alignment may not be necessary or useful in the context of recruitment. As such, we do not put forth “multiple image management” as a single best practice, we rather want to point out to organizations that multiple organizational images may be simultaneously associated with organizations’ attractiveness.

**STRENGTHS, CAVEATS, AND DIRECTIONS FOR FUTURE RESEARCH**

Answering numerous calls to apply marketing principles to the area of recruitment (Ambler & Barrow, 1996; Backhaus & Tikoo, 2004; Cable & Turban, 2001; Collins & Han, 2004; Collins & Stevens, 2002; Edwards, 2010; Highhouse, Brooks, & Greguras, 2009; Lievens, 2007; Lievens & Highhouse, 2003; Martin et al., 2011) and to consider predictors of why potential applicants are attracted to organizations and are willing to apply (Breaugh, 2013; Cable, 2007; Cable & Turban, 2001; Cable & Yu, 2013; Collins, 2007; Dineen & Soltis, 2011; Edwards, 2010; Martin et al., 2011; Ployhart, 2006; Saks, 2005), this dissertation adds to the literature a better knowledge of employer branding.

Some specific strengths of this dissertation are worth mentioning. First, four studies were carried out in order to test five key assumptions underlying employer branding. All studies addressed different key assumptions and most key assumptions were tested in several studies or large real world samples so that well-founded conclusions could be drawn. Second, the present dissertation was the first to apply different (marketing) principles (i.e., umbrella branding [Wernerfelt, 1988]; strangeness [Cable, 2007]; implicit content theories [Behling, Labovits, & Gainer, 1968]) to the first recruitment phase. A third strength relates to our attempt to identify some evidence-based principles (i.e., media strangeness and multiple image management), which not only organizations might take into account in developing their employer branding campaigns but also researchers when
investigating recruitment and employer branding outcomes. Finally, unlike previous studies which often recruited student samples to examine perceptions of employer image attributes, this dissertation used real world samples in its empirical studies. By doing so, this dissertation extends the literature on employer branding in actual recruitment settings.

Despite these strengths and in addition to the limitations and directions for future research that have been discussed throughout the separate chapters, other caveats and avenues in need of future investigation can be pointed out. First, this dissertation focused on the external side of employer branding. However, as internal marketing the employer brand is crucial to develop a workforce that is committed to the values and organizational goals (Cable, 2007), we acknowledge the importance of aligning external and internal branding efforts. Specifically, in recruitment research, the externally advertised image attributes are frequently treated as a given. However, in practice, there are often discrepancies between what organizations advertise and what new hires and employees experience in their employment. Therefore, future research might investigate the consequences of (mis)alignment between the external marketed employer image attributes and the internally experienced employer image attributes. For example, we expect that misalignment might cause experiences of psychological contract breach, resulting in negative employees’ attitudes and unfavorable word-of-mouth (Edwards, 2010; Van Hoye & Lievens, 2009). This may be particularly relevant for the instrumental image attributes job content and compensation, which are seen as core elements of organizations’ image as an employer (Lievens & Highhouse, 2003) and are related to both organizations’ attractiveness and distinctiveness as an employer (Chapter 2). Longitudinal research that goes beyond the different recruitment phases would provide valuable insight in the formation of employees’ attitudes, decisions, and actions related to the organizations’ external and internal employer branding efforts. Moreover, it may be interesting to investigate whether employees use the different image attributes in a compensatory or non-compensatory fashion in order to work for a particular organization (Harold et al., 2013). For instance, evidence from marketing research indicates that organizations with strong product brands have the ability to pay their management less since they value being associated with strong product brands (Aaker, 1996;
Tavassoli, Sorescu, & Chandy, 2014). In a similar vein, Williams and Connell (2010) found that in some industries (e.g., fashion and luxury goods) employees are willing to sacrifice their financial reward in favor of working for a renowned organization. Hence, it seems that strong and renowned brands might influence the package of image attributes that employees are willing to accept for their employment.

Second, in this dissertation, we found evidence for relationships between an organization’s employer brand(ing) and both perceptual and objective recruitment outcomes. Still, further research would benefit from studying additional outcomes. Specifically, Ambler and Barrow (1996) have emphasized early on that one of the most important questions is whether and how employer branding is related to an organization’s performance. Although the strategic human resource management literature (Collins & Clark, 2003; Paauwe & Boselie, 2005) has been investigating the organization’s performance consequences of several human resource management practices (e.g., selection, training and development), to date few research exists that links employer branding efforts with an organization’s economic performance. We identified only two studies (e.g., Carvalho & Areal, 2015; Fulmer, Gerhardt, & Scott, 2003) that isolated the effects of employer branding and organizations’ performance. Thus, we recommend more research along these lines. We can draw on various marketing studies on the effects of employer brand(ing) on financial performance (e.g., Rao, Agarwal, & Dahlhof, 2004) and certain financial indicators (e.g., price/earnings multiple, stock price, overall market capitalization, Madden, Fehle, & Fournier, 2006) can be used to measure the economic success of an employer branding campaign. We believe that employer branding research would positively benefit from such analyses, which would contribute to the legitimacy and further development of the field. Moreover, greater applicant pools (Chapter 4 and Chapter 5) and higher applicant pool quality (Chapter 4) as a result of a strong employer brand suggest greater effectiveness of recruitment, and may provide organizations with a competitive advantage. Thus, positive findings that may relate to organizations’ economic performance could not only extend employer branding research but also practically strengthen the case for investments in employer branding.
Third, most of the organizations that were used in our studies are well-known organizations (*Chapter 2, Chapter 3, and Chapter 5*). Moreover, we collected our data across short time spans in relatively stable environments. As nowadays business environments are typically characterized by volatility, uncertainty, complexity, and ambiguity, this might not have been a true reflection of the business environment in which organizations operate. As multiple organizational images are related to organizations’ attractiveness as an employer (*Chapter 2*) we encourage future research to investigate how employment related (e.g., downsizing, strikes) and non-employment related (e.g., mergers, product recalls, ecological disasters) disruptive events impact organizations’ image as an employer. For example, Edwards and Edwards (2013) conducted a case study in which they examined the impact of a multinational acquisition on changes in employer image attributes. They found that employees’ perceptions of the organization as an employer, formed just after the acquisition, impacted their organizational identification, citizenship behavior, and turnover a year later. Moreover, they found that employees’ post-acquisition perceptions were related to these changes in their attitudes. These results suggest that organizations should pay greater attention on how their employer brand is impacted by disruptive events. In addition, it may be interesting to investigate whether these effects are only related to post hire-outcomes (e.g., recommendation intention, turnover) or are also associated with pre-hire outcomes (e.g., organizations’ attraction, application decisions). Hence, longitudinal research in which organizations’ employer brands are audited in real complex business environments and disruptive events are listed might shed some light on this important issue.

Fourth, this dissertation focused on the instrumental and symbolic image attributes associated with organizations’ image as an employer. However, marketing and social and consumer psychology also included experiential attributes in their classifications of brand attributes (Ambler & Barrow, 1996; Katz, 1960; Keller, 1998). Experiential attributes refer to actual experiences with the employer through past applications or recruitment events (Lièvrens & Slaughter, 2015). Recent development in marketing can serve as exemplars for adding experiential attributes during recruitment. For example Brakus, Schmitt, and Zarantonello (2009) suggested that brand experience is conceptualized as
sensations, feelings, cognitions, and behavioral responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments. They distinguished several experience dimensions and constructed a brand experience scale that included four dimensions: Sensory, affective, intellectual, and behavioral. The authors showed that the scale is reliable, valid, and distinct from other brand measures, including brand evaluations, brand involvement, brand attachment, customer delight, and brand personality. Moreover, brand experience affects consumer satisfaction and loyalty directly and indirectly through brand personality associations.

Finally, our assessment of employer brands was mostly based on self-reports. This contrasts with recent developments in marketing research. Specifically, marketing researchers have considerably widened the number of new and alternative methodologies (e.g., Camerer & Yoon, 2015). Examples are digital marketing techniques (e.g., Google analytics), physiological approaches (e.g., eye-movement tracking), social network analysis, and neuroscientific methods. For instance, Rampl, Opitz, Welpe, and Kenning (2014) used functional magnetic resonance imaging (fMRI) to demonstrate that decision making with regard to strong brands was accompanied by decreased brain activation linked to reasoning and working memory, suggesting less information processing demands.

**PRACTICAL IMPLICATIONS**

In their forecast for the future of recruitment Cable and Yu (2013) suggested to “consider effects of recruitment practices in the context of broader organizational investments, decisions, and associations that potential applicants make regarding an employer’s image and reputation” (p. 527). They continue by arguing that the field can further develop by thinking of recruitment as anything that can affect potential and existing applicants. Thus, to enhance recruitment research non-recruitment factors and broader predictors (e.g., employer brands) of why job seekers are attracted to organizations and are willing to apply should be included. Given that testing some key assumptions underlying employer branding was the main objective of this dissertation, some valuable insights for practitioners may be deduced from our findings. A number of these practical
recommendations, which are aimed at improving the strategic development of recruitment and employer branding practices, are summarized below.

First, this doctoral dissertation aims to increase organizations’ awareness of the importance of an organization’s employer brand as an important predictor of pre-recruitment outcomes. Not only does it influence potential applicants’ attractions to the organization, an organization’s employer brand also influences applicant pool quantity and quality (i.e., Chapter 4 and Chapter 5). As the identification and attraction of talented individuals remains the main goal of recruitment (Harold et al., 2013; Hausknecht, 2013; Ryan & Ployhart, 2000; Rynes, 1991; Saks, 2005), organizations should actively manage their employer brand in order to remain competitive in the labor market.

Second, there has been a tendency to think about employer branding solely in the form of organizational attractiveness and fancy recruitment advertising campaigns. Within this limited application of employer branding, its primary function is seen as a means of attracting attention and presenting the organization in the most attractive way possible. Although employer branding can play a highly effective role in realizing these objectives, a more fully integrated approach to employer branding is needed for sustainable competitive success. As described in Chapter 2, organizations should be aware that what is related to organizations’ attractiveness may not always allow them to stand out from their competitors in the labor market. This implies that organizations should ascertain not only how they score in attractiveness but also in terms of distinctiveness. Thus, just being perceived as a good and favorable employer is not sufficient to win the war for talent, to win organizations have to become distinctively great.

Third, in striving for attention and appeal, organizations might lose touch with brand reality. In other words, what organizations announce in their job advertisement does not represent what people experience when working at the organizations. Although, this kind of advertisement might deliver immediate results, if the advertisement lacks consistency with reality this will not help to build a strong and favorable employer brand over time. Moreover, as we found in Chapter 3 that multiple images are simultaneously related to organizations’ attractiveness (i.e. employer image, social involvement image, and product image), organizations are advised to create clarity and consistency between
different organizational images. Hence, it may be worthwhile for both human research specialists and marketers to align their efforts and be aware of the impact of their actions on each other’s image objectives.

Fourth, the empirical studies in Chapter 4 and Chapter 5 suggest that to enhance the effectiveness of recruitment campaigns organizations should be aware that not only job seekers perceptions of instrumental and symbolic image attributes but also recruitment communication characteristics are related to pre-recruitment outcomes. Specifically, in Chapter 4 we found that an unusual medium such as a postcard generated about five times more applicants than using a common medium such as an e-mail. On the basis of the utility calculations of Carlson, Connerley, and Mecham (2002) our findings imply that when organizations hire applicants, the strange medium is associated with a remarkable utility increase (i.e., 23,352 euros when hiring 10 applicants) over the email. Moreover, the use of job advertisements that provide job seekers with relevant, detailed, and sufficient (i.e., high level of informativeness) information about the organization as an employer influenced applicant pool quantity (Chapter 5). As such, besides their employer brand, organizations should also actively and consistently manage recruitment source characteristics to generate more applicants and stay competitive in the labor market.

CONCLUSION

This doctoral dissertation wanted to provide both researchers and practitioners with a more comprehensive view on employer branding in the context of recruitment. Therefore we investigated five key assumptions underlying employer branding. First, in four different empirical studies we found that employer branding helps organizations to be attractive. Second, the results of our large-scale study suggest that employer image attributes allow organizations to differentiate themselves from their competitors. Third, we obtained results in the field confirming that employer branding efforts have the ability to influence applicant pool quantity and quality. Fourth, our field experiment showed that organizations can differentiate themselves in terms of recruitment activities. Finally, our second empirical study indicates that organizations might benefit from aligning employer branding with social involvement and product image
management. As we found positive evidence for five key assumptions underlying employer branding, this dissertation further established the theoretical and practical relevance of employer branding for recruitment.
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DUTCH SUMMARY

NEDERLANDSE SAMENVATTING
EMPLOYER BRANDING: TESTEN VAN ENKELE SLEUTELASSUMPTIES


Bij employer branding dienen organisaties dus een centraal concept te ontwikkelen, ook “value proposition” genoemd, waarbij ze zich op een aantal vlakken gaan onderscheiden ten opzichte van andere gelijkaardige bedrijven en dit concept te integreren in hun bedrijfscultuur (i.e., internal branding). Voor rekrutering is het echter van belang dat dit concept of werkgeversimago (i.e., employer brand) eveneens wordt uitgedragen naar de groep mensen die de organisatie wil aantrekken (i.e., external branding, Backhaus & Tikoo, 2004). Hoewel voorgaand onderzoek zich voornamelijk heeft toegespitst op de aantrekkelijkheid van werkgevers, stelt employer branding dat organisaties zich eveneens dienen te differentiëren van hun concurrenten op de arbeidsmarkt om zo een “employer of choice” te kunnen worden (Backhaus & Tikoo, 2004; Cable, 2007; Collins & Kanar, 2013; Martin, Gollan, & Grigg, 2011; Van Hoye & Lievens, 2009). Dit vormt dan ook het uiteindelijke doel van employer branding: Een aantrekkelijk én onderscheidend werkgeversimago creëren (Cable, 2007; Edwards, 2010). Door het communiceren van dit werkgeversimago trachten organisaties toekomstige werknemers aan te trekken en hun huidige werknemers een unieke werkervaring te bezorgen. Evidentie voor het belang van het werkgeversimago vinden we terug in meta-analytische bevindingen die bevestigen dat het werkgeversimago één van de belangrijkste determinanten is
van organisatieattractiviteit (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Uggerslev, Fassina, & Kraichy, 2012).

Het is dan ook niet verwonderlijk dat, zowel in de praktijk als in de wetenschap, de interesse in employer branding en in werkgeversimago’s de laatste jaren sterk is toegenomen (Breaugh, 2013; Collins & Kanar, 2013; Martin et al., 2011). Dit blijkt bijvoorbeeld uit de populariteit van jaarlijkse lijsten zoals “Beste Werkgever” en “Great Place to Work”. Onderzoek naar deze lijsten toont daarenboven aan dat de werknemersattitudes bij ondernemingen in de top 100 van beste werkgevers positiever en stabiler zijn en dat de ondernemingsprestaties van deze organisaties beter zijn dan die van een gematchinge steekproef van andere bedrijven (Fulmer, Gerhardt, & Scott, 2003). Verder vinden sollicitanten een organisatie met een hoge ranking op “Fortune’s Best 100 Companies to Work For” aantrekkelijker en zijn ze bereid om bij zo een organisatie te werken voor een lager loon (Cable & Turban, 2003).

Om employer branding succesvol te kunnen toepassen is het aangewezen om op geregelde tijdstippen de percepties en associaties van relevante interne en externe doelgroepen in kaart te brengen (Highhouse, Zickar, Thorsteinson, Stierwalt, & Slaughter, 1999). Daarenboven is het, om zich voldoende te kunnen onderscheiden van directe concurrenten, ook belangrijk om eveneens het imago van deze directe concurrenten te bevragen. Uit onderzoek blijkt de toepasbaarheid van het instrumenteel-symbolisch raamwerk om deze zogenaamde imago-audits uit te voeren (Lievens & Highhouse, 2003; Van Hoye, Bas, Cromheecke, & Lievens, 2013). Volgens dit raamwerk bestaat het werkgeversimago uit instrumentele en symbolische dimensies. De instrumentele imagodimensies verwijzen naar concrete en objectieve kenmerken van de job en de organisatie zoals bijvoorbeeld loon, promotiemogelijkheden, en jobinhoud. Sollicitanten worden aangetrokken tot deze imagodimensies op basis van hun utilitaire nood om voordelen te maximaliseren en nadelen te minimaliseren (Katz, 1960). De symbolische imagodimensies daarentegen zijn betekenisvolle afleidingen die individuen maken omtrent subjectieve en abstracte eigenschappen van de organisatie. Sollicitanten worden bijvoorbeeld aangetrokken tot *prestigieuze* organisaties omdat tewerkstelling bij deze organisaties hen de mogelijkheid biedt
hun zelfbeeld te verhogen en zichzelf uit te drukken (Aaker, 1996; Highhouse, Thronbury, & Little, 2007).


Samenvattend kunnen we stellen dat het belangrijk is om de imagodimensies te bestuderen waardoor (potentiële) sollicitanten worden aangetrokken tot een organisatie en uiteindelijk willen solliciteren. Employer branding beperkt zich echter niet enkel tot een extern doelpubliek maar wil het werkgeversimago integreren in de organisatiecultuur en alle aspecten van de werkervaring (Mosley, 2007). Het is dan ook van belang om zowel in de prakrijk als in wetenschappelijk onderzoek rekruteringsactiviteiten te bekijken in relatie tot de verschillende employer branding inspanningen die organisaties leveren. Dit doctoraat past binnen deze onderzoekslijn en onderzoekt op basis van vijf sleutelassumpties de wisselwerking tussen rekrutering en employer branding.

*Sleutelassumptie 1: Employer branding maakt organisaties aantrekkelijk.*
*Sleutelassumptie 2: Employer branding maakt organisaties onderscheidend van hun concurrenten in de arbeidsmarkt.*
*Sleutelassumptie 3: Employer branding beïnvloedt niet alleen perceptuele maar ook objectieve uitkomsten.*
*Sleutelassumptie 4: Organisaties moeten hun employer brand managen door zich te onderscheiden van hun concurrenten.*
Sleutelassumptie 5: Organisaties moeten employer branding afstemmen op andere imago management inspanningen.

We onderzoek deze vijf sleutelassumpties aan de hand van vier empirische studies die hieronder kort besproken worden. Na deze bespreking volgt een algemene conclusie.

**HUIDIG ONDERZOEKSPROJECT**

Hoewel bij employer branding het belang wordt benadrukt van het communiceren van zowel een attractief als een onderscheidend werkgeversimago, heeft vorig onderzoek zich voornamelijk gefocust op de attractiviteit van het werkgeversimago (Chapman et al., 2005; Jones & Willness, 2013). Daarenboven werd nog niet gekeken naar verschillen in percepties van attractiviteit en distinctiviteit tussen industrieën en groepen van sollicitanten (Boswell, Zimmerman, & Swider, 2012; Marelli, 2007). Daarom onderzoeken we in Hoofdstuk 2 de verschillende instrumentele en symbolische imagodimensies die het werkgeversimago bepalen en de mate waarin deze attractief zijn én organisaties toelaten zich te onderscheiden van hun concurrenten. Hiervoor werd een samenwerking opgezet met een HR-consultancy bedrijf. Meer specifiek gebruikten we data van 7171 mensen uit drie verschillende groepen van potentiële sollicitanten (i.e., net afgestudeerde werkzoekenden, actieve werkzoekenden, en passieve werkzoekenden) die in het kader van een “Beste Werkgever” competitie de instrumentele en symbolische imagodimensies van 24 verschillende organisaties uit zes industrieën beoordeelden. Onze resultaten tonen aan dat over industrieën en groepen sollicitanten heen dezelfde instrumentele imagodimensies als aantrekkelijk worden gezien: Jobinhoud, werkomgeving, en verlaging. Voor de symbolische imagodimensies werden organisaties die geperceptueerd werden als innovatief, competent, en niet robuust als aantrekkelijker gezien. Verder merkten we op dat imagodimensies die als aantrekkelijk gezien werden niet noodzakelijk toelieten om organisaties van elkaar te onderscheiden. Verlaging, jobinhoud, innovatie, en robuustheid waren de enige imagodimensies die gerelateerd waren aan aantrekkelijkheid én organisaties van elkaar onderscheiden. Ten slotte vonden we eveneens terug dat de onderlinge scores op de imagodimensies verschillen
tussen organisaties en dat er verschillen waren tussen de groepen sollicitanten in hun percepties van de aantrekkelijkheid van de imagodimensies.

In Hoofdstuk 3 onderzoeken we of een “umbrella branding” perspectief, ontleend uit marketing onderzoek, relevant kan zijn binnen rekrutering. Bij “umbrella branding” gaat men ervan uit dat, wanneer mensen niet over volledige informatie beschikken, zij andere activiteiten en communicatiebronnen van de organisatie gebruiken om associaties te maken over de organisatie (Erdem, 1998; Wernerfelt, 1988). Zo kan de aankoop van een nieuw product bijvoorbeeld beïnvloed worden door het reeds aanwezige positieve productimago van andere producten. Anderzijds kan de perceptie dat de organisatie niet milieubewust is ervoor zorgen dat consumenten afzien van hun aankoop. Binnen rekrutering wordt de eerste fase gekenmerkt door weinig interpersoonlijk contact en beschikken potentiële sollicitanten slechts over beperkte informatie om de organisatie te beoordelen als werkgever (Barber, 1998). Hierdoor is het mogelijk dat zij interferenties maken op basis van hun eigen ervaringen met de organisatie op het vlak van andere activiteiten. Op die manier kunnen andere imago’s van de organisatie de aantrekkelijkheid van een organisatie als werkgever beïnvloeden. Daarom werden in deze studie de relaties tussen enerzijds product imago, “corporate social performance” imago (i.e., sociaal engagement en milieubewustheid), financieel imago, werkgeversimago (i.e., instrumentele en symbolische attributen) en anderzijds organisatieattractiviteit onderzocht. Uit onze resultaten blijkt dat de mate waarin een organisatie sociaal geëngageerd is, kwalitatieve producten en diensten aanbiedt, en een positief werkgeversimago heeft gerelateerd is aan de attractiviteit van deze organisatie. Milieubewustheid en financieel imago waren niet gerelateerd aan organisatieattractiviteit. Hieruit kunnen we concluderen dat een “umbrella branding” perspectief nuttig kan zijn binnen rekrutering en employer branding, maar enkel voor bepaalde imago’s.

In Hoofdstuk 4 onderzoeken we de mogelijkheid dat organisaties zich kunnen differentiëren op de arbeidsmarkt op basis van hun rekruteringsactiviteiten. Specifiek bekeken we of een ongewone en opvallende rekruteringsbron een positieve invloed heeft op belangrijke rekruteringsuitkomsten (Cable, 2007). Hiervoor werd een veldexperiment opgezet waarbij we enerzijds een vacature verstuurden via e-mail en anderzijds
via een postkaartje. Onze resultaten tonen aan dat rekrutering via het postkaartje meer én betere sollicitanten opleverde. Om er zeker van te zijn dat het postkaartje als ongewoon werd gepercipieerd en andere relevante kenmerken konden uitgesloten worden als verklaring voor onze resultaten voerden we een follow-up studie uit. In deze studie werd aan de respondenten gevraagd om de rekruteringsbronnen te beoordelen op drie criteria: Ongewoonheid, mediairykheid, en credibiliteit (White & Smith, 2001; Van Hoye & Lievens, 2007; Webster & Trevino, 1995). De resultaten van deze follow-up studie tonen aan dat de postkaart en de e-mail inderdaad significant van elkaar verschilden op het vlak van hun ongewoonheid én dat er geen verschil was op het vlak van media-rijkheid en credibiliteit.

Ten slotte, passen we in Hoofdstuk 5 de “implicit content theories” van Behling, Labovitz, en Gainer (1968) toe op de eerste fase van rekrutering om effectieve sollicitatiebeslissingen te voorspellen. Meer specifiek onderzoeken we objectieve imago attributen, subjectieve imago attributen, en kenmerken van rekruteringscommunicatie als voorspellers van effectieve sollicitatiebeslissingen. In een steekproef van 158 werkzoekenden vonden we terug dat de mate waarin organisaties een goede werk-privé balans toelaten en aangename collega’s tewerkstellen positief gerelateerd was aan sollicitatiebeslissingen. Daarenboven verklaren deze objectieve imago attributen een aanzienlijk deel van de variantie in deze sollicitatie beslissingen. Verder was de kans hoger dat werkzoekenden effectief solliciteerden indien ze de organisatie percipieerden als competent. Wat de kenmerken van rekruteringscommunicatie betreft, blijkt de mate waarin de jobadvertentie toeliet om een inschatting te maken van de organisatie als werkgever een positieve invloed te hebben op de sollicitatiebeslissingen van werkzoekenden. Tenslotte, onderzochten we enkele interacties. Hieruit blijkt dat de relaties tussen de imago attributen en de sollicitatiebeslissingen sterker (zwakker) waren indien de rekruteringsbron hoog (laag) scoorde op credibiliteit.

**CONCLUSIE**

Wanneer we deze empirische studies bundelen vinden we positieve evidentie voor de vijf sleutelassumpties en tonen daardoor de theoretische en praktische bijdrage van employer branding aan. Daarenboven draagt dit doctoraat
op deze manier bij tot een beter inzicht in rekruteringsactiviteiten in relatie tot de verschillende employer branding inspanningen die organisaties leveren. Ten eerste, tonen de resultaten van Hoofdstuk 2 en Hoofdstuk 3 aan dat employer branding de attractiviteit van organisaties effectief beïnvloedt. Alhoewel attractiviteit niet expliciet gemeten werd in Hoofdstuk 4 en Hoofdstuk 5 kunnen we eveneens veronderstellen dat de sollicitanten de organisatie als aantrekkelijk percipieerden als ze effectief solliciteerden. Ten tweede, toont Hoofdstuk 2 aan dat sommige imagodimensies ervoor kunnen zorgen dat organisaties zich kunnen onderscheiden van hun concurrenten. Ten derde, vinden we in Hoofdstuk 4 en Hoofdstuk 5 concrete evidentie voor de assumptie dat employer branding, naast organisatieattractiviteit, eveneens objectieve uitkomsten zoals het aantal en de kwaliteit van de sollicitanten beïnvloedt. Ten vierde, bestudeerde we in Hoofdstuk 4 het effect van een ongewoon rekruteringsmedium. Onze resultaten tonen aan dat organisaties, die opvallen en hun rekruteringsactiviteiten onderscheiden van andere organisaties, de efficiëntie van hun rekruteringsproces kunnen verbeteren. Ten slotte, wijzen we in Hoofdstuk 3 organisaties op het belang om bij rekrutering niet enkel rekening te houden met hun employer brand maar ook met andere relevante brands van de organisatie.


Van Hoye, G., Bas, T., Cromheecke, S., & Lievens, F. (2013). The instrumental and symbolic dimensions of organizations’ image as an employer: A large-


Onze grootste overwinning is niet dat we nooit falen, maar dat we telkens als we struikelen weer opstaan.

Confucius, Analecta boek II, XXIV

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Marjolein, Bart, en Elke jullie waren de “anciens” toen ik startte, steeds klaar voor hulp, uitleg en advies als er iets niet liep zoals gepland. Britt, Nele, en Eveline, bedankt voor de vele momenten van steun, de tips en de mailtjes of bezoeken na jullie vertrek. Ilse, je was er altijd, vaak onverwacht, op jouw eigen manier. Lien, ik ben getuige geweest van je eerste stappen als onderzoeker en ben ontzettend blij dat ik je ook heb leren kennen als een fijne collega. Myrjam, ik bewonder je nog steeds voor de keuze die je maakte en de manier waarop je je dromen tracht waar te maken. Anneleen, wat ben jij een sterke madam, jouw nuchtere kijk op de dingen kwam vaak van pas. Yolandi, je bent het zonnetje van onze vakgroep, keep on smiling. Ladies, bedankt voor het luisterend oor, de vele momenten van pauze, en de onverwachte opbeurende mailtjes. M’n “oud” bureaugenootje Jeroen, bedankt voor al die toffe momenten! Je zorgde steeds voor een vrolijke noot op ons bureau en was de persoon die altijd alles wist van de studenten. Toen jij besliste om weg te gaan, heb ik het echt lastig gehad maar ik ben blij dat we nog steeds contact hebben. Christoph, we hebben niet zo lang een bureau gedeeld, maar ik weet je ontzettend te apprécier als collega. En uiteraard ook bedankt aan alle andere collega’s - Bernd, Nicol, Elias, Karen, Sam, Malte, Lieze, Katia, Roeliene, Chiara, Jan, Saar, Cédric; Marijn en Lien - voor de memorabele momenten. Uitdrukkelijk dank ook aan alle collega’s die dit doctoraat nauwgezet hebben nagelezen.

Resten mij nog twee uitzonderlijke collega’s om te bedanken. Catherine en Julie, m’n bureaugenootjes, m’n “kleine eendjes”. Verdorie, ik ga jullie ongelofelijk hard missen. Jullie zijn fantastische mensen! Als ik terugdenk aan al die schitterende momenten die we samen beleefd hebben, ben ik blij maar krijg
ik ook tranen in mijn ogen. Onze liedjes, de vele leuke babbels, de etentjes van chique restaurants tot de IKEA, onze verjaardagscadeautjes en de nieuwjaarsbrieven. We hebben samen zoveel ups en downs beleefd en konden zoveel bij elkaar kwijt, collega’s zoals jullie zal ik waarschijnlijk niet snel meer vinden. Ik weet dat het niet altijd eenvoudig is voor jullie maar “mama gans” zal haar best doen om te blijven waken over jullie. Zet door en ik ben er zeker van dat jullie binnen een paar jaar ook glansrijk een doctoraat zullen verdedigen!

Uiteraard wil ik ook mijn vrienden en familie uitdrukkelijk bedanken voor de onafgebroken steun de afgelopen jaren. Speciale dank gaat uit naar Ilse. Ik herinner me nog goed je gezicht toen ik zei dat ik ging doctoreren. Bedankt om er de afgelopen jaren te zijn op verschillende belangrijke momenten in mijn leven. Lieven, Marijke, Dorien, Pieter, en Evelien, bedankt voor alle gezellige familie momenten de afgelopen jaren, die momenten zorgden ervoor dat ik me kon ontspannen en bleef genieten van de kleine dingen. Aurélie, Amelou, Maribel, Felix, en m’n liefste metekindje Alice bedankt om de kapoentjes te zijn die mij telkens opnieuw doen lachen. Bedankt ook aan mijn grootouders om steeds te vragen hoe alles loopt. Speciale dank aan m’n Omemie, om af en toe eens lekker eten te maken, te zorgen voor aperitiefjes, en al eens de strijk over te nemen. Onze Bubbles en Snoes verdienen hier ook terecht een plaatsje, menige bezettingen van mijn computer zorgden voor de nodige afleiding.

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af te laten. Samen met papa creëerde jij een gezellige thuis waar ik de nodige warmte en geborgenheid vond en altijd zal vinden. Bedankt!

Rest mij nog één persoon … Diedrik. De afgelopen zes jaar zijn wij samen van een leuk jong koppeltje, geëvolueerd naar een getrouwd stel met hun eigen gezellige stek. Het is zeker niet altijd eenvoudig geweest, zowel jij als ik hebben lastige periodes gekend. Maar onze kunst is dat we deze lastige momenten steeds samen doorkomen. Wat wij samen hebben is moeilijk in woorden te vatten. Je hebt me steeds bijgestaan, me aangemoedigd toen ik wou opgeven, me verdragen terwijl ik onuitstaanbaar was, met me gevierd wanneer er iets te vieren was, me geknuffeld als ik het nodig had, met me gedanst om me aan het lachen te brengen … Tijdens de afgelopen jaren heb ik geleerd dat ik op jou kan vertrouwen, altijd en overal. Bedankt daarvoor! Ik kijk ernaar uit om dit hoofdstuk af te sluiten en samen aan een volgend, vast en zeker even spannend, hoofdstuk te beginnen!

Saartje Cromheecke, Kruishoutem, Februari 2016
DATA STORAGE FACT SHEETS
DATA STORAGE FACT SHEET 1

% Name/identifier study: Chapter 2
% Author: Saartje Cromheecke
% Date: February, 6th, 2016

1. Contact details

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If a response is not received when using the above contact details, please send an email to data.pp@ugent.be or contact Data Management, Faculty of Psychology and Educational Sciences, Henri Dunantlaan 2, 9000 Ghent, Belgium.

2. Information about the datasets to which this sheet applies

* Reference of the publication in which the datasets are reported:

* Which datasets in that publication does this sheet apply to?:
The sheet applies to all the data used in this study
3. Information about the files that have been stored

3a. Raw data

* Have the raw data been stored by the main researcher? [ ] YES / [X] NO
The raw data were collected by and are owned by a third party

* On which platform are the raw data stored?
  - [ ] researcher PC
  - [ ] research group file server
  - [X] other (specify): Data are owned by a third party

* Who has direct access to the raw data (i.e., without intervention of another person)?
  - [ ] main researcher
  - [ ] responsible ZAP
  - [ ] all members of the research group
  - [ ] all members of UGent
  - [X] other (specify): Data are owned by a third party

3b. Other files

* Which other files have been stored?
  - [ ] file(s) describing the transition from raw data to reported results.
    Specify: ...
  - [ ] file(s) containing processed data. Specify:
  - [X] file(s) containing analyses. Specify: Mplus-syntax and Mplus-output
  - [ ] files(s) containing information about informed consent
  - [ ] a file specifying legal and ethical provisions
  - [ ] file(s) that describe the content of the stored files and how this content should be interpreted. Specify: ...
  - [ ] other files. Specify: ...
* On which platform are these other files stored?
   - [X] individual PC
   - [ ] research group file server
   - [ ] other: ...

* Who has direct access to these other files (i.e., without intervention of another person)?
   - [X] main researcher
   - [ ] responsible ZAP
   - [ ] all members of the research group
   - [ ] all members of UGent
   - [ ] other (specify): ...

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* Have the results been reproduced independently?: [ ] YES / [X] NO

All my analyses are reviewed by my supervisors and external reviewers (guidance committee, etc.)
DATA STORAGE FACT SHEET 2

% Name/identifier study: Chapter 3
% Author: Saartje Cromheecke
% Date: February, 6th, 2016

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2. Information about the datasets to which this sheet applies

* Reference of the publication in which the datasets are reported:

* Which datasets in that publication does this sheet apply to?:
The sheet applies to the first sample in this study
3. Information about the files that have been stored

3a. Raw data

* Have the raw data been stored by the main researcher? [☐] YES / [X] NO

The raw data were collected by and are owned by a third party.

* On which platform are the raw data stored?
  - [☐] researcher PC
  - [☐] research group file server
  - [X] other (specify): Data are owned by a third party

* Who has direct access to the raw data (i.e., without intervention of another person)?
  - [☐] main researcher
  - [☐] responsible ZAP
  - [☐] all members of the research group
  - [☐] all members of UGent
  - [X] other (specify): Data are owned by a third party

3b. Other files

* Which other files have been stored?
  - [☐] file(s) describing the transition from raw data to reported results. Specify: ...
  - [☐] file(s) containing processed data. Specify:
  - [X] file(s) containing analyses. Specify: SPSS-syntax, SPSS-output, and RWA-output
  - [☐] files(s) containing information about informed consent
  - [☐] a file specifying legal and ethical provisions
  - [☐] file(s) that describe the content of the stored files and how this content should be interpreted. Specify: ...
  - [☐] other files. Specify: ...
* On which platform are these other files stored?
  - [X] individual PC
  - [ ] research group file server
  - [ ] other: ...

* Who has direct access to these other files (i.e., without intervention of another person)?
  - [X] main researcher
  - [ ] responsible ZAP
  - [ ] all members of the research group
  - [ ] all members of UGent
  - [ ] other (specify): ...

4. Reproduction

* Have the results been reproduced independently?: [ ] YES / [X] NO
All my analyses are reviewed by my supervisors and external reviewers (guidance committee, etc.)
DATA STORAGE FACT SHEET 3

% Name/identifier study: Chapter 3
% Author: Saartje Cromheecke
% Date: February, 6th, 2016

1. Contact details

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If a response is not received when using the above contact details, please send an email to data.pp@ugent.be or contact Data Management, Faculty of Psychology and Educational Sciences, Henri Dunantlaan 2, 9000 Ghent, Belgium.

2. Information about the datasets to which this sheet applies

* Reference of the publication in which the datasets are reported:

* Which datasets in that publication does this sheet apply to?:
The sheet applies to the second sample in this study.
3. Information about the files that have been stored

3a. Raw data

* Have the raw data been stored by the main researcher? [X] YES / [] NO

* On which platform are the raw data stored?
  - [X] researcher PC
  - [ ] research group file server
  - [ ] other (specify): ...

* Who has direct access to the raw data (i.e., without intervention of another person)?
  - [X] main researcher
  - [ ] responsible ZAP
  - [ ] all members of the research group
  - [ ] all members of UGent
  - [ ] other (specify): ...

3b. Other files

* Which other files have been stored?
  - [ ] file(s) describing the transition from raw data to reported results. Specify: ...
  - [] file(s) containing processed data. Specify: 
  - [X] file(s) containing analyses. Specify: SPSS-syntax, SPSS-output, and RWA-output
  - [ ] files(s) containing information about informed consent
  - [ ] a file specifying legal and ethical provisions
  - [ ] file(s) that describe the content of the stored files and how this content should be interpreted. Specify: ...
  - [ ] other files. Specify: ...
* On which platform are these other files stored?
  - [X] individual PC
  - [ ] research group file server
  - [ ] other: ...

* Who has direct access to these other files (i.e., without intervention of another person)?
  - [X] main researcher
  - [ ] responsible ZAP
  - [ ] all members of the research group
  - [ ] all members of UGent
  - [ ] other (specify): ...

4. Reproduction

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All my analyses are *reviewed* by my supervisors and external reviewers (guidance committee, etc.)
DATA STORAGE FACT SHEET 4
% Name/identifier study: Chapter 4
% Author: Saartje Cromheecke
% Date: February, 6th, 2016

1. Contact details
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2. Information about the datasets to which this sheet applies
--------------------------------------------------------
* Reference of the publication in which the datasets are reported:


* Which datasets in that publication does this sheet apply to?:
The sheet applies to all the data used in this study

3. Information about the files that have been stored

3a. Raw data

* Have the raw data been stored by the main researcher? [] YES / [X] NO
The raw data were collected by and are owned by a third party

* On which platform are the raw data stored?
- [] researcher PC
- [ ] research group file server
- [X] other (specify): Data are owned by a third party

* Who has direct access to the raw data (i.e., without intervention of another person)?
- [] main researcher
- [ ] responsible ZAP
- [ ] all members of the research group
- [ ] all members of UGent
- [X] other (specify): Data are owned by a third party

3b. Other files

* Which other files have been stored?
- [ ] file(s) describing the transition from raw data to reported results. Specify: ...
- [] file(s) containing processed data. Specify:
- [X] file(s) containing analyses. Specify: SPSS-syntax and SPSS-output
- [ ] files(s) containing information about informed consent
- [ ] a file specifying legal and ethical provisions
- [ ] file(s) that describe the content of the stored files and how this content should be interpreted. Specify: ...
- [ ] other files. Specify: ...

* On which platform are these other files stored?
  - [X] individual PC
  - [ ] research group file server
  - [ ] other: ...

* Who has direct access to these other files (i.e., without intervention of another person)?
  - [X] main researcher
  - [ ] responsible ZAP
  - [ ] all members of the research group
  - [ ] all members of UGent
  - [ ] other (specify): ...

4. Reproduction

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DATA STORAGE FACT SHEET 5

% Name/identifier study: Chapter 5
% Author: Saartje Cromheecke
% Date: February, 6th, 2016

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2. Information about the datasets to which this sheet applies

* Reference of the publication in which the datasets are reported:

* Which datasets in that publication does this sheet apply to?:
The sheet applies to all the data used in this study
3. Information about the files that have been stored

3a. Raw data

* Have the raw data been stored by the main researcher? [] YES / [X] NO
The raw data were collected by and are owned by a third party

* On which platform are the raw data stored?
- [] researcher PC
- [] research group file server
- [X] other (specify): Data are owned by a third party

* Who has direct access to the raw data (i.e., without intervention of another person)?
- [] main researcher
- [] responsible ZAP
- [] all members of the research group
- [] all members of UGent
- [X] other (specify): Data are owned by a third party

3b. Other files

* Which other files have been stored?
- [] file(s) describing the transition from raw data to reported results. Specify: ...
- [] file(s) containing processed data. Specify:
- [X] file(s) containing analyses. Specify: SPSS-syntax, SPSS-output, and RWA-output
- [] files(s) containing information about informed consent
- [] a file specifying legal and ethical provisions
- [] file(s) that describe the content of the stored files and how this content should be interpreted. Specify: ...
- [] other files. Specify: ...
* On which platform are these other files stored?
  - [X] individual PC
  - [ ] research group file server
  - [ ] other: ...

* Who has direct access to these other files (i.e., without intervention of another person)?
  - [X] main researcher
  - [ ] responsible ZAP
  - [ ] all members of the research group
  - [ ] all members of UGent
  - [ ] other (specify): ...

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