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Job descriptions, from conception to recruitment
A qualitative review of hiring processes

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Abstract

The shift from an industrial economy to a knowledge and service economy over the last four decades has ignited a debate about what skills are now the most critical. The European Commission has placed skills development at the heart of its economic policies, as it believes that skill mismatches can lead to high unemployment rates, increased inequalities, and hindered innovation and corporate investment. However, more evidence is needed about how firms define new skills and workers' core competences, and communicate their needs to jobseekers. This article takes a qualitative approach and adds insights into this process from the firm perspective. Through 14 interviews with human resource professionals, we observed that the processes for identifying, defining, and evaluating skills and competences differ greatly by job profile and seniority, as well as firm size. We also found that within our sample, "soft" and "transversal" skills were equally regarded and relied on heavily during the selection phase of the recruitment process. The practice of firms to define new and specialised competences by the tools and methods used to carry out the job was also widespread. These findings are a first step in improving our understanding of the firm's recruitment process and talent acquisition.

Keywords: Human resources, skills and competences, job analysis

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- Sostero, M. and Fernández-Macías, E., *The Professional Lens: What Online Job Advertisements Can Say about Occupational Task Profiles*, JRC Working Papers on Labour, Education and Technology 2021/13, European Commission, Seville, 2021, JRC125917.
  Available at: https://joint-research-centre.ec.europa.eu/publications/professional-lens-what-online-job-advertisements-can-say-about-occupational-task-profiles_en

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Executive summary

Skills are at the heart of EU labour and education policy. Within a dynamic economy, marked by increased globalisation and new technological advancements, many expect that employers will demand increasingly sophisticated skills. If the workforce lacks those skills, the resulting mismatch may hamper economic growth and labour market inclusion. Based on this assessment, most policy prescriptions involve supply-side interventions in the areas of education and employee training (namely up-skilling and re-skilling initiatives). However, there is surprisingly little evidence to suggest that firms can always precisely describe the skills they require. Firms advertising for open positions often rely on job titles as bywords for professional competence, instead of listing precise task descriptions or explicit skill requirements. Employers can also mention "soft" or "transversal" skills (also sometimes called "non-cognitive skills" in the literature), for which there are no agreed-upon definitions. Faced with such imprecise requirements, how can jobseekers and policymakers address skill mismatches, if firms themselves cannot explain what skills they are looking for?

This study aims to understand skills mismatches though the job descriptions provided by employers, which are a crucial tool used by firms to communicate their skill needs to jobseekers. By showing how job description are created and used by firms, from conception to recruitment, this study provides how firms view and define skills (both "hard" and "soft"), how they evaluate those skills, and what this means for job quality of some occupations. In this pilot study, we interviewed 14 human resources (HR) professionals in twelve firms in the Catalonia region. We carried out a strategic outreach approach to ensure diversity in firm size, industry, and job position. Our key research questions were:

- How do firms define the tasks to be carried out by workers?
- When hiring, do firms use job descriptions to signal the skills and competences that the prospective candidates must have to fill the jobs?
- Do these practices vary by the complexity (specialisation, decision-making) of the work and the context where it is carried out (e.g. the size/sector of the firm)?

Key findings

Our analysis resulted in three main findings: first, the firm size matters in terms of skills definitions and processes; second, the content of the work is crucial to the process; and third, that soft and transversal skills are widely required, but are ill-defined, and potentially problematic.

1. **Firm size matters.** Within our sample, the larger firms were likely to report a top-down approach to their recruitment. The firm needs originated from executives and senior managers, rather than section heads. The job description was oftentimes pre-written, using outside resources, such as skills dictionaries or consulting firms. The smaller firms reported following a more ad-hoc process. In some cases, the job descriptions were drafted on the spot, or based on internet searches of how their competitors might draft a job advertisement.
2. **Work content is crucial.** The process of defining and translating the skill needs of the firms varied based on the content of work. This refers to the tasks that the worker would be expected to complete, the specialisation of the position, and the position of the job within the firm hierarchy. The literature suggests that firms in the knowledge economy are moving toward flatter organisation hierarchies and so-called "boundaryless" job positions, less constrained by hierarchies and prescribed tasks. However, within our sample, firms continued to take a traditional approach to defining skills and job recruitment based on both horizontal (task specialisation and complexity) and vertical (hierarchy) factors.

   For lower-level and simpler jobs, such as warehouse assistant, the job title alone was assumed to convey the necessary information on skill requirements. For more qualified positions, like engineers, having an engineering degree was viewed as satisfying the skills requirements of the job. For senior level positions, with more diverse tasks and responsibilities, the job descriptions within the advertisements were typically longer and more specific. In these cases, firms would often use the employment history of the candidate to determine their skill level and competences. In all positions, skills were defined by the tools the worker would be expected to use. For example, an administrative assistant would need to be well-versed in MS Excel or specific accounting software. In other cases, a warehouse assistant would need to know how to operate specific machinery.

3. **Soft and transversal skills are pervasive, but ill-defined, and potentially problematic. "**Soft skills", in the words of our respondents, can refer to a broad range of workers' attitudes or attributes. For example, being a hard worker, a good team player, or having good interpersonal skills were all described as soft skills (although some of them may more accurately be described as personality traits). They are also much harder to assess, which was admitted by all HR professionals whom we interviewed. However, that did not deter many HR professionals from including them in job descriptions and relying heavily on them when selecting a candidate. It is also harder to confirm that the applicant has these skills prior to the interview stage. Therefore, many respondents noted that they confirmed if the candidate had the right soft skills during the interview and selection process. In some cases, such as sales or human resources, soft skills like interpersonal and social skills were highly prioritized and valued almost as highly as hard skills or technical knowledge.

   These soft skills were sometimes distinguished from "transversal skills", which were deemed equally important. Transversal skills were defined by employers as "embodying the firms' values", which encompassed terms such as "honesty", "loyalty", and "being a good fit". These skills were not specific to the position, and all employees were required to hold them. One particularly concerning definition was given by a union representative, who in Spain is involved in the recruitment process. The representative was somewhat concerned about the importance of soft and transversal skills, as they were hard to define and could be subject to explicit and implicit biases. From a labour perspective, the representative mentioned that employers might be more likely to hire "docile" workers, or those who are less likely to partake in worker demonstrations or strikes. Again, the slippery definitions and difficulty in measuring these types of skills - if they are skills at all – raises questions as to whether policies can, or should, promote or codify them.

Conclusion, implications, and future extensions

The process of following the job description from conception to recruitment proved fruitful to better understand how firms identify their skill needs and communicate them to potential jobseekers. We advance a few hypotheses based on the findings of this pilot study, which would need to be tested on a larger scale, and in different labour markets. The first is that technical skills and qualifications may actually be over-emphasised within the academic literature, relative to how they are valued in the job market: many recruiters reported valuing "soft skills" almost as highly. We may also be witnessing a shift toward a higher reliance on defining skills by the tools and methods workers use, rather than the educational credentials or qualifications of workers. The second takeaway is that employers place great importance on "soft skills", or "transversal skills" without being able to define or measure them. Alarmingly, in some cases these may be a veiled allusion to worker personality and behaviour in the context of industrial relations, and hence be a potential vehicle for discrimination. Future research should explore how firms are using and measuring soft skills, and for what purposes. As skill research increasingly relies on job advertisements databases, this study takes an important early step in understanding how firms define and communicate their skill needs to jobseekers.

1 Introduction

The center of Europe's economic and social policies for growth and sustainability are skills (European Commission, 2016). The OECD (2017) defines skills as the set of both cognitive and non-cognitive abilities, along with technical abilities required to do the tasks in specific sectors or occupations. The development of skills is critical to the promotion of social inclusion, as it allows citizens to be active members of a working society. However, within Europe, and especially in Spain, there is a perception that the skills needed within today's economy are rapidly changing and evolving due to the shift to a knowledge economy and technological advances. These trends can lead to a skill mismatch, such as a working population that either does not possess the skills needed for these new jobs or a shortage of workers who fit these emerging skill profiles. In turn, skill mismatches can result in high unemployment rates until education levels can meet firm needs.

In the aftermath of the Great Recession, Spain experienced high levels of unemployment, particularly among young adults. Spain's youth unemployment (young adults between the ages of 16-24) increased from 17 percent in 2007 to 53 percent in 2013. And for workers between the ages of 25 and 34, the unemployment rate was 28 percent (Landolt & Thieme, 2018). Spain has also been marked by high levels of over-education, both in terms of the subjective notion of feeling overqualified for a job, and the objective measure of having higher credentials or education needed to carry out one's job (McGuinness et al., 2018). This mismatch between skills and production needs can lead to income inequality, low levels of life satisfaction, and polarisation in political attitudes, in addition to extended periods of unemployment (Susaeta et al., 2014). From the firm perspective, skill mismatch can hamper innovation, negatively affecting labour productivity, and impede corporate investment (Brunello & Wruuck, 2021).

A key instrument for ensuring a good match between a firm's needs and the prospective worker's skills is the job description. The job description can serve various functions. In some cases, a job description serves as a tool to the firm to classify jobs and assign basic compensations to them (Mitra et al, 2010). In many cases, the job description is edited and repurposed as a job advertisement to be used in the recruitment process (Pató 2017). For the purposes of this study, we are interested in the latter. We use the terms job description and job advertisement interchangeably.

The presumption is that the most efficient approach to creating a job description is to write out each individual task and outline the specific skills and competences required to perform the job to the standard of the firm. However, in practice job advertisements are much shorter, with implicit and explicit omissions, and are sometimes constrained by the dissemination services used and the difficulties for defining the functions (Sostero & Fernández-Macías, 2021). Moreover, they exist within a competitive environment with the pressure to attract the best and brightest candidates, thereby influencing the drafting process. The job description, itself, can become a manipulated tool, such that job titles may become inflated or some routine tasks can be omitted or minimised to make the job more attractive. Job title inflation is a newer phenomenon, whereas a firm may call their human resources manager, a "talent and acquisition manager" instead, to appear more attractive and signal a more prestigious position.

Little is known about the internal processes and challenges that firms face when attempting to define and translate their job needs into job descriptions. The identification of the content of a job has a long history rooted in job analysis. Job analysis is a systematic process that examines the various activities conducted within a job, which was developed to aid training, job design, and compensation scales (Schmitt, 2012). However, the usage of job analysis as it relates to the recruitment process is rare in the literature, which is puzzling, as the result of job analysis is typically a job description for the purpose of recruiting new workers into an organization.

This paper seeks to understand the conditions that might account for defining a job more or less prescriptively. In doing so, we deploy a qualitative approach by following the process of the job description from conception to recruitment. The purpose is to identify which elements are essential in that process to ensure the effective communication of the firm's functional needs to the prospective workers who may best fill those needs. Currently, there are international and national surveys that cover job attributes or working conditions from the perspective of the employee (see European Working Conditions Survey, American Working Conditions Survey, and Spanish Quality of Life in the Workplace Survey as examples), but there are fewer surveys that investigate firms' perspectives and processes for defining skill needs. Thus, our investigation explores the recruitment process from the perspective of nine private-sector firms, a union representative, a recruiting services organisation, and a public organisation, all based in Barcelona. Given the exploratory nature of our research, each of the participating organizations were selected to ensure as much heterogeneity as possible in firm size, industry, and job specification. Because job descriptions can be drafted inhouse or outsourced to other human resources firms, we also included a recruiting services organisation in our sample. Within Spain, union coverage is very high, thus unions also play a key part in the development of job descriptions, as they serve as tools for wage setting and worker protections. While we would have liked to interview more organisations, the recruiting process proved to be somewhat challenging, which is explained in more detail in Section 4.

We contribute to the literature by adding three main insights into the recruitment process. First, we observed that the approach for defining job needs and the hiring practices differed by the complexity and the level of seniority of the job profile (the two typically go hand-in-hand). More complex and senior positions, which in many cases required a 'specialist' of some kind, would follow a different recruitment process than a more junior, less specialised position. For example, the more specialised the position, the more often the functions were defined by the methods or the tools needed to carry out multiple tasks and generate different outcomes in the position. The description of tasks would typically be detailed, as well as the competences and experiences needed for the worker to carry out the job. Likewise, for managerial jobs, experience in similar supervisory and managing roles was often used as a requirement and/or validation.

In contrast, for positions performing standard and routine tasks with less autonomy and authority, a generic job title would suffice for explaining the job requirements. For example, the job title of 'engineer' was used to mark the qualifications needed for a junior position doing basic engineering tasks (e.g., of support). Embedded in this title were certain assumptions about the job requirements and qualifications, i.e., an engineering degree, and from the perspective of the human resources (HR) manager, any person with this degree could likely fill the position. It was understood that the supervising manager would later train the hired engineer on the specific tasks relevant to their firm needs, but the baseline of an engineering degree would suffice to demonstrate competence for the job. Indeed, credentials were often used to communicate a minimum standard of competences required for all jobs. Like the standard of competences, the level of flexibility in the job conditions offered to the candidate also varied by the level of specialisation and seniority of the position. In many cases, an HR manager would have more flexibility in the salary range to negotiate when hiring a senior-level position than when hiring a less specialised and lower-level position, although in all there was room for negotiation. Finally, the very same process of search was typically more elaborate and ad hoc when hiring specialists and seniors than when hiring support and junior workers.

Second, we observe patterns in the hiring practices and recruitment strategies according to firm size. The recruitment processes of medium and large firms within our sample were more formulaic, bureaucratic in many instances, and with a 'top-down' approach. Large firms were more likely to report using job description templates with a list of functions and competences needed for each job vacancy. And in some cases, these firms mentioned that their market strategies, rather than any production needs, dictated the firm's hiring needs. Therefore, the first line of identification for a new hire typically came from the top, rather than from a section or line manager. In comparison, smaller firms were more likely to take an ad hoc and bottom-up approach and were often aimed at solving production bottlenecks. This follows the literature, as the division of labour is less developed in smaller firms and worker turnover is typically lower in comparison to larger firms (Chaney & Ossa, 2012). Smaller firms were also more likely to report the usage of third-party recruitment resources and services for drafting of job descriptions, dissemination, vetting, and in some cases, for candidates' selection.

Lastly, we found that in all firms within our sample, regardless of size and sector, 'soft' skills were very important when drafting job descriptions and selecting candidates. The definition of soft skills often refers to personality traits, motivations, personal goals and preferences. Soft skills allow an employer to determine if the person is a good fit within the firm (Heckman & Kautz, 2012; Lyu & Liu, 2021). Many of the firms we interviewed reported that a candidate needed to be a good 'fit' within the organization. This was sometimes referred to as having 'transversal skills' or a candidate embodying the firm's values. They are harder to measure and communicate to potential jobseekers, who in turn may find it difficult to demonstrate having them in their CV. However, in other cases soft skills were more critical to the performance of the position and were treated as technical or 'hard' skills in some specific respects. For example, salespersons would need to demonstrate that they have interpersonal skills, good communication capabilities, empathy, and drive to perform well in the job. Here, we found that experience played a key role in communicating a candidate's fit for the vacancy.

Our findings reveal important insights into the processes of the development of a job description from conception to dissemination. In the next section, we provide a short background on the previous investigations into recruitment processes and the gaps in the knowledge about the process from the firm perspective. Next, we explain the approach for our outreach to firms and the methodology used in the study, followed by our main findings. And lastly, we offer our recommendations for future research and the policy implications of our findings.

2 Literature Review

The hiring and selection processes for firms have evolved over time, with firms now referring to these processes as 'talent recruitment' or 'people and culture management'. This new nomenclature signals a shift in how firms view the process of recruitment, which has been considered as 'one of the most important human capital challenges faced by twenty-first century organisations'' (Dries, 2013, p. 272). Yet, little is known about the internal processes that firms take to define the tasks and skills of a vacancy, and how these affect the recruitment procedures and the negotiation of the employment conditions between firms and workers. What is often communicated to jobseekers is the result of that internal process in the form of a job description (Sostero & Fernández-Macías, 2021, p. 9). Within the human resources and psychology literature, this process of defining work content and competences is often referred to as 'job analysis' (Fine & Cronshaw, 1999) or, as recent scholars have come to call it, 'work analysis' (Sanchez & Levine, 2012), signalling a shift in emphasis from tasks to competences.

Job analysis is a useful tool for guarding against skill mismatch, increasing efficiency within firms, and for codifying jobs for the purpose of research. However, the literature on how job analysis is used for the purpose of understanding recruitment is under-developed (Goldstein et al., 2017). Conceptually, job analysis dates back to the 5th century BC, when Socrates inquired about the work that needed to be done within his ideal state and who would be able to do it (Gael, 1988). In the organisational literature, the main turning point came when Frederick Taylor first created his four principles of scientific management (2005[1919]). Job analysis became a tool for increasing productivity by understanding the content of the job.

What was absent in Taylor's analysis were the worker's interests. Unsurprisingly, with the emergence of 'scientific management', a schism also emerged between management and worker, resulting in an 'adversarial approach to industrial relations' (Singh, 2008, p. 89). Workers initially saw the development of job descriptions as an attempt by management to appropriate worker's craftsmanship and increase exploitation (Nelson 1974). However, as the industrial division of labour expanded during the 20th century, and skilled workers were increasingly replaced by semi-skilled labour, unions' stance regarding job descriptions shifted towards defending them. For job descriptions could protect workers from task creep or management abuse (Katz 1986; Baron and Bielbi 1986) and be used as an objective evaluation tool that determines worker's advancements, bonuses, and promotions (Sostero & Fernández-Macías, 2021).

A long-standing assumption underlying the old view of job analysis is that jobs are static and stable over time (Stewart & Carson, 1997). The notion of 'one person-one job' held for much of the 20th century in job analysis. But as Western labour markets were transformed due to the shift from a manufacturing economy to a knowledge economy, new approaches to job analysis flourished. This shift has been abetted by technological advances that have rendered some jobs obsolete, while creating new jobs that had never existed before, and dynamic work profiles. These new work profiles are often team-based and entail a wider variety of flexible roles and responsibilities that include various functions, thus making the traditional approach to job analysis outdated (Stewart & Carson, 1997). Today, firms need workers who are trainable, adaptable, and multi-skilled (Singh, 2008).

According to Nelson (1997, p. 41) we are witnessing a flattening of organisations, thus making jobs boundaryless, and where 'competencies reside and are recognised throughout the workplace.' Flattened organisations combine several lines of job demarcation: 'vertical (between levels and ranks of people), horizontal (between functions and disciplines), external (between the organisation and its suppliers, customers, and regulators), and geographic (between nations, cultures, and markets)' (Nelson 1997, p. 40). Within this 'boundary mindset', there is a concentration of knowledge, skills, and abilities (KSAs) at the top, while jobs at the bottom are more specific and have narrower skill sets and less autonomy. Thus, scholars have recently advocated for a shift in focus emphasizing the description of competences over that of tasks when conducting job analysis, as this allows for more flexibility in their definitions. Rodrigues and colleagues' (2021) show that job descriptions are typically written to fit a certain task domain (set of similar tasks) with key competences. They go on to define task as 'a discrete unit of work activity that contributes to the production of economic output', whereas competence is the 'general ability to do well in a particular task domain' (pgs. 6-7). These competences typically require having a set of key skills, specific or general knowledge of the domain, and a 'particular set of 'attitudes'. These attitudes can refer to the extent to which workers pay attention to detail, are open to being taught, conduct themselves conducive to working with others, etc.

However, a consensus is lacking in the academia and the public discourse regarding how to define the skills at the basis of workers' competences. This gap signals the limitations of the concept and the diverse ways in which firms view their needs. In a recent examination of job descriptions from online job postings, Sostero and Fernández-Macías (2021) found that online databases referred to over 13.000 different skills. Furthermore, they noticed how the terminology used in the academic literature to refer to skills was inconsistent. For example, keywords such as 'modes of communication and interactions' could include skills like relationship building, management, listening or persuasion. Umbrella terms such as communication or organisational skills were used to refer to very broad sets of skills and competences. On the contrary, specific knowledge about an industry, work organisation method or software/tool was often referenced in detail. Examples included 'accounting industry knowledge' or 'Cisco'. In some cases, tasks like 'scheduling' or 'budget forecasting' were mentioned to refer to the skills necessary to perform them. Finally, they found much use of general task domains communicating a broad set of tasks or occupational competences. These might include 'nursing skills', 'sales', or 'engineering'.

One important set of keywords appearing in job descriptions refers to 'soft skills'. These could include words such as 'energetic', 'self-starter', and 'positive disposition'. Within psychology, soft skills are more often referred to as personality traits. Thus, Roberts defined personality traits as:

> *'.. the relatively enduring patterns of thoughts, feelings, and behaviours that reflect the tendency to respond in certain ways under certain circumstances.'* (Roberts, 2009, p. 140)

The performance on tests devised to measure these responses is often assumed by HR professionals to capture the corresponding personality trait. A worker needs to have the right personality traits to perform well in a job (Heckman & Kautz, 2012). Being a quick learner (i.e., trainable), a motivated or a self-starter (i.e. a person requiring less oversight), or having a positive attitude (i.e. getting along within a team or with colleagues) are all soft skills that signal positive performance within the job (Heckman & Kautz, 2012; Lyu & Liu, 2021).

Just as the definition and usage of skills differ, so does the process for communicating the firm's needs to the jobseekers. The creation of job advertisements is subject to time, contexts, and dynamic labour market conditions, which can lead to alternative signalling processes (Breaugh, 2008). Research finds that job advertisements that do not depict a realistic view of the position can lead to higher turnovers (Breaugh & Starke, 2000). Thus, there is an incentive for firms to accurately communicate the skills needed to perform the job well and minimize mismatches (Breaugh, 2008).

In the past, research has focused on the hiring processes of large firms, those with over 500 employees, while interest on small- and medium-sized firms has lagged. This may be due to smaller firms generally having a less developed division of labour and less turnover (Chaney & Ossa, 2012). The few studies comparing large and small firms have found different hiring and recruitment processes based on firm size, with larger firms being seen as more likely to carry out their recruitment processes in-house, and in a bureaucratic fashion (Bartram et al 1995; Barber et al, 1999). The efficiency imperative theory explains this difference as stemming from larger firms experiencing more recurring hiring periods, which will push them to formalize and internalize recruitment for efficiency purposes (Williamson, 1983). Closely related to the former perspective, the resource-based theory of the firm explains small firms' reliance of external help and networks as a tool to overcome their resource poverty and consequent competitive disadvantage vis a vis large firms (Marchington et al, 2003; Wapshott & Mallett, 2016). Finally, the institutional theory argues that large firms' reliance on formalised processes are driven by institutional pressures, both internal and external to the firm (DiMaggio & Powell, 1983), such as employment protection laws, pressures to "appear legitimate" among competitors, or even normative pressures like group values or firm reputation. Large firms may want to omit routine or mundane tasks that will be perceived as unattractive to jobseekers in today's competitive labour markets (Sostero & Fernández-Macías, 2021).

The job title is the most vital part of a job advertisement, as it can communicate minimum degrees, credentials or more generally, competences needed to carry out the job tasks efficiently. However, with the increasing use of online platforms to advertise job vacancies, professional occupations tend to be over-represented, and the detail and variety of the skills and tasks they include is higher than for lower-level jobs (Sostero & Fernández-Macías 2021). This points to the potential difficulties at defining more complex jobs placed within flexible contexts. More work is needed to better understand these difficulties or, more generally, to identify the main factors explaining firms' choices and omissions when defining and advertising their vacancies.

3 Research Objectives and Questions

Our main research objective is to investigate the process of developing job descriptions for recruitment purposes, defining the skills and competences from the firm perspective and, less so, on workers' starting employment conditions when hired. Additionally, we want to explore if differences in the context of the firm and in its internal division of labour could be associated with variations in job descriptions and hiring practices. We use a qualitative approach that analyses the practices of a selected number of firms differing in size and sector, as told by their HR personnel.

Our main research questions are:

- *How do firms define the tasks to be carried out by workers?*
- *When hiring, do firms use job descriptions to signal the skills and competences that the prospective candidate must have to fill the job?*
- *Are the screening and hiring processes affected by these descriptions?*
- *Do these practices vary by the complexity (specialisation, decision-making) of the work and the context where it is carried out (e.g., the size or sector of the firm)?*
- *Do firms take the job descriptions into account when setting the initial conditions of employment?*

4 Data and Methods

Utilising a qualitative approach, we follow the development of a set of job descriptions for recruitment purposes from conception to recruitment. We conducted 14 interviews with HR professionals working in private and public institutions. Eleven of the interviews were with staff in private companies, but we included a public institution for the comparison. Additionally, we interviewed an organisation that carries out recruiting services to small- and medium-sized firms, and a union representative, as unions play a key role in the development of job descriptions in and outside of Spain. In Spain, unions alongside governments and employer associations negotiate working contract terms, conditions, and salaries. Therefore, unions often use the job description as a key tool to guard against task-creep (assigning tasks not included in the job description when hired) and worker exploitation.

As shown in Table 1, the script used for the interviews was subdivided into six sections. This usage of the same script was to ensure comparability in the analysis and identification of patterns. The first section was primarily administrative, asking the individual their job title and their tenure with the firm. The last section, while included in most of the interviews, was not always covered due to time constraints. All interviewees were given time to additional commentary, colour, and opinions that they wished to express.

Table 1: Interview Script Subsections

Interview Subsection	Aim/Focus
1. Administrative Information	Administrative information, name, sector, main business activity, job title, and tenure
2. Process of identifying needs and vacancies	Explore how the functions to be performed in a new vacancy are defined
3. Definition of skills and competences	Investigate the process of translating needs into competences in a job
4. Dissemination and selection	Understand how external platforms and resources are used to support the dissemination and selection processes
5. Conditions of the job	Explore the factors that explain the employment conditions that are associated with new vacancies
6. Opinion of the process	Offer the opportunity for the interviewee to add additional comments and opinions about the process

Source: See Appendix for full interview script

Each section used a set of semi-structured questions (See Appendix for the translated version in English). However, many of the questions were open-ended, which offered rich answers by the interviewees, and the ordering of the questions was often altered to maintain the natural flow of the conversation. At times, the interviewer(s) would ask follow-up or clarifying questions, but typically all interviews followed a similar wording to maximize inter-rater reliability. We asked interviewees to focus their responses with a modal position in mind, i.e., jobs for which the firm hired the most.

Additionally, we asked about positions that were more (or less) complex in nature, depending on the complexity of the 'modal' position for a comparison context.

The interviews were carried out in Spanish or Catalan and were hosted virtually during the months of April, May, and June of 2022. There were two interviewers in all of them. One would take the leading role and the other would intervene to request clarifications or further details. Each interview lasted approximately forty-five minutes to one hour. The interviews were recorded with audio only, transcribed using an automated service, and translated into English for the analysis.

The sample was selected strategically rather than randomly, to ensure heterogeneity in the firm size and sector. The sample skews toward small and medium firms, as the response rate from our outreach to large firms was low. We covered four firm sizes (< 10 employees; 10-49 employees; 50-249 employees; > 250 employees) and three sectors (Manufacturing, Industry and Energy; Communication and Financial Services; and Health, Professional and Advocacy). Additionally, we interviewed an employer association that participates in recruiting and hiring services for its members and a union representative.

The outreach process began with initial contact via employer associations. Working with these employer associations helped us to identify firms to interview, and we believe, offered additional validation for our project in the eyes of the firms. While this initial approach was fruitful to get the process started, many of these firms were small- and medium-sized. Therefore, to increase our responses and potentially add large firms, we expanded our focus to large firms and began a cold-outreach process. The initial outreach entailed a generic information email, which was forwarded to the appropriate staff. From this outreach we secured the remaining interviews.

Given the small sample size and the strategic outreach to firms, the following findings should be seen as uncovering useful patterns regarding how a small and selected number of firms and organisations operate. While our findings provide new insights into the hiring processes and practices that have been under-investigated, they should not be generalised to all firms and should instead be taken as an inductive roadmap of the main elements to be considered for studying them. Their relevance (in terms of prevalence) shall be established in the future with other methods.

5 Firm Descriptives

Tables 2 and 3 provide a description of our outreach effort to firms, by sector and size. In total we reached out to 220 firms that operate within Spain. The response rate was 11 per cent. These responses included generic replies, whereas other replies indicated that the request was forwarded to the appropriate personnel. The positive response rate, those firms that responded and agreed to an interview, was 4 per cent. The initial aim was to interview two to three employees that are involved in the recruitment process within each firm, depending on the firm’s size. One employee should have knowledge of the tasks to be performed by the worker and another employee should be responsible for the recruitment process. In many firms, these are distinct employees and/or departments. However, this approach proved hard to achieve, as firms appeared to be more comfortable with offering only one employee for the interview. In two case we were able to interview two staff from the same firm, an HR manager and an overseeing manager, which yielded great diversity in their opinions of the process.

Table 2: Characteristics of Participants

ID	Gender	Tenure	Sector	Size
P1	Woman	< 1 year	Financial Services, Marketing, Consulting, Information & Communications	> 250 employees

P2	Woman	> 20 years	Financial Services, Marketing, Consulting, Information & Communications	250 employees
P3	Man	< 10 years	Manufacturing, Industry, Construction & Energy	< 10 employees
P4	Man	> 20 years	Hospitality, Food, Commerce & Transportation	< 10 employees
P5	Man	< 5 years	Manufacturing, Industry, Construction & Energy	50 – 249 employees
P6	Woman	> 5 years	Financial Services, Marketing, Consulting, Information & Communications	< 10 employees
P7	Man	> 30 years	Education, Health, Professional & Scientific Services, Law	10 – 49 employees
P8	Woman	< 5 years	Manufacturing, Industry, Construction & Energy	50 – 249 employees
P9	Woman	< 5 years	Manufacturing, Industry, Construction & Energy	50 – 249 employees
P10	Woman	< 3 years	Manufacturing, Industry, Construction & Energy	50 – 249 employees
P11	Man	< 1 year	Union	> 250 employees
P12	Woman	< 5 years	Education, Health, Professional & Scientific Services, Law	> 250 employees
P13	Woman	< 5 years	Education, Health, Professional & Scientific Services, Law	> 250 employees
P14	Man	> 5 years	Recruitment	< 10 employees

Source: Conducted interviews, audio recordings and translated transcripts

In total, we conducted 14 interviews with personnel in nine private-sector firms, one public-sector organisation, an employer's association who managed recruiting for many of its smaller members, and a large union organisation. Each of the participants in these interviews is identified in Table 2 above and the findings below with a *P* followed by a unique number. Of the 14 interviewees, six were women. The average tenure was about 14 years, with the longest tenure being 33 years and the shortest tenure being 2 months (see Table 2). The largest firm interviewed was a multinational firm with over 500 employees in the communications and financial services sector. The smallest firm interviewed was a family-owned business with fewer than 10 employees and operated within the communications and financial services sector. Table 3 provides a matrix locating our cases by firm sector and size.

Table 3: Firm Matrix (Completed Interviews)

	Manufacturing, Industry, Construction & Energy	Hospitality, Food, Commerce & Transportation	Education, Health, Professional & Scientific Services, Law	Financial Services, Marketing, Consulting, Information & Communications	External Organisation

< 10 employees	1			1	1
10 – 49 employees		1	1		
50 – 249 employees	4				
> 250 employees			1 (2 interviews)	1 (2 interviews)	1

Source: Conducted interviews, audio recordings and translated transcripts

6 Qualitative Findings

6.1 Firm Size Matters

Within our sample, we observed some patterns in the hiring processes that appeared to be related to firm size. Larger firms deployed a more top-down approach to hiring, whereas smaller firms typically carried out a bottom-up approach. Larger firms were more likely to use formulaic or professionalised procedures for hiring, which would be often triggered by external factors, such as market trends and anticipations that were monitored at the top. In contrast smaller firms would react to internal needs communicated from the bottom, resulting in an ad hoc approach to filling firm needs.

Market trends were referenced in four interviews (P2, P4, P8, P10), where the HR professionals would observe what their competitors and peers were hiring for and then attempt to forecast firm needs accordingly. One of the large-sized firms that we interviewed outlined their process very clearly within this top-down approach. For this firm, we were able to interview both the HR professional and section manager. Both described the process, where the HR professional would be responsible for informing the section managers about the number of active vacancies within their departments. At times, section managers would bring hiring needs to the attention of the HR professionals, but those requests were not always granted, unless the HR professionals agreed that these requests fell within the firm's broader strategy. The section manager noted that the top-down approach led to hiring cycles that increased the onboarding and orientation workload and a surplus of staff that was not always anticipated at the department level. However, due to market trends and cycles, the HR professional explained that these hiring needs were determined by the sector they operated in and the market trends that were forecasted.

Alternatively, we observed that firms that operated within more competitive and innovative industries, regardless of size, were more likely to report some ad hoc hires. For example, if a new position was deemed necessary for production needs, an HR person would create a new position to meet that new need (P5, P8, P10). In any case, requests for new positions were similarly examined and evaluated against market trends by senior officials and/or HR professionals (P5). These new positions were typically multi-functional, specialised, and senior-level positions.

Many of the larger firms we interviewed explained that they had specific templates for their job descriptions (P5, P9, P10). About a third of the firms in our sample reported using job dictionaries and descriptions produced by consulting firms and third-party recruitment services to describe their positions. In large firms, almost all positions had such descriptions. When asked the HR professionals to share their resources or tools we received various responses. Some of the HR professionals did not have them on hand anymore, as they were deployed many years ago and have since not been used. It was explained to us that the HR professionals had created the templates, and now use the same template for future job descriptions and edit accordingly. In the cases, where HR Professionals used outside consulting help, they were not always privy to the tools the consultants used but rather were paying for the final product. For the public organisations they mentioned job dictionaries and descriptions that were created via governmental processes and negotiations.

Quote 1: P5

'*We have a very complete description model, where we have everything indicated. In fact, we do not start from scratch because these [positions are] recurrent positions.'*

Fewer of the smaller firms reported similar templates. In mid-sized and innovative firms in which new jobs would proliferate, the HR professional we interviewed was the person who first had to create the template or was responsible for updating it. In all firms, when we inquired about the tools, guides, or dictionaries they used to aid their drafting process, many HR professionals reported doing a simple online search. In smaller and mid-sized firms in innovative industries, where official guides and dictionaries might not already exist, it was a common practice to review how competitors described job tasks and demanded competences and adapt them to the firm's own positions.

6.2 The Content of Work is Crucial

The processes of defining, translating, and hiring varied greatly by the content of work. Each job varied in competences, skill specialisation and position within the organisation. While the literature referenced above mentioned the emergence of the boundaryless and more horizontally organised firm, we found a more traditional approach to defining and outlining job profiles within our sample based on vertical (hierarchy) and horizontal (areas) differentiations.

As noted, we asked HR professionals to think of a modal position when answering our questions. When these jobs where at the mean level of rank-and-file specialisation, we also inquired about jobs that might be found below and above this mid-position. Many HR professionals would use phrases such as 'simpler' or 'more junior' to describe lower positions. Often these jobs were characterised by fewer functions and tasks and less responsibilities and autonomy, with the latter being understood as less discretion on how to achieve job goals. Interviewees described simpler jobs as having tasks that were more standardised (i.e., always producing the same results) and routine (i.e., carrying out the tasks in similar ways) than in complex jobs. Simple jobs were less likely to vary on a day-to-day basis or be affected by unforeseen contingencies and were not subject to adjustments or customisation based on team goals or client needs in the same degree as complex jobs. Some of these lower-level jobs were at the junior level and were designed to give support to workers in more senior and specialised positions (P7, P8).

For the simpler positions, HR professionals were more likely to report using some type of prescribed, pre-existing job description or template. Most of the skill requirements for these positions were communicated through the job titles. For example, many HR professionals used job titles like 'engineer', 'analyst', 'warehouse assistant', or 'stamper', to communicate the core competences needed to apply for such positions (P2, P7, P10, P14). They also often assumed that a person who applied for an entry position, for example, an engineer, would hold an engineering degree and for this reason would not even request proof in the interview (P10). Alternatively, having held a job with the same generic title in the past would often serve as validation of the job skills and competences (P14).

The job descriptions for these lower-level positions were also leaner in comparison to more senior positions. However, in very small firms, jobs that might be viewed (and advertised) as more junior or routine, such as an administrative assistant, could end up being multi-task positions performing a wide range of tasks, such as bookkeeping, answering phones, database management, ordering office supplies, and event planning, largely due to labour and financial constraints (P6). While multi-task in nature, these positions appeared to differ from those in more senior positions in larger firms, which required adjusting the manner in which the work was carried out.

While manual jobs were typically reported as simpler and more junior, that was not always the case within our sample. For example, one firm explained that the position of an assembler, while more junior in the firm hierarchy, was also a complex job because the worker would be required to assemble sophisticated components produced by various machines in unique ways, based on the client's orders and requests (P8). Therefore, the job description of an assembler, while lower level, was more detailed based on the knowledge and experience working with specific machines and tools.

Quote 1: P8

'Let's see, the mechanical assembler [...], a mechanic. Obviously, there are junior mechanics and senior mechanics who are the adjusters, but a mechanic must know how to interpret the blueprints. You must know how to follow the steps so that the assembly is complete. And then, above all, make the final adjustments that are called for.'

For more senior positions, more coordination was typically required between the HR professionals and the supervising manager when drafting the job description (P2, P5, P8, P10). A plurality of firms within our sample defined the competences for such job positions by the methods (or manner by which to carry out the tasks) and tools workers would use. The more tools, methods, and software that was needed to carry out the tasks, the more complex or senior the position was likely to be within the firm (P5, P8, P9, P10). A desired candidate would have to demonstrate that he or she was familiar with the specific field (e.g. commercial law) or prove his or her ability to use a specific software or programming language. Many managers referred to these as technical skills.

Quote 2: P8

''For me the [technical skills] are those that refer to the tools that I will use to work. If I am an administrative one, I work a lot with MS Office. If you are a programmer, the technical skills will be associated with programming languages.'

Similarly, managerial positions were often defined in terms of the specific supervisory and managerial duties to be carried out. The position of manager varied also within our sample. Within our sample there were lower-level managers, who were expected to have a baseline level of experience and specific skills for managing teams, projects, and clients (P7). The senior-level managers were expected to possess more general skills, such as problem solving, decision-making, oversight of teams, and interaction with clients (P5). While some of these general skills fall into the soft skills category, the approach to determining if a candidate had these skills was typically to refer to their previous experience. For example, a jobseeker with 10+ years overseeing staff, managing projects and teams, would be viewed as having the competences needed to perform well as a manager within the new firm. These positions were more detailed in their definition of competences and came with more responsibilities and authority.

6.3 Soft and Transversal Skills Are Pervasive

We found that soft skills played an important role within the recruitment process and were always included in the list of needs and competences required by firms. They were sometimes utilised in the selection process as a differentiating factor between two similar candidates.

The distinction between hard and soft skills, sometimes referred to as cognitive and non-cognitive skills by our interviewees was not always clear. Furthermore, many HR professionals noted that both sets of skills were highly valued and depended on the position (P5, P8, P10). For example, while a salesperson is a job title people are familiar with, the complexity of the job was found in both the cognitive abilities necessary to communicate the technical specifications of the product being sold and in the soft skills the salesperson would have to demonstrate to engage the client, such as interpersonal skills, empathy, or extroversion (P4, P9). In this regard, these soft skills based on personality attributes were treated as (non-cognitive) technical skills necessary to carry out the job effectively. When describing the specific skills for each of the job positions, many of the HR professionals explained that soft skills were harder to define and measure than hard skills. They were typically observed and evaluated during the interview process or based on the candidate's experience in similar positions. One firm mentioned that they use a widely used 16-Factor personality test to measure soft skills (P10). The usage of these tests suggests that some HR professionals view soft skills as equivalent to personality traits.

Technical or 'hard skills' were far easier to define, communicate, and measure (P10, P14). At the junior level, a degree or credential was typically all that was needed to show baseline knowledge. In this case, previous experience was not a requirement or even an asset, as the firm would later train the hired person based on its needs (P2). However, for most specialised and managerial skills, demonstrated practical knowledge of the methods and tools necessary to carry out the tasks in the job, would suffice. On some occasions, technical tests would be carried out to assess competence, but in many others, experience was the way for HR professionals to validate cognitive and non-cognitive skills. For example, if a person had managed a large team within a production department, this experience demonstrated to the HR professional that the jobseeker had the capability to do the same within their firm (P2). Or if a person had worked within their industry selling similar products, or even a competitor's product, this person was deemed as experienced and capable (P14). An interviewee expressed the process of assessing candidates' technical competences in the following terms:

Quote 4: P10

'*I think of how technical skills would be like a clean slate, right? At a minimum, to be able to do this position, we need you to have this training, this experience, and so on. Okay, from here some different candidates are going to come in. So, the first interview, as I said, is always done with the person in charge of the department, where [they] will assess if that person really has the technical skills, has the necessary experience. From there, the next phase of the interview is where we accompany it with competency tests, and we also use a personality test. Then, we'll see if they also have the soft skills.*'

Many of the medium- and large-sized firms also referenced the importance of applicants to have 'transversal skills', which they defined as the skills of a person who embodied the firms' values (P5, P8, P9, P10). It is worth noting that the HR professionals viewed soft skills and transversal skills differently. Transversal skills were required by all employees, regardless of seniority and job complexity and specialisation. Whereas soft skills were specific to the individual job.

For example, these transversal skills were often defined by a candidate being 'a good fit' for the company, which may include such personality traits such as loyalty and honesty. One HR professional even mentioned that if a person was let go, it was often because they were not a good fit for the firm, rather than having a lack of technical skills (P3). Transversal skills were often referenced and communicated to jobseekers as company values, whereas soft skills that were specific to the job would be included in the requirements and competencies sections. While loyalty and honesty are personality traits, these skills are not necessarily specific to the job. However, a salesperson may need to display his/her ability to persuade (the personality trait of extroversion) but an engineer may not be asked to demonstrate their persuasion skills.

Quote 5: P10

'*Look, in the end the company has values, right? Each company is different, and we give importance to some things, and another company gives importance to other things. I don't know why, but it is true that there is going to be a right fit into the company, that it is going to be more transversal.*'

The union representative (P11) was wary of firms' use of transversal skills, which he equated with the search for "docile" workers.

Table 3 refers to the common terminology used by HR professionals to describe hard, soft, and transversal skills. While the terms are classified as hard skills by the HR professionals, these are sometimes not defined as skills, per se, within the literature. For example, degrees and credentials are sometimes considered qualifications, while knowledge and experience are distinct concepts. Nevertheless, these distinctions were not made in our conversations with HR professionals.

Table 4: Common Terminology Used by Interviewees

Hard Skills (Cognitive, Technical)	Soft Skills (Non-cognitive)	Transversal Skills (Values)
Having a degree (e.g., engineering, architect, designer	Having ‘empathy’	‘Being a good fit’ for the firm
Having specific credentials	Being ‘extroverted’	Embodying the ‘firm’s values’
Having knowledge of specific methods, tools, and/or software	Being ‘organised’	‘Honesty’
Having experience in similar positions	Being a ‘team player’	‘Good attitude
		Being ‘motivated’
		Being a ‘happy person’

Source: Conducted interviews, audio recordings and translated transcripts

6.4 Recruitment Practices and Dissemination Approaches Vary

The dissemination of the job descriptions and the selection processes differed by the job’s placement within the firm and by the level of complexity of the job (horizontal and vertical specialisation). The dissemination processes also differed by firm size. Thus, while almost all firms, regardless of size, relied on online job banks or job websites to disseminate their vacancies, the types of online resources utilised differed by the complexity of job and the size of the firm.

Some firms reported using general online job databases for the more junior positions. These online resources typically provided salary information and job conditions, such as flexibility of schedule. However, these firms did not have positive opinions of the interface or the quality of applicants in these online platforms (P3, P5). When hiring senior-level specialists and managers in a profession, most of the firms reported using a well-known online professional networking platform for their dissemination efforts. The platform was used both passively, i.e., posting a job description, and actively, i.e., searching and recruiting potential candidates with specific characteristics to interview for their positions (P5).

The largest firms often posted their vacancies on their websites and internal employee portals (P2). One large firm explained that this did not immediately translate into the internal candidates having an advantage over external candidates, as the hiring processes were carried out in parallel, and the internal candidates were not given prior notice. However, in practice internal candidates seemed to have an advantage since internal candidates often met the standard of being a ‘good fit for the firm’, as referenced in the previous section.

The smaller the firms and the simpler the jobs to be filled, the more likely firms were to report using outside recruiting agencies or services for drafting of the job descriptions, searching for qualified candidates, and interviewing them (P4, P6, P7, P14). For senior-level positions, the recruitment process was largely held in-house for larger firms.

As noted, we contacted an employer’s association that provided many services to its members, including recruiting services. The recruiting agent that we interviewed explained that they were often asked to help fill lower-level positions, especially if the firm was hiring multiple persons for the same job title (P10). The recruitment process carried out in this external organisation and in other recruitment agencies described in other interviews was similar to what we detected in internal processes in larger firms. For less specialised jobs, the association's role was to carry out the whole process, from drafting to interviewing. For the drafting, they often used local governmental and non-profit resources and skill dictionaries (P14). If the recruiting agency in our sample was hired to find a senior-level position, the HR professional was more hands-on throughout the process. While each of the firms made the final selection decisions, some smaller firms were keen on using the recruiting agency to assist in the final decision.

The final subsection of our interview script inquired about the job conditions. Our focus was to determine the extent to which job conditions were flexible upon selection. We found that the most junior and least complex jobs typically had set job conditions attached to their job descriptions. These conditions were predetermined at the top and often followed the industry agreements in place, although there was some room for negotiation within a pre-set range (P5, P10). Due to the high coverage of union representation in Spain, for these junior positions much of the conditions are predetermined by agreements negotiated between firms and union organisations. They include salary minimums, minimum days for holiday, paid sick leave, maternity/paternity leave, and the number of breaks workers are entitled to during the workday.

In contrast, senior and specialised jobs had more flexibility, albeit HR professionals might still be constrained in their negotiating power due to predetermined conditions, although with a wider range of conditions.

The most specialised and the top managerial positions were the most open to negotiation, possibly because workers in these positions typically have more individual bargaining power and therefore are are not always covered by union representation. The conditions for these more complex positions were more likely set by the 'market', i.e., by what competitors would typically pay for a similar position. One HR professional mentioned that it was common practice to review what their competitors were offering and follow suit (P14).

Conditions also varied by the size of the company. In large firms with a wide range of job positions, from simple to complex, the level of flexibility was larger than in small firms that were more limited by the resources available to them, due to smaller profit margins (P14). Due to these constraints, there was more room for mismatches between competences and job conditions in these small firms.

The union representative noted that in many firms, especially small ones, workers ended up doing many tasks for which they were not hired and were not paid (P13). The representative pointed out that because of digitisation and demographic changes (i.e. increase of migrants moving into Spain), many job descriptions were becoming leaner, using vague language, therefore providing room for workers to do more than they were hired for. This can be a double-edged sword for many workers. On one hand, workers may want to do new and different tasks that will enable them to grow within their position and within the firm, but on the other hand, the workers are not being paid for the additional tasks they are now carrying out. The union representative noted the importance of job descriptions being open and transparent with the level of career advancement, functions within the position, and the range of tasks that may be asked of workers. He was most concerned about workers in the service sector, such as workers in the hospitality industry. These workers are typically women and/or migrant workers and more likely to work part-time or on temporary contracts with less security and lower salaries. Often the job description is the basis for the worker's contract. In this case, drafting a clear job description is crucial to defend the worker against exploitation.

7 Discussion

Overall, our findings reveal that the recruitment process varies by job complexity and firm size. First, we find that the process for drafting and defining core competences varied by the job profiles' levels of specialisation and seniority. For lower-level positions, HR professionals relied on the job title to communicate the skills needed to perform well in the job. For more specialised position, the tasks were defined in more detail and the competences were more often based on the methods, tools, and software the hired person would utilize. These more complex jobs were typically more senior and came with more autonomy and authority. They could be found in both non-manual and manual jobs. The resources to draft the job descriptions varied as well by the complexity of the work. Some reported using simple online searches, while others used formal resources such as consulting report, online dictionaries or even competitors' descriptions. These would typically be reserved for simple jobs. In other cases, job descriptions were made ad hoc after a careful consultation with those most involved with the position. These were more typical in more complex jobs.

Second, we find that smaller firms were more likely to deploy a hiring process in an informal manner because their division of labour is less developed, and they typically experience less turnover in comparison to medium and large firms. Additionally, the smaller firms in our sample were more likely to say that they outsource the hiring process, such as using a recruiting agency and online résumé bank service. This was typically the consequence of the unfamiliarity with the hiring process but also of the less complex positions they end up filling. Given that small firms represent nearly 99% of all firms and provide about 50% of the total employment in Europe (Eurostat, 2022), the role of these agencies as intermediaries in the process of defining and filling firms' vacancies cannot be overstated. It is an efficient way to overcome the lack of resources and competitive disadvantage that small firms show vis a vis large firms. The identification process for new vacancies was also more bottom-up in smaller firms, compared to a more top-down hiring process reported by medium and large firms. It is worth noting that multi-task jobs and those with more autonomy within innovative and emerging markets were subject to ad hoc processes, regardless of the firm size. In some respects, when hiring for a new position (one that did not exist before), these larger firms operated more like smaller firms. This was likely because vacancies were dictated by the market pressures.

Lastly, we find that soft skills play an important role in the selection of candidates, despite the ambiguity in measurement. Almost all firms reported that soft skills were critical to performing the job well, along with transversal skills. These transversal skills were held in such high regard that one firm explained that they contributed to an employee's success with the firm. The growing importance of soft skills yields new questions for how best to measure these skills, many of which are treated as almost technical requirements depending on the job profile. And within a knowledge economy, it is likely that skills such as interpersonal skills, good communication, strong motivation, ability to be flexible and learn fast, and amiability will only grow in importance. Yet, as the union representative warned, these soft skill requirements can sometimes lead to biases that must be guarded against. He argued that HR officials typically look for workers with personality traits that more conforming and docile, thereby limiting worker contestation.

8 Limitations and Opportunities for Future Research

While this research is narrow in scope and solely qualitative, it is a first and necessary step that should prompt future explorations into how firms identify and translate their needs into job descriptions that can be used to attract talent more effectively and fairly. Our outreach approach, both cold outreach and a connection, proved to be fruitful to reach the companies but were both time-intensive.

Future research should engage with a larger sample of firms or carry out focus groups with specific HR personnel and/or recruiting firms. Our initial aim to interview more than one member of personnel with each firm was harder to accomplish but future research should prioritise this approach, as the one firm who offered two employees provided a richer understanding of their process and potential gaps or inefficiencies.

We hope that future investigations will deploy a similar task-based approach to their interviews and inquiries, given the dynamic nature of the occupational structure, the content work, and advancements in technology and automation. The task-based approach provides a stronger basis for identifying trends in skills (both cognitive and non-cognitive), core competences, and sectoral technical skills. Additionally, the task-based approach enables us to decipher how job profiles may evolve over time.

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Annexes

Annex 1. Interview Script

Section One: Administrative information

Focus: Administrative questions

'I would like to start asking some questions about the company profile (name, address, sector, size) and your personal profile within it'

Questions:

1. What is your position or function in the company?
2. How long have you been working here?
3. In which sector does your company operate?
4. How would you describe your company's main business activity? (e.g. direct services, consulting, product development, tool manufacturing, etc.)
5. How many employees work in your company? (If you work in a company with multiple divisions or departments located in different locations, indicate the approximate number of employees who are paid by the same entity that pays you)

Section Two: Process of Defining Needs and Vacancies

Focus: Identifying how the functions to be performed in a new vacancy are defined

'Next, I would like to ask you some questions about how the functions to be performed in a new job vacancy are defined. These questions primarily seek to better understand the difficulties companies face in defining their hiring needs.'

Questions:

1. Please think of a typical job in your company for which there may be a vacancy, the first one that comes to mind and one which you hire for most often. If there is more than one typical position, don't worry, we will ask you about them later.
2. Are they generally simple or complex functions? Are they fundamentally manual, mental, social (relationship with customers, students, audiences, etc.), or supervisory?
3. Are they well-known functions in the corresponding trade or profession or, on the contrary, are we talking about functions that are difficult to define? And if the latter were the case, what explains these difficulties: the idiosyncrasy of work, with unique tasks adapted to the needs of the organisation, with work methods, location in teams, and / or technologies also unique to your organisation, or with many uncertainties or unforeseen events that the worker will have to face? Please tell us those specificities in detail.

Alternative position (different from the first responses):

1. Apart from this type of employment to which we have been referring, is there any other type of hiring, among those that are usually carried out in your organisation, for which the process that has been detailed to me differs substantially?

2. Could you elaborate on it? What kind of functions are performed in that work? Are they manual, mental, social (relationship with clients, students, audiences) or supervisory?
3. Are they 'standard' functions, with clear objectives and well-established working methods in the trade or profession, or are they difficult to define functions, for example, because they can often change based on diverse and unforeseen circumstances?
4. Are the same job function descriptor templates/guides used as for the other vacancies? If not, why not? What other templates are used? What are its sources? How are they developed and updated?

Possible follow-up questions:

1. *Who is the first person to decide that a new job vacancy should be created and the functions to be performed by the person to be hired?*
2. *Does this person use a company or outsider guide or manual to write the job description?*
3. *Do they describe clearly and in detail the functions to be performed in employment? Or do they contain general descriptions that must then be adapted to the specific functions to be performed?*
4. *Do you know how often these templates/guides are updated?*
5. *Are you responsible for writing these templates/guides? (Yes/no) Who is responsible for doing so? What is the origin of these templates/guides?*

Section three: Identification of the competences needed to get the job done

Focus: Expanding on the process of translating needs into competencies in a job

'*Next, I would like to delve deeper into the job offer description process. We are interested in understanding how the functional needs of the job are reflected in a set of competencies and qualifications that the employees to be hired must have. Focus first on the type of vacancy that came to mind at the beginning of the interview.'*

Questions:

1. When writing the job description, is it common practice to use a predetermined language and/or templates with job categories for which the skills, competencies and qualifications that the people to be hired must have are described?
2. Would you say that the language used to describe the core competencies to be demonstrated by a candidate is similar to that used in other companies in the sector? Or would you say that the language used is specific to your company? Where does the language or terminology come from?
3. Would you say that there are specific competencies that the candidate must meet in order for him or her to perform correctly in this position? Are some of them prioritised over the rest? What are those competencies (e.g. manual, numerical, analytical, social, managerial) skills? Are they competencies that can be applied to multiple problems or circumstances, or are they specific, that can only be applied to a limited range of problems/circumstances?
4. Are these competencies normally part of a well-known and accepted cast in the trade or profession, or is it common to complement or replace them with generic and difficult to evaluate attitudinal competencies (enthusiasm, commitment, sympathy, empathy, responsibility, leadership, perseverance, team spirit, etc.)?

5. Is there a difference between skills (knowledge, potentialities,) and competences (demonstrable experience in the execution of similar jobs)? How important is this previous experience in the definition of the vacancy?
6. Are official certifications and qualifications required for vacancy announcements? To what extent are these formal requirements flexible? How important are other non-formal qualifications?

Section four: Dissemination and Selection

Focus: Understanding how external platforms and resources are used for dissemination.

'*Now we would like to focus on the dissemination and selection processes. We are interested in learning how external platforms are used to help with dissemination and selection. And how the selected candidate can alter or shape the job vacancy based on their skills. Focus, as always, on that typical work you referred to in the beginning.'*

Questions:

1. What specific steps does your organisation or company take to find and select a worker? Do you have an internal job board for current employees or is it a search of external markets and exchanges?
2. Do you use online, internal and/or external platforms, websites or other social media platforms to spread job ads? Can you share with me the names of the platforms you usually use?
3. Do you use recruiters, headhunters or other recruitment services for dissemination and/or selection? Do you use these services for other jobs? In which cases do you use them and in which cases do you not?
4. Once a job application is received, who is responsible for evaluating it?
5. Are there a number of specific instructions or rules for examining applications and selecting the best candidates?
6. Do you use any kind of algorithm or automated program to identify candidates' competencies for the position and to rank them?
7. What is given more weight in the assessment: generic qualifications (qualifications, etc.), specific qualifications (suitability for the job, previous experience, etc.) or complementary qualifications (first impression, letters of introduction or recommendation, previous references, unemployment history, age, gender, physical appearance, etc.)
8. Is a ranking of candidates made among those selected? Are they contacted following this ranking?
9. For the reference position, do you usually find good candidates?
10. Approximately how long does it take to fill such a vacancy, from the publication of the offer to the hiring?
11. Do candidates generally meet the requirements of the job? In what aspects is it more difficult to find good candidates?

Section five: Specification of the Conditions of employment

Focus: Identifying the factors that explain the employment conditions that are associated with the new vacancies.

'In this third section we would like to better understand the process that is followed in your organisation to specify the conditions of employment (type of hiring, duration of employment, job category, remuneration, etc.). Again we ask you to focus on that vacancy that first came to mind.'

Questions:

1. Are there rules in your company to associate the conditions of employment (type of employment, duration of employment, job category, remuneration, etc.) with the functions and competencies of vacancies? Are they fixed rules for different categories of work?

2. If they are fixed, how often are the conditions associated with the different categories modified?

3. How flexible are these rules and what factors does this flexibility affect: the duration of employment (seasonal, temporary or indefinite contract); the working day (partial or full); the shifts (morning, afternoon, night); the work category (internship, junior, senior); or remuneration?

4. Are these conditions negotiated with the workers to be hired? Are they adapted to their qualifications and competences?

5. Who or who is responsible for setting these conditions? Does it depend on the particular condition to be set?

Alternative position: Is there a particular vacancy, among the typical ones filled in your organisation, for which this process of specifying the conditions of employment varies substantially? What are these differences? What conditions of employment do they affect (working hours, hiring, category, remuneration, etc.)? What type of vacancy is that? What functions are to be performed and what skills should the person who occupies them have? What are the reasons, in your opinion, that would explain those differences?

<u>Section six: Opinion of Process/Final Comments</u>

Focus: Providing interviewee with final comments.

'Finally, we would like to ask you a few questions about the hiring procedure as a whole and how well 'greased' it is.'

Questions

1. In general, how long does the entire process take? How many different steps does it entail?
2. Are there any departments or staff specialised in doing most of these tasks?
3. Are there external organisations (e.g. trade union representatives, consultancy firms) that are involved in this process at some point? At what stage (definition of functions, definition of competences, allocation of employment conditions, selection of the candidate)?
4. How would you characterise the process? Would you say it's effective and efficient, or it's not? And if it weren't, what are the reasons for these inefficiencies? (disorganisation, lack of communication, inflexibility, decisions made by those who should not, etc.)
5. Where in the process do difficulties appear: in the definition of functions, description of qualifications and competences, description of other conditions such as experience, age, residence, etc., decision on remuneration, etc., job interview, decisions on recruitment?

Any other information or comments you want to share?

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