

Making the right move:

Investigating employers' recruitment strategies

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1. Introduction

External recruitment has become the dominant talent management strategy for many firms (Cappelli and Keller, 2014). However, external recruitment bears a certain risk as employers lack complete information about various candidates' characteristics, such as productivity, motivation, or trustworthiness. The recruitment process itself is used by employers to try to uncover as much information as possible about these characteristics.¹ Employment relations are often investigated using agency theory, which recognizes this information-uncovering aspect of the recruitment process (Kiser and Cai, 2003; Shapiro, 2005). Its main focus, however, has traditionally been on the agency costs related to different types of agents (i.e., different in 'ability, effort, and honesty', Kiser, 1999). The argument that agency costs can systematically vary across job types (i.e., some jobs 'allow' for more discretion than others, Goldthorpe, 2000) has not yet been explored in agency theory. This argument is central to the present study.

In this paper, we focus on the recruitment aspect and investigate what recruitment strategies employers undertake to overcome distinct job-related agency problems before establishing an employment relationship. More specifically, we will study how employers adopt their recruitment strategies to the type of job for which they are hiring in an attempt to mitigate the agency problems that may occur for certain job types. Incorporating job characteristics in the agency theory literature in this way is important because even though agents (i.e., employees) may be of different types, the consequences in terms of agency problems may depend more on the job they are asked to perform. For example, an employee with a tendency to shirk, may not be able to do so if the output of the job is easily monitored. Studies on talent management have shown that when it comes to investment on human

¹ Our focus here is on external recruitment (see Bonet et al., 2013; Breugh, 2013; Dineen and Soltis, 2011 for an extensive overview of studies on external recruitment). The extensive literature on internal labor markets looks at this process from a different angle (Doeringer and Piore, 1971; Althausen, 1989).

resources, job differentiation is a better strategy than individual differentiation: “staffing decisions should take into account the strategic importance of different roles prior to considering individual attributes.” (Cappelli and Keller, 2014: 309; Gallardo-Gallardo et al., 2013; Humphrey et al., 2009). If employers’ recruitment strategies, as part of the staffing decisions, are also tailored to job types, this may have important implications for the management of human resources.

While the neoclassical economics account of agency theory argues that employers will make use of the recruitment channel that offers the highest expected profit (Gorter and Van Ommeren, 1999), sociological contributions maintain the cost-benefit argument of agency theory, but also look at the recruitment process in a broader context (see Shapiro, 2005 for an overview). Depending on various structural factors, like occupation, sector of employment, or organization size, the efficiency of different recruitment channels also varies (Marsden and Campbell, 1990; Marsden, 2001). Social network research shows that for many types of jobs, informal recruitment channels (i.e., via social connections) are used more frequently than formal ones (e.g., Granovetter, 1974; Montgomery, 1991; Flap and Boxman, 2001; Marsden and Gorman, 2001).² This literature has predominantly focused on *employees’* social networks. Their main finding is that employee referrals are useful for screening new personnel (Rees, 1966; Montgomery, 1991; Fernandez et al., 2000; Fernandez and Castilla, 2001; see Breugh, 2013 for an overview).

Here, we focus on a different informal recruitment channel, namely on information networks of *employers*.³ These are social networks in which employers share information about prospective workers (Marsden, 2001). Such networks have been studied much less (Barron and Bishop, 1985; Marsden, 2001; Flap and Boxman, 2001; Marsden and Gorman, 2001). The few studies conducted so far argue that one important reason for employers to

² See Mouw (2003) for a critical overview.

³ For an experimental approach to studying this type of networks, see Schram et al. (2010), Brandts et al. (2010), and Gërkhani et al. (2013).

predominantly use this type of networks when recruiting is that it provides them with in-depth information on prospective employees. Though such studies on employer networks have made important contributions, a systematic analysis of employers' use of their information networks for different kinds of jobs is still missing (Marsden and Gorman, 2001; Breugh, 2013). This paper aims to fill this gap. The few studies that have looked at occupational differences in selection methods (Marsden, 1994; Boxman et al., 1994; Flap and Boxman, 2001; Marsden, 2001) argue that informal recruitment channels will be used more often for 'risky' occupations (e.g., with damage potential or training costs), because they provide more accurate information about prospective employees. According to these studies, the primary reason for employers to do so is to economize on costs of selection errors.

We extend this line of argument by comparing jobs that differ with respect to the level of discretion. In particular, we will distinguish between 'managerial, professional and specialists' (MPS) jobs on the one hand, and 'administrative and supporting' (AaS) jobs on the other (Goldthorpe, 2000). We address the question of which recruitment channels employers use for these different types of jobs. By combining insights from agency theory (Kiser, 1999; Shapiro, 2005) and the social embeddedness literature (Granovetter, 1985), we argue that a variation in the type of channel used can be expected for these two job categories. After deriving hypotheses from our theoretical discussion, we subsequently test them using data from a large-scale survey of 288 Dutch employers.

2. Formal and informal recruitment channels

The various recruitment channels that employers can utilize in finding potential employees are often categorized in two main groups: (1) formal channels that include public and private employment agencies, advertisements, and recruitment from schools and colleges; and (2)

informal channels that include information from relatives, friends, acquaintances, current employees, and other employers (Rees, 1966; Barron and Bishop, 1985; Barber, 1998; Marsden, 2001; Fish and Macklin, 2004; Parry and Wilson, 2009).⁴

Most studies argue that an employer's use of specific recruitment channels is based on a cost-benefit analysis (Marsden and Campbell, 1990; Holzer, 1996; Marsden, 2001). In these analyses, the following aspects are typically considered: both monetary and time costs associated with a particular recruitment strategy, as well as the size of the pool of candidates, their quality, and the likelihood of finding an appropriate candidate. Depending on the recruitment target and strategy, the costs and benefits associated with the different recruitment channels also vary (Russo et al., 2000).

While formal recruitment channels offer benefits in terms of a larger pool of potential employees (and thus a higher probability of finding the right person), they are often costly. There are both pre- and post-hire costs. The pre-hire costs involve financial costs of for example placing an advertisement or paying a commission to a private employment agency. The post-hire costs are related to the possibility of hiring poor performers whose quality is difficult to judge *ex ante* through the formal channel used. Informal recruitment channels, on the other hand, are known for higher benefits and lower costs (Marsden, 2001; Marsden and Gorman, 2001). The benefits are mainly related to detailed and accurate information about the prospective employee, thus providing good quality employees. This information can be transmitted through social connections of the employers or their employees (for the latter, see Fernandez et al., 2000; Erickson, 2001; Castilla, 2005). The pre-hire costs are relatively low because they do not involve any financial investment like a commission for an ad or agency. The process of finding 'the right person' may however take a while, which implies greater

⁴ Looking more at the supply side, Bridges and Villemez (1986:576) use another categorization, which to a large extent overlaps with the one described here. They distinguish between 'non-personal' and 'personal' means. The non-personal means include the formal channels mentioned above and job seekers' direct application without prior knowledge. The personal means are related to the type of social ties job seekers use to find a job, distinguishing between: 1) weak vs. strong ties and (2) work related vs. communal ties.

time costs. The post-hire costs are related to the limited number of prospective employees considered, implying that the employers may miss out on potentially better candidates (Russo et al., 2000). Since employers face the uncertainty of not knowing how easily they can reach job seekers, they have to decide on how much to invest in increasing the probability of a successful search (Russo et al., 2000). The decision whether or not to invest in turn affects the choice of recruitment channel(s). In addition, an employer faces the uncertainty of not knowing the characteristics of a prospective employee that are deemed important for fulfillment of the position.

3. Theoretical discussion

The level of discretion in jobs, and with that the likelihood of opportunistic behavior of employees, varies.⁵ Goldthorpe (2000) argues that main difference lies in the sources of ‘contractual hazard’ (Halaby and Weakliem, 1989). From an employer’s perspective, the more difficult it is to monitor an employee’s work performance and human capital skills, the more contractual hazard is involved in an employment relationship. In order to address the various degrees of contractual hazard and the related variation in job discretion, Goldthorpe proposes that employers will introduce various forms of employment contracts. For jobs characterized by high degrees of discretion, so-called ‘service relationship’ contracts are offered. These are considered ‘typical’ for “professional, administrative, and managerial staffs of organizational bureaucracies, public and private” (p. 208). For jobs characterized by low degrees of discretion, so-called ‘labor contracts’ are offered. These are more typically used in case of “manual and lower-grade nonmanual workers” (p. 208).

As Goldthorpe (2000:208) himself argues, “these two basic forms of the regulation of employment may exist with degrees of modification and that ‘mixed’ forms also occur”.

⁵ This does not necessarily imply that this employee will automatically take advantage and act opportunistically (Perrow, 1986; Donaldson, 1990).

Here, we focus on a slightly modified version of Goldthorpe's distinction between job types, namely between 'managers, professionals and specialists' and 'administrative and supporting staff'.⁶ Below, two theoretical approaches to post-hire costs are examined, namely agency theory and social embeddedness theory.

3.1. Agency theory

According to the "classic economics account of agency theory" (Jensen and Meckling, 1976), an employment relationship between an employer (the principal) and an employee (the agent) is characterized by asymmetric information. This is caused by 'moral hazard' (i.e., the fear of agent shirking) or 'adverse selection' (i.e., due to the unknown skills of the agent) (Eisenhardt, 1989). In order to cope with these aspects, an employer can try to monitor the employee's work, develop information systems that uncover more information about the employee, or offer incentives to the employee. These options are costly however, and the employer's decision on which to choose is thought to be driven by cost minimization. One way employers can do this is by addressing these costs before establishing an employment relationship, namely in the recruitment phase (Kiser and Cai, 2003). As Tilly and Tilly (1994: 286) note, hiring involves "transactions in which, within stipulated limits, workers concede control over their labor power to employers in return for payment stipulated in advance, receiving assignment to specific jobs."

As argued above, agency costs can also vary per job type, meaning that some jobs 'allow' for more discretion than others. Some sociological studies that have looked at occupational differences in selection methods argue that when hiring employees for permanent or higher-rank jobs, for jobs where additional training is required, or where damage potential is high, more careful screening is needed (Barron and Bishop, 1985;

⁶ Note that conceptually, our distinction based on the level of discretion characterizing the two types of jobs is maintained.

Boxman et al., 1994; Flap and Boxman, 2001; Marsden, 1994; 2001). Other HRM studies have shown that human resource practices vary per job type within a firm: “jobs that are valuable and unique to a company require more sophisticated HR practices”, whereas the opposite holds for the less valuable ones (Melián-Gonzalez and Verano-Tacoronte, 2006: 43). Hence, in the recruitment phase employers may lean more towards personalized information transmitted through informal recruitment channels.

This argument can be more structurally extended to job types that differ with respect to the difficulty of monitoring and the level of human capital skills (i.e., Goldthorpe’s degree of discretion). The costs of bridging the informational asymmetry are higher for employers in the case of managerial, professional and specialist jobs than in the case of administrative and supporting jobs. This is because the former are more difficult to monitor and involve higher skill level. Like with the ‘risky’ occupations, mentioned above, informal recruitment channels may provide more in-depth information about a candidate. Given the higher level of informational asymmetry, this information will be more important for managerial, professional and specialist jobs than for administrative and supporting jobs (see Gërkhani et al., 2013 for some experimental evidence). Even if there were various ‘social-control organizations’ (i.e., formal recruitment channels, e.g., headhunters) that according to Shapiro (1987) would provide employers with comparable in-depth information, engaging such formal channels would be more costly than utilizing employers’ pre-existing social relationships (Marsden, 2001). From the logic of agency theory it follows that when hiring externally employers will use the recruitment channels that minimize the bridging costs of informational asymmetry. They will therefore use informal recruitment channels relatively more often for managerial, professional and specialists jobs than for administrative and supporting jobs. In a similar vein, though focusing more on the relationship between politicians and top-level bureaucrats, Kiser (1999) argues that the ‘patronage system’ will be

more preferred when hiring for these top-level agents since it provides better information on their types and thus makes it easier to control them (p. 156). This line of reasoning yields the following hypothesis:

Hypothesis 1: When hiring externally, employers use informal recruitment channels relatively more often for managerial, professional and specialists jobs than for administrative and supporting jobs.

3.2. Social embeddedness

Studies on human resource management have shown that managers use social networks for increasing their knowledge on HRM practices (Sumelius, 2009). Insights from the social embeddedness literature (Granovetter, 1985; 1990) will help us better understand the relationship between various sources of employers' information networks and their recruitment decisions (i.e., a HRM practice) across job types. The social embeddedness perspective argues that economic actions and exchanges are embedded in networks of social relationships between parties involved in an exchange (e.g., employer and employee) but also other parties (e.g., an employer's friends or colleagues). Emerging economic structures are seen as social constructions and not as automatic responses aimed at minimizing transaction costs.

According to Shapiro (2005: 276), this “ongoing structure of personal relationships” will be used by a principal (i.e., employer) during “agent (i.e., employee) selection, monitoring, and sanctioning” to deal with the agency problem of informational asymmetry.⁷ Biggart and Castanias (2001) propose an alternative way to diminish agency costs, which is

⁷ In an earlier study she mentions that “common networks of social relations shared by principal and agent may provide a sufficient incentive for trust – but not a necessary one.” (Shapiro, 1987: 626).

by hiring agents with ‘collateralized’ relations⁸. Like Granovetter (2005), they emphasize that these personal relationships may pre-exist and are to a large extent maintained for non-economic reasons. They can, however, be used to produce intended economic outcomes, like minimizing the agency costs of hiring the ‘right’ candidate. For our purpose, this means that when deciding to use informal recruitment channels, employers can rely on their own social contacts with family, friends, colleagues, neighbors etc. and/or on the social contacts of their current employees. As mentioned above, our focus in this paper is on the former, i.e., employers’ own information networks. These can influence the recruitment process in two ways. One relates to the quantity of the information transmitted about prospective employees. The more contacts an employer has, the more candidates will be reached, even (good) ones who may otherwise not apply (see Rees, 1961; Fernandez et al., 2000). The second relates to the type of information transmitted.

Network studies argue that the resources available through contacts vary (Walter and Smith-Doerr, 1994). Here, we consider the variation related to the sources of information. When the information about a prospective employee is transmitted through an employer’s personal relationships with family, friends, neighbors, or non-professional association members, the candidate is more likely to be cooperative and trustworthy, and can -through these relationships- be easily monitored and sanctioned (Shapiro, 2005). Such social contacts provide an employer with in-depth information about a prospective employee for reasons that “transcend pure self-interest” (Granovetter, 1992:40). Following the early footsteps of Granovetter (1974) and Bridges and Villemez (1986), we will call these social contacts of an employer ‘communal type of contacts’.⁹ “Employers who recruit through social networks need not- and probably could not- pay to create the trust and obligations that motivate friends and relatives to help one another find employment” (Granovetter, 2005:35).

⁸ These are defined as assets used by agents to assure economic transactions.

⁹ A similarity can be found with the concept of ‘strong ties’ (Granovetter, 1973) measured by a role category (e.g., kin, friends) and not by the perceived strength of a relationship (Lin, 1999).

Another source of information about a prospective employee comes from an employer's social contacts developed in work-related environments like professional associations, former jobs, conferences, etc. We will call these 'work-related type of contacts'. It is not directly obvious whether and why these social contacts would provide the requested information. Research shows that doing so can even be costly, both in terms of time and effort of information provision (Marsden, 2001). In addition, the information provided may be unreliable and misleading (Buskens et al., 2010), which Shapiro (1990; 2005) calls 'the dark side of embeddedness'. This indicates another principal-agent relationship, namely one between an employer asking for information about a prospective employee and a work-related agent being asked to provide such information. Our expectation is that this agency problem will be overcome due to reciprocal expectations in the future (Gouldner, 1960; Streeck, 2005; Gërkhani et al., 2013), reputation protection (Fernandez et al., 2000), and third-party monitoring and sanctioning by other social contacts (Gorski, 1993).

Importantly, though both types of an employer's contacts may be useful in solving the agency problem, we predict that the work-related type will be used relatively more often when hiring externally for managerial, professional and specialists jobs than for administrative and supporting jobs. This is because the information transmitted through the work-related type of contacts pertains directly to actual-work related behavior of the prospective employee. "Better than the statement that someone is known to be reliable is information from a trusted informant that he has dealt with that individual and found him so..." (Granovetter, 1985: 490). Given the higher level of informational asymmetry, this specific type of information will be more important for managerial, professional and specialists jobs than for administrative and supporting jobs. This leads to our second hypothesis:

Hypothesis 2: When hiring externally, employers make more use of the work-related

than communal type of contacts for managerial, professional and specialists jobs compared to administrative and supporting jobs.

4. Data, Operationalization, and Method

4.1. Data

The empirical analysis is based on self-collected data through an online survey of 288 public and private organizations in the Netherlands in 2010. These organizations were members of the Dutch association of human resource managers. The main respondents were either the employers themselves or their representatives responsible for the hiring practices in their organization. Before the survey started, internet searches and short phone interviews were conducted to identify contact information about the respondents. After acquiring such information, the respondents received an email invitation to participate in the survey. A few incentives, like winning a prize and receiving access to a benchmarking page were offered in case of completing the survey. Non-responses were followed by a maximum of two e-mail reminders, as well as phone calls when information was available. After removing incomplete and invalid responses, a final dataset was created from the remaining 43.1% valid and complete responses, corresponding to 288 different organizations. These organizations operate in all sectors of the Dutch economy. Of the organizations in the dataset, 18.9% belong to the industry sector, 47.4% to the commercial service sector, and 33.8% to the non-commercial service sector. This distribution across economic sectors closely resembles the distribution across the Dutch economy (16.8% industry, 49.6% commercial services, and 34.1% non-commercial services) (Statistics Netherlands, 2012).

The dataset contains information on the recruitment process of the most recently hired employee for managerial, professional and specialists jobs, and of the most recently hired employee in administrative and supporting jobs. The majority of respondents (69%) provided

information about both types of jobs, 7.3% (21 respondents) did so only for administrative and supporting jobs, and 23.3% (67 respondents) only for managerial, professional and specialists jobs. This amounts to a total of 488 recruitment choices. The data from all organizations are analyzed. In addition, separate analyses are conducted for each type of job (see section 4.3 below). For both job types, a number of questions were asked related to the number of social contacts of the respondent, and the type of information transmitted through such contacts. In addition, a set of background and context questions measured the labor market situation at the time of recruitment, together with various characteristics of the organization and of the respondent.

4.2. Operationalization

Dependent variable

The dependent variable *-informal recruitment channels-* is measured as follows. In the questionnaire, respondents were asked about the channels that they used to find a candidate for a job. Respondents were given a list of 12 options and they could select any number of these. These 12 options are: (1) public employment agency, (2) private employment agency, (3) head hunter, (4) job advertisements, (5) internet, (6) open application, (7) schools and training agencies, (8) professional organizations, (9) online networks, (10) friends and family, (11) incumbent personnel, and (12) work and business relations. Based on the literature and given our focus on the type of information transmitted through these recruitment channels, we have grouped the first eight into the category ‘formal recruitment channels’. The latter four are grouped into the category ‘informal recruitment channels’. Combining the responses to these items thus results in a variable ranging from 0 (none of the channels used) to 12 (all channels used). A dummy variable is then created measuring the use of *informal recruitment channels*. This variable has a value of 0 if an employer did not use any of the four informal

recruitment channels and a value of 1 if an employer used at least one of these channels.

Independent variables

- *Job types*

In this paper we focus on two types of jobs, which are captured by asking the respondents to provide information about the most recently hired: (1) Manager, Professional and Specialist (MPS), and/or (2) Administrator and Supporting staff (AoS). The variable *job type* is coded 0 for AoS and 1 for MPS jobs.

- *Social contacts*

To capture social contacts, three indicators are used. The first indicator, *number of social contacts*, measures the quantity of information transmitted about prospective employees. It does so by measuring the extent to which respondents know people in other organizations with whom they talk about work-related issues. This variable is measured on a scale from 1 (no one) to 7 (many). The other two indicators capture the type of information transmitted about prospective employees. These are measured by asking the respondents to indicate whether they have met these people with whom 'they talk about work-related issues' via: (1) professional organizations, (2) employers' or employees' associations, (3) branch associations, (4) trade unions and entrepreneurial associations, (5) prior jobs, (6) conferences, (7) business groups or strategic alliances, (8) clubs, such as Rotary and Lions, (9) online networks such as Facebook, LinkedIn, and Hyves, (10) nonprofessional organizations (e.g., religion-, art-, sport-related), (11) family, (12) neighborhood. These social contacts are grouped into two types: the *work-related type of contacts* and the *communal-related type of contacts*. The former include contact sources (1) to (6), since they all are related to the day-to-day work of employers. The latter include contact sources (10) to (12), since they capture

family and communal related contacts that employers have. Contact source (7) ‘business groups’ was only included in the question addressed to private organizations, whereas contact sources (8) ‘clubs’ and (9) ‘online networks’ are diffuse and may be both work-related and communal-related. For reasons of clarity, these three sources have been omitted from the analyses.¹⁰ The variable work-related contacts is measured by summing contact sources (1) to (6), thus having a range from 0 (the respondent does not have any work-related contacts), to 6 (the respondent has all work-related contacts). Similarly, the variable communal-related contacts is measured by summing contact sources (10) to (12) (ranging from 0 to 3).

Control variables

- *Respondent characteristics*

Earlier research on recruitment practices, on the one hand utilizes organization level data, but on the other hand excludes the possibility to control for individual characteristics that potentially play a role in the recruitment process. The current dataset enables us to take some basic background characteristics into account to investigate whether individuals differ with regard to their preference for formal and informal recruitment channels. Provided that existing studies cannot serve as a point of reference and that there is not a fully developed theoretical framework explaining individual preferences for recruitment channels, this part of the analysis is explorative. It focuses on the extent to which there may be individual variation with regard to the use of recruitment channels, by including *gender* (0 = male; 1 = female), *age*, and *level of education* of the respondent (measured on a five point scale from low to high).

- *Organizational characteristics*

¹⁰ Additional analyses show that the overall results do not change when placing clubs and online networks in either the work-related category or the communal-related contacts.

In the existing literature on recruitment it has been argued that the use of recruitment channels is not purely based on costs and benefits but is also affected by organizational and environmental factors (Marsden, 1994; 2001, Rynes and Cable, 2003). Two organization characteristics seem to be particularly important when deciding which recruitment channels to use. First, there may be a difference between public and private organizations due to institutional pressure. Public organizations are more visible to the broader public and the environment within which they operate. As such they are more subject to legitimacy issues and civil service regulations than private organizations (Tolbert and Zucker, 1983; Dobbin et al., 1988). As a result, public organizations will be less inclined to deviate from the recruitment practices that offer equal opportunities to everyone. These are the formal recruitment channels since informal channels rely on social connections whose accessibility is not equally distributed. To control for this potential variation, a variable measuring whether the organization is a *public organization*, a *private organization*, or a *public/private organization* is included. Also the size of an organization may matter for the use of recruitment channels. The larger the organization, the more financial resources it has to invest in more costly recruitment methods (Boxman et al., 1994), and the higher the likelihood that its governance structure aims at bureaucratic control and formalization (Pugh and Hickson, 1976). As a result, larger organizations may use formal recruitment channels relatively more often than smaller organizations do. Cassell et al. (2002) show that small and medium sized enterprises use indeed the more informal, word of mouth method of hiring the 'right person'. To take this effect into account, a variable *organization size* (measured by the number of employees) is added to the analysis.

- *(Perceived) Labor market scarcity*

Another important environmental factor is the labor market situation at the time of

recruitment (Russo et al., 2000; 2001). In times of excess supply of labor, recruitment will be easier since the pool is large. Hence, much less investment is needed to recruit compared to a labor market with excess demand of labor. In the latter case, it is more difficult to find candidates, leading employers to invest in one or multiple recruitment methods. This means that in times of excess demand of labor, employers will use informal recruitment channels more often than in times of excess supply. *Labor market scarcity* is measured by the number of weeks that it took to find the candidate that was hired for the job. In addition to this objective measure of scarcity, the dataset contains information about *perceived labor market scarcity*. This variable is measured by asking the respondents how easy it was to find the candidate that was recently hired. This subjective assessment ranges from 1 (very difficult) to 7 (very easy).

The descriptive statistics of all the variables introduced above are provided in Table 1.

Table 1 about here

4.3. Method

The dependent variable of this study is a dichotomous variable (the value is either 0 if no informal channels were used or 1 if at least one informal channel was used to find the most recently hired candidate). Therefore, the hypotheses are investigated using logistic regression models. We conduct several analyses to examine the difference in the use of recruitment channels between managerial, professional and specialists jobs (MPS) on the one hand, and administrative and supporting jobs (AoS) on the other.

The first step of the analyses focuses on the question whether informal channels are used more often when recruiting for managerial, professional and specialists jobs than when recruiting for administrative and supporting jobs. This analysis is at first conducted using

information about both types of jobs (MPS and AoS). By doing so, it provides insights into the question whether the use of informal channels varies per job type as predicted in Hypothesis 1, even after controlling for the characteristics of the respondent, the organization, and the labor market context. The next step investigates Hypothesis 2, and includes variables measuring work-related and communal-related type of contacts.

As mentioned earlier, in some organizations hiring information has been reported for both, MPS and AoS job types. In these organizations, the main respondent provided information about the recruitment process and the other variables included in the dataset (such as organization characteristics and their individual characteristics). This implies that in this part of the analysis, the assumption of independence is violated. To deal with this and to account for the potential interdependence among the variables, logistic multilevel modeling is applied.

Besides the analysis including both job types simultaneously, a further investigation of differences across job types is provided by conducting the same analyses for the two job types (MPS and AoS) separately. The joint regression may obscure some empirical relations that become visible if single models are investigated. This is particularly the case if there are contrasting effects of social contacts for both job types that may lead to suppression in the regression models investigating both job types simultaneously. Conducting separate analyses overcomes this issue. The data used for these models do not have a nested structure and they are analyzed using single level logistic regression analysis.

5. Results

The results of the multilevel logistic regression analysis are presented in Table 2. These results show that organizational characteristics and labor market context affect the use of recruitment channels, but the basic background characteristics of respondents do not (Model

1). As expected, public organizations use informal recruitment channels less often than private organizations ($b = -0.539$; odds ratio = 0.583; $p < 0.05$). The likelihood of using informal recruitment channels also decreases with the organization's size ($b = -0.392$; odds ratio = 0.676; $p < 0.05$). These effects remain when the rest of the independent variables are added to the model. As for the labor market context, the more employers believe that it is easy to find candidates, the less they use informal recruitment channels ($b = -0.203$; odds ratio = 0.816; $p < 0.01$). This effect, however, disappears in model (2) which includes the job type dummy, implying that perceived labor market scarcity differs for the two job types.

Table 2 about here

Model 2 of Table 2 investigates the difference in likelihood of using informal recruitment channels between the two types of jobs. The results show that the informal recruitment channels are more often used for jobs with high degree of discretion (MPS) than for jobs with low degree of discretion (AoS) ($b = 1.095$; odds ratio = 2.974; $p < 0.01$). Hypothesis 1 is thus confirmed.

Model 3 of Table 2 tests whether indicators of pre-existing social contacts also play a role in the use of informal recruitment channels. The results show that the number of such contacts is not significantly related to the use of informal recruitment channels. The type of information transmitted through such contacts, on the other hand, is. In particular, having work-related type of contacts is significantly associated with more use of informal recruitment channels ($b = 0.249$; odds ratio = 1.283; $p < 0.01$). A further investigation of these results is presented in models 4 and 5. To test Hypothesis 2, we computed interaction effects between job type (MPS or AoS) and work-related and communal-related contacts separately to find out whether the effects of these contacts differ across job types. As these models show, the effect

of work-related contacts on the use of informal recruitment channels does not significantly differ between the two types of jobs ($b = -0.073$; n.s.), while the effect of communal-related contacts does ($b = 0.654$; $p < 0.01$). Hypothesis 2 is thus not supported.

Tables 3 and 4 present the results of the same models conducted for the MPS and AoS jobs separately. This enables us to further investigate whether the occupationally related differences in the use of informal recruitment channels are related to the social contacts through which information about the candidates is gathered. The number of these contacts has again no significant effect. As for the sources of social contacts, some notable differences appear. In the case of managerial, professional and specialists jobs (table 3), work-related contacts turn out not to be significantly related to the use of informal recruitment channels. Communal-related contacts affect the use of informal channels significantly, however ($b = 0.370$; odds ratio = 1.448; $p < 0.05$). In the case of administrative and supporting jobs (table 4), we observe the opposite. Work-related contacts are significantly related to the use of informal recruitment channels ($b = 0.268$; odds ratio = 1.307; $p < 0.01$), while communal-related contacts are not. Together, these results imply that the effect of communal-related contacts on the use of informal channels is suppressed when both types of jobs are analyzed in a single model. When studying them separately, we find that pre-existing social contacts are important in explaining the occupationally related differences in the use of informal recruitment channels. In particular, communal-related type of contacts explain why employers use informal channels more often when recruiting for MPS jobs compared to AoS jobs.

Tables 3 and 4 about here

Finally, across the models there are some notable findings concerning the control variables. First of all, both background characteristics and labor market context have very limited

impact on the employers' use of informal recruitment channels. This is particularly the case after considering the job types employers recruit for. Second, both type and size of organizations matter for the recruitment channels used: as expected, public organizations and larger organizations use informal channels less often. These results reinforce earlier findings on the existence of institutional pressure on public organizations, and greater financial resources and/or higher degree of formalization in larger organizations. Interestingly, these effects turn out to differ for the two types of jobs: while organization size limits the use of informal recruitment channels for managerial, professional and specialists jobs, the effect of organization type prevails for administrative and supporting jobs. To fully understand these observed differences, the underlying mechanisms need to be further investigated. Nevertheless, what the outcomes seem to suggest is that financial resources and/or formalization play a role in both job types, whereas institutional pressure is only relevant for jobs with a low degree of discretion.

6. Conclusion

Employers' recruitment strategies are shown to have a crucial role in the functioning of labor markets (Marsden, 2001). Various HR strategies, like formal hiring, employee referrals or college recruiting, are examined in detail in prior studies, whereas the role of social networking has remained under-researched (Breugh, 2013). This is a significant gap given the increasing importance of external recruitment (Cappelli and Keller, 2014) and the increasing role of social networking therein (Breugh, 2013). The present study fills this gap by focusing on information networks of employers and investigates how these are used to address distinct job-related agency problems before an employment relationship has been established. In particular, a job distinction based on the degree of discretion 'allowed' in performing the job is of relevance here, namely one between 'managerial, professional and

specialists' jobs and 'administrative and supporting' jobs (Goldthorpe, 2000).

Our empirical analyses -which are based on a wide range of information about recruitment strategies, jobs, individuals, organizations, and the labor market context- show that employers have the tendency to use informal recruitment methods more often for jobs with high degree of discretion (i.e., managerial, professional and specialists jobs) than for jobs with low degree of discretion (i.e., administrative and supporting jobs). This finding contributes to the literature on talent management where job differentiation in staffing decisions between more valuable and less valuable jobs is considered to be of strategic importance for organizations (Cappelli and Keller, 2014; Melián-Gonzalez and Verano-Tacoronte, 2006).

Moreover, by integrating the social embeddedness literature, this study contributes to a better understanding of which types of employers' social contacts are related to their use of informal recruitment channels. The analyses show that while work-related contacts are associated with more frequent use of informal recruitment channels, this is not more so for managerial, professional and specialists jobs than for administrative and supporting jobs. It is the communal-related contacts that seem to be more important for managerial, professional and specialists jobs. This finding indicates that employers try to solve the trust problem, which is more pressing in jobs with high degree of discretion, by using information from the contacts they have outside of their work sphere. The motivation with which family and friends provide information overcomes the benefits of accessing various sources of information via work. This supports previous arguments related to the strength of ties, originally put forward by Granovetter (1982) and later on by Marsden and Gorman (2001). When recruiting for jobs with high degrees of uncertainty, the fear that information provided to employers by their work-related contacts may be unreliable and misleading seems to be higher than when recruiting for jobs with low degrees of uncertainty. This conclusion is in line with earlier

research showing that social contacts can be a means of overcoming trust problems in business transactions (Gulati, 1995; Uzzi, 1997).

Though this has positive consequences for the demand side of the labor market, there is an important downside related to the supply side of the labor market. By primarily relying on social contacts, and in particular on ‘strong’ ones, employers restrict some employees’ access to certain jobs, generating inequality in the labor market. This may lead to the continuation of particular groups’ marginalization, which is a problem of great policy relevance. For example, recruiting through social ties is negatively associated with the share of women in managerial jobs (Reskin and McBrier, 2000).

The empirical findings of this study have a number of practical implications for the HR strategies and practices of organizations. First of all, as noted above, this study emphasizes the importance of job differentiation for the hiring strategies of organizations: the likelihood of using formal or informal recruitment channels depends on the kind of job for which a candidate is needed. Such differentiation may affect the internal consistency of the HR practices used by organizations, which ultimately can affect the performance of employees and organizations (Huselid, 1995; Koster, 2011). To retain consistent HR practices, organizations could organize all their HR practices following the distinction between MPS and AoS jobs. Secondly, the importance of social networks for attracting MPS employees implies that organizations should pay careful attention to their informal networks as well as the networking skills of employees who are responsible for hiring new staff. Hence, if organizations face difficulty in finding MPS personnel, this may be partly due to a shortage of informal network ties. By establishing new ties and by developing the networking skills of employees, this matching problem may be solved. Finally, the results show that ties with families and friends are particularly important for MPS jobs. Such ties are not created overnight and need care and attention for a longer period of time. Therefore, organizations

that depend on such networks for recruitment (e.g. organizations with more MPS jobs), could have an advantage compared to other organizations, if they invest in long-term relationships between their hiring staff and their non-work related networks.

There are a number of open questions left that future studies could investigate in more detail. To start with, the explanatory variables related to the social embeddedness literature can be investigated in much more detail. Such an analysis may be either based on experimental designs trying to rule out alternative explanations (see Schram et al., 2010 and Gërxhani et al., 2013 for examples), or on qualitative data aiming at understanding employers' recruitment strategies (e.g., Rivera, 2012). Second, the findings with regard to organizational characteristics and labor market context, which were only used as control variables in the present analysis, raise new questions concerning the recruitment process. For example, our analyses can be applied more specifically to small and medium sized enterprises like in Cassell et al. (2002). Future research should be geared towards unraveling these effects in more detail to better understand the role of social and institutional embeddedness in employers' recruitment strategies.

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Table 1. Descriptive statistics

Variable	Mean	SD	%	Min	Max
Informal recruitment channels			52	0	1
<i>Job type</i>					
MPS (n = 267)			55	0	1
AoS (n = 221)			45	0	1
<i>Social contacts of respondent</i>					
Social contacts (number of contacts)	5.20	1.37		1	7
Work-related contacts	2.66	1.49		0	6
Communal-related contacts	1.05	0.94		0	3
<i>Respondent characteristics</i>					
Female			56	0	1
Age	45.40	8.92		24	63
Education	4.40	0.53		1	5
<i>Organizational characteristics</i>					
Organization type					
Public			31	0	1
Public/private			21	0	1
Private			48	0	1
Organization size	548.73	1018.04		1	9500
<i>Labor market characteristics</i>					
Labor market scarcity (weeks)	27.45	27.36		1	208
Perceived labor market scarcity	3.41	1.65		1	7

N = 488 recruitment choices of respondent in 288 organizations

Table 2. Multilevel logistic regression results (Dependent variable: Informal recruitment channels)

	(1)			(2)			(3)		
	b	s.e.	Exp(b)	b	s.e.	Exp(b)	b	s.e.	Exp(b)
MPS (1) or AoS (0)				1.095**	(0.248)	2.974	1.154**	(0.253)	3.171
Social contacts							-0.008	(0.120)	0.992
Work-related contacts							0.249**	(0.098)	1.283
Communal-related contacts							0.118	(0.146)	1.125
<i>Respondent characteristics</i>									
Gender (1 = female)	0.203	(0.270)	1.225	0.284	(0.302)	1.328	0.259	(0.304)	1.296
Age	-0.012	(0.015)	0.988	-0.011	(0.016)	0.989	-0.015	(0.017)	0.985
Education	0.230	(0.239)	1.259	0.300	(0.265)	1.350	0.245	(0.267)	1.278
<i>Organizational characteristics</i>									
Public organization	-0.539*	(0.288)	0.583	-0.584*	(0.322)	0.558	-0.514*	(0.324)	0.598
Public/private organization	0.311	(0.332)	1.365	0.360	(0.371)	1.433	0.369	(0.373)	1.446
Private organization (reference)	---	---	---	---	---	---	---	---	---
Organization size	-0.392*	(0.181)	0.676	-0.470*	(0.203)	0.625	-0.529*	(0.211)	0.589
<i>Labor market characteristics</i>									
Labor market scarcity	0.005	(0.005)	1.005	0.004	(0.006)	1.004	0.004	(0.006)	1.004
Perceived labor market scarcity	-0.203**	(0.086)	0.816	-0.101	(0.097)	0.904	-0.075	(0.098)	0.928
Intercept	0.011	(0.214)	1.011	-0.047	(1.526)	0.954	-0.490	(1.593)	0.613
Variance respondent	0.061	(0.018)		0.070	(0.017)		0.064	(0.017)	
Variance job type	0.172	(0.018)		0.156	(0.017)		0.156	(0.016)	

Note: A total of 488 observations

Standardized regressions coefficients are reported, standard errors in parentheses

* p < 0.05; ** p < 0.01

Table 2 (continued). Multilevel logistic regression results: (Dependent variable: Informal recruitment channels)

	(4)			(5)		
	b	s.e.	Exp(b)	b	s.e.	Exp(b)
MPS (1) or AoS (0)	1.380**	(0.512)	3.975	0.429	(0.374)	1.536
Social contacts	-0.004	(0.120)	0.996	-0.017	(0.123)	0.983
Work-related contacts	0.286**	(0.123)	1.331	0.252**	(0.101)	1.287
Communal-related contacts	0.119	(0.146)	1.126	-0.216	(0.198)	0.806
<i>Interaction effects</i>						
MPS X Work-related contacts	-0.073	(0.144)	0.930			
MPS X Communal-related contacts				0.654**	(0.250)	1.923
<i>Respondent characteristics</i>						
Gender (1 = female)	0.259	(0.305)	1.296	0.250	(0.312)	1.284
Age	-0.015	(0.017)	0.985	-0.014	(0.017)	0.986
Education	0.240	(0.267)	1.271	0.225	(0.273)	1.252
<i>Organizational characteristics</i>						
Public organization	-0.519*	(0.325)	0.595	-0.529*	(0.332)	0.589
Public/private organization	0.372	(0.374)	1.451	0.391	(0.384)	1.478
Private organization (reference)						
Organization size	-0.527*	(0.211)	0.590	-0.517*	(0.216)	0.596
<i>Labor market characteristics</i>						
Labor market scarcity	0.004	(0.006)	1.004	0.004	(0.006)	1.004
Perceived labor market scarcity	-0.071	(0.099)	0.931	-0.104	(0.101)	0.901
Intercept	-0.633	(1.622)	0.531	0.101	(1.649)	1.106
Variance respondent	0.064	(0.017)		0.065	(0.017)	
Variance job type	0.155	(0.016)		0.151	(0.016)	

Note: A total of 488 observations

Standardized regressions coefficients are reported, standard errors in parentheses

* p < 0.05; ** p < 0.01

Table 3. Logistic regression results for managerial, professional and specialists jobs (MPS)
(Dependent variable: Informal recruitment channels)

	(1)			(2)		
	b	s.e.	Exp(b)	b	s.e.	Exp(b)
Social contacts				0.069	(0.125)	1.071
Work-related contacts				0.145	(0.110)	0.156
Communal-related contacts				0.370*	(0.165)	1.448
<i>Respondent characteristics</i>						
Gender (1 = female)	0.494	(0.315)	1.639	0.478	(0.325)	1.613
Age	-0.017	(0.017)	0.983	-0.015	(0.018)	0.985
Education	0.238	(0.264)	1.269	0.126	(0.271)	1.134
<i>Organizational characteristics</i>						
Public organization	-0.120	(0.330)	0.887	-0.036	(0.341)	0.965
Public/private organization	0.636	(0.421)	1.889	0.550	(0.427)	1.733
Private organization (reference)	---	---	---	---	---	---
Organization size	-0.515*	(0.213)	0.598	-0.527*	(0.223)	0.590
<i>Labor market characteristics</i>						
Labor market scarcity	0.006	(0.007)	1.006	0.007	(0.007)	1.007
Perceived labor market scarcity	-0.153	(0.113)	0.858	-0.161	(0.116)	0.851
Intercept	2.068	(1.626)	7.906	,705	(1.633)	2,024
-2log likelihood		284.257			274.471	
Nagelkerke R ²		0.137			0.187	

Note: A total of 267 observations

Standardized regressions coefficients are reported, standard errors in parentheses

* p < 0.05; ** p < 0.01

Table 4. Logistic regression results for administrative and supporting jobs (AoS) (Dependent variable: Informal recruitment channels)

	(1)			(2)		
	b	s.e.	Exp(b)	B	s.e.	Exp(b)
Social contacts				-0.129	(0.143)	0.879
Work-related contacts				0.268**	(0.112)	1.307
Communal-related contacts				-0.176	(0.165)	0.839
<i>Respondent characteristics</i>						
Gender (1 = female)	-0.141	(0.355)	0.869	-0.181	(0.347)	0.834
Age	0.001	(0.019)	1.001	-0.008	(0.020)	0.992
Education	0.211	(0.318)	1.235	0.219	(0.330)	1.245
<i>Organizational characteristics</i>						
Public organization	-0.986**	(0.381)	0.373	-0.991**	(0.400)	0.371
Public/private organization	-0.010	(0.393)	0.990	0.142	(0.405)	1.153
Private organization (reference)	---	---	---	---	---	---
Organization size	-0.185	(0.239)	0.831	-0.280	(0.256)	0.756
<i>Labor market characteristics</i>						
Labor market scarcity	0.000	(0.006)	1.000	-0.001	(0.007)	0.999
Perceived labor market scarcity	0.004	(0.117)	1.004	0.042	(0.120)	1.043
Intercept	-0.747	(1.825)	0.474	-0.296	(1/911)	0.744
-2log likelihood		246.211			236.145	
Nagelkerke R ²		0.074			0.139	

Note: A total of 221 observations

Standardized regressions coefficients are reported, standard errors in parentheses

* p < 0.05; ** p < 0.01