# CAREER KNOWLEDGEABILITY

## Agency-structure interplay in career self-management

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# ABSTRACT

In response to the challenging transition to employment and career ambiguity of higher education graduates from occupationally transversal disciplines (OTD-graduates), this exploratory study delves into the complex interplay of agency and structure within the career self-management process of OTD-graduates. It offers a profound and nuanced understanding of the introduced Career Knowledgeability concept and its role in OTD-graduates' career self-management. The study critically examines the neoliberal policy paradigm's emphasis on individual agency in career self-management as manifested in the graduate employability narrative. Moreover, it goes beyond the notion of graduate employability towards a more holistic understanding of agency-structure interplay in OTD-graduates' career self-management.

The study employed a modified version of the analytic induction approach to analyze the career stories of non-European OTD-graduates navigating European labor markets. The analysis of the study participants' career stories not only answered the study questions and confirmed and further refined the study hypotheses, but also led to the emergence of a broader understanding of career self-management dynamics. The key contribution of this study is the introduction of the career knowledgeability conceptual framework. The framework/model illustrated the nature and role of career knowledgeability within the context of OTD-graduates' career self-management.

The study findings suggest that enhancing the career knowledgeability of OTD-graduates can improve their employment outcomes and career satisfaction. It advocates for policy interventions that address existing structural constraints and aims at enhancing the agentic capacities of OTD-graduates. Moreover, it calls for integrating the career knowledgeability concept into the career development services offered by higher education institutions.

# DEDICATION

I dedicate this work, all my work, and my entire life to my late father.
Nothing—not this study, nor any success in life—could have been possible without you.
I am you, and you will forever have a place in my mind, heart, and soul.
I hope I am making you proud!

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Yosra, my love, best friend, and close companion on this journey: You made it all look possible and within reach. Amidst the difficult moments and self-doubt, your love was the rock I could hold on to, and for that, I shall forever be grateful. I look up to no one the way I look up to you, and no one inspires me to become a better person the way you do. I love you, my huckleberry friend!

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| | |
|---|---|
| ALMPs | Active Labor Market Policies |
| CCT | Career Construction Theory |
| CEU | Central European University |
| CHEERS | Careers After Higher Education European Research Survey |
| CLMI | Career and Labor Market Information |
| COVID-19 | Coronavirus Disease 2019 |
| CV | Curriculum Vitae |
| DLHE | Destinations of Leavers from Higher Education |
| ECP | EU Cohesion Policy |
| EMN | European Migration Network |
| EPL | Employment Protection Legislation |
| EU | European Union |
| G20 | Group of 20 |
| GDPR | General Data Protection Regulation |
| GPA | Grade Point Average |
| HEIs | Higher Education Institutions |
| HESA | Higher Education Statistics Agency |
| IFRS | International Financial Reporting Standards |
| ILO | International Labor Organization |
| IMF | International Monetary Fund |
| IT | Information Technology |
| LMI | Labor Market Information |
| MBA | Master of Business Administration |
| MENA | Middle East and North Africa |
| NGO | Non-governmental Organization |
| OECD | Organization for Economic Co-operation and Development |
| OSD | Occupationally Specific Disciplines |
| OTD | Occupationally Transversal Disciplines |
| PhD | Doctor of Philosophy |
| REFLEX | Research into Employment and Professional Flexibility |
| SWOT | Strengths, Weaknesses, Opportunities, and Threats |
| SPSS | Statistical Package for Social Sciences |
| SSH | Social Sciences and Humanities |
| TBHs | Terminal Bachelor's Degree Holders |
| TV | Television |
| UK | United Kingdom |
| UN | United Nations |
| US | United States |
| VET | Vocational Education and Training |
| ZEW | Centre for European Economic Research |

# INTRODUCTION

This exploratory research inquiry aims to offer a profound and nuanced understanding of the introduced Career Knowledgeability concept and its role in the career self-management process of higher education graduates from occupationally transversal disciplines (OTD-graduates).

The transformation of higher education has produced a conceptual division in disciplines in terms of their occupational focus. Meanwhile, the available data on graduates' labor market outcomes provide evidence of the challenging nature of OTD-graduates' career trajectories and inadequate employment outcomes. In terms of unemployment rates, annual earnings, length of transitions, education-job mismatch, and the prevalence of overeducation, OTD-graduates (and humanities graduates in particular) seem to be in a disadvantaged position compared to graduates of the more occupationally specific disciplines. There is also considerable evidence that OTD-graduates in general, and the humanities in particular, are among the most overeducated graduates of all fields of study.

Meanwhile, the policy response under the neoliberal policy paradigm has been characterized by a shift towards the agency-centered, supply-side employability narrative that places a higher burden on individuals to self-manage their careers and claim higher responsibility for their labor market outcomes. This narrow agentic view of employability emphasizes the role and impact of individuals' self-direction and striving (Briscoe & Hall, 2006). That has resulted in a higher need for OTD-graduates to enhance their agentic capacities and be proactive in acquiring the relevant knowledge, skills, and attributes to self-manage their careers and achieve adequate employment outcomes. There have been several calls (e.g., McQuaid & Lindsay, 2005; Tomlinson, 2010; Tholen, 2013), however, for expanding the notion of graduate employability and working towards a more complex notion that acknowledges the structural and demand-side

dimensions and for engaging in sociologically informed research on the factors shaping the career self-management process and outcomes as a function of the agency-structure dynamics (Lehmann, 2005; Duberley et al., 2006; Heinz, 2009; O'Connor, 2014; Schoon & Lynos-Amos, 2017).

I position this study, in part, as a response to these calls. However, it intends to go beyond the notion of graduate employability towards a more holistic understanding of the agency-structure interplay in OTD-graduates' career self-management, with a particular focus on the proposed "Career Knowledgeability" concept. The study has shed light on the agency-structure interplay in OTD-graduates' career self-management endeavors and the role individual agency plays in that regard. The conceptual lens used in such an exploratory inquiry is the newly introduced concept of Career Knowledgeability. Career knowledgeability, conceptualized in this research as informing and guiding agentic behaviors (i.e., exercising career self-management), along with access to capital, shapes the level of graduates' agentic capacity to navigate career-related structures and potentially overcome their constraints.

As a sociological concept, knowledgeability was originally conceptualized by Giddens in his structuration theory (1984). In the context of OTD-graduates' career self-management, I apply and expand the concept to refer to a set of perceptions, assumptions, and factual knowledge that inform and guide the agentic behavior of graduates. It is embedded within a broader framework in which graduates/agents exercise their agency by mobilizing the resources/capital they possess or have access to towards realizing their career goals and interests. The nature and extent of their knowledgeability shape their abilities to effectively mobilize existing resources or acquire additional ones.

Career Knowledgeability, as conceptualized in this study, goes beyond mere access to specific labor market information to include informal and tacit knowledge and a particular

understanding of the "rules of the game." The game here refers to, first and foremost, the world of work. It is a dynamic process of acquiring, evaluating, and revising information, perceptions, and assumptions. This is why it is very crucial for students and graduates to articulate the process of knowledgeability development as a core competence in career self-management and career decision-making.

Career knowledgeability can potentially explain how some graduates with poor access to capital can set career goals, self-regulate their behaviors toward achieving them, and eventually enhance their employability. It is the knowledgeability of what it takes to make it in the labor market that can inform and guide graduates' agentic behaviors towards accumulating relevant capital, enhancing their agentic capacity, and achieving adequate employment outcomes.In this study, I use a modified version of the analytic induction approach to study a group of non-European (i.e., third-country nationals) OTD-graduates who obtained their bachelor's degrees from different locations worldwide. Then, they had the opportunity to complete their master's studies in Europe. After completing their master's education, they sought employment in Europe and have successfully secured adequate employment despite existing personal and structural constraints. In alignment with the use of analytic induction, a theoretical sampling technique was adopted in which potential interviewees were selected based on their relevance to the theoretical assumptions that I started with. The diverse outreach and screening strategies resulted in the close and in-depth examination of 20 career stories.

The analysis of the study participants' career stories not only answered the study questions and confirmed and further refined the study hypotheses but also led to the emergence of a broader understanding of career self-management dynamics. Such broadened and enhanced understanding was the outcome of the holistic analysis of the participants' career self-management practices beyond those related to the career knowledgeability concept, which is

the key focus of this exploratory research inquiry. Central to the emergent findings is the "career agility" multidimensional concept and its constituting elements (i.e., identified career agility behaviors and attitudes). This affirms the methodological and analytical utility of combining both deductive and inductive qualitative data analysis approaches in exploratory research. Besides shedding light on the nature of career knowledgeability and its three constituting components and their subcomponents, how it is acquired and developed, and how it is utilized in career self-management, the key contribution of this study is the introduction of the career knowledgeability model. The model offered a holistic framework for understanding and illustrating the agency-structure interplay in OTD-graduates' careers in general and the role of career knowledgeability within the context of OTD-graduates' career self-management in particular.

In terms of policy implications, there are two possible avenues for utilizing the study findings and the research on career knowledgeability and, in particular, its role in enhancing the employment outcomes and career satisfaction of OTD-graduates (i.e., this study and future research on the career knowledgeability concept). First, ensuring that national and regional level policy interventions account for existing structural constraints and introduce measures to enhance the agentic capacities of OTD-graduates by enhancing their career knowledgeability. Second, utilizing the concept in directly enhancing career guidance and career development services offered by higher education institutions.

# CHAPTER 1. LITERATURE REVIEW

## 1.1. Introduction: The vocationalization of higher education

Higher education, which has persisted for centuries as an elitist education system dedicated to less than 5% of the student age group, was transformed in recent decades into a mass education system catering to the needs of as much as 30-50% of the student age group in the developed world (Perkin, 2007). Additionally, over 75% of all universities established in the 20th century were established after 1945 (Teichler, 1988; Enders & Fulton, 2002). Meanwhile, modern post-industrial (knowledge) societies have been characterized by the increasing need for professionals with specific/narrow technical expertise, specialized bureaucrats, and business executives. Consequently, that led to increasingly vocationalized higher education systems. Kerr (1995) saw university as a reflection and an expression of its time and the socio-economic features of the society in which it is embedded. In that sense, higher education transforms itself in response to changing situations. As modern societies have become more economically growth-centered than ever, politicians and public institutions have increasingly appraised the principal value of higher education in terms of its vocational relevance (Rylance & Simons, 2001). The professionalization of disciplines continued to be the hallmark of 20th-century higher education systems (Woodward, 2009).

The transformation of higher education produced a "conceptual" division in disciplines in terms of their occupational focus. The more occupationally specific disciplines (OSDs), such as engineering, nursing, or pharmacy, prepare students for relatively narrow career pathways after graduation, while the more occupationally transversal disciplines (OTDs), such as the arts, humanities, and social sciences, prepare their students, for the most part, for a wide range of potential occupational pathways (Ortiz & Kucel 2008; Capsada-Munsech, 2015). As

highlighted by Lazerson (2010), a fully vocationalized education program is characterized by the ability of most of its graduates to secure employment in occupational fields directly related to their education (i.e., occupationally specific disciplines).

The rise of the "vocational majors" model has, therefore, put additional burdens on students to choose what to do after graduating. It has affected their choices of majors in assessing their practical values for particular occupational fields (Yang, 2008). While occupationally transversal education, such as the humanities, provides graduates with a diverse set of options and potential career pathways (Lazerson, 2010), it does, however, deprive them of the sense of a defined career path. Advocating for an increasingly professional/vocational orientation of higher education has implicitly downgraded the value of OTDs in terms of labor market relevance, as represented in humanities education (Rylance & Simons, 2001).

While my aim in this project is to examine the career self-management process of OTDs through the agency-structure conceptual lens, this chapter is centered around the humanities as a representative group of the occupationally transversal disciplines. In alignment with the vocationalization of higher education, the devaluation and marginalization of humanities education have gradually manifested and produced real-world outcomes in relatively poor labor market outcomes (Costa, 2019), which I will examine in further detail in the following sections. Moreover, OTD-graduates' transition to employment is discussed as a critical milestone in those graduates' careers, which requires engagement in career self-management practices to identify and articulate career goals and take relevant measures toward securing the first adequate employment opportunity.

## 1.2. OTD-graduates in the labor market

### 1.2.1. Overview of OTD-graduates' employment outcomes

Making a successful transition to employment is critical for mitigating the risk of losing the human capital acquired through a costly and lengthy investment in higher/tertiary education (Salas-Velasco, 2007). Thus, many studies have examined the employment outcomes of higher education graduates in general and the humanities in particular. In the majority of these studies, humanities graduates' employment outcomes are compared to those of the more occupationally specific disciplines. In this section, I examine some of these studies from different countries and regions worldwide to highlight the scale of this phenomenon (i.e., the inadequate employment outcomes of OTD-graduates compared to those of the more occupationally specific disciplines).

In Europe, evidence from the REFLEX project, which surveyed 70,000 higher education graduates in 15 European countries and Japan, showed that humanities graduates faced challenges in successfully transitioning to the labor market and acquiring adequate graduate jobs (van der Velden & Allen, 2011). These challenges were represented in terms of higher vertical and horizontal mismatch rates (12% combined) and higher unemployment (7%) compared to the more occupationally specific disciplines, such as those in the health and welfare category, which had a mismatch rate of only 2% and an unemployment rate of 3% (van der Velden & Allen, 2011).

Another study by Reimer et al. (2008) analyzed the data of the European Union Labor Force Survey of 2004 and 2005, which covered 22 European countries with an average sample size of 18,645 graduates per country. It showed that, with the exception of one country, humanities graduates had an above-average risk of being unemployed.

In terms of labor market entry, an analysis of a large-scale survey of the 2002/2003 cohort in four Eastern European countries (Slovenia, Lithuania, Poland, Hungary) and Turkey showed that among the 6,580 respondents, the graduates of the arts and humanities encountered the highest delay in labor market entry compared to graduates of other majors such as science, mathematics, and computers, who had a 33.5% higher entry rate than that of the humanities (Zamfir et al., 2018).

In terms of job-search, the transition-to-employment data from the CHEERS project, which surveyed 3,000 graduates in 12 European countries and Japan, showed that humanities graduates, along with those of the social sciences, went through the longest job-search period until landing their first jobs. On average, it took them 18 and 20 months, respectively, compared to 8 months for health graduates and 13 months for engineering (Allen & van der Velden, 2007).

In the United States, the Humanities Indicators project, which produces a statistical database on humanities education in the United States based on the American Community Survey conducted by the US Census Bureau, has shown that arts and humanities graduates had the highest unemployment rate among all bachelor's degree holders in 2018 at 3.6% compared to health and medical sciences at 2.0%, or education at 2.0%, and even higher than the average rate of 2.9% for all terminal bachelor's degree holders (TBHs) (AMACAD, 2021). Additionally, humanities graduates had median annual earnings of $63,856, lower than all workers with a terminal bachelor's degree at $72,095 (AMACAD, 2021). This confirms a previous analysis of the federal graduate survey data between 1992 and 2000, which indicated a disadvantaged position of humanities graduates (John & Wooden, 2005). The graduates in that study were found to earn the least among all other majors (with the exception of teaching and social work) and to have the highest unemployment rate among all majors (John & Wooden, 2005).

In Canada, in a mixed-method study of the professional pathways of social sciences and humanities (SSH) graduates, Edge et al. (2018) found that recent SSH graduates faced challenging career transitions and lower earnings. These challenges were attributed to graduates' limited understanding of potential career pathways and poor utilization of their skills. Additionally, the expansion in access to higher education was found to have increased competition over the 'good jobs' (Edge et al., 2018).

In another study, based on the analysis of the Canadian National Graduate Survey of 2007, which covered 39,588 higher education graduates, Fenesi and Sana (2015) found humanities graduates in a disadvantaged position in the labor market manifested in a higher risk of unemployment (35%) compared to other majors (below 17%), and a higher probability of being horizontally and vertically mismatched for their jobs. These studies are consistent with a previous analysis by Walters (2004) of the data from four national graduate surveys between 1982 and 1995, with over 120,000 graduates of Canadian post-secondary institutions. The analysis showed that humanities graduates were consistently at the bottom of the earnings distribution, were among the least likely to be full-time employed, and had the highest likelihood of being unemployed (Walters, 2004).

In Destinations of Leavers from Higher Education (DLHE), the UK's largest higher education survey to date, 254,495 graduates, representing 77.3% of the 2016 cohort, were surveyed six months after graduation (AGCAS, 2018). Data analysis showed that humanities graduates were less likely to be employed full-time or part-time compared to the whole population of graduates. Additionally, these graduates were among the least earning compared to science-related subject areas (HESA, 2018). The DLHE survey offered evidence of the broad range of occupational destinations of humanities graduates. The most frequent occupations included business, human resources, finance, marketing, and public relations, with a considerable proportion (19.2% of

English graduates and 18.5% of History graduates) working in retail, catering, and waiting (AGCAS, 2018).

Jisc and AGCAS (2023) recently analyzed HESA's (UK Higher Education Statistics Agency) Graduate Outcomes data for 2019/20, tracking UK first-degree graduates 15 months after earning their degrees. The humanities and social sciences had unemployment rates above the average of 5.9% (going as high as 7.9% for history graduates). In terms of salary, the humanities and social sciences had mean salaries below the overall average (£24,974), going as low as £20,593 for English literature graduates.

In Southern and Eastern Mediterranean countries, four years post-graduation, graduates from the humanities and the arts had the lowest success in finding work (45%) in comparison to the best performing major: health & welfare (90%) (ETF, 2012). That struggle was even more prominent in the case of female OTD-graduates in developing countries who were at a higher level of disadvantage in the labor market due to the overconcentration of young women in OTDs (Elder & Kring, 2016). In the Middle East and North Africa (MENA) region, the overconcentration of higher education students in the humanities and the social sciences works to their disadvantage when it comes to finding adequate/graduate jobs after graduation (European Commission, 2010).



### 1.2.2. Overeducation among OTD-graduates

Vertical mismatch (colloquially known as overeducation) can be considered the most challenging and prevalent manifestation of OTD-graduates' inadequate employment outcomes. Horizontal mismatch, a situation where the field of education does not match the job requirements (ILO, 2014), is prevalent among humanities graduates. However, this is rather an expected and justified outcome resulting from the transversal nature of those fields that offer generalist professional training by design (Leuze, 2011). However, vertical mismatch, where

the level of education/qualification is higher than required for the job (ILO, 2014), can be detrimental to graduates' careers.

The concept of overeducation first originated in Richard Freeman's work (1976) on the American education system and labor market, where he attributed the phenomenon to the expansion of the US higher education system in the 1970s, which exceeded the labor market demand (Kucel, 2011). Overeducation was found to be associated with lower earnings than in the case of adequate vertical match (McGuinness, 2006; Green & Henseke, 2016) and lower levels of job satisfaction, motivation, and productivity (Tsang & Levin, 1985; Allen & van der Velden, 2001; McGuinness, 2006; Ortiz, 2010; Green, 2016). There is also evidence that being overeducated for the first employment does not lead to higher chances of proper future employment, acting as a trap at the beginning of the career (Meroni & Vera-Toscano, 2017).

In Europe, based on the analysis of the European Union Labor Force Study between 1998 and 2012, overeducation existed with cross-national variations from 8% in Czechia and Slovakia to over 30% in Ireland, Spain, and Cyprus (McGuinness et al., 2018). Another analysis, based on the REFLEX project data, which tracked 9,505 higher education graduates from the 2000 cohort five years after graduation, found a cross-national variation in the prevalence of overeducation from 14% in Portugal to 45% in Spain (Verhaest & van der Velden, 2013). According to a report based on the UK labor market data in 2017, 31% of first-degree graduates were overeducated for their jobs. The more troubling figure, however, was the increase in the percentage of overeducated workers from 21.7% of the graduates before 1992 to 34.2% in 2007 and later (Maja et al., 2019). Data from the EU Labor Force Survey of 2016 found that 28% of workers with tertiary education were overeducated for their jobs (Rossen et al., 2019).

There is considerable evidence that OTD-graduates in general, and the humanities in particular, are among the most overeducated graduates of all fields of study. The data from Europe shows

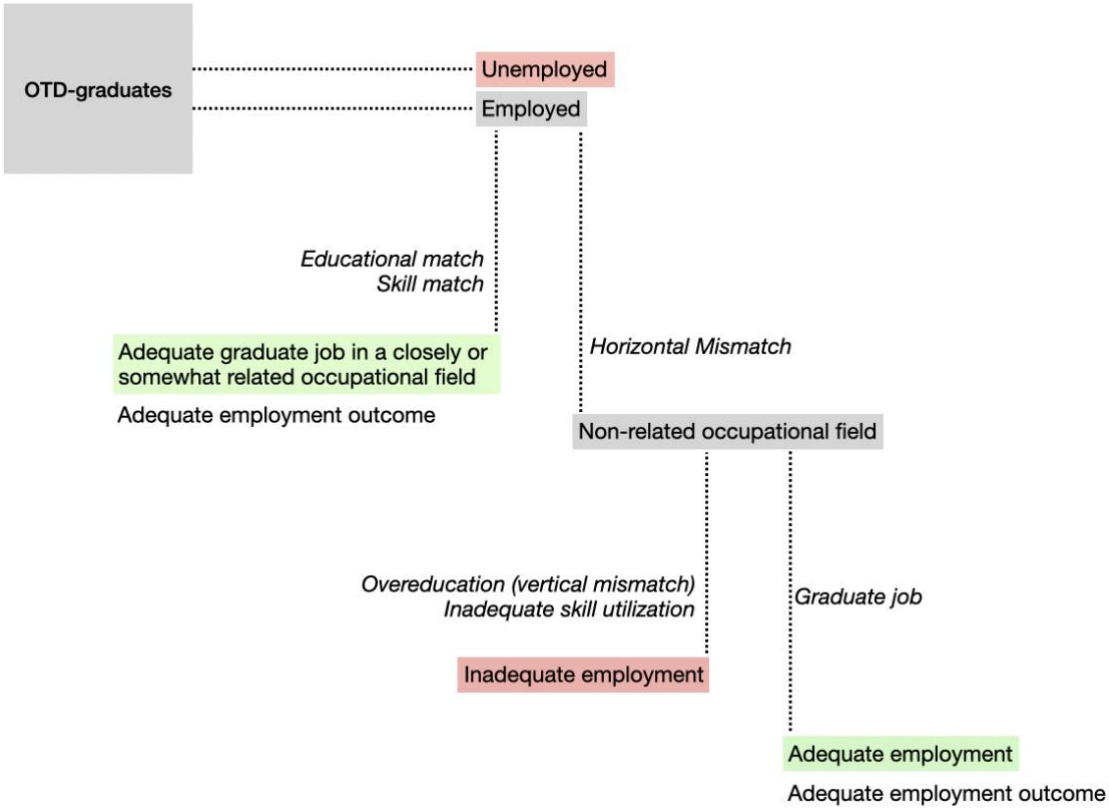
that in labor markets with higher numbers of university graduates, humanities degree-holders were at a relative disadvantage and suffered higher unemployment rates than the average rates for university graduates in those countries (Reimer et al., 2008). In a study on the education-to-employment transition of university graduates in 13 European countries and Japan, the researchers found that OTD-graduates were more likely to accept jobs for which they were overeducated in the hopes that they would serve as stepping stones for more suitable jobs in the future (Verhaest & van der Velden, 2013). Based on the REFLEX survey analysis, Barone and Ortiz (2011) found the humanities to show the highest systemic disadvantage across the 15 EU countries surveyed. Evidence from the UK also showed that the highest shares of overeducated recent graduates in 2017 among non-STEM subjects belonged to those in the arts and humanities fields (Maja et al., 2019). Humanities graduates in the US also seem to suffer from a relative disadvantage in the labor market. The Humanities Indicators report, which analyzed data from the US federal statistical system, concluded that humanities graduates earned less than science and engineering majors and suffered relatively higher unemployment rates (AMACAD, 2021). In Canada, humanities graduates represented the highest share of overeducated workers among all other fields of study (Rastrick, 2018); 32.5% of humanities graduates were employed in jobs that only required a high-school education or less (Uppal & LaRochelle-Cote, 2014).



**Figure 1** illustrates a simplified transition-to-employment trajectory of humanities graduates. While the potential transition outcomes include unemployment and inadequate employment, the latter represents the most challenging aspect of OTD-graduates' transition to employment. Building on the definitions of Meroni and Vera-Toscano (2017) and the Leibniz Centre for European Economic Research (ZEW) (2019), I define adequate employment in this study as a graduate job in a related or non-related occupational field that requires and matches the obtained level of formal education. Therefore, while the occupational non-specificity of the humanities

education allows for, and in most cases mandates, horizontal mismatch in the labor market, vertical mismatch in the form of overeducation represents the real risk for humanities graduates in the labor market.

*Figure 1. Illustration of OTD-graduates' potential employment outcomes*




Source: Created by the author.

## 1.2.3. Explaining overeducation

The most widely adopted explanations of overeducation are primarily driven by mainstream labor market economic theories, such as the human capital theory (Becker, 1964), the job competition model (Thurow, 1975), the assignment theory (Sattinger, 1993), the career mobility theory (Sicherman & Galor, 1990), and the matching theory (Pissarides, 2000).

The human capital perspective (Becker, 1964) assumes the necessity of an equilibrium where overeducation can only be understood as a temporary problem of underutilization of human

capital where either the firm will adjust its technology to utilize the existing human capital or the individuals will adjust their preferences to avoid unnecessary or excessive education (Kucel, 2011). The matching theory (Pissarides, 2000) also assumes a temporary nature of the phenomenon where both the individual and the firm search/screen for a vertical and horizontal match. Therefore, overeducation results from a temporary vertical mismatch that will eventually be corrected as individuals change jobs until adequately matched. On the other hand, job mobility theory predicts that overeducated individuals will acquire job experience over time and manage to signal their productivity to employers to access better jobs through internal or external mobility (Sicherman, 1991). This explanation is consistent with Becker's human capital theory (1964) and Spence's signaling theory (1973).

Another explanation comes from the job competition model (Thurow, 1974), where both the individuals and the jobs are ordered/ranked in queues, and the individuals compete for the best available jobs by improving their relative positions in the queue. Education here serves as a tool for advancing the individual's relative position. However, under the scarcity of jobs, some individuals with the relevant levels of education will be assigned to jobs with lower levels of quality. Thurow's model predicts that under the supply-demand imbalance, the graduate labor market will create winners and losers (i.e., graduates who are overeducated for their jobs). Sattinger's assignment theory (1993) can be situated between the human capital theory and the job competition model. According to Sattinger (1993), the occupational position is a function of both the individual's productivity and job characteristics, and overeducation is a voluntary mismatch by both the firms and the individuals where each of them aims to maximize their respective economic gains.

Higher education market dynamics also play a crucial role in the incidence of overeducation, which would result from the inability to correct supply and demand imbalance (Figueiredo et

al., 2017) due to limited transparency and the asymmetry of information (Weisbrod, Ballou, & Asch, 2008), incomplete decentralization (Teixeira et al., 2004), and improper alignment between the outputs of the education system and the job market needs. Additionally, the level of occupational orientation of university degree programs plays a crucial role as well (Verhaest et al., 2017).

In this section, I offer a brief analysis of the youth employment policy response as a function of a broader and overarching economic and political paradigm. The aim is to position OTD-graduates' transition-to-employment and career self-management practices within the broader policy paradigm that influences (and can potentially shape) the nature, opportunity structure, and outcomes of OTD-graduates' careers. I do that by examining the increasing supply-side tendency in the youth employment policy discourse as a function of the hegemony of the neoliberal policy paradigm over the past five decades, where the development in policy response stemmed from a change in the way unemployment itself has been economically explained and politically framed under neoliberalism.

The second half of the twentieth century, particularly following the 1973 oil crisis, witnessed a shift in the hegemonic global economic paradigm where most industrialized Western societies, with the United States and the United Kingdom in the lead, started to increasingly adopt neoliberal economic reforms. For neoliberalism, involuntary unemployment has been deemed a result of labor market malfunctioning (Albarracín, 2000). Therefore, the objective of employment policy became centered around ensuring that labor market mechanisms are functioning properly. That meant a shift in policy focus towards the supply side of the labor market through ensuring higher flexibility of the labor market, investing in activation policies, and increasing the supply of labor that is made available to firms.

The neoliberal policy agenda, with the aim of subjecting labor relations to market dynamics, mandated higher flexibility of labor markets, limiting the extent of employment protection regulations and pro-worker labor laws, disempowering labor unions, deregulating financial markets, limiting state intervention, reducing public spending including on welfare state programs, and opening markets to international trade. The rationale has been that by ensuring the flexibility of the labor market, the economy can successfully maintain low inflation by subjecting wage-setting to the supply-demand market dynamics. Thus, maintaining low inflation and price stability substituted full employment as the main economic policy objective.

Within this overarching policy paradigm (which also varies in its characteristics between different neoliberal economies), enhancing graduates' ability to make successful transitions to adequate employment has been subject to considerable policy interest. The concept of the transition regime (Pohl & Walther, 2007) or the transition system (Raffe, 2008) frames the transition-to-employment process as an area of political relevance and public policy debate. A transition regime consists of a set of institutional arrangements in several domains, such as education and training systems, labor market and employment regulations, and social security systems (Hadjivassiliou et al., 2016). The interplay among these social and economic institutions shapes the processes and outcomes of the transition-to-employment process (Raffe, 2008). The transition regime, as a concept, has been operationalized to serve as the basis for cross-national comparative research (Smyth et al., 2001). For example, the typology of Pohl and Walther (2007) clusters EU countries with relatively similar institutional arrangements and transition policies as ideal types of transition regimes for cross-national comparison. Transition regimes differ in terms of the extent of the standardization and the comprehensiveness of the education systems, the degree of social protection, and the level of regulation and openness of the labor markets (Lundahl & Olofsson, 2014).

According to a comparative analysis of the main characteristics of these regimes by Hadjivassiliou et al. (2016), universalistic transition regimes, such as in the case of Nordic countries, are characterized by inclusive education systems, high shares of higher education graduates compared to vocational education and training (VET), inclusive social protection, and moderate employment protection legislation, resulting in fast and stable transitions. Employment-centered regimes, such as in Germany, France, and the Netherlands, are characterized by selective and standardized education systems with a vital role for VET and apprenticeship systems, segmented social protection, and variations in the degree of employment protection legislation, resulting in variable transition patterns in terms of speed and quality. Meanwhile, liberal regimes, such as in the UK, are characterized by comprehensive education systems with low standardization of VET, supply-side activation policies centered around the acquisition of employability skills, and minimal employment protection legislation and social protection, resulting in unstable but fast transitions challenged by low-quality jobs and skills mismatches. Southern European countries such as Italy and Greece were classified as sub-protective regimes with their comprehensive education systems suffering from weak linkages with the labor market and low status of VET, wage subsidies, and segmented social protection, resulting in lengthy and uncertain transitions. The last type is the post-communist transition regime, as in Bulgaria and Poland, which share similarities in the high incidence of skills mismatch and low-quality employment.

The building blocks of a transition regime, which can be conceptualized as a distinctive national logic (Raffe, 2008) to achieve particular transition outcomes, are a set of economic, educational, labor market, and social transition-related policies, with education and training policies being at the center of that (Lundahl & Olofsson, 2014). These transition policies span several educational, social, and economic domains. The main areas of policy intervention include (European Commission, 2011; Rosas, 2013; Goldin, 2015; O'Higgins, 2017; ILO, 2019):

- **Education and training policies** with a supply-side focus on skills development and labor market integration, including apprenticeships, traineeships, internships, and dual degree programs (work-based training and learning); regulation of study places; employers' involvement in governance; national qualification frameworks; and promotion of lifelong learning activities.
- **Labor market policies,** including active and passive labor market policies to enhance graduates' employability and facilitate entry into the labor market through career guidance and job-search services, public employment programs, wage subsidies, and skills training; social protection; wage policy; and employment protection legislation.
- **Macroeconomic and sectoral policies,** which aim to stimulate the demand for labor through fiscal and monetary policies, aggregate demand management, investment policies, and sectoral development.
- **Enterprise development policies,** including access to finance, access to non-financial services, and the inclusion of informal businesses in the formal economy.
- **Self-employment and entrepreneurship promotion** through training, business mentoring services, microcredit schemes, and startup loans.

Another way to conceptualize these policy measures is in terms of the labor market supply-demand lens. In that sense, macroeconomic and sectoral policies and enterprise development policies target the demand side of the labor market through job creation and aggregate demand management. Meanwhile, education and training policies are concerned with the labor supply in terms of quantity and quality. Self-employment and entrepreneurship development policies serve both the supply side (helping individuals to be self-employed) and the demand side (creating job opportunities for others). Finally, labor market policies are more into the supply side by supporting individuals in their transition to employment. However, they also affect demand (through wage policy, for example) and play an essential role in supply-demand matching.

The differences in transition regimes and their policy focus stem from a difference in the dominant political and economic strategies (Raffe, 2008). An illustrative example comes from

a study by Lundahl and Olofsson (2014), looking at the change in transition patterns and policies in Sweden as a function of the recent incorporation of neoliberal ideas. They looked at the Swedish transition regime regarding its functions and scope, underlying values, and governance. The universalistic transition regime of Sweden, influenced by social democratic ideology, considered youth education and employment a necessity for democratic and civic participation without neglecting the economic aspect. However, under the neoliberal influence, the economic function received higher emphasis in transition politics in recent years.

Regarding the underlying values, providing everyone with equal opportunity in education and employment was both a social and an economic policy goal. However, higher education started to be considered a private commodity, and individuals' responsibility for their employment outcomes started to influence the policy discourse. As for governance, the neoliberal influence has led to a higher level of deregulation and decentralization with the delegation of responsibilities to the municipalities. This has resulted in a change in public policy patterns, leading to the building of more linkages between education and the economy, a higher focus on activation policies to motivate young people to search for jobs, and a greater emphasis on the notion of employability in enhancing youth employment outcomes.

## 1.3. Graduate employability

### 1.3.1. Employability: The evolution of a policy narrative

Starting from the mid-1990s, labor market activation policies, with employability policies being at the core, became central to the youth employment policy agenda of most capitalist societies and were adopted by different international and supranational organizations, including the OECD, the EU, ILO, the World Bank, and the IMF (McQuaid & Lindsay, 2005; Crisp & Powell, 2017). The implicit assumption underlying that policy shift towards active employment policies under the neoliberal paradigm (Albarracín, 2000) was that individuals are increasingly

being perceived as free actors, emancipated from all unnecessary regulations, while competing in free labor markets, with lesser attention and protection provided to the ones who fail (Roper et al., 2010). Unemployment in this policy discourse became a reflection of supply-side deficits such as skills mismatch or welfare dependence (Mitchell & Muysken, 2008).

The promotion of employability policies and the increasing adoption of the employability narrative and policy discourse represent the core of the youth employment policy transformation under the neoliberal paradigm. Therefore, before continuing to examine the main features of this policy orientation, it is crucial to articulate a better understanding of the concept itself.

The employability concept has been used in various policy contexts and articulated in many different ways, most often ill-defined and fuzzy (Gazier, 1998; as cited in McQuaid & Lindsay, 2005). The definition and scope of employability ranged from being conceptualized as a personal quality of being employable (McQuaid & Lindsay, 2005) to possessional conceptions (Holmes, 2013) that define it in terms of the relevant skills, knowledge, and attributes possessed by the individual (Pool & Sewell, 2007). There have been many attempts to craft employability frameworks such as those of Hillage and Pollard (1998), Bennett et al. (2000), Harvey et al. (2002), NCVER (2003), Knight and Yorke (2004), Pool and Sewell (2007), Bridgstock (2009), CBI (2011), Cole and Tibby (2013), Ornellas et al. (2017), and Clarke (2018). In their different forms and structures, those frameworks included combinations of generic and career management skills; cognitive and metacognitive abilities, attitudes, behaviors, and personal qualities; and sector-specific knowledge and skills. This “agency-centered” understanding of employability, centered around the individual's skills and attributes, has been adopted by many scholars and policymakers, resulting in a predominantly supply-side focus on employability policies (McQuaid & Lindsay, 2005).

The debate around the use of the concept has been going on since the 1950s (Feintuch, 1955). Gazier (2001) accounted for the evolution of the employability concept, dating back to as early as the beginning of the 20th century. It started with what he described as Dichotomic Employability in the UK and the US, which focused on the distinction between those who are able and willing to work (employable) and those who are not (unemployable). Socio-medical Employability came in the 1950s to include those who are socially, physically, or psychologically unable to meet the work requirements. Manpower Policy Employability in the 1960s extended the concept to include other socially disadvantaged groups. Around the same time, Flow Employability emerged in the French literature to focus on the accessibility of employment from a demand-side perspective and conceptualized employability as the probability of being able to acquire a job. Labor Market Performance Employability in the late 1970s looked at the retrospective labor market outcomes of those participants in employability-related programs introduced by policy interventions. From the human resources development literature, Initiative Employability emerged in the 1980s to focus on transferable skills and the flexibility of workers to move between job roles. Following that, Interactive Employability from the late 1980s continued the emphasis on the individual initiative while acknowledging labor market barriers.

It is difficult to draw a coherent line of theoretical development of the concept from one conceptualization to another. However, it is possible to notice a pattern of supply-side tendency with an apparent influence of Becker's (1964) human capital theory (Matherly & Tillman, 2015). Dichotomic employability, socio-medical employability, and manpower policy employability are related to the individual characteristics that make someone more employable than another. Flow employability (also referred to as Keynesian employability), however, reversed that focus where the flow from unemployment was considered a function of the labor market and macroeconomic characteristics. Labor market performance employability can be

considered a neutral retrospective assessment of the employment outcomes of a particular group. Meanwhile, initiative employability and interactive employability came to underscore the individual responsibility and agency-centered account of the concept. While Grazier (2001) claimed that the contemporary account of interactive employability came to consider the labor market barriers, in addition to the individual characteristics, McQuaid and Lindsay (2005) argued that the interactive aspect of the concept had been lost among the debates on how to upskill the unemployed and other disadvantaged segments.

The increasing adoption of the employability discourse is not a mere change in semantics but rather a shift in the theoretical explanation and construction where the employment question has been reformulated as an employability question (Brown & Hesketh, 2004). Employability policies placed the management of the supply of labor (in terms of availability and qualifications) as a priority in responding to youth employment challenges (Grazier, 2001) while leaving the demand side dependent on market-based dynamics and growth outcomes (Grazier, 2001; Mitchell & Muysken, 2008). Accordingly, the policy response in the context of the youth employability framework adopted two approaches (Philpott 1998, 1999, as cited in McQuaid & Lindsay, 2005). The first was “access,” which focused on activation measures and access to the labor market. The second was “performance ability,” which focused on upskilling the workforce. These supply-side policies represented a move from security through employment to security through employability in the form of active measures to enhance jobseekers' and workers' adaptability to the labor market (Grazier, 2001). This was a shift in governments' commitment from full employment through direct job creation as stimulated by Keynesian demand management (Finn, 2000) to full employability (Mitchell & Muysken, 2008).

International organizations have had a significant role in globally promoting the employability agenda (Crisp & Powell, 2017). Since the mid-1990s, the OECD has been influential in promoting active labor market policies (ALMPs) and lifelong learning (McQuaid & Lindsay, 2005). In 1997, the European Commission issued a framework for employment policies that considered employability one of its four pillars (Weinert et al., 2001), which is now part of the European Employment Strategy (European Commission, 2018). The International Labor Organization (ILO) places employability as one of the five pillars constituting its approach to youth employment policy (O'Higgins, 2017). In 2016, a joint report by the OECD, the ILO, the World Bank, and the IMF was prepared for the G20 Employment Working Group outlining policy recommendations to enhance workforce employability (OECD, 2016). These recommendations were centered around the skills agenda and the role of labor adaptability and mobility without much consideration for demand-side constraints. In its review of national action plans on youth employment, the United Nations (UN) listed employability as one of five priorities of national action plans (United Nations, 2007). The report stated that supply-side issues in terms of the quality of the workforce had received the most attention in the 41 countries' submissions.

### 1.3.2. Graduate employability and the skills agenda

The notion of employability skills gained prominence as a tool for graduates to enhance their competitiveness in the labor market (Berntson et al., 2006). Meanwhile, the expansion in access to higher education to supply and train labor and the promotion of the skills agenda as part of the employability discourse have characterized the graduate employability-centered policy response over the past few decades (Matherly & Tillman, 2015). The notion of human capital, defined by Becker (2002) as “the knowledge, information, ideas, skills, and health of individuals,” has been central to this skills agenda (Holborow, 2012). Additionally,

employability has also been one of the increasingly essential performance indicators of higher education institutions (Smith et al., 2000), where the employment rate of university graduates is being used as a measure of institutional employability (Harvey, 2000).

The neoliberalization of education and training institutions and policies manifested itself in increasing the supply of university graduates who represent highly educated labor readily available for firms to choose from. Within the employability discourse, this calls for equipping graduates for an increasingly competitive, knowledge-driven economy in which graduates are increasingly held responsible for upgrading their "employability skills" in response to the evolving employers' demands (Moreau & Leathwood, 2006). This, among others, contributed to the decline in the signaling utility of formal credentials. An academic credential/qualification has become, for many employers/firms, more of a prerequisite for a job (Moreau & Leathwood, 2006), and graduates are increasingly expected to go beyond it in terms of demonstrating that they possess the relevant skills, knowledge, attributes, and experience to secure jobs in highly competitive markets with a surplus of higher education graduates. Thus, demonstrating adequate employability requires graduates to signal a level of "agentic capacity" to employers beyond mere possession of an academic degree.

## 1.4. The centrality of individual agency

The concept of graduate employability has promoted a discourse of individualization, where the responsibility for graduates' transition outcomes is transferred from the institutions to the individuals (Tomlinson, 2012). This narrow agentic view of employability emphasizes the role and impact of individuals' self-direction and striving (Briscoe & Hall, 2006). Within this view, individuals' employability and career prospects are considered products of individual agency, where individuals navigate the labor market according to their motives, values, resources, and capacities, and where failures in achieving adequate employment outcomes are constructed and

addressed as primarily cultural and behavioral shortcomings of the individuals rather than products of a complex structurally influenced phenomenon (McQuaid & Lindsay, 2005; Rodrigues et al., 2016; Crisp & Powell, 2017). The employability discourse also tends to portray the labor market as highly meritocratic, especially with the increasing focus on skills acquisition as the key to the labor market, which downplays the mechanisms through which opportunities are framed and structured by race, gender, and class, among others, and raises issues of inequality (Moreau & Leathwood, 2006).

The inadequate employment outcomes achieved by some humanities graduates can be attributed, in part, to the occupationally transversal nature of their study programs that do not prepare them for specific career pathways (Leuze, 2011). Instead, they are burdened by the need and necessity to develop their own individualized professional/career orientation (Grotta, 2019). However, developing a sense of individualized career orientation is not sufficient on its own for achieving adequate employment outcomes. They also need to possess and signal the knowledge, skills, and abilities required to make the initial market entry or at least be able to signal their learning potential to employers who might not easily recognize the relevance of these graduates to their business activities (Rastrick, 2018).

The lack of specific occupational orientation in typical humanities study programs is a double-edged sword (Rastrick, 2018). The graduates are less constrained and more open to various employment options with relatively low entry barriers from a credential perspective. Meanwhile, they compete in labor markets where their lack of professional specificity constitutes a challenge for them to be recognized by employers as professionally/occupationally relevant (Domadenik et al., 2013; Rastrick, 2018). In addition to the fierce competition in the labor market, available adequate employment opportunities might not be sufficient to absorb all OTD-graduates. Monteiro et al. (2020) research into the "work transition and employability

of higher education graduates" highlighted some of the challenges facing humanities and social sciences graduates while transitioning to employment. The main challenge identified was the lack of job vacancies, which mandated a more intensive/proactive engagement of graduates in managing their careers.

Okay-Somerville and Scholarios (2022) examined the impact of goal-directedness of job search strategies in high and low labor market ambiguity on the success of university graduates' transitions to employment. The study found that arts, humanities, and social sciences graduates benefited from a more focused job search within a highly ambiguous labor market context, which calls for a tailored job search approach that aligns with the opportunity structure in the labor market. The study highlighted the vital role of "career agency" under high labor market ambiguity in overcoming structural constraints and achieving a successful transition. Indeed, there is considerable room and need for individual agency that can contribute to shaping the OTD-graduates' career self-management process through the interaction with a broad range of potential career pathways OTD-graduates can choose from while navigating the competition over adequate job opportunities.

Individual agency can be conceptualized as the individual's ability to overcome structural constraints and shape one's life course by developing behavioral styles that enable him/her to realize the intended outcomes (Bandura, 2001). However, agency operates within an environment of social and structural opportunities, constraints, and networks (Schoon & Heckhausen, 2019), where individuals vary in capacities and resources as well as their structural advantages that open or constrain the windows of opportunities and agentic options (Hitlin & Johnson, 2015). In that sense, the manifestation of individual agency could be seen as the product of the interaction with a broader structural context, which highlights the need to

consider not only the individual's attributes or the social structures but also how they interact (Schoon & Heckhausen, 2019).

Under the agentic centrality of the employability discourse, it is crucial to develop both theoretical/conceptual and empirical understanding of individual agency, its elements in the context of OTD-graduates' career self-management, how it is expressed and under what conditions, and how it interacts with the broader socio-economic landscape of structures and opportunities in which graduates navigate their careers. Without such an adequate understanding of individual agency, it would be difficult to design and implement effective policies and interventions that can enhance graduates' agentic capacities and mitigate or alleviate existing structural constraints in a way that improves OTD-graduates' employment outcomes. Many scholars, such as Shanahan (2000), Evans (2002), Heckhausen and Buchmann (2019), and Schoon and Heckhausen (2019), have reflected on this agency-structure interplay and the constraints (as well as the opportunities) imposed on the graduates by the established social structures and institutional arrangements that shape the career self-management process and outcomes.

Crowley-Henry et al. (2023) examined the skilled migrants' careers living in the US, Australia, and Ireland through the lenses of agency-structure interplay and the intelligent career theory. The research highlighted the heterogeneity, agentic nature, and resilience of those migrants in the face of different social structures. Gander (2022), meanwhile, analyzed the agency-structure interplay in the careers of university professional staff within the framework of Bourdieu's Theory of Practice. The research stressed the need to pay more attention to contextual knowledge when analyzing careers and that individual career decision-making, as articulated in the proposed Holistic Career Framework, is bounded and influenced by existing structures.

Concerning Bourdieu's work, Delva et al. (2021) examined the structured/agentic nature of employability through the lens of Bourdieu's theory of practice. The research highlighted the "structured" aspect of employability, where context shapes individuals' understanding of employability and the opportunities available to them. The authors argued for an understanding of employability as the "chance of employment" that is always "in context" and can only be conceptualized "in relation to others." On the other hand, Garbe and Duberley (2021) examined the agency-structure interplay in the French humanitarian sector within the framework of Giddens's structuration theory using the Career Script concept. The study noted the power relationships involved and the complex nature of careers while calling for closer attention to the role of individual agency.

Upon accounting for the agency-structure interplay in OTD-graduates' careers, employability could then be better conceptualized as an attempt to overcome the social and structural constraints while taking advantage of the existing opportunity structure. Whether such an attempt would be granted success is a heavily contextualized question since outcomes would probably differ across labor markets, occupational fields, cultures, and institutional arrangements (Schoon & Heckhausen, 2019).

There have been several calls (e.g., McQuaid & Lindsay, 2005; Tomlinson, 2010; Tholen, 2013) for expanding the notion of graduate employability and working towards a more complex notion that acknowledges the structural and demand-side dimensions, and for engaging in sociologically informed research on the factors shaping the career self-management process and outcomes as a function of the agency-structure dynamics (Lehmann, 2005; Duberley et al., 2006; Heinz, 2009; O'Connor, 2014; Schoon & Lynos-Amos, 2017).

I position this study as, in part, a response to these calls. However, it intends to **go beyond the notion of graduate employability towards a more holistic understanding of agency-**

**structure interplay in OTD-graduates' career self-management**, **with a particular focus on the proposed "Career Knowledgeability" concept,** as I will further elaborate in the following chapter.

# CHAPTER 2. AGENCY-STRUCTURE INTERPLAY IN OTD-GRADUATES' CAREERS

## 2.1. Introduction: The agency-structure debate

The agency-structure debate is a debate over social ontology itself that has been going on for decades (King, 2010). It is a question of how social reality is structured; the degree of autonomy, will, and freedom agents possess against external constraints; and the deterministic nature of social mechanisms. Throughout the 20th century, a divide in sociological thought existed between individualism and holism, subjectivism and objectivism, and voluntarism and determinism (Giddens, 1984). However, a third movement came into existence, rejecting the methodological chasm that has plagued contemporary social theory (Ritzer & Stepnisky, 2017). That movement made efforts to theoretically synthesize insights from both camps into a holistic unified conception of social reality. That movement consisted of many social theorists who actively pursued that objective, including Norbert Elias, Pierre Bourdieu, Anthony Giddens, and Margaret S. Archer, among others (Ritzer & Stepnisky, 2017).

My ideas on the agency-structure interplay/dynamics are primarily influenced by Giddens's structuration theory (1984). The central thesis of Giddens's work is represented in his move from the mainstream dualism of the individual and society into a duality of agency and structure. The duality of structure, Giddens's core concept, assumes that structures are not only the medium of action and interaction but also the outcome of agents' social practices. As agents draw upon existing structures in their day-to-day interactions, they either reinforce or transform them in a "continuous recursive reproduction of social systems." Through collective action, agents exercise their agentic capacities in reinforcing/reproducing structures or transforming them. Meanwhile, social action is perceived as a complex product of reflexive, knowledgeable,

and goal-oriented action along with the unacknowledged conditions of action and the unintended consequences of action (Giddens, 1984).

It is also worth highlighting that, according to Giddens, there are no pure structural explanations in the social sciences; all explanations have implicit references to the behaviors of agents and their interactions with the enabling and constraining features of their social systems. The analytical approach of this project comes in consistency with these views.

## 2.2. Conceptualizing agency and structure

I subscribe to a view of agency as intentional action (Bandura, 2001), or as Giddens described it: “To be a human being is to be a purposive agent” (Giddens, 1984). It is about the ability of the individual to act otherwise and to intervene in the social world or to have the will to refrain from intervening (Giddens, 1984). According to Giddens, agents act by drawing upon their knowledgeability of structures (and their associated constraints and opportunities) and their accessibility to resources. This knowledgeability implies that individuals are, in fact, reflexive agents; they monitor and reflect on their actions, the actions of others, and the contexts in which they act. However, an individual's action is as limited as his/her social knowledge (Giddens, 1984).

In order to articulate the practical manifestations of exercising individual agency in a way that can be of conceptual utility in the context of OTD-graduates’ career self-management, I have turned to Bandura's socio-psychological research on human agency (2001; 2018). In his social cognitive theory, Bandura described four core features of human agency through which individuals exercise their agency and act purposively: Intentionality, forethought, self-reactiveness, and self-reflectiveness.

According to Bandura (2001), intentionality is centered around planning for action. It is a commitment to a future course of action in pursuit of a specific desired outcome. Forethought, on the other hand, is a temporal extension of intentionality. It is a cognitive representation of future events that motivates, guides, and regulates action. Self-reactiveness is manifested in self-directedness that functions through self-regulatory processes. Therefore, it operates to link intentions/plans and forethought with the relevant course of action to realize the intended goals. Finally, self-reflectiveness is a form of self-consciousness and a metacognitive ability to reflect upon one's thoughts and actions. Central to self-reflectiveness, perceived self-efficacy beliefs are considered the foundation of human agency. Perceived self-efficacy stems from the belief of individuals that they can perform relevant tasks and produce the expected outcomes. Therefore, these beliefs can be self-enhancing or self-hindering.

For the purpose of this study and to simplify the conceptualization of the career self-management process, I combine intentionality and forethought under the same step/stage of the process (i.e., forethought). Since both mechanisms work in harmony, it is conceivable to conceptualize them as going hand in hand in graduates' endeavors to plan their career trajectories (i.e., a graduate's intention/plan is motivated and shaped by his/her forethought or outcome expectation). Thus, in the context of career self-management, it is conceptually not feasible to disconnect intentionality from the accompanying forethought. This also aligns with what has been suggested in a recent publication by Bandura (2018), where he expressed the features/components of agency in terms of only forethought, self-reactiveness, and self-reflectiveness.

Meanwhile, structure here is understood, at its abstract level, as a "duality of rules and resources" (Giddens, 1984; Sewell, 1992). These rules and resources represent the structural properties of a social system that can enable or constrain social practices. The constraining

nature stems from the limited options for agents' actions. This can come in the form of material constraints, structural constraints, or sanctions. Therefore, institutions are considered the most enduring and deeply embedded social practices with the greatest time-space extension. This conceptualization of structures stems from Giddens's structuration thesis (1984).

## 2.3. Conceptualizing agentic capacity

In order to explain how graduates differ in their agentic capacities, I have built on concepts from Giddens (1984) and Bourdieu (1986). For Giddens, the variation in what he called 'transformative capacities' is a function of differential access to resources and agents' knowledgeability, which enables individuals to intervene in social life and get things done. Knowledgeability is manifested in agents' knowledge of the existing structures, their relevant rules, and the opportunities and constraints they present. It is knowing what to do in a particular social situation and how to use such knowledge to realize goals. It is also reflected in one's attitudes and dispositions, and I am here influenced by Bourdieu's notion of habitus as a "system of dispositions to a certain practice" that shapes the regularity of behavior (Bourdieu, 1990). Thus, one way to conceptualize knowledgeability in this conceptual framework is to look at it as a worldview shaped by the individual's knowledge of the world (and relevant structures/rules) and manifested in his/her actions, dispositions, attitudes, and values.

Regarding access to resources, I found Bourdieu's concept of capital to be of higher relevance to the context of this study than Giddens's highly abstract conceptualization of resources as allocative and authoritative. According to Bourdieu (1986), three types of capital exist: cultural, social, and economic. In this section, I will provide examples of these three types of capital by applying the concept directly to the context of OTD-graduates' career self-management. First, cultural capital can come in a material form, such as the books, paintings, or historical manuscripts that a graduate of history might possess or has access to; an institutionalized form,

such as the academic diplomas that this graduate has acquired; or in the embodied form, shaping his/her interest in classical music. Cultural capital is believed to be primarily acquired through long-term family investment during the early stages of the individual's life course. Second, social capital can come in the form of membership in a professional network, family connections, and acquaintances, or access to highly recognized historians for guidance and mentorship facilitated by studying in an Ivy League university. Third, economic capital, which can come in the form of the financial support that this graduate receives from family members to sustain his/her job-search efforts without feeling the urge to quickly accept inadequate jobs under financial pressure.

It is worth noting that while the three types of capital are interconnected, they are also connected to, and shape, the individual's knowledgeability, and in turn, that knowledgeability can impact the individual's access to resources. In addition, both cultural and social capital can be thought of, in relative terms, as derivatives of economic capital (Bourdieu, 1986). They can also be converted to economic capital. An example of this is how the family's economic resources can facilitate access to higher education in a prestigious private university for their children, who, later in life, can convert their academic credentials, along with all the acquired social and cultural capital, into graduate jobs with high annual earnings. Thus, access to different types of capital plays a significant role in social reproduction.

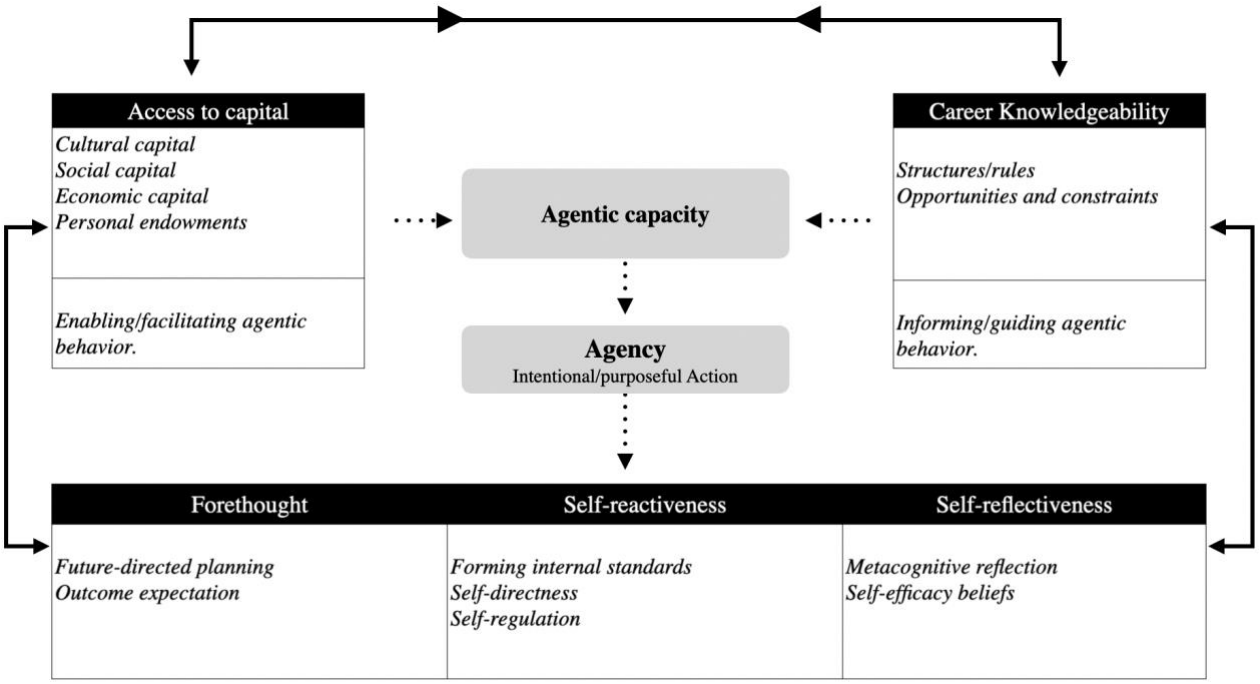
Agentic capacity, therefore, can be perceived as a concept that goes beyond the simplistic agency-centered notion of graduate employability skills. It is a function of:

a) graduates' **knowledgeability** of the relevant social structures (e.g., labor market); and
b) the differential **access to resources/capital** in the form of cultural, social, and economic capital (in addition to personal endowments).

For the purpose of this study, I also added "personal endowments" to the resources deemed relevant to the career self-management process. These endowments represent innate physical and intellectual abilities, such as having a natural aptitude in certain areas, physical characteristics, and particular linguistic abilities. Under specific conditions, they facilitate or hinder particular career trajectories. For example, an individual with a captivating voice can make a career out of it by getting trained in voice acting and working as a voiceover artist (voice actor).

The exercise of agency through forethought, self-reactiveness, and self-reflectiveness is shaped by the extent of the individual's agentic capacity. While access to capital enables and facilitates the exercise of agency, the extent of the individual's knowledgeability contributes to informing and guiding the agentic expression/behavior. In **Figure 2**, I offer a further breakdown of the core components of the agentic capacity.

*Figure 2. A breakdown of the core elements of the agentic capacity concept*




Source: Created by the author.

As an illustrative example, employability skills would be situated in this framework as part of the graduate's cultural capital. They could have been acquired through the graduate's forethought and self-reactiveness. That would not have been possible in the first place without a certain degree of knowledgeability of what it takes to be competitive in the labor market. Such knowledgeability might have been acquired primarily through family in the form of embodied cultural capital. The whole process was made possible through the graduate's access to economic capital, which enabled him/her, for example, to enroll in premium (paid) online courses. This complex yet coherent conceptualization of what influences the level of agentic capacity can be of significant analytical utility for developing an in-depth understanding of the agency-structure interplay in OTD-graduates' career self-management and informing the design and analysis of relevant policies by better understanding their intended and unintended effects and consequences.

Meanwhile, structural constraints should not be conceptualized in terms of only what they are, as represented and embedded in career-related structures, but also their relative levels of stringency. Structural constraints, like agentic capacities, are not equal in magnitude. I perceive structural constraints and agentic capacities as continuous spectra of potential values that are difficult to measure yet beneficial to consider as heuristic devices. In the case of structural constraints, it is crucial to analytically consider how relatively stringent they are, or, in other words, to what extent they can constrain and hinder the exercise/expression of agency. Therefore, the level of stringency should be analyzed relative to the level of agentic capacity. As an illustrative example, a structural constraint on access to occupationally specific majors such as medicine or engineering (in the form of high tuition fees) can only affect students who lack access to sufficient economic capital (and, therefore, have low agentic capacity). For others with better access to financial resources, the high tuition fees do not represent a constraint but rather an opportunity for limited competition over university places.

Regarding the aggregate graduate labor market, that constraint can lead to an influx of students into the more occupationally transversal disciplines and an oversupply of OTD-graduates that exceeds the aggregate labor demand in relevant economic sectors. Consequently, a higher prevalence of overeducation among graduates can occur. Therefore, structural constraints shape the range of available options. However, some constraints leave almost no considerable range of options and, consequently, eliminate the differential aspect of graduates' agentic capacities (for example, the way compulsory military service upon graduation delays labor market entry for men in many countries).

## 2.4. Agency-structure interplay: A provisional conceptual framework

As illustrated in **Figure 3**, the provisional conceptual framework offers a representation of the aforementioned key concepts and how they relate to each other. First, the left side of the diagram represents, in its totality, the agentic capacity of graduates as conceptualized above. It consists of the three core features of agentic expression (forethought, self-reactiveness, and self-reflectiveness) and the two factors shaping the variation in agentic capacities among graduates: knowledgeability and access to capital. Meanwhile, the center of the diagram is a representation of the four areas of career-related structures. For the purpose of this conceptual framework, I have identified four areas of relevant structures to the graduates' career self-management process based on the mapped areas of policy intervention (European Commission, 2011; Rosas, 2013; Goldin, 2015; O'Higgins, 2017; ILO, 2019) as elaborated in the previous chapter:

- Socio-cultural structures.
- Labor market structures.
- Macroeconomic and sectoral structures.
- Education and training structures.

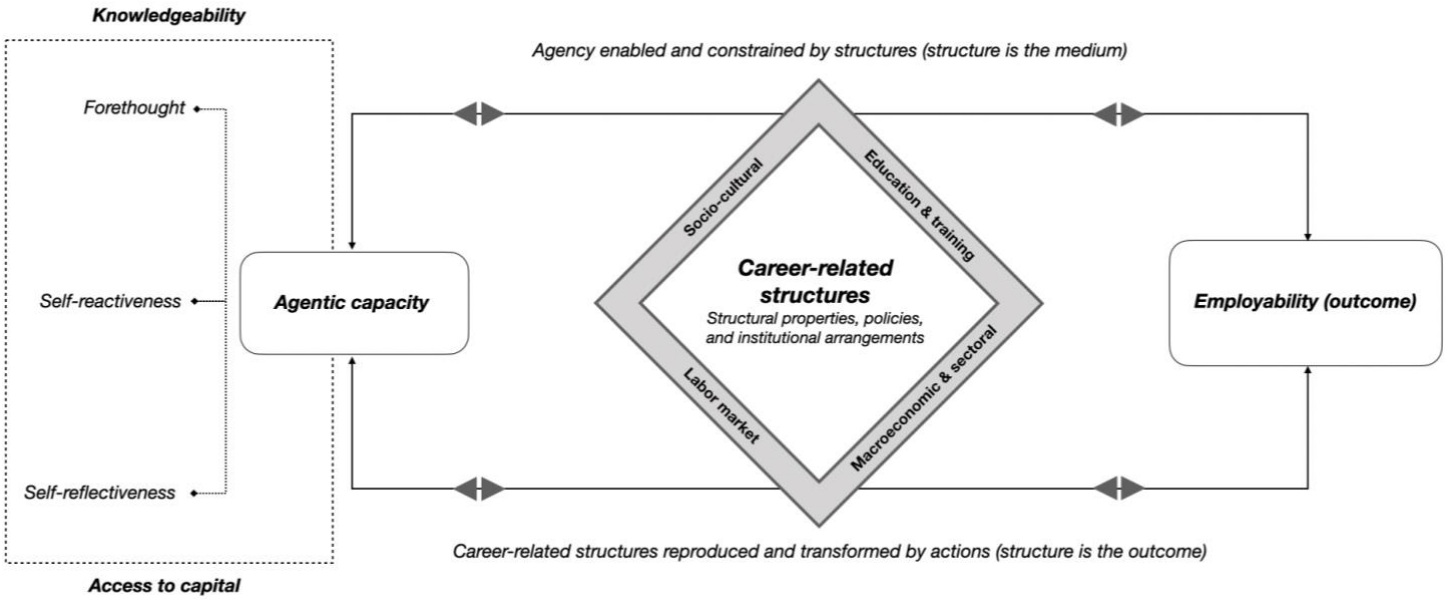
The arrows represent the dialectical relationship between agency and structure, where structure is both the medium and outcome of graduates' activities. Finally, on the right side stands employability, conceptualized as an outcome of the career self-management process.

It is essential to differentiate between three layers or potential connotations of the employability concept. At its most agency-centered conceptualization, the concept entails a set of skills, knowledge, and personal attributes that would make an individual/graduate more likely to gain and maintain employment. This view is central to the skills agenda, forming the basis for higher education employability policy framework and labor market activation policies. It is at this level that employability is a property of the individual.

A second articulation of the concept views employability in terms of possessing and having access to different kinds of capital. It is a view that goes beyond the individual's skills, knowledge, and attributes to include having access to economic, social, and cultural capital. Such access to capital or resources (or the lack of) would enable/facilitate (or hinder) successful career self-management. Having informal connections to employers through family acquaintances is an example of having access to employability-related social capital.

The broadest conceptualization of the employability concept views it as a labor market outcome. In this view, which I use in the provisional conceptual framework below, employability goes beyond individual characteristics to encompass the broader structural elements that shape graduates' employment outcomes. It is a function of a dynamic relationship between graduates' agentic capacity and structural constraints (and opportunities). I define it in this conceptual framework as the propensity/likelihood of the graduate to achieve adequate employment as a function of both the level of agentic capacity and the stringency of the contextually relevant structural constraints.

*Figure 3. A provisional conceptual framework of the agency-structure interplay in OTD-graduates' career self-management process*




Source: Created by the author.

## 2.5. Career knowledgeability

Knowledgeability, as a sociological concept, was originally conceptualized by Giddens in his structuration theory (1984). In the context of OTD-graduates' career self-management, I apply and expand the concept to refer to **a set of perceptions, assumptions, and factual knowledge that inform and guide the agentic behavior of graduates.** It is embedded within a broader framework in which graduates/agents exercise their agency by mobilizing the resources/capital they possess or have access to towards realizing their career goals and interests. The nature and extent of their knowledgeability shape their abilities to effectively mobilize existing resources or acquire additional ones.

Career Knowledgeability, as conceptualized in this study, goes beyond mere access to specific labor market information (LMI) to include informal and tacit knowledge and a particular understanding of the "rules of the game." The game here refers to, first and foremost, the world

of work. Such understanding would typically stem from having access to career and labor market information (CLMI) through both formal and informal sources. Additionally, career knowledgeability encompasses a set of perceptions and assumptions about the labor market, occupational realities, and opportunity structure. These information, perceptions, and assumptions would relate to the world of work and the labor market in general and the occupational field(s) of interest in particular.

In addition to these aspects of career knowledgeability, graduates being knowledgeable about themselves is particularly relevant here. This **self-knowledgeability** entails a level of knowledge (or self-awareness) about one's socio-economic conditions, the nature of structural constraints specific to that individual/graduate, the resources/capital that he/she has access to, and the extent of his/her self-efficacy beliefs.

Career knowledgeability is highly contextual in terms of its constituting elements, dynamic and, ideally, individualized. For example, to acquire adequate **labor market knowledgeability**, individuals need to alternate between developing an understanding of their national labor markets and their regional/local ones. Developing a similar understanding of the global labor market and the opportunity structure for international labor mobility would additionally contribute to a higher level of labor market knowledgeability. An African graduate with knowledge of the occupations in demand in Europe would have a different understanding of the career options available to him/her compared to his peers with lesser labor market knowledgeability.

Knowledgeability is also not a snapshot; it is a dynamic process of acquiring, evaluating, and revising information, perceptions, and assumptions. This is why it is crucial for students and graduates to articulate the process of knowledgeability development as a core competence in career self-management and career decision-making.

Moreover, in addition to labor market knowledgeability and self-knowledgeability, graduates also need to acquire and develop **occupational (field-specific) knowledgeability**. Such knowledgeability relates to how graduates perceive and understand the specific characteristics and job markets of their occupational fields of interest. This type of career knowledgeability operates in harmony with labor market knowledgeability as graduates navigate structural constraints and opportunities in their national/regional and occupational field-specific job markets. **Table 1** offers a proposed typology of the components and subcomponents of the career knowledgeability concept.

*Table 1. A provisional typology of the career knowledgeability components*

<table>
<tr><th>Labor market knowledgeability</th><th>Occupational (field-specific) knowledgeability</th></tr>
<tr><td rowspan="3">Labor market characteristics.<br>Occupations in demand.<br>Skills in demand.<br>Job search practices<br>Hiring practices.<br>Alignment of perceptions with labor market realities.<br>Available career options.<br>Labor market trends and future forecasting.<br>Education and training options.<br>Labor market laws and regulations.<br>Location-specific opportunity structure.</td><td>Field-specific career prospects.<br>Earnings prospects and salary trends.<br>Field-specific employers.<br>Field-specific occupational realities.<br>Field-specific opportunity structure.</td></tr>
<tr><td>Self-knowledgeability</td></tr>
<tr><td>The nature and stringency of personal constraints.<br>Individual’s skills and abilities.<br>Individual’s resources.<br>Self-efficacy beliefs.</td></tr>
</table>

Source: Created by the author.

Career knowledgeability can potentially explain how some graduates with poor access to capital can set career goals, self-regulate their behaviors toward achieving them, and eventually enhancing their employability. It is the knowledgeability of what it takes to make it in the labor market that can inform and guide graduates’ agentic behaviors towards accumulating relevant capital, enhancing their agentic capacity, and achieving adequate employment outcomes.

## 2.6. Career knowledgeability in career self-management

Different career theories and models have been developed over the past few decades, particularly emphasizing the role of individual agency, self-direction, and action regulation in shaping graduates' employment outcomes. Among the reasons behind that wave of agency-centered career development literature is the change in the employment policy discourse and the change in the nature of work itself. The core and common element in those theories and/or models is a perception of individuals as being responsible and/or interested in self-managing their careers by setting individualized goals and career interests and taking active measures towards realizing them. The underlying claim here is that with the changing nature of work, taking an active role in self-managing and self-directing one's career has many benefits in terms of achieving adequate employment outcomes, including a higher sense of job satisfaction. I argue that besides the general benefits of effective career self-management, it comes as a necessity rather than a choice for the occupationally transversal disciplines**.** Considering the nature of OTDs, graduates of those disciplines have no choice but to claim responsibility for choosing a particular career path and working towards realizing their individualized career objectives.

King (2004) conceptualized career self-management as a vocational adjustment process in which individuals demonstrate behaviors such as positioning (i.e., ensuring possession of the relevant contacts, skills, and experience needed to achieve satisfactory career outcomes), influence (i.e., influencing the decisions of gatekeepers), and boundary management (i.e., managing/balancing between work and non-work spheres) to overcome career barriers. These behaviors are derived from self-efficacy, desire for control, and career anchors. According to King, the main (positive) outcomes of effective career self-management are higher control over

one's career and higher career and life satisfaction. King's framework takes Crites' model of vocational adjustment (1969, 1976) as a starting point.

Another overarching career concept is action regulation theory (Frese & Zapf, 1994; Hacker, 1985). It emphasizes a career self-management behavior in which individuals steer their career activities towards achieving their career goals (Raabe et al., 2007). As described by Frese and Zapf (1994), action regulation involves an action sequence that starts by setting goals, then proceeds forward by collecting information, planning for a specific course of action, executing relevant activities, and reflecting on the process. Raabe et al. (2007) applied action regulation theory to career self-management by introducing and analyzing a career management intervention. The intervention included training 205 white-collar employees to be active agents in their career building. In action regulation theory, individuals steer their career activities in line with their career goals. Such regulation takes place via setting goals, plans, and feedback. Raabe et al. (2007) found that career self-management, practiced through goal commitment, planning, and knowledge of one's strengths and weaknesses, was strongly associated with career satisfaction, which is considered a measurable indicator of career success.

The career construction theory (CCT) of career adaptation (Savickas, 2005; Savickas and Porfeli, 2012) explained how individuals act as proactive and adaptive agents in self-managing their careers. Adapting, in a career self-management context, entails the exercise of adaptive behaviors in the face of changing circumstances/conditions. It starts with "adaptivity," or the willingness to adapt, which is considered a "durable trait or basic tendency that becomes situated at the core of the individual" (Savickas and Porfeli, 2012). This adaptivity is strengthened by the individual's "adaptability," which refers to the resources or capacities required for coping with change. Adaptability resources can thus be conceptualized as a form

of human capital. Such resources can be utilized through the individual's "adapting" behaviors. The outcome/result of this process is achieving an adequate state of adaptation in one's career.

Among the key concepts in articulating the career development and self-management processes in recent decades is the protean career concept (Hall, 1976; Hall, 2002). Hall (2002) perceived the protean career as an attitude of being proactive, value-driven, and self-directed in managing one's career. Thus, it reflects a higher sense of individual agency (Briscoe et al., 2006). It also reflects an emphasis on subjective career success in which individuals would evaluate their career success based on personal success criteria (e.g., work-life balance) compared to the more objective career success criteria (e.g., salary and professional status) (Quigley & Tymon Jr, 2006). According to Hall (2002), there are two meta-competencies that shape the extent of a protean career attitude: adaptability and identity.

Another closely related concept is the boundaryless career (Arthur & Rousseau, 1996). Compared to a steady career that is dependent on a single organization, a boundaryless career reflects engagement in career self-management practices to take advantage of a multitude of career opportunities to achieve personal career objectives and enhance one's employability (Hall & Moss, 1998; De Vos & Soenes, 2008). It encompasses physical and/or psychological mobility (Sullivan & Arthur, 2006).

Forrier et al. (2009) pointed out that both the boundaryless and the protean careers reflect an agency-centered perspective that stands on the opposite side of social determinism. Moore et al. (2007) stressed the tension between individual agency and social determinism, a recurrent pattern in the career development literature. Thomas and Inkson (2007) indicated that the majority of the literature on boundaryless and protean careers does not fully account for structural influences, such as institutional rules and regulations, which can impact career behavior.

Meanwhile, Seibert et al. (2013) argued that one of the shortcomings of the self-regulatory model, around which career self-management literature is centered, is that it assumes full control over one's career, whereas many external influences go beyond one's direct control. Thus, career theorists have called for career models that account for planned and unplanned events (Seibert et al., 2013).

A common pattern in these concepts is that "information/knowledge" plays a role in informing career decisions. However, that role is marginal to a certain extent. Information or knowledge is addressed, for the most part, as an input to career decision-making rather than as a key source of agentic capacity (including its dynamic relationship to resources/capital and its nature as a state of understanding rather than a stream of information or even a body of static knowledge). This points towards an important differentiation between 'information' and 'knowledgeability.' Information can be seen as an input to career knowledgeability. Knowledgeability development, in that sense, is a career competence that requires building a profound understanding of the functioning of our social reality, with a particular focus on the world of work. Accessing information, engaging in personal and professional experiences, and self-reflectiveness all contribute to knowledgeability development.

Hence, knowledgeability is more of a state of understanding of the world of work rather than a specific set of technical information on the labor market. Understanding the value of higher education for social mobility in a specific region or the importance of foreign language proficiency as a strategy for fitting within certain organizational cultures are examples of what knowledgeability would entail. In that sense, knowledgeability is not a mere marginal input to an action-regulation process. Instead, it guides and informs the whole process from initiation to goal realization. It shapes what career goals to pursue, how to define career success, how to choose among multiple career alternatives, and what kind of active measures to adopt.

Additionally, while the focus in many career development theories and concepts is on describing or prescribing career development models (sequencing a series of steps from goal setting to goal realization), they do not offer sufficient explanations for why some individuals would choose to engage in career self-management practices while others do not. A potential explanation, among other factors, is the kind of understanding of the world of work an individual has, manifested in the nature and extent of that individual's knowledgeability. A relevant concept is career intrinsic motivation (London, 1983). It is what arouses and directs individuals towards pursuing and self-managing their career paths. So, being intrinsically motivated is more of a prerequisite to a self-directed career attitude (Hall & Moss, 1998). Knowledgeability can potentially influence the state of intrinsic motivation. It is our understanding of the world around us and of ourselves that shapes the way we reflect upon the meaning of our professional activities.

Within this context, and in line with the provisional conceptual frameworks introduced earlier in this chapter (**Figure 2**; **Figure 3**), this study aims to validate the presented theoretical/conceptual assumptions about the nature and role of career knowledgeability in the career self-management process of higher education graduates from occupationally transversal disciplines (OTD-graduates).

While the agency-structure interplay serves as the overarching framework through which OTD-graduates navigate their careers, the study delves into the role of individual agency of OTD-graduates in navigating career opportunities in the labor market and overcoming existing structural constraints. The study takes as its point of departure and core focus the role career knowledgeability acquisition, development, and utilization play in informing/guiding the individual agency of OTD-graduates while self-managing their careers.

The key contribution of this study will be its **empirically grounded and policy-oriented introduction and articulation of the 'career knowledgeability' concept and its constituting components, nested in a broader and comprehensive model/framework for the career self-management of OTD graduates through the lens of agency-structure interplay.**

# CHAPTER 3. METHODOLOGICAL APPROACH

## 3.1. Introduction: Aim of the study

This **exploratory** inquiry aims to validate and refine a set of theoretical propositions on the role and nature of career knowledgeability in career self-management and in influencing the labor market outcomes of OTD-graduates. The main research question this study aims to answer is:

**What is the role of career knowledgeability in the career self-management process of higher education graduates from occupationally transversal disciplines?**

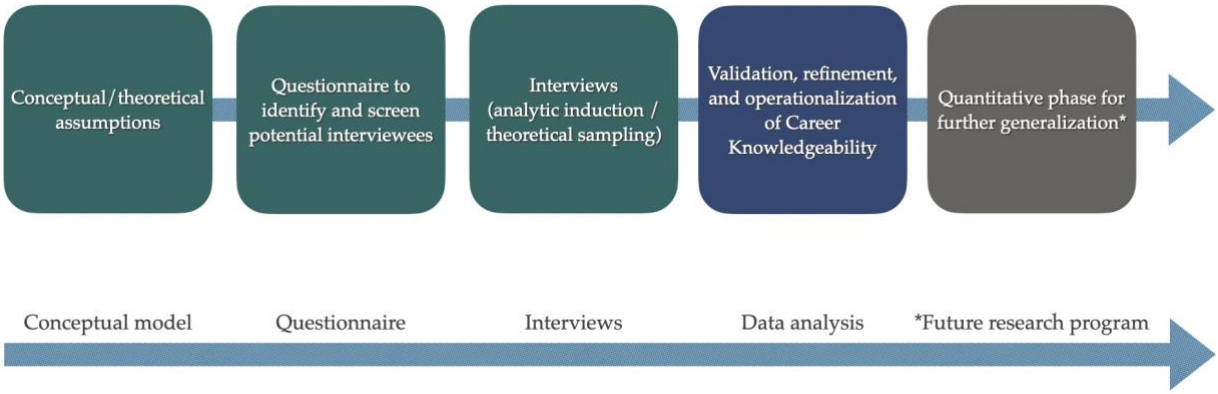
**The study also aims to answer the following sub-questions:**

- What are the dimensions and constituting components of career knowledgeability within the context of career self-management of higher education graduates from occupationally transversal disciplines?
- How do higher education graduates from occupationally transversal disciplines acquire and develop their career knowledgeability, and what are its main sources?
- How do higher education graduates from occupationally transversal disciplines utilize their career knowledgeability in career decision-making?

An ideal methodology or research technique for the purpose of this study should be one that allows for both hypothesis testing and refinement. It should also allow for **in-depth qualitative examination of a limited number of cases** to offer profound and original insights into the nature of career knowledgeability and the dynamics of knowledgeability development and utilization throughout the career self-management process. For these reasons, and after reviewing several relevant qualitative approaches, I decided to use the **Analytic Induction** approach.

**Figure 4** offers an overview of the study's methodological approach. It starts with the set of conceptual assumptions on the nature and role of career knowledgeability in OTD-graduates' career self-management practices. These conceptual/theoretical assumptions were presented in the conceptual model, introduced in the previous chapter, and translated into the study question(s) and hypotheses. Since applying analytic induction mandates using theoretical sampling, a questionnaire was designed and disseminated to identify, select, and approach the study participants (in addition to other outreach strategies). Afterward, an interview program was implemented to gather empirical observations, which were then analyzed through inductive and deductive coding using qualitative data analysis software to arrive at a more profound understanding of the nature and role of career knowledgeability in career self-management. Furthermore, a quantitative phase is envisioned as part of a future research program to offer a broader understanding of the relationship between the level of career knowledgeability and career satisfaction (i.e., career success).

*Figure 4. An overview of the study's methodological approach*




Source: Created by the author.

In the following sections, I will start by elaborating on the nature of analytic induction as it was originally introduced in the 1930s, which represents the strictest and most classical usage of the approach. I will then highlight the analytic induction approach I will use in this study, which

represents what some scholars have labeled as “modified” analytic induction. Finally, I will dive into the adopted theoretical sampling approach.

## 3.2. Analytic Induction

Analytic induction is not a new methodological approach by any means, though it has gained renewed attention over the past few years. It was introduced as a systematic methodological approach by Florian Znaniecki (1934). Znaniecki looked at the way physical and biological sciences had dealt with scientific phenomena and sought the development of a relatively similar methodological approach for the social sciences that would offer universal explanations or causal laws for the phenomena of interest. Additionally, the way Znaniecki originally presented it positioned it in contrast to enumerative approaches. In his original account of the approach, Znaniecki presented the qualities of analytic induction against the shortcomings of enumerative induction, which he seemed to have equated with the statistical method (Tacq, 2007).

The approach has been applied, refined, and modified several times over the years by the likes of Lindesmith (1937, 1968), Turner (1948, 1953), Robinson (1951), Cressey (1953), and Becker (1963). These different versions of analytic induction share the essential feature of Znaniecki’s approach: the attempt to develop universal explanations (as opposed to probabilistic ones) (Hammersley, 2011).



### 3.2.1. Distinctive features of analytic induction

Besides its focus on seeking universal explanations and generalizable causal laws, there are a few features or characteristics that distinguish analytic induction not only from quantitative approaches but also from qualitative ones:

**Dealing with exceptions**

Znaniecki offered his approach in contrast to enumerative induction, upon which most quantitative approaches are based. He believed correlations were troubled by negative cases or exceptions, where the conditions are absent, and the outcome is present. That would produce a probabilistic statement, an imperfect generalization. Meanwhile, in its strict or classical form, analytic induction seeks universal generalizations through a strict treatment of exceptions and an exhaustive examination of cases (Reetig et al., 1997). Therefore, research using analytic induction should collect their data in a way that maximizes the probability of encountering negative cases that do not fit the developed theoretical pattern (Pascale, 2011). This also entails that analytic induction does not allow us to predict the occurrence of the phenomenon or outcome since what is necessary is not necessarily sufficient to produce the outcome of interest (W. S. Robinson, 1951).

**Distilling the essential features**

One of the distinctive characteristics of analytic induction is its ability to distill and focus on the essential or necessary features, without which the outcome cannot be produced (Rettig et al., 1997). Znaniecki argued that by isolating those essential or necessary features, researchers can generate exhaustive knowledge of the phenomena of interest and arrive at genuine causal laws (Pascale, 2011). In that sense, analytic induction focuses exclusively on what is necessary rather than what is sufficient. Therefore, analytic induction requires the examination of only the cases in which the outcome of interest is present (W. S. Robinson, 1951).

**Redefining the phenomenon**

In analytic induction, one way to deal with negative cases that do not fit the emerging pattern is to redefine the phenomenon to either exclude or include them under a refined conceptualization of the phenomenon. An example of that is Cressey's research on

embezzlement (1953), where amidst his research, he found that the legal term 'embezzlement' included cases with different causal origins, while other existing cases that share causal similarities were not classified under embezzlement. So, he developed the concept of 'financial trust violation' for better theoretical consistency (Hammersley, 2011).

### 3.2.2. Applying analytic induction: Analytic induction vs. grounded theory

Analytic induction has been critiqued by many scholars, such as Robinson (1951) and Goldenberg (1993). One of the most important critiques was that universal explanations and deterministic causal laws can indeed be realized in social research, and that general statements can be generated from examining a small, unrepresentative sample.

This led scholars to talk about the benefits of analytic induction as an interpretive research technique without adhering to what Becker (1998) labeled as the classical or rigorous form of analytic induction that was introduced and described by Znaniecki (1934). These scholars acknowledged its ability to offer an in-depth understanding of complex social phenomena or contexts, rather than its ability to offer universal causal explanations of these phenomena (Pascale, 2011). W. S. Robinson (1951) believed that one of the strengths of analytic induction lies in its ability to systemize and formalize the refinement of working hypotheses. Although it is uncommon to label it as such, in practice, most contemporary researchers adopt a 'modified' or a non-classical form of analytic induction (Pascale, 2011).

In 1967, Glaser and Strauss introduced the grounded theory approach in rejection of the ontological premise of the analytic induction approach, which suggests that human behavior can be governed by universal causal laws (Pascale, 2011). Thus, in contrast to analytic induction, grounded theory aims to develop (or discover) theories that should emerge organically from empirical observations and data analysis. This calls for going to the field and

collecting data without (or with minimal) theoretical preconceptions/hypotheses. This represented a move from positivist hypothesis testing to the interpretive discovery of grounded theory (Pascale, 2011).

As an interpretive strategy, analytic induction has a lot in common with the constant comparative method of the grounded theory analysis (Glaser & Strauss, 1967), especially when it comes to approaching negative cases (exceptions) for the purpose of validating, refining, or completely reformulating the initial hypotheses (Denzin, 2007). That is why some researchers approach analytic induction as a variation of the constant comparative method (grounded theory), where in both approaches, an inductive and iterative process of theory development and testing takes place until encountering no more disconfirming cases (Pascale, 2011). Additionally, in both approaches, data collection and analysis continue until reaching conceptual/theoretical saturation (the examination of additional cases does not generate new theoretical insights) (Pascale, 2011). This led scholars such as Pidgeon and Henwood (2004) to doubt whether there is any real distinction between the two approaches in practice. However, as explained earlier, analytic induction research always starts from a pre-existing theoretical assumption/hypothesis/premise that guides the data collection and sampling strategies.

### 3.2.3. The process of analytic induction



The implementation of the analytic induction approach requires, at its core, the generation of hypotheses and then testing them against each instance of the outcome of interest in the selected sample until reaching conceptual saturation (i.e., where no negative or exceptional cases are encountered anymore) (Denzin, 2007). The following steps represent a rough scheme of how I intend to apply analytic induction in my research (Denzin, 2007):

1. Develop an initial conceptualization of the phenomenon of interest, which in this study can be defined as **the ability of a subset of OTD-graduates to self-manage their**

**careers toward achieving adequate employment outcomes despite existing structural and personal constraints.**

2. A working hypothesis or an initial theoretical proposition is formulated to define the essential or necessary condition(s) that explain the incidence of the outcome of interest. **The working hypotheses in this inquiry are**:
    - *Career knowledgeability is a multidimensional concept consisting of labor market knowledgeability, occupational (field-specific) knowledgeability, and self-knowledgeability.*
    - *Career knowledgeability is a necessary condition, but not sufficient, for OTD-graduates to self-manage their careers toward achieving adequate employment outcomes.*
    - *Career knowledgeability informs the different phases of the career self-management process as conceptualized in this study: forethought, self-reactiveness, and self-reflectiveness.*
3. These hypotheses are tested and subjected to confirmation/disconfirmation with each successive case.
4. If the hypotheses fit the emergent observed patterns in the data, then the hypotheses are confirmed. If the hypotheses do not fit the empirical patterns, then either the hypothesis is reformulated to account for the negative/exceptional cases, or the phenomenon itself is redefined to exclude these cases, limiting the applicability range of the explanatory hypotheses (W. S. Robinson, 1951).
5. This iterative process of inductive data analysis, validating and refining the hypotheses and/or the phenomenon, continues until theoretical saturation, where no more negative cases are encountered, and no more original insights are generated.

### 3.2.4. The adopted approach to analytic induction

In this study, I subscribe to the view that human behavior should not be understood nor studied as being governed by universal causal laws like those that govern the natural world. Thus, I adopt a less strict form of analytic induction, using it as a research technique with great utility for the in-depth examination of a complex phenomenon and the development and testing of new theoretical ideas.

**First**, I do not claim that the findings of this study represent a universal generalization on the role of career knowledgeability in influencing the labor market outcomes of OTD-graduates. I intend to arrive at a more restricted or bounded form of generalization that allows for the possibility of discovering negative cases outside the realm of the selected sample.

**Second**, I consider causality as a complex process of multiple interacting conditions over time rather than a mere single condition that mandates the occurrence of the outcome once present. Instead, I consider (or predict) career knowledgeability to be a necessary condition that increases the chance of the outcome (adequate employment outcomes) to occur.

**Third**, in analytic induction and other qualitative approaches, it is mostly the case that a representative sample cannot be realized and that there is always a threat to the external validity of the findings upon the discovery of new negative cases (Goldenberg, 1993). Therefore, I consider the sought findings of this research to offer a solid theoretical understanding and a set of derived theoretical propositions on the role and the nature of career knowledgeability in OTD-graduates' career self-management process that would represent the basis for further quantitative analysis and probabilistic generalization by studying large samples of OTD-graduates in diverse contexts. This is also consistent with Znaniecki's view that "enumerative induction begins where analytic induction ends" (Tacq, 2007).

**Fourth**, my main objective throughout the data collection and analysis processes is to identify the following pattern (which would, in turn, answer the study question and sub-questions and validate/refine the study hypotheses):

- The existence of an adequate level of career knowledgeability (as demonstrated during the interviews by expressing high levels of awareness and understanding of the labor market rules and dynamics, opportunity structure, and self-knowledgeability).
- Different strategies have been implemented to acquire and develop career knowledgeability.
- The acquired knowledgeability has been directly and successfully utilized throughout the career self-management process to achieve adequate employment outcomes.

**Fifth**, I will not seek to validate or make a factual assessment of the quality and content of a graduate's specific knowledgeability. Instead, my underlying assumption here is that if:

a) an adequate level of career knowledgeability is identified;

b) such knowledgeability has been actively acquired and developed; and

c) through the examination of specific career decisions and real-life situations (e.g., choice of occupational field and initial labor market entry), it has been demonstrated that such career knowledgeability had a direct influence on shaping these decisions, leading to adequate employment outcomes.

Then, the act of acquiring and utilizing knowledgeability is considered to have contributed to the positive employment outcome.



## 3.3. Theoretical sampling

Using analytic induction as a methodological approach to validate and refine the formulated theoretical ideas on the nature and role of career knowledgeability mandates the examination of several cases whose characteristics would allow the predicted pattern to emerge. This kind

of **theoretical purposive sampling** begins by drawing a profile of the cases/interviewees based on an initial understanding of the phenomenon (a set of theoretical considerations), allowing relevant and insightful empirical observations to be made. It is about strategically identifying information-rich cases that would enable pattern matching (matching the predicted/theoretical pattern with the observed/empirical pattern) to detect similarities, differences, and/or anomalies (Conlon et al., 2020).

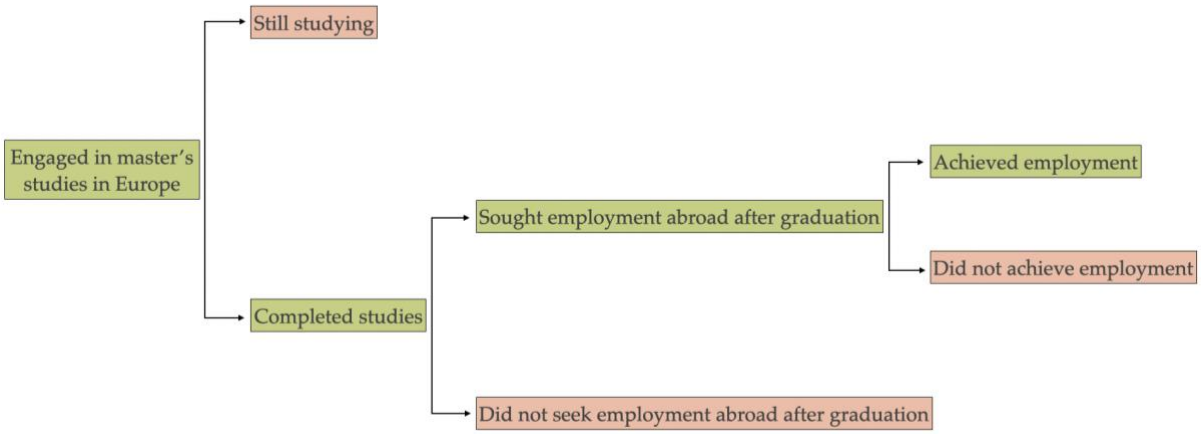
An ideal profile that fulfills my theoretical sampling objectives is that of OTD-graduates who, besides the challenging nature of their academic degrees in terms of ambiguous labor market relevance, lack access to sufficient resources (economic capital, family connections, etc.) that could have facilitated their entry into the labor market after graduating (and further career progression). Nevertheless, they engaged in career self-management practices after graduating and relied on their knowledgeability of the labor market, their occupational field(s) of interest, and themselves to achieve adequate employment outcomes. That would allow examining the role of career knowledgeability in influencing their labor market outcomes, including how they acquired and utilized such knowledgeability to enhance their labor market competitiveness and even to acquire the needed resources (e.g., in developing their professional networks).

The reason I chose to explore cases of OTD-graduates navigating the labor market under challenging conditions is the assumption that under such conditions, there would be a higher room and need for exercising individual agency, including knowledgeability development and utilization. Such a group of OTD-graduates would, relatively, represent an extreme case, in which if career knowledgeability was found indeed to be influential in shaping their labor market outcomes, then such finding would have high policy relevance when it comes to designing interventions to enhance the labor market outcomes of recent graduates and facilitating their transition to employment and further career success.

Where the phenomenon of interest is OTD-graduates being able to self-manage their careers and achieve adequate employment outcomes despite many stringent structural constraints, the relevant cases should demonstrate the right conditions for the phenomenon to be observed and studied. In alignment with that, I am focusing on **non-European (i.e., third-country nationals) OTD-graduates** who got their bachelor's degrees from different locations around the world and then had the opportunity to complete their master's studies in Europe. Following the completion of their master's education, they sought employment in Europe (as illustrated in **Figure 5**). Such a group of graduates is particularly interesting and highly relevant for the following reasons:

1. They are subject to an additional layer of complications or structural constraints. Not only are they challenged by the transversal nature of their bachelor's degrees, but they are also navigating foreign labor markets with all the challenges that come along with that. Under such challenges, career knowledgeability would be particularly relevant and highly detectable. Career knowledgeability would be needed, starting from the importance of understanding the dynamics of those new and foreign labor markets to overcome the inherent challenge of being a non-European that might lack the relevant language skills, the legal permission to work, the proper understanding of the social and professional contexts, and even the sufficient time availability to develop and utilize such knowledgeability.

*Figure 5. Logic map for screening questionnaire respondents*




Source: Created by the author.

2. The strategy is to study their "career stories" as individuals who obtained their bachelor's education (in an occupationally transversal discipline) in their home countries (a third country) and then engaged in career self-management. They might or might not have done professional activities in their home countries. However, eventually, they went to pursue their master's studies in Europe (which only a limited group of people can do). Finally, they have achieved adequate employment in foreign labor markets (in EU Member States or the UK). They navigated those foreign labor markets with additional constraints such as language, citizenship limitations, higher international competition, a narrow window of opportunity, and limited initial career knowledgeability.
3. There are two levels of variance here. They come from various locations around the world (their home countries) and travel to pursue their master's studies in Europe (which is examined as a professional milestone). Then, they search for jobs in foreign labor markets. Therefore, it can be of significant utility and relevance to the objective of this study to identify a common pattern (concerning the role of career knowledgeability) that

applies across these two levels of variance (i.e., different home countries and different foreign labor markets).

4. I chose to focus on those graduates who did their master's studies in one of the EU Member States or the UK. These countries tend to put some restrictions on the access of third-country nationals to the labor market compared to the unlimited access offered to EU citizens (it is worth noting that several of the study participants had navigated the UK labor market at the time when it was still an EU Member State).

Several studies have examined the experiences of international students as they navigate the labor markets of their receiving/host countries. Han et al. (2022) conducted a systematic review of 74 academic articles to analyze the workforce integration of international student graduates. The review identified a plethora of factors shaping such integration at different levels of influence/intervention. Those factors ranged from the characteristics of the graduates (micro-level), organizational attributes and practices (meso-level) to societal factors (macro-level). Several antecedents of workforce integration were identified at the micro-level, including motivation, country and level of education, language fluency, cultural knowledge, social network, work experience, gender, and family status. At the meso-level (organizational), the review highlighted recruitment and selection practices, workplace norms and expectations, discrimination and harassment in the workplace, and post-secondary institutional support. Meanwhile, at the macro-level (societal/system-level), the identified factors included immigration policy and work legislation, economic conditions, safety and stability of the host country, and the immigration industry. The review also noted the fragmentation in the literature on international graduates' workforce integration.

In another review of academic literature, Shumilova and Cai (2015) introduced a framework for understanding the determinants of international graduates' employability. Their research also highlighted the interplay of a multitude of factors at different levels of influence: graduate-

related factors and individual attributes, higher education institutional factors, employers' perspectives, and contextual (labor market) factors. This again points out the complexity of international graduates' careers and labor market transitions.

A study by the European Migration Network (EMN) highlighted some of the challenges third-country nationals encounter in the EU while trying to enter the labor market. Those challenges included the language barrier, the lengthy and complex processes for the recognition of qualifications, discriminatory recruitment practices, and the restrictive access to work permits (especially for family members) (EMN, 2019). The study also noted that 8% of all third-country nationals residing in the EU came to the EU for the purpose of study.

It is crucial, however, to stress that while the study sample consists of third-country nationals navigating European labor markets, the study itself **is not** centered around the challenges facing third-country nationals in Europe. The phenomenon of interest here is how some graduates achieve good/satisfactory employment outcomes while others do not, and the role individual agency (particularly career knowledgeability) plays within this context. This is based on the plausible assumption that the scope and impact of individual agency are most prominent when in a challenging context. The study of third-country nationals in European labor markets is, therefore, a "methodological approach/strategy" aiming to examine a group of graduates that were chosen for theoretical considerations. Therefore, the objective is to apply a theoretical/conceptual concept to an interesting and relevant group of individuals.



## 3.4. The interview program

### 3.4.1. Outreach and selection of the study participants

In alignment with the use of analytic induction, a theoretical sampling technique was adopted in which potential interviewees were selected based on their relevance to the theoretical

assumptions with which I started. Identifying and approaching the relevant interviewees/graduates tend to be rather challenging. Therefore, a pre-interview screening questionnaire was designed to collect data on potential interviewees, screen potential participants, and select a sample that matches the above theoretical sampling requirements. The questionnaire, offered under Appendix I, included questions on the three dimensions of career knowledgeability, with each of them measured through a number of questions that were answered on a scale of one to ten (where one is the lowest and ten is the highest levels of self-perceived career knowledgeability). Additionally, it asked for background information that included educational background, employment outcomes, and family socio-economic background. The answers to the knowledgeability questions were based on the self-assessment of the respondent's level of labor market knowledgeability, occupational knowledgeability, and self-knowledgeability. Therefore, the measure here is of the self-perceived level of career knowledgeability rather than the accurate assessment of the actual level of knowledgeability, which would be methodologically challenging to measure accurately.

Besides the primary function of the questionnaire, which is to screen and select a sample of potential interviewees based on their answers to the background information questions, the initial operationalization of the career knowledgeability concept serves as the basis for a future research endeavor that would measure and correlate the level of career knowledgeability with the self-reported degree of both overall career satisfaction (as a subjective measure of career success) and the level of satisfaction with current employment.

Arthur et al. (2005) defined career success as "the accomplishment of desirable work-related outcomes at any point in a person's work experiences over time." In line with this, career satisfaction as a measure of subjective career success (i.e., a sense of satisfaction regarding one's career status), which reflects the "personal meaning of career success," is increasingly

becoming the primary focus and most common operationalization of subjective career success (Heslin, 2005; De Vos & Soens, 2008).

The questionnaire questions should be further refined as a suggested operationalization of the "career knowledgeability" concept based on the study outcomes and the generated insights from the interview program. At this stage, respondents' answers to the questionnaire were only used to inform the screening and selection of potential participants based on their background information and their self-assessment of their perceived career knowledgeability in order to arrive at the desired theoretical sample.

The online questionnaire was designed and published using Google Forms. The invitation to answer the questionnaire included the following text:

> Hello! I am a doctoral candidate at Central European University (CEU) in Vienna. I am currently conducting a research project aiming to build a better understanding of the determinants of graduates' employment outcomes. Your answers to this questionnaire (which should take only 10 minutes of your time) will help shed light on how the interplay of individual agency and structure shapes the employment outcomes of university graduates.
>
> If you are a third-country national (non-EU countries) and you are currently doing, or have completed, your master's studies in the European Union or the United Kingdom, then you are exactly who I am looking for!
>
> You can submit a completely anonymous response, and all data will be collected and managed in compliance with CEU Data Protection Policy and CEU Ethical Research Policy (check the links below). Any collected data shall only be used for the aforementioned purpose and within the context of this study.
>
> In case of any questions or remarks, do not hesitate to write to me at abozeid_omar@phd.ceu.edu
>
> Thank you so much for your valuable time and input!
>
> CEU Ethical Research Policy: https://documents.ceu.edu/documents/p-1012-1v1505
>
> CEU Data Protection Policy: https://documents.ceu.edu/documents/p-1611-2v1705

At the end of the questionnaire, respondents were asked to indicate if they accepted to be

contacted for an online interview (only if needed) to learn more about their professional journeys. If they accepted, they were asked to provide an email address. This way, they had the option to either stay completely anonymous or opt-in for an interview.

**The questionnaire was disseminated through several communication channels, including:**

- Students and alumni Facebook groups and pages.
- LinkedIn alumni groups.
- Personal networks/connections.

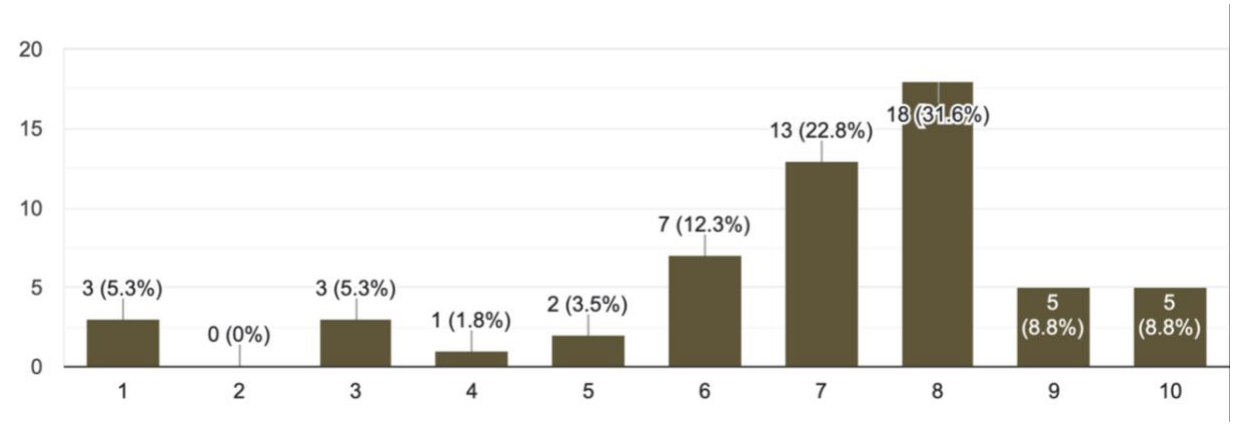
**In total, 75 responses were received. They had the following characteristics:**

- The respondents represented 28 different citizenships and 25 different countries of residence.
- 72% (54) were female, 25% (19) were male, and 3% (2) preferred not to say.
- They represented 24 academic fields of study at the bachelor's level and 13 fields of study at the master's level.
- Varied years of graduation ranging from 1996 to 2021 for bachelor's degrees and 1998 to 2024 for master's degrees.
- 83% (62) completed their master's degree, and 17% (13) were still enrolled master's students at the time.
- They completed their master's degrees in 9 different countries, including 8 European countries.
- 80% (60) intended to apply for jobs in the European Union and/or the United Kingdom after completing their master's studies, and 59% (44) have taken active measures toward that.
- 62% had an employment status at the time, either employed (52%), self-employed (5%), or freelancing (5%).
- They had 20 different fields of employment and 20 countries of employment (including 12 belonging to the European Union and the United Kingdom).
- 73% (27) had their countries of current employment different from their home countries.
- The respondents were working in fields that were highly related (40%; 23), somewhat related (42%; 24), or not related at all (18%; 10) to their bachelor's studies. Their fields

of employment were highly related (49%; 28), somewhat related (42%; 24), or not related at all (9%; 5) to their master's studies.

- The following chart (**Figure 6**) represents the respondents' assessment of their satisfaction with their overall career progress on a scale of one to ten (where one is the lowest and ten is the highest).

*Figure 6. The level of satisfaction of the questionnaire's respondents with their overall career progress: How satisfied are you with your overall career progress?*




Source: Pre-interview screening questionnaire (N=57).

To complement the questionnaire as a tool for identifying and screening the desired theoretical sample, an invitation was also directly extended to potential interviewees through the following channels:

- Students and alumni Facebook groups and pages.
- LinkedIn alumni groups.
- Personal networks/connections.

The invitation asked interested graduates who fit the described theoretical sampling criteria to express their interest in joining the interview program by emailing the researcher. Those who matched the set criteria were invited to an interview.

In addition, a snowballing sampling technique was used where, upon completing the interview, the participant would be asked to invite friends or colleagues within their personal and professional network who matched the set criteria and the scope of the study to send an email

to the researcher expressing their interest. Those who matched the theoretical sampling criteria were invited for an interview.

These diverse outreach and screening strategies resulted in the close and in-depth examination of **20 career stories.** The following section offers more details on the final sample of study participants.

## 3.4.2. Characteristics of the study participants

**The 20 interviewed higher education graduates were:**

- Seventeen women and three men.
- Nationals of Armenia, China, Egypt, Ghana, India, Jordan, Mexico, Moldova (later Romania), North Macedonia, the Philippines, Russia, Serbia, Trinidad and Tobago, and Turkmenistan.
- They all did their master's studies in Europe in one of the following countries: Austria, Belgium, the Netherlands, Sweden, and the UK (in addition to doing other master's studies outside the EU and the UK in Egypt, India, Russia, and Serbia).
- They completed their master's degree between 2005 and 2022.
- Seven of them pursued doctoral studies at some point in their careers in Austria, Denmark, the Netherlands, Sweden, Switzerland, and the UK.
- They are currently employed in the following fields: public healthcare, international development (including UN organizations), research consultancy, IT consultancy, finance, coaching and mentoring, language teaching, academia, and film/TV distribution.
- They are all currently working in Europe in one of the following countries: Austria, Belgium, Denmark, Germany, Hungary, Ireland, Lithuania, the Netherlands, Sweden, Switzerland, and the UK.



**Table 2** offers a comprehensive overview of the participants' characteristics. The names used in the table and the following sections of the report are **fictional** and have no relation or resemblance to the actual names of the participants. Corresponding descriptors also replaced the employers' names to ensure the participants' complete anonymity.

*Table 2. An overview of the study participants' characteristics*

| Name | Gender | Nationality | Bachelor's degree | Year | Bachelor's country | Master's degree | Year | Master's country | PhD | Year | PhD country | Recent employment | Current country |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maya | Woman | Moldova (later Romania) | Philosophy | 2010 | Romania | Public policy<br>European economic studies (incomplete) | 2011, 2014 | Hungary<br>Belgium (incomplete) | Biomedical sciences (bioethics) | 2023/ 2024 | Switzerland | Public authority | Switzerland |
| Zoe | Woman | India | Geography, Economics (minor) | 2011 | India | Environmental sciences, policy, and management | 2021 | Hungary | N/A | N/A | N/A | UN organization | Hungary |
| Luna | Woman | Armenia | Linguistics | 2000 | Armenia | Business administration | 2005 | Hungary | N/A | N/A | N/A | Finance | Austria |
| Loes | Woman | Egypt | Political science and economics | 2010 | USA | Development studies<br>Public administration | 2016, 2017 | UK<br>Egypt | Social studies (gender, migration, and violence) | 2023/ 2024 | The Netherlands | International NGO | The Netherlands |
| Ella | Woman | Jordan | Engineering and engineering trades | 2004 | Jordan | Business administration | 2013 | Hungary | N/A | N/A | N/A | Online learning platform | Ireland |
| Naomi | Woman | Turkmenistan | Political science and international | 2013 | Kyrgyzstan/ Bulgaria | Public administration | 2015 | Hungary | N/A | N/A | N/A | Coaching and mentoring | Hungary |
| Sara | Woman | Serbia | Serbian language and literature | 2009 | Serbia | Serbian language and literature, Gender studies | 2010, 2014 | Serbia<br>Hungary | N/A | N/A | N/A | UN organization | Belgium |
| Iris | Woman | China | Arts and humanities<br>Social sciences | 2019 | Costa Rica | Nationalism studies | 2020 | Hungary | N/A | N/A | N/A | HR and communication agency | Germany |
| Isla | Woman | Mexico | Graphic communication<br>Design and sculpture | 1990, 1993 | Mexico | Gender studies | 2005 | Hungary | N/A | N/A | N/A | Language teaching | Hungary |
| Emma | Woman | Trinidad and Tobago | Law | 2004 | Barbados | Criminal law<br>Social science research methods | 2010 | UK | Criminology | 2019 | UK | University in the UK | UK |
| Sofia | Woman | India | History | 2014 | India | Social work<br>Sociology, and social anthropology | 2016, 2018 | India<br>Hungary | Sociology | 2020-ongoing | Sweden | University in Sweden | Sweden |
| Lily | Woman | North Macedonia | Political science | 2011 | North Macedonia | Political science | 2014 | Hungary | Political science | 2019 | UK | University in Sweden | Sweden |
| Eva | Woman | Russia | International studies | 2007 | United States | International relations<br>International development and management | 2008, 2012 | Hungary<br>Sweden | N/A | N/A | N/A | Minority rights NGO | Hungary |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloe | Woman | North Macedonia | Political science and international relations | 2010 | North Macedonia | Political science | 2013 | Hungary | International business and international economy | 2024 | Denmark | University in Denmark | Denmark |
| Alex | Man | Ghana | Development policy planning | 2013 | Ghana | Public administration | 2021 | Austria | N/A | N/A | N/A | UN organization | Hungary |
| Leo | Man | Mexico | International relations | 2019 | Hungary | Business administration | 2022 | Austria | N/A | N/A | N/A | Research consulting firm | Lithuania |
| Aria | Woman | Philippines | Communication science | 2006 | The Netherlands | Digital media | 2007 | The Netherlands | N/A | N/A | N/A | IT consulting firm | Hungary |
| Olivia | Woman | Russia | Sociology and cultural studies | 2002 | Russia | Economics, political science | 2004 | Russia Hungary | N/A | N/A | N/A | Film/TV distribution company | UK |
| Adrian | Woman | Mexico | Communication and media studies | 2011 | Mexico | Political science | 2013 | Hungary | Politics | 2022 | UK | University in the UK | UK |
| Max | Man | Serbia | Psychology | 2016 | Serbia Hungary | Psychology Sociology | 2017, 2020 | Hungary | Sociology | 2020-ongoing | Austria | Research consulting firm | Lithuania |

Source: Created by the author.

### 3.4.3. Interview methodology and process

In alignment with the study's methodological approach, an **interview protocol**, available under Appendix II, was designed to cover the following thematic areas:

- Personal and family background.
- Career history: work history (paid or unpaid/voluntary) during studies, market entry and job search experience, job history, postgraduate education, and training activities.
- Subjective career success: current job satisfaction, career satisfaction.
- Knowledgeability: labor market, field-specific job market, and self-knowledgeability.
- Knowledgeability utilization: the role of knowledgeability in guiding the choice of the academic major, academic performance, engagement in student activities (extracurricular, work experience, etc.), choice of occupational field, market-entry, engagement in postgraduate education and training activities (formal and informal; structured and self-directed), articulating specific career objectives.
- Knowledgeability development: the sources and strategies of knowledgeability acquirement and development in reference to key career decisions.

**In-depth semi-structured interviews were conducted with a sample of 20 higher education graduates that met the theoretical sampling criteria:**

- Interviews were conducted between June 2022 and April 2023.
- Each interview took approximately one hour on average.
- Interview invitations were emailed using the researcher's institutional (university) email.
- Interviews were conducted online via Zoom using the researcher's institutional (university) Zoom account.
- Interviews were recorded for note-taking purposes only and with participants' consent.
- Automatic transcripts of the recordings were generated and extracted in Microsoft Word format.
- Transcripts were revised, proofread, and cleaned to ensure complete accuracy and anonymity.

- The transcripts were then imported into NVivo qualitative data analysis software using the researcher's institutional (university) account/license.

## 3.5. Coding approach

NVivo, a qualitative data analysis software, offers substantial utility when there is a need to code a large amount of textual material. That was the case with the generated transcripts, which amounted to approximately 150 pages and 85,000 words. NVivo allowed for such data, after being cleaned/anonymized, to be systematically stored and analyzed to identify specific themes/patterns in the coded material.

The coding process started with an initial/preliminary **coding framework** that included a set of pre-defined codes (**deductive coding**)**.** The coding framework included the main thematic areas related to the study's research questions and hypotheses. The coding framework's main categories (parent codes) corresponded to the key themes of the analyzed data, and the sub-categories (child codes) corresponded to the sub-themes. The qualitative analysis using NVivo resulted in a data file in Microsoft Word format, where the coded text segments are structured/classified according to their corresponding codes.

The construction of the coding framework was a continuous and evolving process. Throughout the coding process, codes were modified, removed, aggregated, or broken down into subcodes (child codes). Moreover, in addition to deductive coding based on the pre-defined codes, which mainly aimed at validating the study hypotheses, **inductive coding** was also used. The purpose of inductive coding was to identify themes/patterns emerging from the data, generate additional insights that inform the revision and refinement of the conceptual network, and arrive at a better understanding of the nature, development, and utilization dynamics of career knowledgeability and its components. The theoretical basis for using inductive coding in this study is grounded theory, which aims to discover theoretical insights that emerge organically from the interpretive

analysis of empirical observations. This approach, which complements and aligns with the modified analytic induction approach adopted in this study, allowed for both the validation and refinement of the provisional conceptual framework, as elaborated in the following chapters.

## 3.6. Study limitations

The following limitations were identified throughout the course of this study; some are inherent in the interpretive research paradigm. The limitations include the generalizability of the findings, access to participants, and subjectivity of analysis. Discussing these limitations offers a critical self-assessment of the research conducted and sheds light on the complex, nuanced, and unpredictable nature of qualitative inquiry/research. Moreover, transparently articulating these limitations affirms the integrity of the research process.

First, while the theoretical sampling criteria indicated that the study participants should have earned their bachelor's degrees in occupationally transversal disciplines, there were instances where the selected participants had bachelor's studies in occupationally specific disciplines. However, the decision to include them was based on the fact that they decided, following their completion of their bachelor's programs, to engage in a career self-management process and transition to occupational fields different from what their peers would typically work in. The rationale was that they rendered themselves occupationally transversal by abandoning their typical career paths, which put them on an equal footing with OTD-graduates.

Second, one of the inherent limitations of this study, and qualitative research in general, is the potential for subjectivity in data collection, analysis, and interpretation. Qualitative research, by its nature, is an interpretive process. Such potential subjectivity could impact how themes/patterns are identified and interpreted within the data. However, considering the exploratory nature of this inquiry, subjectivity remains a risk that must be tolerated and, when

possible, mitigated through the researcher's reflexivity and by nesting the research in the relevant literature and heavily studied theoretical frameworks and model, which is what I have attempted to do in this study. Moreover, in the chapter on the discussion and analysis of findings, I brought relevant quotes from the interviews to enhance the transparency of the findings and engage the reader in evaluating the interpretive process of data analysis.

Third, the generalizability of the findings is limited by the qualitative methodology employed, which involved in-depth exploration of a relatively small group of graduates. However, as discussed earlier in this chapter, the research was never intended to offer generalizable conclusions. Instead, and as discussed in further detail in the final chapter of the study, this exploratory inquiry should lay the groundwork for a future research program that expands the research scope on career knowledgeability to arrive at a more generalizable conclusion on the relationship between career knowledgeability and graduates' employment outcomes and career success.

Fourth, the strict theoretical sampling inclusion criteria, designed to ensure a highly relevant and specific group of study participants, meant that the study would need to focus on a relatively limited number of participants. This methodological choice has also resulted in difficulties in recruiting participants who meet the stringent inclusion criteria. However, as discussed earlier in this chapter, several outreach strategies were employed, which allowed for reaching the planned number of cases/participants and generating beneficial and relevant insights and empirical observations.

# CHAPTER 4. DISCUSSION AND ANALYSIS OF FINDINGS

In this chapter, I present the outcomes of the qualitative analysis of the study participants' career stories concerning the role of their career knowledgeability in career self-management. The chapter is organized around three main subchapters: career self-management, career knowledgeability, and career agility. The outcomes of this chapter will feed into validating the study hypotheses and revising/refining the previously introduced conceptual model, which will be further discussed in the following chapter.

The analysis below is the result of conducting both inductive and deductive coding of the textual material resulting from the interview program (i.e., empirical observations). Such a combination of both analytical coding approaches led to validating and confirming the study hypotheses; developing a more detailed and refined understanding of the nature, development, and utilization of career knowledgeability in career self-management; and the emergence of the career agility concept as conceptualized later in the study.

The presentation and analysis of findings are structured around sets of relevant real-life examples and situations/stories shared by the study participants in relation to the study's key concepts and thematic areas. The key analytical approach here is to rely more on actual real-life situations throughout the participants' career journeys as evidence that validates or refines the initially developed understanding of those concepts. In addition, I have attempted, to the extent possible, to rely less on my subjective interpretation of those situations and to enhance the transparency of analysis by incorporating direct, anonymized quotes shared by the participants. These quotes will help the reader better follow and validate the researcher's thought process and analytical decisions.

## 4.1. Career self-management

To conceptualize the career self-management process in this study, I draw on Albert Bandura's socio-psychological research on human agency, particularly his work in 2001 and 2018. Bandura outlined four core features central to understanding how individuals exercise control (agency) over their actions and life paths. These features are intentionality, forethought, self-reactiveness, and self-reflectiveness. As elaborated earlier, for the purpose of this study, I combine intentionality and forethought under the same step/stage of the career self-management process. Since both mechanisms work in harmony, it is conceivable to conceptualize them as going hand in hand in graduates' endeavors to plan their career trajectories (i.e., a graduate's intention/plan is motivated and shaped by his/her forethought or his/her outcome expectation). Thus, in the context of career self-management, it is conceptually not feasible to imagine intentionality without accompanying forethought. This also aligns with Bandura's recent work (2018), where he expressed the features/components of agency in terms of only forethought, self-reactiveness, and self-reflectiveness.

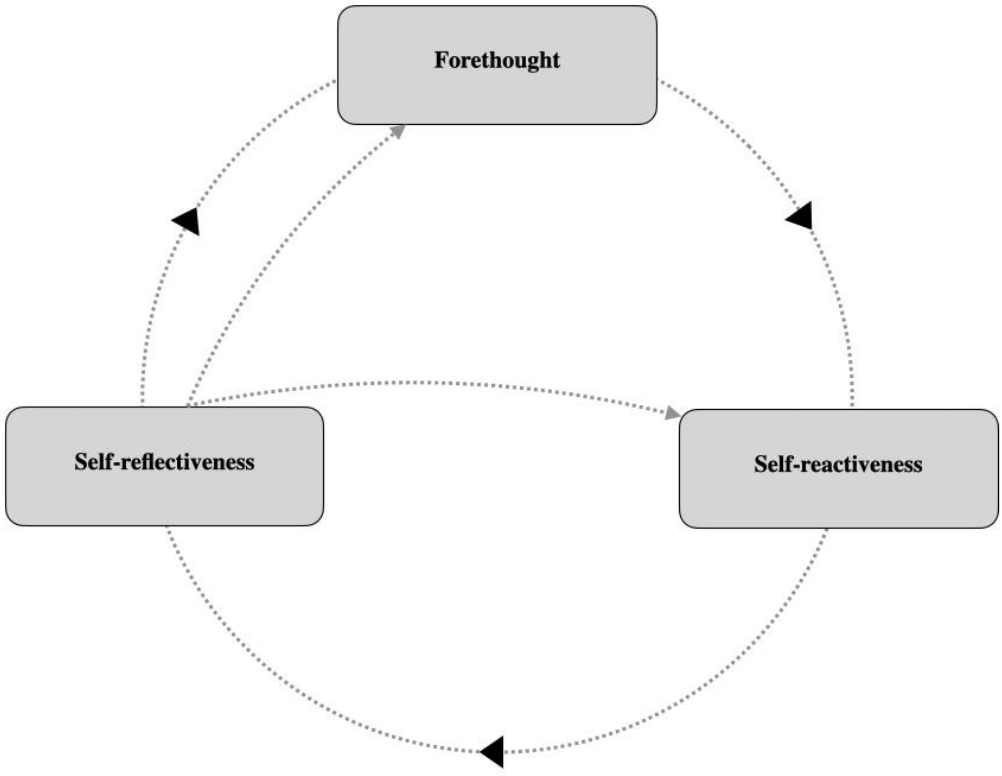
1. **Forethought**: This stage refers to the ability of individuals to formulate intentions, set goals, and anticipate the outcomes of their actions. It combines planning and deliberating actions that are motivated/guided by the projection of oneself into the future and foreseeing the likely consequences (and rewards) of their behaviors. So, in the context of career self-management, the duality of intentionality and forethought refers to planning toward achieving desired career outcomes.

2. **Self-reactiveness**: This stage focuses on the ability to motivate oneself and regulate one's actions. It is about acting on the formulated plans and career goals. Central to self-reactiveness are self-directness and self-regulation (i.e., the ability to direct and regulate one's actions and behaviors towards achieving the set career goals and formulated plans). Self-reactiveness goes hand in hand with self-reflectiveness, which allows for making the necessary adjustments and correcting the course of action.

3. **Self-reflectiveness:** This relates to the ability to reflect on oneself, one's actions, and the adequacy of one's thoughts and behavior. It involves self-examination, re-evaluating self-efficacy beliefs, reflecting on one's thought patterns, and monitoring the moral and ethical aspects of one's behavior. Through self-reflectiveness, individuals (graduates) can analyze their experiences, learn from them, and make changes for future improvement.

The three stages/components of the presented career self-management process (**Figure 7**) are interrelated and collectively contribute to how graduates exercise agentic control over their career trajectories and navigate their career and personal development.

*Figure 7. Conceptualization of the career self-management process*




Source: Created by the author.

The career self-management process is conceptualized in this study as a highly fluid, iterative process that operates within a state of continuous readjustment. Of particular relevance here is the famous quote, **"Plans are worthless, but planning is everything,"** often attributed to

Dwight D. Eisenhower. Indeed, as the illustration above shows, and as affirmed by the analysis of the career stories of the study participants, the planning process itself (i.e., the action of planning one's course of action) is highly indispensable. However, the formulated plans do not carry the same significance. Instead, they are constantly readjusted, under continuous self-reflectiveness, and new or modified plans emerge with each new career-related development (whether due to external influences such as emerging occupational fields or internal ones such as changing career interests throughout one's life course).

Career self-management, as conceptualized above, operates within external structural influences (e.g., labor market regulations that restrict the access of third-country nationals to the job market). These structures can hinder or obstruct the process (i.e., failure or difficulty in achieving the desired career outcomes) or facilitate it (i.e., by offering career-related opportunities). As elaborated earlier in this study, as graduates exercise agency (in this case, engage in career self-management), they draw upon their knowledgeability to inform and guide their actions and their resources (capital) to facilitate and enable their actions. Within the context of this study, I pay particular attention to "career knowledgeability" and its role in informing and guiding OTD-graduates' career self-management process and practices towards achieving adequate employment outcomes and overall career success (i.e., career satisfaction).

**The following examples from the participants' career stories offer a glimpse into the career self-management dynamics:**

**Emma's** early decision to become a lawyer is a clear indication of forethought. From the age of five, she was set on this career path. Her long-standing ambition is a testament to her ability to set a direction for her life from a young age. After being exposed to a young offender's case, a new interest ignited: understanding the sociological aspects of criminal behavior, leading her to pivot towards criminology. Her decision to focus on the "why" behind criminal activities,

particularly among young people from disadvantaged backgrounds, showcases a strategic shift in her career plans, an indicator of self-reflectiveness. Emma's self-reactiveness is illustrated in the measures she took to pursue her new interest. Accepting a three-year contract at the Judiciary was a calculated step to gain practical courtroom experience. This period enabled her to not only build her legal skills but also overcome hesitancy and fear and prepare herself for a future barrister role. Furthermore, her decision to apply for PhD funding on short notice, upon a friend's suggestion, reflects her readiness to seize emerging opportunities and adapt her plans in response to new possibilities (self-reactiveness and self-reflectiveness). Emma's career path is also marked by a high degree of self-reflectiveness. She acknowledges the role of luck in her journey, especially regarding her PhD opportunity. This awareness that her path was shaped not only by her decisions and abilities but also by fortunate circumstances demonstrates an adequate understanding of her professional journey. She also recognized the role her intellect played in receiving funding for all her degrees, reflecting her ability to critically and realistically evaluate her career trajectory and the various elements that have contributed to her success.

**Lily's** career decisions reflect a blend of intentionality and forethought, especially in response to her understanding of the job market in Macedonia. Initially, she lacked a clear vision of her professional path. Nevertheless, she was aware of the macroeconomic context: a neoliberal system with high unemployment and a perception of the private sector as exploitative. This understanding led her to consider an alternative career in civil society organizations to avoid private sector exploitation. Moreover, she decided to pursue a master's program in human resources with a focus on the non-profit sector, which is indicative of self-reactiveness in the form of a strategic effort to enhance her employability in line with her career aspirations. Moreover, she delayed applying for permanent positions until she felt adequately prepared and qualified. In the latter part of her journey, Lily began to reconsider her earlier assumptions and career choices. Despite its for-profit nature, she considered working for a consultancy company,

which indicates a reflective reassessment of her career options. She recognized that consultancy work, while different from her initial aspirations for a career in the non-profit sector, could still align with her interests and skills by working with governments or civil society organizations. This shift in perspective shows her ability to reflect on her career path, reassess her career options, and remain open to new opportunities that might differ from her initial expectations and assumptions.

**Olivia's** approach to her career demonstrates clear intentionality and forethought, particularly in her acknowledgment of the importance of having a career model or plan, even if such a plan is not strictly followed: "Even a false model is a model." Olivia exhibited self-reactiveness in her career self-management by adopting an approach of proactively searching and asking for help. This was based on her understanding that others might offer valuable insights into where she fits professionally, leveraging their experience and networks. Olivia also demonstrated a high level of self-reflectiveness as well in acknowledging the implications of her career choices, particularly the “zigzagging” between industries. She recognized the benefits, such as gaining transferable skills and fresh perspectives, but was also aware of the potential downsides, such as decreased income and lower positions in corporate hierarchies.

**Aria's** initial decision to pursue a degree in communications was a deliberate decision driven by her diverse interests and activities in high school, such as writing for the school paper and participating in theater. Her self-reactiveness is also evident in several career decisions she has made. She decided to seek employment in Eastern Europe, motivated by her desire to be closer to her family in the Netherlands, the favorable work-life balance in Hungary, and her research into the growth of the IT sector in the region. Moreover, her decision to study New Media and Digital Studies for her master's degree was influenced by industry trends toward digitalization. Aria also exhibited self-reactiveness as she recognized that her bachelor’s program had deviated

from her initial expectations/assumptions. So, she took the initiative to complete several internships to gain practical, real-world experience. Moreover, she decided to switch to a technical position in IT due to perceived gender biases and career ceilings in her previous job experiences, which is a strong indicative of her self-reactiveness. Self-reflectiveness in Aria's career was also evident in several instances. For example, her realization that her bachelor's and master's programs were not meeting her expectations of applied learning, which led her to pursue work-based learning. Also, her observation of a female colleague who successfully transitioned into a technical IT role served as both inspiration and a role model for her own career readjustment.

**Sofia's** deliberate decision to pursue food studies was influenced by her realization, as a social worker, that food is a central cultural element that empowers women to speak confidently. Her strategic plan to return to India after accumulating enough academic merit indicates her careful planning and career self-management tendencies. Sofia exhibited self-reactiveness in several professional choices, from deliberately avoiding working in the financial sector that did not align with her ethical considerations to pursuing additional courses in operation, marketing, and management to upskill herself for the food and beverage industry. Sofia also demonstrated strong self-reflectiveness in her career evaluation. She acknowledged her initial disillusionment with the development sector in India, recognizing that her ideals about serving people were not fully aligned with the sector's reality. Similarly, her deeper engagement with academia revealed its own set of challenges, which prompted her to reassess her career trajectory.

**Leo's** initial pursuit of linguistics was motivated by his love for languages despite his understanding of its limited job prospects, especially outside academia. Despite his career interests, he recognized the geographical and professional constraints in his hometown. Such understanding has shaped his career path. Leo's self-reflectiveness was evident in his analysis

of his position within the European job market. He is entirely aware of the dichotomy he faces: the necessity to overachieve, as a third-country national, to be considered for serious opportunities versus being overqualified for low-paying jobs that are more readily available. Furthermore, he reflected on the labor market disparities in Mexico and the mismatch between his educational investment and the job opportunities available, leading him to pursue education and employment abroad.

## 4.2. Career knowledgeability

### 4.2.1. Nature of career knowledgeability

The analysis of the participants' career stories confirmed the study hypothesis that *career* knowledgeability is a multidimensional concept consisting of labor market knowledgeability, occupational (field-specific) knowledgeability, and self-knowledgeability. The analyzed career stories, however, offered additional valuable insights into how these aspects/components (and their subcomponents) of career knowledgeability are manifested through various real-life examples and situations.

The approach adopted in this section, and throughout the rest of the chapter, is to bring real-life examples and situations experienced by different study participants to illustrate the different aspects (components and subcomponents) of career knowledgeability, their acquirement and development processes, and their utilization in career self-management.

#### 4.2.1.1. Labor market knowledgeability

Labor market knowledgeability refers to how graduates perceive and understand the functioning of a particular labor market (e.g., that of a specific EU Member State), its specific characteristics, and its underlying rules (with a specific focus on informal ones). Different

aspects of labor market knowledgeability have been identified in the analyzed career stories, including knowledgeability of labor market characteristics, market demands, recruitment practices, labor market realities, and rules of the game.

**Knowledgeability of labor market characteristics**

Labor market characteristics encapsulate the distinctive attributes of a particular labor market, which influence employment opportunities and working conditions. These characteristics include, for example, the prevalence of certain industries, the specific nature of public and private sector employment, and the legal/regulatory landscape. Understanding these characteristics helped the study participants navigate the complexities of employment in foreign labor markets and make informed decisions about their career paths.

Lily's understanding of the labor market in North Macedonia influenced her decision to move to the UK. Her perceptions back then were that under such high rates of long-term unemployment and in a market where the state is one of the biggest employers and the private sector has the reputation of being quite exploitative, she had to look for opportunities elsewhere:

> "That was my impression then; if you can avoid the private sector, it is a good idea."

Eva, who had experience navigating the labor markets of Lebanon, the US, and Hungary, reflected on the characteristics of those different markets in relation to her specific profile. In Lebanon, she was in constant competition with a high number of qualified young people who spoke Arabic, English, and French fluently. Being able to speak only one of those languages, she knew she did not have a good chance of landing a job in Lebanon (despite wanting to live there). In the US, she understood that it would be extremely difficult for someone on a J1 visa to be sponsored by an employer for a work visa. That shaped her decision to focus her efforts elsewhere. Eventually, she got a job in Hungary after working first as an intern (which

facilitated her first entry into the Hungarian job market without many legal complications). Meanwhile, Aria shared how she perceived Hungary as an attractive destination for many companies with its tax benefits and relatively lower labor cost (while being an EU country that complies with GDPR data protection). That was manifested in many service centers moving away from Asia and other EU countries to Hungary, which means job opportunities are available for international graduates. In relation to Hungary, Naomi's knowledge of Hungarian labor market regulations enabled her to continue her legal stay while working for a foreign employer. She was able to register herself as a business owner (offering services to the foreign employer/client), which granted her a residence permit for gainful activity.

Olivia reflected on how the job market tends to accept that graduates would zigzag between different occupations and industries in the first years of their careers (and might even reward them for that with higher salaries and better positions).

> "This zigzag in my career has been sometimes very successful because you have all sorts of transferable skills, soft skills, you have all sorts of interesting experiences, and you have this fresh vision, and so on."

However, at a later stage, such zigzagging might have negative consequences as it becomes increasingly difficult to start again in a new industry or occupation (i.e., impacting seniority level, earnings, and established professional networks).

Ella's decision to eventually settle in Dublin was motivated by her knowledge of the characteristics of the Irish labor market and how such characteristics differ from other countries:

> "The job market worked in different ways in each country and in every sector that I worked in. It is amazing to see the differences."

She found she had better chances of finding jobs there than in London. In Ireland, and after meeting the relevant criteria, she received the "Critical Skills" visa, which means that the company would sponsor her for two years. After two years, she applied for "stamp four," which

offered her unlimited access to the job market (i.e., she does not need a sponsor anymore) and a residency right that is regularly renewed as long as she maintains employment. With her current visa, she can even apply for governmental jobs. Additionally, she understood how the geography of Dublin, being an isolated island, made the talent pool not that big. This means less fierce competition for a third-country national like her:

> "In London, if I speak Arabic with ten years of experience, there are 3,000 other people who speak Arabic with ten years of experience. But in Dublin, the talent pool is so small; after seven years, I am working with the same people, even with changing companies."

Sofia's analysis of the Indian labor market shaped her decision to search for jobs in Europe following her PhD:

> "Indians are super competitive, so all the universities are good universities in India, and there is a long list of students who are already there applying for staff positions."

Thus, her strategy was to return to India only after having sufficient academic merit to enhance her competitiveness in such a fierce academic job market. Similarly, Adrian understood what a master's degree abroad would mean in the Mexican job market for working in both research and politics:

> "In politics, even though they are the way they are in Mexico, still have kind of respect that you have a master's degree and that you have a master's degree abroad … having a degree in Mexico is really important in the sense of social status."

Leo, on the other hand, understood that a degree acquired abroad alone was not enough to grant him a job in Mexico:

> "Unfortunately, the Mexican job market is very gatekept. So, while studying abroad and having a European degree definitely gives you more access to things, at the same time, it gives you some sort of disconnection, and this is a problem that I have found quite repetitively when I am looking for a job."

Max's move to study and work in the EU was mainly motivated by his understanding of the Serbian job market, being a relatively small one and not offering enough opportunities for highly skilled and highly educated individuals. He considered that Austria, while perceived as having a difficult labor market for third-country nationals (i.e., not easy to access and navigate), still rewards individuals who can compete for highly skilled positions. Such understanding motivated him to enhance his skills and competitiveness in data analysis and quantitative research. Leo also reflected on the differences in quality and accessibility between the Austrian and Hungarian job markets:

> "I feel that while in Hungary you could only get access to jobs that were not very good, you could still have access to them … Companies are a bit more used to being more international than companies in Austria. In Austria, it does not really matter if you have the qualifications; it does not even matter if you speak their language because I do speak German; companies are still extremely reluctant."

He was also able to see how the labor market experience for a European graduate tends to be very different from that of a third-country national:

> "With my European friends, after finishing their master's, after finishing their bachelor's, their job prospects have been miles away more secure, and they can actually plan a career path that is linear and satisfactory not only to their ambitions but also to their personal preferences like having families."

**Knowledgeability of market demands**

Knowledgeability of market demands refers to the graduate's understanding, and even anticipation, of the specific skills and expertise (whether general or field-specific) that are highly valued in the job market and demanded by employers. It also encompasses identifying emerging trends and adapting one's career path accordingly. Such knowledgeability enabled the participants to align their skills and expertise with the identified market demands and seize emerging opportunities.

Chloe noted that working in government makes one a valuable asset in consulting, particularly for projects dealing with the public sector. She understood the market value of having insider

knowledge and experience in the public sector, including an understanding of governmental procedures and regulations, which are highly prized in consulting.

Isla identified a specific market demand in Hungary that matched her experience: the need for language teachers. She noted that in Hungary, it is a requirement for students to learn two languages besides their native tongue, which, in her case, led to opportunities to teach English and Spanish.

Aria realized that her bachelor's degree was more theoretical than she had expected and decided to pursue further studies in digital or new media communications, anticipating the growing relevance of these fields. Such a decision reflects an understanding of the evolving job market demands. She also noted the differences in the available job opportunities between the Netherlands and Hungary (where in Hungary, the demand is higher in the IT service sector compared to industry), reflecting awareness of regional differences in job market demands.

Max demonstrated an in-depth understanding of the differences between academic and business consulting job markets. He recognized that the skills valued in academia, particularly in sociology, may not directly translate to the private sector. His decision to focus on data analysis skills was informed by his understanding that these skills are highly valued in consulting, indicating his willingness and ability to align his skillset with market demands.

Leo shared his insights on the European labor market, noting the dichotomy faced by many non-Europeans who either accept "low-wage, back-breaking" jobs in the service industry or manage to excel to a level high enough to be considered seriously. For the European middle class:

> "Jobs are comfortable, wages are comfortable, the benefits are comfortable for pretty much everyone who wants to look for a job as long as they are European."

Iris's background in social sciences, combined with technical skills in programming languages like R and Python, placed her in an advantageous position for her job. This was the result of her early awareness of the value of technical skills, which she focused on during her bachelor studies by doing different internships:

> "I was very anxious about the fact that I was not studying Arts and Humanities, and I loved studying that, but I was just not doing anything to build up marketable skills during my bachelor's."

**Knowledgeability of recruitment practices**

Knowledgeability of recruitment practices refers to the knowledge and understanding of the multifaceted recruitment process concerning a specific job market, encompassing job searching, application, and hiring practices.

Iris reflected on the differences in hiring practices between the US and Europe. For example, the hiring schedule in the US tends to be longer. So, to get a summer job while studying, she had to start the job search and application process as early as January. That helped her while searching for jobs in Hungary to start that process earlier than her colleagues, even though it takes much less time to complete the hiring cycle in Hungary.

Iris argued that:

> "The more your expectation of the job aligns with the actual reality of the job, the more jobs you will get accepted to and stay on it."

Thus, as she pointed out, knowing what the job is really about is a huge leg up and something that not everyone pays attention to. In relation to this, not fully understanding what the job is about and misreading the job description can lead graduates to underestimate their abilities when applying for jobs. This can be, for example, the result of not being fully knowledgeable about the technical jargon used to describe the required skills and expected tasks to be performed:

> "For early career and mid-career opportunities, people who apply for them are very often overqualified, not only in terms of the number of years, but in terms of self-perception; they perceive themselves to lack the skills necessary for actually being able to do that job well, and they are usually kind of misconceptualizing it a little bit."

Luna argued that "finding a job" is not something graduates would naturally have much experience with since it is a process they go through only every two or three years, and maybe less. Thus, it is a skill that needs constant polishing:

> "It lets you understand how people are reviewing the CVs, and this was the most important thing."

Indeed, being knowledgeable about recruitment practices and the factors impacting hiring decisions can be highly beneficial for graduates wanting to showcase their skills and qualifications:

> "It is not something that you would normally know; you must search, you have to read a lot of job descriptions to see which skills are necessary at that moment, you have to train a lot, like doing interviews out loud by yourself in front of the mirror. I mean, these kinds of things that when you do, you polish these skills; I am sharper now in interviews."

Ella shared similar insights on how her understanding of the recruitment practices impacts her job search behavior:

> "Recruiters and managers will be receiving lots of CVs. So, first, the way you write your CV, the way you word your achievements in the CV and the way you present your CV are the first things they look at for 10 seconds maximum. You need to have in your CV the information they are looking for in those 10 seconds."

She also emphasized the importance of using the right keywords that will grab the attention and interest of employers. Additionally, how job seekers structure and present their professional profiles might differ between job markets and/or occupations. As Lily pointed out:

> "I know the tricks about the teaching portfolio because I took a teaching portfolio course here (i.e., Sweden), which instructs you how to do this reflective way of writing the teaching portfolio. It speaks to the people in Sweden. That is

> how they evaluate it. But if you are an external candidate applying, you would not know these things unless there is someone to tell you these things."

Ella also highlighted the importance of understanding how recruiters (who identify and approach relevant job seekers on behalf of employers) conduct their business:

> "Putting yourself available on LinkedIn so that other recruiters will reach out to you; they have a quota, and it is important to make yourself more available to be reached. They need to contact a certain amount of people in order to fill a position."

Maya echoed similar views:

> "I am a little bit duller in that (there is a recruitment process, there are requirements, I will submit my documents, and then I will wait. In Geneva, this does not always get you very far, and I am pretty sure it is not the only place where it does not get you very far … It was a friend of a friend who submitted my CV at the right time to the right person. So, I got hired. There was no chance of getting a job just by applications."

**Knowledgeability of labor market realities**

Labor market realities here refer to a set of realities about the functioning of the labor market and what it takes to secure employment, including some of the inherent biases and prejudices that influence those making the hiring decisions. Such realities challenge the initial assumptions and perceptions of graduates, and the sooner graduates can identify them, the better and faster they can adjust to those realities and set their expectations and plans accordingly. It is worth highlighting that those realities might differ from one labor/job market to another.

Lily reflected on the academic job market in Sweden and the difficulty of securing adequate employment due to the already existing pipeline of PhDs and postdocs, with much more academic experience, waiting to be employed. Additionally, she came to realize that in Sweden, institutions tend to be loyal to their graduates:

> "Being from within or being perceived as an Insider gives you an advantage in the job market; this is not something that anyone tells you or is written in a job ad., but it is like the informal rules of the game."

Emma shared her worry that being a black woman in Academia might affect her chances for promotion. This is based on statistical data that she examined, which indicated that only a very small minority of academics in the UK were black women.

Eva shared that she initially saw herself as naive for believing that the job market would be strictly meritocratic. So, after having the right qualifications and experience, organizations would not care where she had come from. However, she realized that her citizenship would be a significant obstacle. She also came to realize that:

> "There are hundreds and thousands, if not millions, of equally qualified people like you out there, and you need to compete with them."

This taught her to develop a more realistic self-image:

> "You should know what you are capable of, and you should know your worth, but also not to overestimate your own image in your own eyes."

Chloe, as she grew in experience, began to see that top roles (i.e., advisory roles and management roles) tend to go to people with solid professional networks. It became clear to her that people want to work with people they potentially know and can trust, and as a random applicant, she will be the weaker candidate compared to people applying through their networks. That was also evident in government positions where people tend to hire party members. Ella shared similar insights:

> "Most of the people who get hired get hired through referrals. A lot of companies are fully aware that they want to build a culture for people who get along with each other, so they will give priority to referrals."

Also, Luna shared her perspective from the point of someone who looks for job candidates:

> "When we are hiring, I just start to search in my network if I know anyone, and if we do not know anyone, then we would advertise the job."

Olivia demonstrated a clear understanding of the changing nature of work and skill demand:

> "This kind of profession (i.e., digital distribution) did not exist 20 years ago because there were no movies online … Even if I wanted to build this career, it would not have been possible because there was no such a concept. I think in the current world, there are more industries and professions like this. In five-ten years, things will look so different; being a graduate now, you cannot just plan for that career."

Zoe's perception of what it takes to land a job in Europe has evolved over time. At first, she assumed that with the right experience and qualifications, she would easily gain access to the European job market. However, she came to realize that the unwillingness of many employers to wait for her to be granted a work permit can be a major obstacle. Alex shared similar insights:

> "People like us (i.e., third-country nationals), even if you outperform everyone, then the first thing that needs to be considered is your eligibility to work in the country. And I think that becomes the deciding factor most of the time."

Additionally, Zoe found that third-country nationals, even with a work permit, might still suffer exploitation:

> "There is a higher degree of exploitation of third-country nationals; I heard it many times that we are managing your permit, so you have to get lesser pay from the market."

The reality of the labor market, from Zoe's perspective, was that even with greater experience and knowledge, she still had fewer chances of landing a job compared to her European peers. Even in published job ads, what is being advertised as an "equal opportunity" job can sometimes be restricted to EU nationals and those with EU work permits:

> "So, this is the reality check when I started looking for a job, and these are the questions that have been asked to me. So, my perception changed; it is about your gender, which region you were from, and many other things. People will say: you are 23, so in two years, you are getting married; why should I take you?"

Isla echoed similar views:

> "There is also a kind of discrimination, even if they say there is no discrimination, and they give equal opportunities to everybody, there is still a preference for people from Western countries; it is very hard for people from third countries."

In relation to this, Alex argued:

> "If you are looking for a job here in Europe as a third-country national, then you might probably want to also settle sometimes for jobs that do not even match your skills but just because you also want to find something and be able to pay your bills and stay (i.e., in Europe) as well."

As her experience grew, Naomi started to understand rejections and job market competition more clearly. She began to understand that there are several reasons for rejections, and it does not always mean that she is not good enough for the position:

> "You never know whom you are competing against. You might be the best in the pool, you might be the worst, or it might just happen that they choose you or someone else just because maybe you are not even a perfect candidate, but they compare to other things. So, we do not always know what influences decision-making when it comes to hiring."

Alex highlighted how crucial it is in Mexico to go to the right university because:

> "Then you can create a network of people, and then you can connect with the people that you will be working with …. Everything is very gatekept; it really comes down to the connections that you have, and these connections are not just family connections but also the connections that you make precisely during your time at university."

Moreover, he also noted that the salary expectations do not match the considerable investment put into his education:

> "In the labor market back home, it is very difficult to find a position that gives me that kind of return without the network … The job market is designed to sustain an elite group of people who have been working and doing the same thing for the last 200 years, and everyone else that does not belong to that group, just working like horrible jobs, poorly paid and excessive hours and no job security whatsoever."

That was among the factors that motivated him to pursue education and employment in Europe.



**Knowledgeability of the rules of the game**

The rules of the game, where the "game" refers to, first and foremost, the world of work, represent the informal, often unspoken, nuanced rules, dynamics, and tactics that influence

success in the job market. They can be acquired through direct experience or communicated via close personal networks. The adequate understanding of the rules of the game enabled the study participants to align their career decisions with such implicit/informal rules and pragmatically navigate the foreign labor markets they were competing in.

Emma knew how to find herself a place in the job market. She used internships and unpaid jobs as a tool for accessing the job market as an insider. She was also aware that among the benefits of getting a PhD is to get socialized within the academic system. She considered that to be part of the game that she must play and master to achieve professional success:

> "I think this is really the main purpose of a PhD program: to get socialized in this world and learn a bit the rules of the game. I also realized that I am not less than other people; I do the job, I play the game, and I know the rules of the game, more or less … If I am good at playing that game, then I might have a chance being perceived as more insider, which might have some positive impact on my career trajectory because even if I know that I cannot qualify here when I apply to another Swedish university, they will ask their colleagues whether I am a good character or not; it is a small country."

Some of those rules include knowing what is needed to be competitive in the academic job market, knowing how to use the right keywords and jargon when applying for jobs or funding, and knowing where to find information about available grants and how to apply for them:

> "If I was going to apply for grant money and I need to understand how the costing is done, and so on. So, you need to know these things, but sometimes you do not know whom to ask or what to ask … you first need to understand who the key players in the department are, in admin, in teaching allocation, for instance, to understand whom you need to ask."

Eva indicated some important rules that she came to learn as her experience grew. First, things will always be more difficult for her as a third-country national in Europe (compared to her European peers). Thus, she needs to accept such an additional obstacle. Second, she learned that she needs to be "shameless" when it comes to promoting herself:

> "If you do not promote yourself, nobody else will."

Third, she made peace with the fact that people can be hired through referrals, and while she did not like that in the beginning, she eventually managed to get most of her jobs through her professional networks as she started to embrace such a reality of the job market.

Lily demonstrated a deep understanding of the rules of the game at different points in her career. Early in her career, she recognized the value of internships and unpaid roles as gateways into the job market. She also observed how state administration roles were influenced by political connections, first and foremost. When in academia, she understood the value of socialization within a professional sphere to understand the local academic culture, which helped her in Sweden to prepare a good teaching portfolio:

> "If you are an external candidate applying, you would not know these things unless there is someone to tell you."

She noted the professional impact of being perceived as an "insider" within the Swedish academic community. In relation to this, when she had to work remotely, she was aware of the missed opportunities for informal learning in physical academic settings through casual interactions and conversations over coffee or lunch.

Leo noted that in the Mexican labor market, success is heavily influenced by one's network, extending beyond family connections to those formed during university education. He emphasized that attending the right university can be crucial in building a network that will later facilitate career opportunities. In Austria, he also recognized the necessity of insider connections to secure employment and the limitations of having to go through traditional job application methods:

> "If you apply externally to places, it has never worked out. I actually never got a response at all from any of the Austrian companies."

Similarly, Maya highlighted the critical role of networking and the limitations of traditional job application methods. She was aware that, in competitive job markets like Geneva, getting a job often depends on who you know and the timing of your application:

> "There was no chance of getting a job just by applications."

Loes also noted the importance of networking and visibility (through, for example, participation in social events and workplace gatherings), especially for migrants. Ella also highlighted the preferential treatment given to referrals in technology companies over direct/external applications. Her experiences demonstrated the value of professional connections in facilitating the recruitment process.

Zoe underscored the impact of including renowned names/organizations (e.g., the UN organizations she worked at), where name recognition can outweigh specific job details. Zoe also highlighted the compelling effect of a good personal story/narrative on employers:

> "I applied to the World Bank before. This time, they wanted to listen to your sad story that you are from a small village, you did not have anything, and then you came here."

Sara reflected on her unique position in the job market, where her unique blend of experiences (including discrimination) and identity can be an asset in specific professional roles. That was the case for her in organizations focusing on minority rights and community activism, which acknowledge the principle/motto of "nothing about us without us":

> "If they (i.e., the minority rights NGO she was working at) do not have Roma working or do not have Roma in high positions, people start questioning their legitimacy."

Sofia shared her understanding of what it means to "play the game" in academia, such as frequent publishing and conference attendance. She also acknowledged the unspoken expectations in academic circles regarding productivity and visibility. Additionally, she noted

the changing cultural and political landscape in academic settings, where there is an increasing emphasis on political correctness:

> "I know that it will be very difficult for me to let go of a lot of my own public political opinions for a job, which I think is now kind of becoming a norm across the world. As an academic, you also have to be very politically correct."

#### 4.2.1.2. Occupational knowledgeability

Occupational knowledgeability is labor market knowledgeability that is field-specific. It refers to how graduates perceive and understand the dynamics and characteristics of the job market in their specific occupational field(s) of interest. It encompasses knowledgeability of field-specific job market characteristics, field-specific skill demands, field-specific recruitment practices, occupational realities, and field-specific rules of the game. Such knowledgeability enabled the study participants to navigate their field(s) of interest, make informed career choices, and equip themselves with the relevant skills and expertise to transition between different fields of interest.

Iris's occupational knowledgeability has evolved over the course of her career. She went from a strong fascination with filmmaking to the realization that what she had imagined about it does not necessarily align with reality:

> "If I get a job in filmmaking, I will absolutely enjoy it. It is going to solve all my problems. It is going to really make my life magically better."

Through her firsthand experience with filmmaking and the experiences of her friends and colleagues, Iris discovered that the process is not what she had dreamt of:

> "It turned out to be so different from what I imagined."

Despite Leo's initial interest and knowledge of linguistics, he was knowledgeable enough about the job prospects of working as a linguist to understand that he has limited opportunities outside

academia (e.g., computational linguistics). That led him to search for scholarships abroad, eventually leading him to study international relations in Hungary.

Max has demonstrated an in-depth understanding of the nature of the academic job market, particularly in sociology. He saw in sociology research a detachment from the non-academic job market, unlike other disciplines such as public policy. He also saw the limitations in the availability and nature of academic jobs (e.g., precarity), leading him to seek job roles in policy analysis and research and to equip himself with the skills needed to achieve employment and career success in that occupational field:

> "Through personal contacts like people I know, just more and more I heard these stories about this academic precarity and how they cannot get jobs. Also, it was an observation of the number of open positions and requirements and comparing numbers of PhDs to graduate and open positions and a realization that in our discipline, the only thing you can do after a PhD is to continue with academia … I slowly started realizing that I really need to develop some skills which are going to make a competitive one in the real job market not just in academia."

Adrian, not as fond of research as she is of teaching, has developed a good understanding of the academic job market in the UK, leading her to secure a job as a teacher with less pressure to publish. First, she exerted considerable effort in enhancing her teaching skills and experience, including obtaining all the relevant academic teaching certifications she could get. Second, she worked on her social statistics skills, which distinguished her from most of the academics in her department:

> "Out of 30 professors, only three do stats, and I am one of them … The job market is kind of skewed because all the people that can do stats are not in academia."

She also understood that she was filling a gap, as not everyone wanted to teach:

> "In the UK, there are a lot of professors that just want to do research, and they do not want to do the teaching."

Sofia also demonstrated a good understanding of the academic job market. She indicated that due to the generous scholarship she now receives in Sweden and the scarcity of academic jobs, getting a postdoc, as difficult as it will be, will mean getting paid even less than her current stipend. In addition, if she goes back to India, she understood that she would face fierce competition from other Indian graduates:

> "Indians are super competitive, so all the universities are good universities in India, and there is a long list of students who are already here applying for staff. Indian universities are spoiled for choices."

That made her strategy to return to India only after becoming competitive enough:

> "I would rather want to come back to India at a point in time when I have enough academic merit, I mean on paper, where I can actually choose to be in a place where I would want to be."

Luna understood that to work in finance in Austria, employers expect job candidates to be all-rounder:

> "You need to know accounting, controlling, etc., and not just one specific area."

That made her think of what kind of skills and certificates she must have to be competitive enough to achieve adequate employment in finance.

Ella highlighted how working in IT companies differs from most other sectors regarding the work culture and recruitment process. According to Ella, to be recruited, it takes much work and preparation before the interview process, which mainly focuses on whether she possesses the needed skills and knowledge or not. Meanwhile, when she got interviewed for a non-tech local company, the criteria were different:

> "They asked about my GPA. I have never been asked about my GPA before. I had to go through tests, and I was the highest performing in all these tests. Even so, they rejected me based on my GPA in my undergraduate studies."

However, that can be well-compensated by the perks she believes are characteristic of IT companies:

> "They take care of their employees, the benefits are amazing; we get fruit free breakfast, free lunch, bike to work, and you do not have to pay taxes."

Loes's knowledge of and experience in international development enabled her to achieve adequate employment in the Netherlands. While she idolized the development work at the beginning of her career, she has become more knowledgeable about the nuances of working in the development sector, including the politics involved and what it takes to advance in her career:

> "I became more aware of what NGOs here [i.e., the Netherlands] need from the number of ingredients that I did and also with some experience with consultancy work, so at least I became more familiar with the context of NGOs here in the Netherlands."

Maya had to build her occupational knowledgeability of academia upon embarking on her doctoral studies. Coming from one of the biggest consulting firms, she had to adapt to a completely different work style and environment:

> "People behave differently, write their emails differently, make appointments differently, conduct their meetings differently, and so on. But all of that took me some time … I had to go through the pain of adapting by myself, so it is only then that I became conscious of these things and started thinking about it more actively to use these lessons learned for later."

Chloe's knowledge of academia and the nature of the academic job market made her realize that there is an alternative to academic jobs for doctoral graduates to work in, namely working in the consulting business (e.g., policy analysis and research):

> "PhDs are underutilized, in my opinion. Being in the policy world, being in the consulting world, there is so much space to give for good researchers … Hearing personal journeys of people having to track across multiple postdoc positions, it seemed that there is a reward, but to get there, it is a very long journey."

Moreover, her knowledge of the consulting business enabled her to see the value it offers for people raising children:

> "Consulting on the side also gives you this flexibility to raise the children and still earn good salaries."

Lily demonstrated knowledge of the differences between the academic job market in the UK and Sweden:

> "The job market in the UK is getting a lectureship and a postdoc; those are one type of things that matters there, which is a bit different from what matters in Sweden. Also, applications work differently. In the UK, it is a fast job market; you apply, you send short documents, a cover letter, and a CV, and then you wait three weeks to either get an interview or not. You have to be aware about this Research Excellence Framework to know what to say and what the buzzwords are. The most important things in the UK are diversity, inclusion, gender colonial, and so on … I needed some years to understand also how the formal positions in Sweden are because the labels are different; we have a senior lecturer who is not really a senior lecturer, in the UK it is a different position, and there are different formal rules for this position."

Lily also highlighted some of the factors that would contribute to her career success as an academic in the UK:

> "First, objective criteria matter, and publication record matters, so I tried to focus a lot on improving my publication record. Second, another advice that I got from a colleague that is already has a tenured track position in the UK is that even though I work on a project, I should also mind my own interests and not be completely dedicated to the needs of the team."

Emma has also demonstrated similar knowledgeability of the academic job market in the UK:

> "The job market in the UK is really hard, generally, but particularly challenging in academia. People are not getting permanent contracts. I have seen it with some of the more senior people in my own school, sort of getting short-term contracts, moving around nine-month contracts, one-year contracts.''



#### 4.2.1.3. Self-knowledgeability

Self-knowledgeability is the result of continuous self-reflectiveness (an essential element of career self-management). It refers to individuals' deep awareness and understanding of their

evolving professional interests and career aspirations, personal constraints, strengths and weaknesses, and self-efficacy beliefs. It represents the outcome of a reflective stance towards professional/career growth and acknowledgment of one's evolving identity. Self-knowledgeability enables OTD-graduates (and has indeed enabled the study participants) to steer their career trajectories with confidence and a sense of purpose that aligns with their knowledge and understanding of themselves.

**Knowledgeability of career position**

Graduates' knowledgeability of career position is the result of a critical self-examination (i.e., self-reflectiveness) process that not only assesses past and present experiences (i.e., current standing and progress) but also entails a forward-looking perspective on their potential career trajectories. It also reflects the evolving understanding of graduates' personal and career interests and the external factors influencing their career paths.

Iris highlighted that as her experience grew, she began to understand better what works for her professionally and what does not, which enabled her to pursue the professional experiences that would bring her the type of work that aligns with her interests. She is also now aware that while her technical skills were what opened doors for her, it was the years she spent studying Arts and Humanities that provided her with the soft skills and critical thinking that helped her do her job well and advance in her career:

> "Being able to receive a request or a question or a problem and then knowing how to go about it to solve, how to systematically look at the situation that you are in and to try to make it better. I really credit that to my liberal arts education."

Reflecting on her experience as a fresh graduate, Naomi considers herself to have been "a bit naive and young." However, it was the experience of taking part in a very competitive educational program that helped her boost her self-confidence and realize that "things are

possible." Naomi also reflected on the process of gradually realizing what she wants as compared to what she is good at:

> "I was interested in writing policy-related, brief blogs, so I started writing here and there, which eventually raised the question: Do I actually want to be a researcher? And I was not sure if I would really like the job… I realized that what I want deep down is to work with people and help people, so it does not matter what career I pursue."

Max explained how he "deradicalized" himself concerning some of the views he had on policymaking:

> "There was also this transition happening that I want to participate in the world instead of opposing it."

That led him to be more present and active in policy research and its role in incrementally fostering change through policy support.

Sofia, with her move to Sweden, was able to acknowledge and embrace the fact that she is a "socially gregarious person." She also realized that she could not function in an environment that would not allow her to be the political and vocal person she is. However, she also acknowledged the cost she might have to pay for that:

> "I would not be able to work fully one hundred percent if I am not being very political, but if I would be, then that is going to cost me my job and a lot of my mental safety."

Luna had the opportunity for a career break, which allowed her to re-evaluate her career and reflect on her strengths and weaknesses as well as what she likes and dislikes. Such self-reflectiveness led her to realize that she has always been passionate about languages and interested in working as a translator.

Alex, after a period of self-doubt followed by self-reflection, stopped thinking that failing to find employment in Europe was his fault and became more aware of the limitations the labor market imposes on third-country nationals:

> "My self-confidence was not damaged, but it was at some point doubted, you know, it was just one of those days that you would really hope that something happens and then it just drops, and you feel maybe I cannot be part of it... I have started thinking that, well, not all of them might probably be my fault, and it is just the system and how things were."

Ella, following an internship in engineering, was able to understand how much of a people person she is. That made her pursue a client-facing job instead of working in data centers. Motivated by this goal, she completed an MBA, graduating with honors, which further helped her understand why she struggled more while studying engineering:

> "It was like I am not that bad in academia. I was just studying something I had zero interest in."

Looking back at her career, Olivia believed that courage shaped her decisions. She always had "inner preparedness to lose everything," which gave her the courage to make pivotal decisions and accept job offers many of her peers would not accept. Such courage was fueled by a constant feeling of dissatisfaction and the search for a more fulfilling job.

In the case of Eva, she had what she described as a "naive belief" that what matters is her professional background and qualifications, and that the right company or organization would not care where she comes from. When faced with the realities of the job market, she began to understand the need to be patient and that an adequate job opportunity would not come with ease. Moreover, she began to understand why she does what she does and considered that to be the:

> "Cornerstone of my professional and personal story."

Knowing her "why" only came with experience and continuous self-reflectiveness. Another insight she gained with self-reflectiveness is acknowledging that:

> "There are hundreds and thousands, if not millions, of equally qualified people like you out there, and you need to compete with them."

Thus, with the many rejections she received, the lesson was that "humility goes a long way."

Lily reflected on how she suffered from very low self-esteem at the beginning of her career. Such low self-esteem was the result of several factors, including her broken English language at the time, being an anxious person by nature, and lacking any professional guidance. She managed, with experience and self-reflection, to be much more confident in herself:

> "That has been a bit of a journey for me to recognize these personal interests and to build a personal brand."

**Self-efficacy beliefs**

Self-efficacy beliefs are conceptualized in this study as a form of self-knowledgeability that is the product of engagement in self-reflectiveness, an essential aspect of career self-management. The concept, central to Bandura's social cognitive theory, refers to individuals' beliefs in their abilities to successfully execute actions deemed necessary to achieve their desired outcomes. The identified self-efficacy beliefs were found to influence the study participants' career choices and their attitudes toward challenges and obstacles.

Alex demonstrated strong confidence in his ability to learn and adapt to whatever occupational field he chooses:

> "I know that I can learn. I can be shaped or carved into anything that the organization would require. And I also have experience, so I was confident in myself, and I was confident that I could stand in any field."

He also noted that he thinks highly of himself:

> "I know that I am smart … If I would be given the opportunity to do things, I would do them. I would be able to excel in anything."

Eva was also confident about the versatility of her transferable skills and that she could apply those skills across different sectors and domains. Meanwhile, Zoe was confident in her ability to impress interviewers/employers with her in-depth subject knowledge:

> "If you ask me anything about my subject knowledge, I will never fail you."

Leo considered himself a "high-performing individual" who tends to deliver quality work regardless of the type of work he is doing. Chloe also expressed similar sentiments:

> "I am fast when I work, and I deliver a quality because, throughout the years, I have been doing even very small assignments or big assignments, but I have never compromised on the quality."

Emma expressed a firm conviction that she can overcome hurdles and get the job done:

> "I do not like to think about being constrained by things. I do not like to believe that there is anything that I cannot do."

Even in the face of discouragement, she was still able to maintain a strong belief in her abilities:

> "I remember thinking while having this conversation with him [university professor] like I could do that. I could totally do that. But, as I said, it should have discouraged me, but it very much made me feel like I am good enough to get that job, I am good enough to do these things … When he said oh, it is so hard, I thought I could do it. In a small part, it is a little bit of arrogance."

**Knowledgeability of strengths**

The study participants showcased profound knowledgeability of their career-related strengths. They demonstrated a high awareness and understanding of their unique capabilities and skills that render them competitive in the job market. They were able to recognize the specific skillsets, expertise, and personal qualities they possess that contributed to their appeal to potential employers. Such knowledgeability can enable OTD-graduates to strategically position themselves in the job market by leveraging their specific strengths, thereby facilitating a more self-directed and fulfilling career path.

Eva was fully aware that her ability to speak fluent English made her more competitive in the job market by enabling her to easily and clearly express herself and articulate her thoughts, which the lack of can represent an obstacle for other job candidates. Her fluency in English, and knowledge of other languages as well, was the result of yet another element of strength. She has a rich international background that she has built since childhood, living in different

parts of the world and acquiring unique intercultural communication skills. Adrian also indicated having "almost native English" as one of her main professional strengths. Meanwhile, Max highlighted his ability to speak five languages at different skill levels, which can be very appreciated by employers.

Chloe considered one of her most important professional strengths to be her commitment to quality deliverables, whether it was a small assignment or a large one:

> "I am fast when I work … I have never compromised on the quality."

Similarly, Leo considered himself a "high-performing individual." He highlighted his strong commitment to deliver quality work:

> "That is my personal preference, not because I think it comes naturally, but because I purposely pursue that."

Olivia had a unique skillset that she was able to "sell" to different employers. She knew, among other things, how to conduct data analysis, statistical modeling, and quantitative and qualitative research. She also had a strong background in sociology and philosophy, which enabled her to "talk smart things, know sophisticated words." She demonstrated how to adapt her skills and knowledge to different professional roles and present a convincing case to potential employers during the recruitment process. In a very similar manner, Max was aware that not many people possess his multi-disciplinary background. Such a background enabled him to acquire and develop a mix of skills, such as data analysis and coding, while knowing how to write good text in various areas such as psychology, political science, sociology, and anthropology.

Maya demonstrated a similar approach, demonstrating an adequate understanding and awareness of her strengths. She perceived herself as having robust analysis and synthesis skills that she was able to tailor depending on the potential employer/opportunity. She also

highlighted her ability to "get things relatively fast" without much need for extensive internal training and the ability to easily:

> "Crunch a complex piece of information or text into pieces and making out a summary, regardless of the prior knowledge that you have of that information."

Meanwhile, Emma perceived herself as "very competent" and "very intelligent". Alex also expressed strong confidence in his intellectual abilities:

> "I perceive myself highly. I know that I am smart. I know that I can learn. I can be shaped or carved into anything that the organization would require. I also have experience. So. I was confident in myself, and I was confident that I could stand in any field."

Zoe was aware that her personal and professional experiences were her greatest assets, enabling her to develop a profound understanding of how Indian society might react to some new policies or development interventions, something highly appreciated by European employers. She also demonstrated confidence in her ability to impress interviewers/recruiters once she is granted an interview opportunity:

> "I know if there is an interview, I can crack it."

She explained that by being "good at talking" due to her work in international negotiations and by being in solid command of her subject knowledge. Similarly, Ella considered one of her main strengths to be "knowing how to sell herself to the recruiter." Meanwhile, Luna considered one of her strengths to be her ability to properly research and understand employers and get a good sense of what they are looking for in a job candidate.

Isla explained that whatever opportunities she had in her career, they "did not come for free." She considered one of her main strengths to be her ability to exert significant efforts into learning:

> "I have been a very hard-working student all my life, and I enjoy learning. This is an advantage for me that I do not suffer the learning."

In a similar fashion, Loes highlighted her ability to work hard and get the task done once she puts her mind to it. She appeared to be a target-oriented person who, as she described, does not get frustrated easily and can "deal well with rejections." Sara also indicated a high level of self-discipline and commitment and considered that as one of her advantages. She believed that such commitment stemmed from being subjected to racism and discrimination throughout her life. Meanwhile, being a Roma shaped her professional and personal experiences, including suffering racism and workplace discrimination. However, Sara started to perceive her identity as an asset that enabled her to gain an in-depth understanding of what the Roma people go through, which was invaluable for organizations working on this issue.

**Knowledgeability of weaknesses**

The study participants' knowledgeability of their weaknesses was manifested in their conscious recognition of their limitations, vulnerabilities, and career-related areas for improvement. Such self-knowledgeability involved not only identifying these weaknesses but also actively seeking ways to mitigate their impact (e.g., through skill development, leveraging strengths to balance weaknesses, or employing strategies to overcome these challenges).

Emma was aware that, coming from a very small and poor agricultural community in Trinidad to where she is right now, she can be too dismissive of people she perceives as not having struggled as much. She also admitted that such perception can be unfair and that she is working on that:

> "Everybody's struggle is their struggle."

Not far from this, Lily admitted that she is not the easiest person to make friends:

> "I am not a social butterfly."

She was also able to recognize several areas where she does not think highly of herself, such as mathematics, statistics, and advanced research methods. On the other hand, she approached

those areas as she did with teaching. Although not feeling competent at the beginning, she managed to overcome her self-doubt as she attended relevant training and accumulated teaching experience.

Eva considered not knowing how to "sell" herself and her professional strengths as one of her main professional weaknesses:

> "I have always been a modest person. I always thought that my work should speak for itself."

Similarly, Maya considered herself not highly skilled in networking and marketing herself within her professional network and to potential employers.

Olivia understood that while zigzagging between industries and job functions at the beginning of one's career can benefit career progression, earnings, and professional development, as she advanced in her career, she began to see how continuing with the same approach would have the opposite effects.

Ella expressed her full awareness of what she considered weaknesses, such as being unorganized in some respects and struggling with time management. However, she also expressed a positive approach to tackling such weaknesses:

> "Because I am aware of that, I know how to manage them; I know how to block my calendar, how to force myself to do things, how to manage my time in a way to get the tasks done. I am very honest in interviews about this; these are my weaknesses, but I have learned how to manage them."

Meanwhile, Sara suffered from always being too critical of herself, which made it difficult to properly assess her knowledge and competencies and led to a sense of insecurity.

Leo indicated how he struggles with repetitive and boring tasks, leading his motivation to dwindle whenever he faces such a task. Additionally, he tends to focus too much on details, not

allowing him to see the broader picture. Max also struggles with maintaining a proper level of interest and dedication for a long time:

> "I am also an extremely lazy person, like extremely. So, I do not do anything if I do not have to, and I always find shortcuts."

**Knowledgeability of personal constraints**

Knowledgeability of personal constraints refers to individuals' awareness and recognition of the constraints, obstacles, or barriers that stem from their specific personal background concerning aspects such as nationality, ethnicity, gender, or socio-economic status. Such constraints can potentially limit their career opportunities and affect their labor market integration and career progression. Within the context of career self-management, such constraints represent additional layers of difficulty and complexity imposed by external perceptions, biases, and systemic limitations. The study participants demonstrated not only profound knowledgeability of their constraints but also a positive attitude towards dealing with them (and potentially overcoming them when deemed feasible).

Eva, in response to how to approach personal constraints, highlighted an approach that represented more of a general pattern that was evident across most of the interviews:

> "Not getting discouraged easily, especially for people like us (here she refers to being a third-country national), things are a lot more difficult because we have those extra obstacles and extra layers of complication. We have to try harder. Maybe it is not fair, but it is just a reality of life. We have to try harder to prove ourselves. You should learn how to shamelessly promote yourself because if you do not promote yourself, nobody else will."

Indeed, most, if not all, of the interviewees demonstrated a high level of awareness of where they come from (i.e., country of origin, social and cultural background, identity, etc.) and what constraints such reality has put on their abilities to successfully integrate in the labor market and advance in their careers.

Emma demonstrated awareness of several constraints that could potentially impact her labor market integration and career progression. The two main constraints were being a black woman pursuing an academic career and not being British. Based on her own research, there is a very small minority of black women in professorship positions in the UK, which represented to her an indication that her identity could affect her chances of achieving employment in academia and further promotion. In relation to this, Aria made the move to Europe primarily because she learned very early in her career that in the Philippines, there is still an apparent ceiling for female leaders, especially for colored women. Moreover, on top of what being a woman navigating the job market entails, those with children are presented with another layer of complexity, as highlighted by Luna and Loes, and potentially workplace discrimination, as indicated by Luna.

Emma also highlighted that not being British meant that she needed to compete in a job market against other candidates who were more knowledgeable about the "ins and outs" of the academic job market in the UK. Similarly, Lily, being a woman from Eastern Europe, was always aware of the fact that "people have conscious and unconscious biases." She also expressed her initial frustration with her English language skills, resulting in what she described as very low self-esteem, which she had to deal with and overcome as she progressed in her career. Ella had a similar experience, being aware that she speaks with an accent that might reveal where she comes from, potentially leading to potential biases. In addition, and as Iris highlighted, in Europe, it is not always sufficient to be able to speak English:

> "In a ton of jobs, they also require you to speak German or French. So, if I am a third-country national, but I also happen to speak English, German, and French, probably my prospects would look slightly different."

Even for third-country nationals coming to Europe with previous professional experience, achieving adequate employment can still be challenging. As Zoe highlighted:

> "As a third-country national, it is very difficult even to get a grasp of the labor market. The entry point was very difficult. Everybody is ready to give me an unpaid internship, but I have enough experience … it has nothing to do with my education qualification to access the job market in Europe. It is more like if somebody is willing to wait for my permit."

Adrian expressed a similar view:

> "Regardless of all the degrees you get from all these renowned institutions, you cannot fix the passport."

In the words of Naomi, when navigating the job market, not being European can potentially "close so many doors automatically."

Zoe also shared her experience of having to accept a lower pay than she deserved (in terms of her experience and the tasks she was asked to do) because the employer was aware she was dependent on them for maintaining her work permit and her ability to reside in the country. She considered that to be a form of exploitation. Similarly, Leo shared his experience with exploitation. At the beginning of his career, he had to accept a job under a service contract, where he got paid in cash. He described that as:

> "Very abusive practice that companies and organizations would never do with a European citizen."

Looking at the bigger picture, Leo noted that his classmates, who graduated with him, their career progressions were far less turbulent:

> "They have to take care of fewer problems, and they are taken more seriously as candidates just based on their citizenship, which is still very frustrating because I have been turned down from many interesting and meaningful positions exclusively because of my visa status."

Alex also struggled to find an employer willing to support/sponsor his work permit. It was even the case that after being initially accepted into a job that he applied for, following numerous rejections, the employer informed him that they could not wait three months for him to get his work permit. Alex also noted how the field of study makes a difference in one's chances of

employment as a third-country national. While, in his view, graduates of occupationally specific and very specialized disciplines (e.g., programmers, data analysts, healthcare professionals, etc.) are presented with many more job opportunities and are not easily replaceable in case of job shortages, the less occupationally specific disciplines tend to be more saturated. It is relatively easier for employers to find many job seekers who already possess work permits (e.g., EU nationals) and are ready to start working immediately.

Zoe highlighted that, from her personal experiences with many colleagues and friends, graduates coming from certain third countries are more prone to discrimination than others and tend to have even lower chances of achieving adequate employment. Isla expressed similar sentiments:

> "There is also a kind of discrimination, even if they say there is no discrimination, and they give equal opportunities to everybody, there is still a preference for people from Western countries; it is very hard for people from third world countries."

Sara is of Roma origin, and that represented to her a strong constraint throughout her career, leading to the experiencing racism from a very young age. As she progressed in her career, she came to realize that people with her identity and background can "end up working in so-called Roma business." That translated into the fact that most of the opportunities available to her were in NGOs and international organizations that support the Roma people. While she considered this to be empowering, she also felt the constraint of being limited to specific organizations and job roles:

> "We can also work in other fields. We have our education. We have our expertise."

### 4.2.2. Development of career knowledgeability

Analysis of the participants' career stories indicated multiple sources through which the study participants acquired, validated, and further developed their career knowledgeability. Those sources included:

1. **Social and professional networks**, which were utilized through engagement in career- and job-market-related conversations with a variety of actors such as work and study colleagues, family members, friends, and work (or study) supervisors.

2. **Work experience** through which the study participants validated, enhanced, and accumulated career knowledgeability of the characteristics and rules (both formal and informal) governing the job market and the inner workings of organizations.

3. **Continuous exploration**, which enabled the study participants to scan existing relevant opportunities and understand the characteristics of those opportunities as a mechanism for validating and enhancing their labor market and occupational knowledgeability.

4. **Continuous learning**, which was the result of constant and continuous motivation to acquire new knowledge whether in relation to their relevant occupations and study fields or for enhancing their general understanding of the job market and recruitment practices.

5. **Early-career professional activities**, which represented the first engagement in organized work-related activities. Such activities acted as a simulation of what being part of an organization and a team would be like.

6. **Following labor market and industry developments**, which enabled the study participants to remain aware of recent labor market and field-specific developments and take advantage of emerging opportunities.

7. **Evolution of career knowledgeability**, which reflected the evolving nature of career knowledgeability where the study participants were able to continuously refine and enhance their knowledgeability as they progressed in their careers.

#### 4.2.2.1. Social and professional networks

Having the much-needed social and professional networks in place is insufficient for enhancing career knowledgeability unless those networks are actively utilized and constantly engaged. Analysis of the interviews indicates that for all study participants, those networks were a major source of labor-market and occupational knowledgeability. Such knowledgeability was the product of constantly engaging in informal conversations with work and study colleagues, family members, friends, or work and study supervisors. Those career- and job-market-related conversations offered the respondents the kind of knowledge and understanding that would never have been acquired through formal education and communication channels. Such conversations went beyond sharing information and updates to communicating a particular type of wisdom in the form of opinions and advice offered to the respondents by their more experienced friends and colleagues.

Emma shared two conversations that shaped her professional life. The first was with her more experienced friend, who set her on a course to study abroad through a prestigious scholarship offered by the UK government. The conversation helped her adjust her assumptions about the chances of winning such a prestigious scholarship, and suddenly, it seemed doable. The second conversation was years later, after completing her PhD, with a professor during a conference in the UK. They discussed the difficulties of the academic job market in the UK. That conversation helped adjust her expectations of her chances for an academic position in the UK and encouraged her to step up to the fierce competition. She eventually ended up being employed as a lecturer.

Lily considered talking with her peers and friends and observing them and the way they self-manage their careers as the primary sources of her career knowledgeability. She highlighted the

value of the conversations she had over coffee, during lunch, or whenever hanging out with people where she would:

> "Find out information about grants, about how to apply, what are the rules of the game, or sometimes you hear other people talking about it, and you pick it up."

She compared that to the situation during the COVID-19 pandemic, where such insights and information were not shared when meeting online or exchanging emails. She also highlighted specific advice that she got from a tenured professor in the UK that even if she is working as part of a team (e.g., on a research project), she must keep her professional interests in mind as opposed to being fully dedicated only to the needs of the team. Such advice influenced how she steered her career and made relevant career decisions.

Eva has evolved over the years from being intimidated by the intense professional networking culture that she experienced in the US to being skilled in highlighting her skills and professional strengths within the relevant networks in Europe:

> "I think I have gotten better at it, at building my personal brand, as they say. But again, that came with experience and with age."

That indicates that enhancing career knowledgeability through social and professional networks is a skill that can be developed and polished over the years.

Chloe shared her views on working in consulting compared to building a career in academia. Her knowledge came mainly from listening to the personal journeys of her friends and peers who have transitioned from academia to consulting and had the chance to experience both worlds. The insights she got shaped her understanding of what it takes to achieve employment as an academic (e.g., having to spend years across multiple postdoc positions before landing a more stable position). She also became aware that PhDs are underutilized in the policy consulting world and that there is room and need for people with similar profiles. That was also similar to what respondent Max experienced, where observing and listening to personal stories

of graduates with PhDs suffering from academic precarity made him consider working in consulting (policy analysis and research), and he was eventually successful in his pursuit.

On the source of her career knowledgeability, Olivia stated:

> "It does not come from one place. It comes from many places; from experiences, from observation, from talking with people, from monitoring what is happening around you."

This again highlights the value of not only having insightful conversations with friends and work colleagues but also observing them and the way they approach and self-manage their careers.

Zoe argued that when it comes to having career-related conversations with people, it is highly critical that you choose people who understand where you come from and who have been through the same kind of struggles you have had. As she stated:

> "I never saw a third-country national who does not resonate with these problems. This is how you get your informal knowledge; it is in the air. You just must catch it."

Ella echoed that by saying:

> "When you start building your own network in the country when you meet people in similar situations, they start giving that kind of information."

Sara offered several examples of how a simple conversation with a friend or a colleague can shape one's career. The first was when a friend pointed her to a minority rights NGO by mentioning that they were searching for a highly educated Roma, and she had no idea that such an opportunity existed:

> "I went there, and that was basically the turning point in my career."

A second example was when a professor she was in touch with pointed her toward a higher education program and a scholarship specifically targeting highly educated Roma. A third

example is a well-connected person she met at a protest who helped her get an internship in another minority rights NGO. These situations, despite significantly impacting Sara's career, might look random. However, without always being open, visible, and in constant contact and communication with people from different backgrounds, those opportunities might not have been realized. Building social and professional networks and engaging in insightful conversations leads to higher career knowledgeability (including awareness of available opportunities and how to get them), which consequently influences career decision-making.

For Naomi, observing and listening to friends working in large NGOs and international organizations challenged her initial assumptions about what working in the development sector would be like. She came to understand that there is a considerable level of bureaucracy involved and that she might have to do things that she does not necessarily agree with. Such insights shared by people experienced in that occupational field refined her occupational knowledgeability.

After arriving in Hungary, Alex relied on his friends, who were already there to understand how things work in terms of both the job market and the legal system. Meanwhile, Leo managed over time to build a network of local people who were always sharing their concerns and how things were for middle-class Hungarian young people, which deepened Leo's labor market knowledgeability. For Adrian, being from Mexico and coming to the UK for the first time, she found it "super resourceful" to speak with people who have been in the UK for years and to listen to their experiences and observations. This shows that having people (preferably locals) familiar with a particular country in one's network can be vital for understanding how things work in that specific job market.

Observing other professionals (whether they are a friend or a colleague) is one of the mechanisms for developing and enhancing labor market and occupational knowledgeability.

Aria considered one of her colleagues a role model and observed what she did, how she grew professionally, and how she made a sidestep and moved from an administrative role to a more technical one (IT-related). By watching her, Aria understood that it is possible to switch occupational roles if necessary.

#### 4.2.2.2. Work experience

Analysis of the participants' career stories shows that the experience gained from their engagements with the job market over the years represented one of the main sources of their career knowledgeability.

Iris expressed the importance of actual work experience in shaping career knowledgeability by saying:

> "I have once gotten what I wanted, and it turned out to be so different from what I imagined … I also have a sense of what it would be like if I am in that industry; it will not be what I had dreamed of. I just know it."

Indeed, experiencing working in particular occupations, sectors, job roles, and organizations can enhance labor market knowledgeability by understanding the inner workings of the labor/job market and the rules of the game; occupational knowledgeability by understanding the nature of work in certain occupations and/or job roles and the related occupational realities; and self-knowledgeability by having the opportunity to reflect on one's true professional interests, strengths, and weaknesses.

Several examples of the role of work experience in shaping career knowledgeability were highlighted in the interview program. Emma's experience of a young offender's case while working at the judiciary made her reflect on:

> "Why people broke the law, particularly young people, people from more disadvantaged backgrounds and communities, and how they ended up in the places they ended up in."

That eventually led her to pursue an academic career in criminology. Meanwhile, Eva's work on the European refugee crisis in Greece and another project in Nigeria made her understand the nuances of working in international development.

For respondent Chloe, working in the public sector prior to doing her PhD, and then later in consulting, enabled her to see the value of having a public sector experience and how her inside knowledge of the public sector and government institutions can easily get her consulting opportunities (in the private sector) whenever needed.

Aria's years of experience made her realize there might be a ceiling for women in leadership positions, which does not exist in the same way for technical positions. That made her deliberately switch to a technical position where she would be judged by her technical skills and experience, and less gender bias would be expected.

Sofia had years of experience working with local authorities, grassroot NGOs, academic teaching, and social work. Such experience helped her develop a clearer vision of what she wanted to do with her career. It enabled her to validate and refine several assumptions on the nature of work in different sectors. For example, as she worked in the development sector, she came to realize that some of the ideals she had about serving people and how things would be ideally done in development organizations were unrealistic. Also, after some academic experience, her assumptions about the sector were again challenged.

Max's experience with academia, in addition to his work with non-academic institutions (e.g., research consulting firms), made him realize that he is not advancing well, in terms of his skills and knowledge, in a way that enables him to achieve employment outside academic circles if

he wanted to. That motivated him to develop and enhance a set of technical skills in quantitative research and data analysis to enhance his employment prospects outside academia.

Leo's experience working in the formal Hungarian economy, as unsatisfactory as the job was, made him value the importance of formal and stable employment in the EU. Even after landing a more interesting and satisfactory job, he continued to have considerable anxiety because the job did not give him residency rights in Hungary (as it was a consultancy contract), and it was a completely different situation for his European peers.

#### 4.2.2.3. Early-career professional activities

Student jobs, internships, student activities, and volunteering are all important venues for offering a glimpse into the world of work very early in one's professional life. They represent the first hands-on experience with the labor market in general and the relevant occupational fields in particular. Through such experiences, students, or fresh graduates, can enhance their knowledgeability of the inner workings of different types of organizations, go through the recruitment cycle for the first time in their careers, learn some of the informal rules of the game that could shape their future career decisions and moves; and learn more about their strengths, weaknesses, and professional interests.

Most, if not all, of the study participants have done some form or another of professional activities while studying or at an early stage in their careers (e.g., as fresh graduates). It could also be a requirement of the study program to intern in a relevant organization (as it was with interviewees such as Eva, Maya, and Leo).

In addition to several internships, Loes also worked as an assistant to the university librarian and an office assistant to a professor during her bachelor's. Ella had summer jobs in sales as a bachelor's student (which sparked her interest in sales and marketing). Adrian worked in

political campaigning during her undergraduate years, which sparked her interest in politics. Leo worked in a service center (based on his knowledge of German), which represented his first experience with the Hungarian job market.

During her master's studies, Zoe did several small consultancies with different organizations in Jordan, Austria, and Hungary. Meanwhile, Loes kept working, either part-time or full-time, while doing her master's in Egypt and the UK. Similarly, Luna worked part-time at a recruitment agency while doing her master's. That experience turned out to be extremely useful as she:

> "Started somehow to get into the inner world of the recruitment process. This was very valuable for me when I was applying myself or deciding on my career."

For Ella, the time she spent interning in engineering was an opportunity for self-discovery. It made her realize that engineering was not what she wanted to do for the rest of her life. She found that she is more of a people person who enjoys communication and interaction with individuals. Such realization was a pivotal moment in her career as she decided to shift her professional focus toward marketing. As for Iris, and as she described it in her own words:

> "The internships that I had showed me the reality of working on something, which I do not necessarily enjoy, but somehow, it is needed, it is necessary, it is valuable."

This shows how the internship showed her the reality of working in that occupational field as opposed to the ideals that she had prior to actual professional experience. That was an important theme that shaped Iris's career: realizing that even a dream job requires doing things that are not necessarily enjoyable, and in all jobs, there will always be elements to enjoy:

> "Doing many different things in my internship, most of them lasted for three to four months, gave me an observation of how the company works and how other people worked in the company. Most people are not doing those jobs as their dream job; they want to do something else, but at the same time, they still do well. It helped me to think about work in some sense, like a necessary evil. I also

> learned that, for any kind of job, there is still something that I will enjoy, even if it is a job that I never thought I would have."

Lily was also active and informally engaged with student groups and several NGOs. Meanwhile, Eva had a volunteering experience with an international organization before being offered a job. Loes and Ella also had volunteering experiences with NGOs in Puerto Rico and Jordan, respectively.

All these different experiences that came in different shapes and forms represented foundational steps towards developing the respondents' career knowledgeability through direct interaction with the world of work. Even though some of those activities cannot be labeled as formal employment, they still share a set of common characteristics, such as going through a selection (recruitment/hiring) process, doing interviews, preparing applications, dealing with rejections, adjusting to new workplaces, and applying some of the most basic and foundational business skills such as working within teams, communicating internally and externally, and complying with task requirements and deadlines. Maya described how working part-time for an NGO for two years as a high school student impacted her career:

> "This experience itself was already very formative in my labor market choices afterward… This is where I learned proper Word, Excel, emailing, and a bunch of basic office things. That is how important that experience was for me. That is where I learned to deal with donors, with donor reporting, and all these NGO things that I later did at the more serious level. But the basics, I learned them there, on the job, as a teenager."

#### 4.2.2.4. Continuous exploration

The continuous exploration of potential job opportunities was widespread among the study participants, which contributed to developing their career knowledgeability over time and refining their understanding of the labor market and their respective occupational fields. Such exploration, which involved experimentation as well, enabled the study participants to discover new professional interests, validate their interest in and commitment to specific occupational

fields and/or job roles, and open new opportunities (or even whole careers) that they were unaware of. Exploring opportunities mandates a high degree of openness and courage, or as Olivia described it:

> "I think it is courage. I have never been satisfied, so I have always been looking for something that I would like. I was always looking out. And again, I think this attitude, that inner preparedness to lose everything, gave me the courage to make decisions to accept offers that perhaps not everybody would accept ... It is a combination of proactively searching for something and proactively asking for help. Because when you are in communication with people, many people from different angles, they may have an idea where you would fit as a professional, and they may have this idea better than you because they have their own experience, they have their own network of connections."

Indeed, the combination of being willing to experiment with new and potentially unfamiliar opportunities, being open to incoming opportunities, and proactively searching/asking for them is the key to effective exploratory behavior.

That was the case with Maya:

> "I was searching around and not afraid of trying things after my master's … I was basically exploring any opportunity out there that allowed me to stay and live there up to a certain point when this was no longer a priority, but straight after my master's I allowed myself to go out and try things here and there, see what I like, see what I do not like, and especially live in the city that I wanted to live in."

And Lily, as she describes it:

> "I was trying to be open to positions outside of academia, for the first time in some years, and that part of the job market is less known to me; what I do is I use LinkedIn, and I make myself available to recruiters, so I get more updates there."

In the case of Emma, when she accepted to work as a freelancer for her friend who had started her law firm, that put her on a path to discover her interest in criminology, which, over the years, has become her main occupational field. Such exploratory spirit was also evident when she was informed by another friend, years later, about a UK-based doctoral scholarship in criminology. Without a prior plan and with only three days till the deadline, she decided to

explore the opportunity, and she ended up receiving the scholarship, which has defined her career till this moment.

In the case of Zoe, despite working on urban policies for almost five years, she was not fully satisfied with her career. She decided to do a master's degree in environmental science, policy, and management. That degree enabled her to work and live in Europe. Then again, years later, she accepted a financial analyst job that she knew almost nothing about, and she had to learn everything from scratch. The ability to be flexible, or as Zoe described it: "whenever the opportunities come, I will mold it in my way," was key in the case of Zoe and others. Central to this flexibility is the ability and willingness to acquire new knowledge and learn new skills, or as she described her approach:

> "What I was trying to do while I was working in any organization is to diversify my portfolio; if I am good at modeling, I will adjust to modeling. So, why not I learn about the policy sector? Why not learn about negotiation? Why not learn about something that I am not good at so that also gives you more opportunities in the future."

Similarly, Iris had a realistic and practical exploratory approach, which she described by saying:

> "I have this attitude of like: a job is what you make of it. I am just much more open as well to just apply for different kinds of jobs."

Loes's exploratory approach involved applying for as many work and study opportunities as possible as a tool for learning and development:

> "I think one of the things that I was always thinking about is that I will just do as many interviews as possible. So, I was just applying for jobs just to understand … I applied to almost 30 programs for my PhD, but I was okay because every time, I feel I am learning something. My applications are becoming better."

She would even apply for jobs with the sole purpose of entering the interview process (knowing that she cannot be employed while doing her PhD) to enhance and update her knowledgeability of the Dutch labor market and the jobs and skills currently in demand.

Isla, without a prior plan and with only her interest in arts and not even knowing that this is something that she could academically study, decided to apply for the admission exam of a prestigious national arts school (she saw the advertisement in the newspaper) with no expectation that she could be accepted, and she ended up being admitted to the school.

Naomi described her exploratory mindset by saying:

> "I always had that in the back of my mind; just apply. You do not know what they are exactly looking for. It also gave me confidence that I am a strong candidate and I generally apply to jobs where I see that I have the potential, even if I do not meet the 100%, but I qualify."

Such an approach was motivated by her eagerness to be in a position where she would continue to learn and develop. Even after being in a satisfactory job for two years, she left it for a new role out of fear of professional stagnation:

> "I thought I have learned as much as I could, and I contributed as much as I could. So, you know, when you hit the point, it is going to be a plateau."

The urge not to stay in the same job for so long was also evident in the case of Iris, which she described by saying:

> "When I graduated in 2020, I gave myself up to 10 years to change Industries; I know that I do not want to stay in the same industry, I know that I do not want to stay in the same job for very long … The most important part is to get into it and experience and know what works for me and what does not work for me. If I have not figured that out from my current experience. I want to go into the next experience, having more of the things that I know they work for me, and then maybe pick up some more on the way."

#### 4.2.2.5. Continuous learning

Continuous learning goes hand in hand with career exploration. Exploring new and potentially unfamiliar job roles mandates a strong willingness to pursue and engage in different learning activities and develop and adjust one's knowledge and skills to fit the new role.

Max, knowing that working in consulting has requirements that are very different from those of the academic job market, started realizing that he needed to develop a skillset that would enhance his market competitiveness. Thus, he made efforts to develop and enhance skills such as data analysis and quantitative research techniques, eventually leading him to land a full-time job in one of the leading research consulting firms in Europe. Similarly, Adrian saw a window to tutor an undergraduate class based on her knowledge of quantitative research techniques (as evident in her CV). So, she had to be ready to enhance and sharpen her quantitative research skills:

> "I got super prepared and started rehearsing everything. I was relearning everything I learned five-four years ago or more. And then I just started tutoring quantitative non-stop until my defense."

The opportunity put her on a path to land a full-time teaching position later on. However, if it were not for the willingness and ability to learn, all of that would not have been possible to achieve. In the case of Adrian and others, learning was a tool to capitalize on her occupational knowledgeability to achieve better employment outcomes. Knowing that in the UK academic job market, there is a higher tendency to apply for research jobs as opposed to teaching, Adrian decided to continue making herself more competitive as a teacher as a way of compensating for her limited competitiveness as a researcher (e.g., she did not have an impressive publishing track record):

> "I am getting certified in higher education, which is something that now the UK is pushing for everyone teaching in postgraduate or higher education to have a certification. So, I am getting that certification. I should be getting it by February; it is a full year of courses and things, so I am doing that just to be able to fight the progression that I have not published."

Sofia, knowing that she lacks the academic knowledge to back her experience in social work, decided to pursue a degree in anthropology. The objective was to complement and theorize her hands-on experience. Later, when she got a job in the food and beverages industry, she went to

learn more "market skills" relevant to her position, such as operation, marketing, and management:

> "I am pursuing these courses, maybe on Coursera or some open access, for upskilling myself."

In both cases, the approach is the same: occupational knowledgeability leads to interest in learning, and continuous learning eventually contributes to higher knowledgeability.

> "I can tell you that it is like physical fitness; if you do not exercise, you are not in shape. The same is here; if you are not up to date with all the trends that are going on, you will not be able to get good opportunities."

That is how Luna described how critical continuous learning is for acquiring and developing career knowledgeability. Indeed, the process of maintaining one's knowledgeability of the labor market and the relevant occupational fields is a continuous process of following market developments and new trends, adjusting skills and knowledge to market dynamics, and upgrading one's knowledge and skills to keep up with new and emerging market demands. Luna's realization that familiarizing herself with the International Financial Reporting Standards (IFRS) would be critical for her future career move motivated her to pursue that certification. It is an example of how being up to date on the market needs enhanced her occupational knowledgeability, which in turn shaped her learning behavior.

For Aria, exploring available job opportunities and analyzing their skills needs motivated her to learn, on her own, some of those media-related technical skills to enhance her competitiveness. That eventually granted her a position for which she was selected based on the new skills that she had acquired:

> "That opened my eyes to realize that maybe when you are done with your studies, you are actually not finished studying … It is not like you finish your bachelor's in communication science, and then you are going to automatically get into an IT job. It is not like that for me anymore. So, I have to go through a back door, and I have to re-certify myself."

As Isla indicated, job opportunities, in most cases, do not come for free. There is a price to pay, and part of the price is to ensure a good understanding of the market needs and personal initiative to adjust and match one's skills:

> "I know I had so many opportunities. They did not come for free; I have been a very hard-working student all my life, and I enjoy learning. This is an advantage for me that I do not suffer the learning."

Continuous learning is also essential for a healthy evolution of career knowledgeability. When Ella went back to how she managed to land one of the most important jobs in her career, she said:

> "We went through a pandemic. So, they need people with a growth mindset, not to say oh, this is the end of the world, and we are going to collapse, but rather people who see it as an opportunity to grow and learn".

Then she reflected on where such knowledgeability came from:

> "Before starting to work in Europe, I did not have those skills. No one prepared me for that. Even after spending six years in Jordan, I did not have that; I spent five years in Dublin and have already gained so much in that."

Olivia described her underlying motivation for continuous learning:

> "In 5-10 years, things will look so different; being a graduate now, you cannot just plan for that career."

She did not even know that a profession like digital content distribution (TV series and film titles) would exist. However, when the opportunity presented itself, she was quick to act and adapt through continuous learning and developing the skills and knowledge needed to compete in that emerging market.



#### 4.2.2.6. Following labor market and industry developments

It is almost essential for adequate career knowledgeability to follow labor market and occupational trends and updates through the various available sources. This also reflects a

dynamic view and understanding of the labor market where rules can change and new market demands might emerge.

For Loes, her approach to keeping up to date with the job market needs was to:

> "Do as many interviews as possible. So, I was just applying for jobs just to understand … I can only work part-time because of my PhD, but I was applying for even full-time jobs just to get into an interview because I needed to be part of that. I just needed to know what the job market needs. So, by time I also started knowing what they require, what questions they ask, and what skills they need. So, I became more aware of what NGOs here need … So, at least I became more familiar with the context of NGOs here in the Netherlands."

Meanwhile, Ella, as she moved between countries, relied heavily on online platforms, official websites, and expats' web groups on platforms such as Facebook to keep up to date and enhance her knowledgeability of the country.

Moreover, different participants adopted various strategies to stay up to date, such as going through LinkedIn profiles of individuals in the same occupational field to stay informed about the job roles they have undertook after graduating, the training they did, and the skills they acquired as in the case of Max. Another strategy was to seek the help of career consultants, as was the case with Luna:

> "Employment trends are changing very fast. So, this was helpful just to understand where we stand at this time in the market."

Having a career consultant/mentor to aid with navigating the job market and staying informed about market trends and updates came as one of the strategies adopted by some of the respondents. Lily had a career development mentor who reviewed her application documents and offered feedback and suggestions for enhancing her applications. Luna used the services of the university career office. Additionally, she used the services of an agency that provided her with a professional consultant who helped her conduct a SWOT analysis to better understand her strengths and weaknesses better. Aria, on the other hand, utilized some of the available

online career counseling resources, such as the Hays guide, which offered her sector-specific overviews including salaries, market trends, and skill demands in a particular market/country.

#### 4.2.2.7. Evolution of career knowledgeability

Analysis of the study participants' career stories indicated a process of evolution of career knowledgeability. It is a continuous process of refining existing assumptions and state of understanding and developing/acquiring new ones.

Lily reflected on how her confidence and self-efficacy beliefs have developed and were enhanced over time:

> "I think I am much more confident, but that was years of practice."

She argued that the time she spent in the UK, which improved her English and put her alongside some very competitive individuals, in addition to observing how people discuss and behave, have contributed to refining her self-image and building the confidence she used to lack.

Eva also reflected on how her perception and understanding of the meaning of rejection have evolved. She used to take rejections very personally, and being rejected was so hard on her. As time passed, and as her experience has grown, she started to realize it is never personal and that:

> "You need to realize that there are hundreds and thousands, if not millions, of equally qualified people like you out there, and you need to compete with them."

Such a healthy approach to rejection has enabled her to focus more on improving her professional profile rather than wasting time contemplating why she was rejected. Meanwhile, for Aria, it was the realization that she deserves to be rewarded and acknowledged for her work and contributions and not to be afraid to ask for such recognition. There was a time when she would be reluctant to ask the human resources unit to officially recognize, on paper, that she was the acting manager of her team instead of being given a less senior job title:

> "That was a regret. That is something I will never do again. You make boundaries in your job, but if there is growth, you go and ask for them (i.e., boundaries)."

Sofia's occupational knowledgeability has also evolved. She went from being "disillusioned by the development sector" to realizing, as her experience continued to grow, that:

> "All the ideals I had about serving people and the development sector are not exactly about that. There are a lot of immoral acts and unethical things happening. And I thought academia is going to be the answer and the escape, but when I dwelled deeper into academia, I did realize that academia, as a sector, also has its own share of problems."

This evolution can be seen as necessary for graduates navigating their careers to separate ideals (that, when left unchecked, can turn into illusions) from occupational realities.

Another example of such evolution came from Max, who transitioned from a very idealistic approach to societal change and social critique to "participate in the world instead of opposing it." The value of such transition/evolution is that it opened the door to the consulting business, which operates on the basic assumption that there are no perfect solutions in policy analysis and research and that compromises might be needed to design and implement policies that work. Additionally, such a realization motivated him to acquire the skillset needed for a successful career in policy consulting.

### 4.2.3. Utilization of career knowledgeability

The value and utility of possessing an adequate level of career knowledgeability stem from the ability of OTD-graduates to utilize it in different aspects of their careers. Ideally, career knowledgeability is what informs and guides career decision-making and enables informed career self-management practices. In this study, I analyze the utilization of career knowledgeability in relation to three key career-related activities: making career choices, navigating the job search process, and securing employment. Under each area, the study participants were particularly skillful in employing varied strategies informed by their career

knowledgeability. This allowed them to effectively navigate their labor market(s) and realize their (evolving) career goals. Such utilization of the acquired and accumulated knowledgeability in steering OTD-graduates' careers is central to the career knowledgeability concept, where it informs and guides their exercise of agency as they self-manage their careers and enhances their agentic capacities to respond to external influences (including different structural constraints).

#### 4.2.3.1. Utilization of career knowledgeability in career choices

Different aspects of career knowledgeability have played essential roles in the ability of the study participants to make informed decisions and choices that shaped their career trajectories.

Initially, Emma suffered from a lack of confidence in courtroom settings. Such self-knowledgeability motivated her to make a calculated move and accept a position at the judiciary to immerse herself in the court environment, familiarize herself with judges and lawyers, and build her professional network within the legal community. Later, Emma's direct exposure to criminal law through her involvement with a friend's legal case concerning a young offender drove her decision to specialize in criminology. Such occupational knowledgeability influenced her career interests to extend beyond legal procedures to understanding the societal and psychological underpinnings of youth criminal behavior:

> "I wanted to go into criminology because I always thought I knew very much about the legal side of things, like what happens when you break the law, but what I did not know at all because it certainly had not been my experience is why people broke the law."

Leo's career choices were significantly shaped by his labor market and occupational knowledgeability as he came to realize the limited job prospects within linguistics outside academia and the geographical constraints in his home country. In addition, his awareness of

the mismatch between his educational investment and the salary expectations in his local job market motivated his decision to seek education and employment abroad:

> "I want to see some sort of return. The labor market back home is very difficult to find a position that gives me that kind of return without the network."

Initially, Max considered his PhD a strategic move to advance his career. However, he eventually recognized the increasing difficulty of securing adequate employment in academia:

> "It seems very impossible to get a permanent academic position."

This realization led him to reassess the role of his doctoral studies in his career path. He became increasingly aware that his academic studies in sociology and anthropology were disconnected from practical labor market needs, pushing him towards seeking job opportunities beyond academia. This shift in perspective was influenced by his occupational and labor market knowledgeability as his interest in policy research and data analysis grew. Consequently, Max decided to prioritize working in consulting (policy research and analysis) while viewing his PhD as a secondary, personal project:

> "I started seeing PhD as something that I started that I would finish, and also something that is interesting and something that is kind of my own personal project that I enjoyed. But less and less, I saw it as a career tool."

Similarly, Sofia acknowledged the financial limitations within the academic job market, particularly in postdoctoral positions. Sofia's occupational knowledgeability and interest in the cultural and social aspects of food studies enabled her to recognize that this field remains an underexplored area in both academia and industry. Capitalizing on such knowledge, Sofia took active measures to build a skillset relevant to the food and beverage industry, such as operations, marketing, and management, to enhance her employability.

Lily's labor market knowledgeability, including her perception of the challenges within the Macedonian job market, such as high unemployment and what she perceived as an exploitative private sector, influenced her decision to move abroad and seek job opportunities elsewhere.

> "That is my impression then; if you can avoid the private sector, it is a good idea."

Meanwhile, Chloe demonstrated a high level of occupational knowledgeability, particularly in understanding the value of her public sector experience in the consulting field. Such insight enabled her to capitalize on her previous work experience to transition into consultancy, taking over projects related to government affairs. As for Ella, she made the decision to transition from the NGO sector to a more financially rewarding domain as she became more aware of her interest in financial stability:

> "I was more interested in earning a lot of money. When I was mid 20s, I thought that this is the time to start generating revenue for myself and building equity for the future."

#### 4.2.3.2. Utilization of career knowledgeability in the job search process

A central task in the career self-management process is job searching. OTD-graduates are expected to be particularly skillful in searching for and identifying potentially relevant job opportunities. That requires adequate knowledgeability of the labor market, field-specific job market(s), and their professional strengths and weaknesses. Accordingly, different strategies could be employed to find and leverage available and emerging job opportunities.

**Utilizing personal and professional networks**

The study participants offered several examples where their ability to maintain and grow their personal and professional networks and utilize them to find relevant and adequate job opportunities paid off, especially while navigating highly competitive job markets and occupational fields.

Coordinating her university's alumni chapter in Moscow provided Olivia with a platform to directly engage with a network of professionals aware of her capabilities and career aspirations. Moreover, Olivia leveraged informal reunions to make her peers aware that she is actively job hunting and to explicitly ask for career advice and job opportunities. Such an approach eventually landed her a job:

> "I said, look guys, you know me, you know what I do, you know I am looking for a job now, I am ready to be adventurous if you have any thoughts … One of the CEO graduates used to be working as a publisher and I came to her, and she said, well look come talk to us."

Olivia's strategy also included being active on social media and participating in professional gatherings like meetups and conferences:

> "It is a combination of proactively searching for something and proactively asking for help … I will go out to the world, I will speak to people I know, I will put messages on my social networks that I am looking for a job if you find anything interesting, I will go out and see what the networking opportunities are."

Similarly, Lily directly reached out to her network and personal contacts in the Netherlands, asking for job leads while maintaining open channels of communication with her network.

Chloe capitalized on her friends in consulting to build and enhance her occupational knowledgeability. She was proactive in connecting with someone from a leading consulting firm that she wanted to join to gain firsthand experience and specific industry insights. Meanwhile, Maya successfully secured her first job in Geneva by utilizing her extensive network, including friends of friends. That proved highly valuable in competitive fields and job markets like international organizations (e.g., UN organizations). Similarly, Isla's first job opportunity came through a casual conversation with a friend, leading to a teaching job.

Ella made her job search within Europe known within her professional and personal networks, specifically among friends already working in Europe. Meanwhile, Aria utilized digital

platforms and social media, specifically LinkedIn, for networking, keeping in touch with influential contacts, and publicly sharing achievements to enhance her professional visibility. Luna, on the other hand, underscored the continuous need for networking, even after securing a job, to enhance one's position and visibility in the labor market.

Adrian's occupational knowledgeability of the dynamics of the political sector in Mexico (which she perceived to differ significantly from more transparent industries such as banking or government employment) made her aware of the vital need to make herself known within the political community and informal networks:

> "That implies all the things that you have to know: who is where and who is friends with whom, and who is not. It is not as transparent and straightforward as sending your CV and working for Morgan Stanley or any of these institutions. So, it required more creativity."

In relation to the Mexican labor market, Leo highlighted the critical role of university affiliation and the networks formed during university years. He noted that the job market in Mexico is "gatekept", where access to opportunities is often restricted to those within certain social or professional circles:

> "It really comes down to the connections that you have."

**Adopting a systematic approach**

In addition to utilizing personal and professional networks, proper knowledgeability of the formal job search channels, tools, and strategies was also essential in many instances for securing employment. Such structured/systematic approaches enabled several study participants to land jobs in organizations/firms they have no direct personal or professional contact with.

Lily outlined a multifaceted strategy that combined her online presence, particularly on X (formerly Twitter), with traditional approaches like direct engagement with educational

institutions and networking at conferences. In addition, she used to sign up for vacancy alerts from educational institutions to stay informed about the latest vacancies:

> "I found a list of all educational institutions, and I went to their websites and signed up for vacancy alerts, so I get a daily or weekly summary of job opportunities."

Similarly, Zoe's approach included utilizing LinkedIn and university career services, setting up job alerts, and reaching out to her university's alumni. Meanwhile, Loes combined applying to jobs found on LinkedIn with sending unsolicited applications to NGOs.

Maya employed a highly structured/disciplined approach, using direct targeting of relevant employers and maintaining an Excel sheet to track applications and responses:

> "I have always been quite methodical about these things."

This methodical strategy was particularly important in competitive markets like Geneva, where many job applications need to be sent. She noted that systematic approaches can compensate for a lack of intuition in the job search process:

> "I have never been very good at intuition, so I have always compensated with a bit of systematic elements and discipline and organization."

Meanwhile, Eva leveraged a mix of international and local job platforms, such as LinkedIn, Devex, and Headhunter, along with networking at events and conferences. This diversified approach proved to be effective throughout her career.

Ella adopted a strategic and targeted approach by using LinkedIn search and job alerts to find jobs in Dublin, a city she had never visited nor heard much about, specifically targeting sales jobs that required Arabic language skills. This highly targeted strategy paid off with a job offer in Dublin. Additionally, her background working for Indeed (a job portal) provided her with insights on job search strategies, which made her favor LinkedIn over traditional job boards and utilize recruitment agencies in the UK:

> "I have never been to Dublin before. I have not even heard of Dublin. I just changed my location of the jobs on LinkedIn; I put "sales Arabic" and started applying for all of the jobs; I got a job in Dublin."

Alex outlined a structured/disciplined approach involving constant applications through LinkedIn combined with direct follow-ups on company websites. He also used an Excel spreadsheet to track applications and organize his job search process, as he used it to send a large number of job applications. Meanwhile, Aria adopted a very analytical approach, beginning with researching growing IT markets and then narrowing down to specific countries and companies. Her approach included utilizing Glassdoor and Indeed (job portals) for company reviews and comparing benefits, prioritizing companies that support continuous learning. Based on that, she chose a company in Budapest that offered access to different learning platforms:

> "First of all, it is in Budapest, and second, they offered access to learning platforms. That is why I selected this company. There were not many other companies on my list at the time that had the same thing."

Luna's strategy involved carefully examining job ads to ensure a strong match with her skills and experiences, complemented by submitting thoughtful cover letters, even when not required, to provide additional context to her application. She adopted a research-oriented approach to understanding what employers seek and how to tailor her applications to meet specific job requirements:

> "I do my research, and I try to understand the employer. Probably this is my strength. I try to get into their shoes to understand what they are looking for."

Iris followed a two-phase approach where the initial phase involved "cold applying" to a large number of job postings via university career sites and LinkedIn. She noted, however, a preference for LinkedIn due to the broader range of opportunities it offers, unlike university career sites, which are biased toward what the university deems valuable. The second phase involved reaching out to personal contacts for potential leads.

Max adopted a highly targeted approach by profiling where people with similar academic backgrounds to his have found employment. That technique allowed him to identify a consulting firm that hired some of his peers before, and eventually, he was able to join that firm. He also used keywords related to his specific skillset (i.e., data analysis and quantitative research methods).

**Embracing available opportunities**

While the nature of the job search process represents a relatively targeted approach to identifying and screening potential job opportunities/vacancies, there are several instances where the study participants took a more practical and pragmatic approach by embracing job opportunities that were available to them without being too rigid in waiting for the "perfect opportunity" to emerge.

Olivia noted that her courage and willingness to explore various opportunities, even those that her peers might not accept, were the key drivers in her career story:

> "I think it is courage. I have never been satisfied, so I have always been looking for something that I would like. I was always looking out. And again, I think this attitude, that inner preparedness to lose everything, gave me the courage to make decisions to accept offers that perhaps not everybody would accept."

She adopted a mindset of openness, readiness to embrace change, and willingness to accept professional challenges. That granted her a career characterized by frequent changes across industries. However, Olivia also noted the potential downsides of such career "zigzagging" later on, particularly regarding income and position (i.e., stepping down in terms of career progression and financial rewards).

Leo reflected on his employment experience in a service center in Hungary, a common starting point for many international graduates. He noted that while such a position offered valuable entry-level experience, his career progression and job search have been complicated by his visa

and citizenship status. Such understanding and acknowledgment of the labor market dynamics and the existing limitations for third-country nationals drove him to utilize available job opportunities and not wait too long for the "perfect job."

Alex decided to work in a restaurant's kitchen as a tactic to navigate the Hungarian labor market and immigration system. Understanding the challenges of securing visa sponsorship in his desired field, he chose an employer known for being willing to sponsor work permits. Such pragmatic utilization of an available opportunity ensured his legal stay and work in the country until he managed to secure a job in a UN organization later on:

> "All I need is to show that I meet the eligibility criteria. So, my knowledge of that made me say, OK, I would work with you guys because that was my easiest option to get a visa and continue to stay here."

Sara acknowledged leveraging her identity and personal community connections as part of her job search strategy, especially in fields related to minority issues. That enabled her to utilize available opportunities where her personal experience and understanding of the community could be seen as an asset:

> "I already worked on those issues, and I am also a part of a community. It may sound opportunistic, but you are using this fact that you belong to a minority to get a job."

#### 4.2.3.3. Utilization of career knowledgeability in securing employment

Another aspect of the utilization of career knowledgeability in career self-management, and could potentially be considered the most critical one, is the utilization of knowledgeability in securing employment. Indeed, achieving adequate employment can be perceived as the ultimate goal of the career self-management process, as it can lead to career satisfaction, the key indicator of career success. Through numerous examples, several of which are illustrated in the following sections, the study participants demonstrated their abilities to capitalize on their labor

market, occupational, and self-knowledgeability to identify and achieve their desired employment outcomes and career goals. In doing so, they employed different strategies depending on the context and the desired outcome.

**Adapting skills and knowledge**

The study participants were able to utilize their occupational knowledgeability and self-knowledgeability to adapt the skills and knowledge they possess and tailor their professional profile and expertise to emerging opportunities and/or occupational fields they wanted to transition to.

Olivia demonstrated a clear understanding of her applied sociology background, emphasizing her capabilities in analysis, statistical modeling, and conducting qualitative research. She was able to adapt her skills as she transitioned into the digital licensing world, an occupational field that does not directly correspond to her academic background. This move was also facilitated by her willingness to learn new systems like SPSS or new programming languages, showing her capacity to update her skillset in response to emerging job demands:

> "I do have a few skills that I really know that they are kind of the skills I can sell."

Zoe shared her journey of transitioning into roles that were initially unrelated to her academic background, such as a financial analyst position at a UN organization and roles in supply chain management at a later stage. Despite lacking direct experience in these fields, Zoe engaged in self-directed learning through platforms like Udemy and Coursera to acquire the necessary foundational knowledge. She also highlighted the importance of drawing parallels between her experience in transportation planning and the new roles she pursued. This included adjusting her CV to match job requirements more closely:

> "I said that these are the extra components in supply chain, and these are the components in our transport planning. It is not really a lot different, but also not completely similar."

Loes reflected on how her language skills led her to a role in fundraising in the development (NGOs) sector, marking the start of a career path that she has not changed since. Additionally, she was able to tailor her language, academic, and analytical skills to secure a part-time position at a university ranking platform, assisting with the ranking of Arabic universities to secure her livelihood while completing her doctoral studies.

As Sara entered a new professional environment with a European Union institution in Brussels, she felt like a beginner needing to learn a lot about the workings of that institution. However, she also realized that her knowledge and experience in Roma advocacy could be valuable in broader anti-racism efforts within the EU. This highlights her ability to recognize the transferability of her skills and experience to new job roles.

Aria took on diverse roles, including research for an IT company, working for a local NGO, and working for a Somali entrepreneur in the Netherlands. Aria proactively expanded her digital skills, including blogging, video editing, and social media, ultimately securing her a position at one of the leading global IT companies. The transition from development work to IT and communications showcases her ability to adapt her foundational skills to new contexts and job opportunities. She is also aiming to eventually integrate her IT skills back into the non-profit sector:

> "I hope someday to go back into the non-profit but using IT skills because a lot of organizations need specific client and enterprise management software."

Max navigated the transition from academic theory and research to practical policy research/analysis while confronting the limitations of his sociological background. He adjusted his approach while working in consulting to produce more descriptive, moderate, and practical policy research that aligns with the needs of the company's clients (such as EU institutions):

> "I realized that I actually need to do more descriptive things, which are much more exact, and not to put too much theory in it. Also, not to be too critical because people who fund the researcher are kind of very moderate."

**Maintaining professional visibility**

The study participants demonstrated a profound understanding of the value of being professionally "visible" and maintaining open channels of communication and professional networking to leverage emerging opportunities and access jobs that could not otherwise have been accessed.

Chloe showed that professional visibility can lead to "high-level" job opportunities. She had the opportunity to work for the government at the prime minister's office because of a recommendation from a former study colleague who was working for the prime minister at the time. Moreover, Chloe's positive impression of her professional acquaintances (e.g., former institutions with which she had collaborated) facilitated her involvement in consultancy assignments during the COVID-19 pandemic, highlighting the importance of leaving a positive impression on professional acquaintances. During the week prior to the interview conducted within the context of this study, Chloe received two job offers based on her reputation:

> "It is really people knowing me. Somehow, we got to know each other. They liked how I work."

Olivia adopted an exploratory mindset in her career, emphasizing openness to diverse professional experiences without a strict predefined career goal:

> "I am at the stage where I need to have some vision, but I do not have it because my attitude has always been: Let us get out there and see what is interesting, and let us be looking for something that resonates.''

Her career path took an unexpected turn following a casual conversation at an international industry conference in the US, leading to a job offer from a newly forming media team based in Kyiv. The spontaneous decision to change jobs and relocate within a month demonstrates her willingness to embrace emerging opportunities:

"I said why not. I quit my job and moved to Kyiv in a month.

Olivia actively maintained her professional visibility by regularly updating her job profile and utilizing social networks to make her job search endeavors known to her contacts. In addition, she regularly attended networking events such as meetups and conferences. Similarly, Aria emphasized the power of LinkedIn as a networking tool that facilitates not just the showcasing of new certifications and accomplishments, but also the maintenance of professional visibility through established connections with former employers and colleagues.

Sara's serendipitous conversation directed her toward an available job opportunity that required a highly educated Roma to work for a minority rights NGO:

"I went there, and that was basically the turning point in my career."

Later, Sara had the opportunity again to join an EU institution in Brussels for a role that required a person with excellent research and analytical skills, and which was communicated to her through a former colleague:

> "She suggested me to her director, and after our conversation, we were both very excited to work together."

Eva utilized volunteering as a strategic entry point into organizations, allowing her to bypass the often-restrictive requirements of work permits. Her engagement with her university's alumni office, through volunteering and active roles within the alumni network, put her in the position to capitalize on these experiences and get a job within the alumni office without undergoing the traditional application process:

> "I knew the alumni relations office staff very well. So, when the job opened, they approached me directly."

Similarly, Naomi learned about a job opening at her university's alumni office while obtaining her alumni card and eventually secured the job.

Isla's transition into teaching Spanish, following a casual conversation with a friend who recommended her to teach at his school, gave her the first group of students and initiated a chain of referrals within the language teaching community:

> "Then other teachers telling me: Oh, in my school they are looking for another teacher, do you want to come?"

Also, Isla, being a yoga enthusiast, spotted an emerging opportunity when her instructor was about to leave Hungary, and she decided to become a yoga teacher/trainer:

> "I trained as a teacher. And since 2012, I am already a yoga teacher".

Adrian leveraged her quantitative research skills to secure a tutoring position at a time when she was facing financial challenges with her doctoral scholarship. She saw that by tutoring quantitative research methods, she could earn more money and maintain a longer period of employment, as none of her peers were as interested in a similar task:

> "I got super prepared and started rehearsing everything. I was relearning everything I learned five four years ago or more. And then I just started tutoring quants. non-stop until I did my defense."

Emma maintained an open mindset when her friend started a law firm and invited her to work as part of the firm or even freelance. This opportunity, meeting Emma's willingness to embrace unexpected job opportunities, allowed her to work independently, manage her schedule, and select only the cases of interest to her:

> "The firm would give me work to do like I do research for them, draft things, but it was sort of very much on my own time, in my own way, and the kinds of cases that I wanted to do very much."

Maya's transition to working at an embassy was the result of her friends knowing that she was actively looking out for job opportunities:

> "I had a few friends that could put me in touch with someone there. I submitted my CV. They were happy with it. They got themselves the clearance, internally at the ministry. So, that was really a piece of cake. It was easy."

In Geneva, where she described it as a "terribly competitive job market," Maya utilized her network again to land a job at an international organization:

> "It took a few months to explore all my contacts and friends and friends of friends who knew someone in Geneva. That is how I landed my first job here."

Ella highlighted the preferential treatment given to referrals in the technology/IT industry over blind applications. Her first two job opportunities after completing her master's degree were secured through referrals from acquaintances in the Netherlands and the UK. Similarly, Leo's experience in the Austrian job market emphasized the challenges of accessing job opportunities without the right network. Leo noted that external applications, at least in his experience, often go unanswered:

> "It has never worked out; I actually never got a response at all from any of the Austrian companies."

**Capitalizing on past experiences**

Another approach demonstrated by the study participants was capitalizing on their past experiences by understanding the links between what they had experienced in previous job roles or during their studies and aligning it with available and emerging career opportunities, which reflected both their occupational and self-knowledgeability.

Maya capitalized on her experience working for an anti-trafficking NGO in Moldova to secure an internship at a UN organization that required that type of experience, which showed her how the alignment of past experiences with the job's requirements can significantly simplify the job application and hiring process:

> "I was feeling right in what they are doing, and it was an easy interview to have. I knew exactly what I was doing."

Despite lacking direct experience in supply chains, Zoe effectively communicated to her potential employer how her background in transportation planning and environmental studies brings a unique perspective and a valuable skillset to the role:

> "It is not really a lot different, but also not completely similar."

Additionally, Zoe noted the importance of presenting recognizable names (i.e., employers) in one's CV, such as large UN organizations.

Loes reflected on how her experience in the development sector in Egypt and her familiarity with the NGO sector in the Netherlands (which she gained through consultancy work) enabled her to secure her first stable employment in a leading international NGO operating in the Netherlands.

Initially, Emma encountered a potential job opportunity at a university in the UK that was highly interesting to her. However, upon consulting her supervisor, she was advised against applying due to her lack of publications and sufficient experience in that specific academic field. His honest feedback, while initially discouraging, put her on a professional development path that lasted for two years, where she focused on gaining the necessary experience and enhancing her publication record. Two years later, another job opportunity emerged at the same university. Motivated by her enhanced professional/academic profile, Emma applied for the job and was able to secure it.

Sara was able to leverage her background and advocacy experience within the Roma community to explore job opportunities that address broader anti-racism efforts, including anti-Semitism, anthrophobia, and Islamophobia. Recognizing the transferability of her skills and experiences, Sara saw the opportunity to capitalize on her identity and work within a minority community:

> "It may sound opportunistic, but you are using this fact that you belong to a minority to get a job."

Isla capitalized on her diverse areas of study (i.e., design and gender studies) in her language teaching, making them more engaging and relatable to her students. Her multidisciplinary background not only enhanced the appeal of her lessons but also contributed significantly to her success as a language teacher:

> "People like my lessons, like talking with me, and I can share most of the interests of the students."

**Targeting**

In several instances, the study participants utilized their career knowledgeability to develop a clear vision of what they wanted to achieve in their careers or which jobs and/or industries they wanted to transition to. Such a targeted approach allowed them, on certain occasions, to make career moves that aligned with their evolving career interests or their personal circumstances at the time.

Initially, Maya found the advice to "target better" and "know what you want" somewhat abstract and impractical:

> "I was like, how is this even a thing? I want a job, and I want to be able to pay my bills. That is what I want."

Over time, however, Maya came to understand the strategic value of targeting specific sectors or employers of interest rather than

> "Trying to cast the super wide net that will get you all sorts of interviews."

Despite the broad nature of her philosophy and public policy studies, Maya learned, through a challenging process, how to better specify her interests and target positions that align with her desired career path.

Chloe explicitly communicated her intention not to remain in academia during a job interview in Denmark. She made it clear that she wants to transition to private sector development and work in consulting. Chloe's decision drove her to focus her efforts on the areas that would facilitate such a transition, even during her PhD studies:

> "I told them I like being here because I want to do this research. I want to get backing of what I want to do then."

Naomi's transition to a research consulting firm was initially driven by her interest in EU policy and the appeal of a full-time research position. However, this role led her to a significant realization: she cannot fulfill her passion for helping people through policy research alone. This insight initiated a transition toward a more direct, hands-on engagement with individuals through coaching, mentoring, and training:

> "I cannot be the policymaker and do not want to do just pure policy research. I would rather work with people face to face."

Iris reflected on her goals at this stage in her career:

> "This does not really mean that I am not an idealist or that I do not have a conceptualization of what is the perfect job for me; I have that, and I keep that in mind all the time … I want to know who I am now, and what do I actually want to do?"

She expressed interest in moving towards consultancy and focusing more on people management rather than on the technical aspect of work:

Aria's decision to move to Eastern Europe for further career development in IT highlights a highly targeted approach, which was influenced by both professional aspirations and logistical considerations:

> "I literally looked up where these sectors are going to grow … I was looking for a place that was still open for third-country nationals. So, you will end up in Eastern Europe."

Sara expressed a desire to transition into the administrative sector of the European Commission or the Parliament, motivated by her interest in job security for herself and her family, especially after having a newborn baby. Her interest in the inclusion and diversity offices within these institutions suggests a targeted approach not only based on her professional background in advocacy and policy but also on her personal considerations (i.e., the desire for a stable and inclusive work environment).

Zoe specifically targeted UN organizations for potential job opportunities based on her knowledge of the UN recruitment processes, which would allow her an easier path to obtaining a work permit as a third-country national. This knowledge also informed her job search strategy. Zoe's approach underscores the importance of aligning career aspirations with practical considerations such as residency requirements.

**Going through the normal application process**

Securing employment, as was the case in many instances, can also be the result of proper knowledgeability of the application process and how to leverage employers' hiring systems to land jobs without necessarily having direct contacts or insider knowledge.

Zoe noted the unexpected yet strategic advantage of having her profile as "available for hiring" on key job portals such as the UN's database (as in her case). That led to her first job with a UN organization. Such an opportunity, which she described as "nearly miraculous for a third-country national," highlights the importance of making oneself visible within systems that have the potential to recognize and match candidates' profiles with job vacancies:

> "I got my next job, and then the third one was completely unrelated; they were in desperate need of someone, and I was in desperate need of a job, and it was matched."

Despite her self-doubt, Emma applied for a maternity cover position at a university in Wales, where they rejected her several times before:

> "I thought they hated me so much. Should I apply again? I sort of went back and forth on it."

Her willingness to face potential rejection is essentially what enabled her to eventually secure the job.

Loes's job search strategy involved sending unsolicited emails with her CV to potential employers, a method that proved effective in Egypt. This proactive strategy resulted in multiple job offers and interviews. Loes's experience demonstrates the potential of unsolicited applications to open doors to employment opportunities despite having no internal contacts in those places:

> "I got two other jobs the same way; I just did not take the jobs, but I got actually a number of interviews in Egypt in the same way."

Sara's success in securing a position in an EU institution was achieved despite her initial skepticism about her chances, as she perceived other candidates in Brussels to have superior experience and connections compared to hers:

> "I was very convinced that I will not get this job."

A similar situation took place in Serbia, where she applied for a job through an official governmental call:

> "They did not have someone that they knew, so they employed someone who applied."

Alex's narrative demonstrates how going through the normal application process, even without having insider contacts, can result in securing job opportunities. Despite submitting several applications that were met with silence, Alex suddenly received an invitation to an interview at a UN organization operating in Hungary, where he continues to work.

**Responding to market needs**

In a demonstration of their self-reactiveness, several study participants were highly proactive in equipping themselves with the needed skills and knowledge to land jobs in their areas of interest. That required a good level of occupational knowledgeability as well as self-knowledgeability (i.e., an adequate understanding of both field-specific job market needs and awareness of their professional strengths and weaknesses).

Olivia ventured into the digital licensing world at a time when the concept of online movie streaming was still unfamiliar to most people. Nevertheless, the field has grown significantly with the digitalization of movie distribution. Her move was facilitated by her experience with a game publisher's small project on an online movie streaming platform. This highlights her awareness of and responsiveness to new developments in the labor market, including emerging occupational fields:

> "In five-ten years, things will look so different; being a graduate now, you cannot just plan for that career."

Aria engaged in self-directed learning, taught herself to use WordPress and video editing software, and started publishing blogs and vlogs for a specific audience. That enabled Aria to develop a skillset that was increasingly in demand. These self-taught skills ultimately secured her a job offer from a global IT firm.

As Adrian noticed the general lack of interest in teaching statistics among sociologists in the UK, she capitalized on this niche area, distinguishing herself within her department where only three (including herself) out of thirty sociology academics specialized in statistics:

> "It is not a field that social scientists in the UK do, and as you probably know, students do not want to do stats … The job market is kind of skewed because all the people that can do stats are not in academia, at least in social sciences. They are in Amazon and things like this, and I am still in academia, so I guess I have an advantage."

Sofia took proactive measures to acquire essential operation, marketing, and management skills to complement her anthropology background to prepare herself for a career in the food and beverage industry:

> "I see myself as an anthropologist working in the food and beverage industry."

Similarly, Max's realization of the importance of data analysis in the research consulting industry and his decision to intensify his focus on this area represented a strategic response to labor market demands, eventually securing him the desired position.

Iris's emphasis on technical upskilling during her bachelor's studies, particularly in R and Python, showcases the importance of aligning educational and extracurricular activities with market demands. Her awareness of the gap in her arts and humanities background and her lack of market-relevant skills led her to acquire technical competencies that put her in a unique position to secure employment right after completing her studies:

> "My background was kind of just on the sweet spot for this job; it needed someone from social sciences, but also to be able to understand and do some programming and machine learning stuff."

**Capitalizing on established work relationships**

On several occasions, study participants were able to capitalize on their established relationships with former clients, colleagues, or employers to secure future employment, reflecting their proper understanding of the value of building and maintaining an excellent professional reputation.

Chloe's transition from a government position to consulting underscores the strategic utilization of established work/professional relationships to secure employment. Her prior collaboration with leading public and private sector organizations during her government tenure facilitated her seamless move into consulting:

> "The experience of working with me on the other side, getting to know how my work is, and then having established this relationship of trust and delivery of good results that they expect was key."

Eva's experiences with several organizations that she volunteered with and the professional relationships that she maintained enabled her to secure employment in two of those organizations at later stages in her career:

> "By volunteering, I was able to get my foot in the door. People in the organization knew me already. And because it is not an employment, usually it does not require work permits and visas and all that, so that makes it easier."

Leo's initial part-time role in an embassy during his final university year granted him a full-time position as a political analyst at a later stage:

> "The work environment at that moment was positive enough, and my performance was positive enough."

Similarly, Max's experience as an intern at a research center led to an offer to stay on a project basis.

## 4.3. Career agility

The analysis of the participants' career stories not only confirmed the study's hypotheses and validated and refined the career knowledgeability concept but also contributed to shedding light on an underlying set of behaviors and attitudes that form the basis for the career self-management process. These behaviors and attitudes shape the graduate's mindset and approach toward his/her career while navigating available opportunities and existing constraints. For example, a graduate is engaged in career self-management and acting (self-reactiveness) on his/her formulated career goals (intentionality and forethought). His/her approach to career self-management is informed/guided by his/her career knowledgeability (e.g., knowledge of an emerging and highly financially rewarding occupational field that influenced his/her career goals and the actions needed to realize such goals). However, he/she encountered an unforeseen

obstacle (e.g., an unexpected physical limitation as it was the actual situation with one of the study participants). Dealing with such an obstacle in a way that maintains the commitment to achieving adequate employment outcomes and career satisfaction requires a particular attitude and mindset for dealing with and potentially overcoming such an obstacle. In this example, it would require a mindset that embraces adaptability and flexibility, perseverance, and resourcefulness.

While validating the hypothesized career knowledgeability concept relied on the **deductive analysis** of data (deductive coding), the set of behaviors and attitudes were identified as the result of an **inductive analysis** and coding process. The insights into the identified behaviors and attitudes emerged organically from the analysis of textual material in alignment with the grounded theory approach, where theories emerge in a bottom-up approach from the analysis of empirical observations. That included the constant and iterative process of adding new codes, refining code definitions, breaking down codes into subcodes, and merging two or more codes into a parent code. Meanwhile, I refer to them as "behaviors and attitudes" to account for their dual nature. For example, while "pragmatism" reflects a practical approach to problems and emerging opportunities that prioritizes practical results and real-world effects, it can also be seen as an attitude towards career decision-making.

Upon identifying the final and complete list of behaviors and attitudes and analyzing their interrelations and interconnectedness, they were thematically brought together under the overarching concept of "career agility." Career agility, within the context of this study, represents the underlying and central behavior/attitude shaping career self-management in uncertain times and unpredictable environments.

A few scholars, such as Coetzee et al. (2020; 2021; 2022; 2023) and Coetzee (2021; 2022), have attempted the conceptualization and empirical investigation of the 'career agility' concept

and to bring it from popular media to scholarly debate. Coetzee et al. (2020) analyzed career agility as an indicator of adaptive readiness (adaptivity) that contributes to the activation of career adaptability (Savickas, 2013; Rudolph et al., 2017). Their research conceptualized the following career agility facets (cognitive-affective psychological states): technological adaptivity, agile learning, and career navigation, which work as antecedents of career adaptability. Technological adaptivity comes in the form of career optimism towards technological advancement and the emerging job/career opportunities that come with it. Agile learning represents eagerness to learn and take advantage of new opportunities aligned with individuals' career goals. Career navigation, within this context, refers to individuals' willingness to adapt to change and uncertainty while navigating their careers and to scan their environments for new opportunities.

For the purpose of this study, I depart from the definition of career agility, elaborated above, to embrace a broader understanding of the concept. Within the context of this study and the proposed conceptual framework, career agility refers to a multidimensional concept that encapsulates the individual's capacity to navigate and adapt one's professional/career trajectory in response to evolving career interests and goals, opportunities, and external circumstances. It is characterized by a strong openness/willingness to pivot from original plans and explore new paths when needed or mandated. It also entails embracing continuous learning and professional development, anticipating and responding to changes, and identifying and seizing emerging opportunities, allowing individuals to pivot across job roles and industries. In this study, career agility encapsulates the following set of behaviors and attitudes: adaptability and flexibility, resilience and perseverance, pragmatism, muddling-through, resourcefulness, and growth orientation.

The following examples from the participants' career stories offer a glimpse into their career agility and how it shaped their career self-management practices. Later sections offer in-depth analyses of career agility constituent behaviors and attitudes, drawing on examples and real-life situations from the participants' career stories.

**Emma** demonstrated an agile career approach by adapting her professional path to changing career interests and emerging opportunities. She chose to engage in freelance legal work as a strategy to maintain autonomy over her time and choice of cases, which afforded her the freedom to explore her career interests further. Over time, Emma came to realize that her career path was not aligning with her true interests, which motivated the transition from a traditional legal career into an academic study of criminology to tackle the social and psychological underpinnings of criminal behavior in young offenders:

> "I do remember going to court with my friend and she was doing a case with a young offender, and I had got really interested in criminal law while working at the judiciary and particularly in stuff with young offenders."

She decided to pursue a master's degree, followed by doctoral studies in criminology, diverging from her initial plan to become a barrister. The choice was also influenced by her passion for research:

> "I really fell in love with the research element of it. I did not really want to do that anymore. It was not the life that I wanted for myself. So, I decided that I wanted to do this master's."

**Chloe's** initial plan to return to Budapest and continue her studies was significantly altered when she was invited to work for the government. This opportunity represented a substantial shift from her previous academic focus, yet she embraced the challenge and seized the emerging opportunity. Moreover, she did so while managing the responsibilities of motherhood. Later, when Chloe struggled to balance her doctoral studies with her demanding advisory role, she made the pragmatic decision to drop her PhD. Another pivot occurred when Chloe realized that

her job in the public sector was not giving her the career satisfaction she hoped for, so she shifted her focus back to research and consulting.

**Eva** had a sudden and intensive exposure to international work after going to the US for a year to complete a professional fellowship exchange program for young professionals in the non-profit sector. The program included significant travel to Greece and Nigeria as part of a project on the European refugee crisis:

> "I finally felt I could apply all of my skills and everything I learned in all of my previous education.".

At a later stage, and after contemplating a career in international relations, similar to her father, she discovered that such a career did not align with her true career interests, which motivated a pivot towards international development and humanitarian aid.

**Olivia** took on diverse professional roles, demonstrating a strong willingness to explore and adapt. Her journey is characterized by what she described as "zigzagging*"* between industries. One notable pivot/transition in her career was her decision to leave her well-paying yet unchallenging job in media analysis for a more challenging opportunity in Kyiv, which she learned about through people she met at a conference. Another notable pivot was the transition to her current role in licensing movies for digital distribution, demonstrating her ability to adapt to emerging industries:

> "This kind of profession did not exist 20 years ago because there were no movies online. This is it. And even if I wanted to build this career, it would not be possible because there was no such a concept."

**Isla** pivoted from architecture to digital graphic design, an emerging field at the time. While her career was oriented towards design, she had to shift her career focus again due to a significant health issue. This physical limitation, particularly impactful in a field demanding extensive computer work, led her to reconsider her career path. Isla transitioned to teaching

languages, a profession she had experience in from her time in Mexico. This pivot illustrates Isla's career agility and her adaptability and resourcefulness, particularly in the face of unforeseen challenges.

Initially deeply invested in academia, **Max** decided to readjust his career focus while in the second year of his PhD. He started exploring available career opportunities beyond academia, demonstrating an agile mindset and an openness to adjusting his career trajectory based on evolving interests and practical considerations. The turning point in Max's career was his gradual yet significant transformation from a rigid academic focus to a non-academic career in consulting (research and policy analysis).

Motivated by her interest in policy research combined with a pragmatic approach to secure stable employment, **Naomi** seized the opportunity to work as a policy researcher/analyst while doing coaching and training activities on the side. Over time, Naomi became increasingly aware of her passion for working directly with people and helping them, a realization that led her to reconsider her career path. Such a realization pushed her to make a complete transition into coaching, mentoring, and training, allowing her to engage directly with individuals and impact their lives in the way she aimed to.

Originally aspiring to work in film production, **Iris's** passion for arts and humanities was evident during her bachelor's degree. However, she faced significant obstacles as an immigrant in the US, where language and regulatory barriers limited her access to desired roles in film production. This early challenge in her career required her to reassess her options and adapt to the realities of the labor market. Recognizing the competitive nature of the film industry, Iris embraced a pragmatic approach to broaden her job search to include roles that matched her skillset and experience, regardless of the industry:

> "When I graduated in 2020, I gave myself up to 10 years to change industries … I still wanted to get into film, but I already knew that it was not going to happen, so I am just going to apply for everything that I find applicable to my skillset and my experiences."

### 4.3.1. Adaptability and flexibility

Adaptability and flexibility reflect individuals' ability to adjust to changes and effectively navigate uncertainties in their career paths (e.g., shifting job roles, transitioning to a different industry, or responding to broader economic or technological changes). Such behaviors/attitudes can be manifested, for example, in the willingness to learn new skills, embrace new and emerging technologies and industries, geographically relocate, or modify career goals in response to evolving market demands and career interests. Adaptability and flexibility were found to be vital components of the study participants' career agility.

Initially working at the judiciary, Emma was presented with a serendipitous opportunity: a friend noticed a flyer for PhD funding at a university in the UK and thought it might interest her. Despite the short three-day notice before the application deadline, Emma decided to seize the opportunity:

> "I looked at it and thought I would give this a go. You do not have anything to lose."

Moving forward, as Emma transitioned into a new phase in her career (i.e., the academic study of criminology), she was able to adapt to and work within the constraints of her new and unfamiliar professional environment:

> "The employment field was not an easy one to navigate; the salary was not the best, but it was far from the worst salary."

Initially, Chloe was planning to return to Hungary to continue her studies after having her first child. However, a significant shift occurred when the government in her home country changed, leading to an unexpected invitation from an acquaintance to work for the new government.

"For me, it was quite a big challenge, given what I have been doing before."

Despite the stark deviation from her original plan, Chloe embraced this opportunity. Her journey with the government, however, was not without its challenges. After two years, she found her initial enthusiasm fading due to disappointments in the role. However, she was able to adapt to the situation and switch professional roles within the same government. Moving forward, Chloe demonstrated high flexibility while contemplating various career options: carrying out smaller consulting assignments as she used to do before, taking on a significant role in a big consulting firm, or even starting her own consulting firm:

> "These are the opportunities I am considering, and I think all of them have a fair chance. It is about what I want."

Olivia's adaptability and flexibility were evident throughout her career. One notable example is when she had a spontaneous meeting with professionals from Kyiv while attending an industry conference in the US. She decided on the spot to join their media team and was willing to relocate to Kyiv within only a month:

> "I said why not. I quit my job and moved to Kyiv in a month."

When Maya transitioned from the familiar, fast-paced environment at one of the leading international consulting firms, she found a stark contrast in academia, with a different approach to task management. This transition required Maya to undergo a significant adaptation process. While she experienced initial frustration, feeling that tasks were not as efficiently handled as in her previous roles, she gradually recognized the need to adjust her expectations and approach to align with her new environment:

> "I felt horrible because I felt like no one is doing anything, nothing is urgent, no tasks are being distributed correctly. I was genuinely not understanding that I was in a different environment … I had to go through the pain of adapting by myself, so it was only then that I became conscious of these things and started thinking about it more actively to use these lessons for later."

Starting with a research year in Japan, Isla progressed to a master's degree and then a PhD. However, technological advancement (i.e., a complete shift to computer graphics) led to the closure of her department before she could complete her PhD. Such rapid evolution in her field required Isla to continuously adapt to new technologies and job roles:

> "I had to adapt, but I can say that I looked for it. I could have just stayed and said I will continue doing my things and wait till the university can provide these courses. But I wanted to be up to date."

Her adaptability was further tested when a physical limitation impacted her ability to work on computers, which led her to reconsider her career focus and move away from the demanding design work that exacerbated her condition. While recovering, she identified a strong demand for language teaching in Hungary. In response, she shifted her professional focus to language instruction, leveraging her proficiency in English and Spanish.

Alex's experience after graduating showcases a significant level of adaptability and flexibility as a third-country national seeking employment in Europe. He had to work in the kitchen of a restaurant in Budapest while studying. After graduating, and in anticipation of potential visa issues (i.e., his ability to maintain legal residency in Hungary), he reached out to his contacts at the restaurant. They were willing to offer him a job and sponsor his work permit, allowing him to secure his livelihood while staying longer in Hungary to search for jobs. He was eventually able to achieve adequate employment at a UN organization operating in Hungary:

> "My understanding is that if you are looking for a job here in Europe as a third-country national, then you might probably want to also settle sometimes for jobs that do not even match your skills but just because you also want to find something and be able to pay your bills and stay as well."

After struggling to secure employment in Hungary, Adrian had to return to her home country. Adrian's career took a positive turn in Mexico when she was offered a senior lecturer position, teaching undergraduate courses at a Mexican university. She was flexible enough to transition from seeking opportunities in Hungary to establishing herself in an academic role in Mexico.

A year later, she was offered the position of head of research, a role she held for two years. Her flexibility with staying in Mexico for a few years while initially wanting to work abroad paid off when she managed to obtain funding to do a PhD in Edinburgh and pursue her career aspirations.

### 4.3.2. Resilience and perseverance

Within the framework of career agility, resilience and perseverance are crucial to enabling OTD-graduates to navigate inevitable challenges, setbacks, and failures encountered throughout their career self-management. Moreover, resilience and perseverance enable them to emerge from such setbacks and challenges stronger and more focused on their career goals. Resilience allows for quick recovery and adaptation following the encountered setbacks while maintaining a positive outlook. Meanwhile, perseverance ensures continuous effort and sustained commitment, despite difficulties, towards achieving career success.

Eva, who described herself as a "perfectionist," struggled at the beginning with understanding and handling rejection:

> "I did get a lot of rejections, and I did not always believe in myself. Back in my mind, I did not want to give up, but I did not always believe it would be possible … It is tough being rejected, especially for me, because I think I am a perfectionist. So, I do not deal well with rejection generally, and I tend to take it very personally."

Over the years, she has shifted her perception to recognize that rejections are often not personal. This change in mindset was key to building her resilience through different challenging experiences, including returning to her home country three times in her career.

Similarly, Loes's resilience was evident in her attitude towards rejections. She highlighted that she does not get frustrated easily or take rejections personally. Upon arriving in the Netherlands, Loes actively pursued job opportunities in NGOs. She encountered difficulties in securing a

position. However, Loes recognized that job applications require not just effort but also time and a degree of luck. She eventually secured adequate employment and an attractive position at one of the leading international NGOs.

Emma's story is a powerful illustration of perseverance. Coming from a small agricultural village in the Caribbean, her father's journey from poverty to success through education profoundly influenced her:

> "It was a real problem for my dad. He grew up really poor. He went to school with no shoes. He grew up really poor in a really poor community. And his way out of that was education."

Moving forward, and despite witnessing her law school peers achieve greater financial success, Emma's commitment to achieving career success on her terms was very strong. That was the case even in the face of financial challenges during her PhD, where she had to navigate limited work hours and reduced teaching income:

> "Sometimes, when I was living off the PhD stipend, I would look on Facebook or even when I would go home to visit my friends whom I had gone to law school with, who continued to practice law. They had multiple cars, and they were all buying up their homes, and they lived in beautiful homes, and their lives were very different from mine. And sometimes I thought, oh my God, am I doing the right thing? I am struggling a lot more than they were, but that was very fleeting … I have no doubts that I will be a professor."

Olivia underwent an endurance test while working in a startup for four years, which led to significant financial loss and personal debt:

> "There was a period of four years where I was part of a startup, and we lost all of our money. My credit cards were all in red."

Eventually, she managed to achieve both career and financial success. Olivia's perspective on survival and courage is particularly noteworthy. She viewed courage not just as the boldness to take risks but as an understanding of the possibility of failure and the belief in one's ability to persevere through it:

> "Sometimes being courageous means that you just have this inner understanding to try and to lose and to know that you will survive anyhow."

Working at an NGO under a temporary one-year contract, Maya faced a significant challenge at the end of that period. The nature of her employment meant she was not eligible for Switzerland's social security benefits. This situation left Maya without the usual safety nets, such as unemployment benefits or support services, rendering her particularly vulnerable. The situation led her to engage in an extensive job search without any external support. This phase, lasting almost a year, tested her perseverance while steering her career:

Initially, Isla had a condition that severely impacted her ability to work in her chosen field of graphic design as it demanded extensive computer use. The severity of her condition mandated a year of rehabilitation, which caused a significant disruption in her career and personal life. To adapt to these circumstances, Isla shifted her focus and enrolled in a master's program in gender studies. However, the repetitive strain of writing and computer use exacerbated her condition, which delayed her graduation by three years to undergo continuous treatment:

> "After several months of treatment for my arm, it was like a whole month with migraine, 24 hours. I think I slept for one month, only waking up to eat. Sometimes, I cannot even force it to hold the spoon, so it was very hard."

Despite these struggles, Isla sustained what she perceived as a satisfactory career.

Alex's experience in Hungary highlights his resilience in the face of persistent job rejections. The volume of rejections Alex received while job hunting led him to question his abilities and whether he was "good enough." Despite self-doubt, Alex moved from perceiving rejections as personal failures to understanding them as part of a larger systemic issue related to employment and immigration policies.

> "I started feeling like, well, maybe I was not good enough, or I was not selling myself enough … I have started thinking that, well, not all of them might probably be my fault, and it is just the system and how things were."

During that time, Alex had to work in the kitchen of a restaurant in Budapest alongside his studies, where he was responsible for frying and preparing meals, with his work hours often extending beyond a full eight-hour shift, predominantly during nighttime. Eventually, he succeeded in securing employment at a UN organization operating in Hungary (from which he also received several rejections in the beginning).

Similarly, Naomi noted the impact of the few acceptances she received on her perception of the application process. Despite more rejections than acceptances, these positive responses significantly shaped her approach and maintained her determination and self-esteem.

### 4.3.3. Pragmatism

Pragmatism, within the framework of career agility and in the context of career self-management, entails strategically aligning career aspirations with the practical realities of the job market (and with personal circumstances and constraints). It reflects a realistic self-assessment of one's chances and career prospects, combined with the flexibility and willingness to leverage available and emerging opportunities, which may deviate from the planned course of action or career path for practical considerations (such as financial stability or market demand). It is also about striking a balance between ambition and a realistic understanding of what is achievable considering the existing constraints and limitations (internal and external ones).

Despite being fond of living and working in Lebanon, Eva confronted the reality of the local job market, which was saturated with highly qualified multilingual Lebanese professionals (speaking English, Arabic, and French). She pragmatically assessed her chances of securing employment in such a competitive environment, which led her to seek employment abroad. Eva emphasized the need for a balanced understanding of one's abilities, avoiding both

undervaluation and overestimation of oneself, which led her always to align career aspirations with practical realities:

> "As a young professional or a recent graduate, thinking that you are the best and anybody would be lucky to have you, that is not necessarily always the right approach. You should basically have a realistic picture of yourself. You should know what you are capable of, and you should know your worth, but also not overestimate your own image in your own eyes."

When Loes started working with a leading Egyptian NGO, her status as a single mother significantly influenced her career decisions. Her priority shifted to ensuring financial stability for her and her child, leading her to capitalize on her existing experience in fundraising in Egypt. At a later stage in her career, she worked part-time for a higher education institutions (HEIs) ranking platform, assisting in ranking Arabic universities. Even though the job was unrelated to her career path and offered modest pay, she recognized the necessity of the role as a means to support herself, especially as a graduate student. She also emphasized the necessity of maintaining a realistic self-image:

> "I think I am also just a bit realistic about my abilities and what I can handle and what I cannot handle. I am not the kind of person who would say oh, I am so good at working under stress. I do not want anybody putting me under stress."

Alex, after spending time in Austria, chose to return to Hungary. He believed that he would have a higher chance of navigating the Hungarian system successfully as a third-country national compared to the Austrian one. This was the result of his evaluation of the complexities of the immigration systems in both countries. He also expressed the view that, as a third-country national, one might have to accept jobs that do not align with one's skillset and the need, on certain occasions, to secure employment for financial considerations, even if it means deviating from one's preferred career path.

Sofia exhibited a realistic perspective on her career prospects, particularly in relation to the competitive academic environment in India. Her decision not to immediately return to India

after completing her PhD was based on a clear understanding of the intense competition she would face in Indian universities. She understood that HEIs in India have a wealth of highly qualified candidates to choose from, and she was aware that her academic profile might not be competitive enough to secure a good academic position in India. Instead, she decided to delay her return until she had accumulated substantial academic merit:

> "Indians are super competitive, so all the universities are good universities in India, and there is a long list of students who are already here applying for staff; Indian universities are spoiled for choices. So, I would rather want to come back to India at a point in time when I have enough academic merit, I mean on paper, where I can actually choose to be in a place where I would want to be."

Max acknowledged the near impossibility of securing a permanent academic position after completing his doctoral studies. He was also aware that even if he was to return to his home country to teach, the financial rewards would be inadequate. Such tension between pursuing his academic interests in sociology and the need for financial security, being aware of his responsibilities to provide for himself and potentially a future family, made him more flexible and open to exploring other opportunities beyond academia, which eventually secured him a job in consulting:

> "I have to buy my own house, I have to provide everything for myself, and with this degree that I am doing, that is impossible, and I always had this guilt because people around me did not have these issues, and I did. I am not supposed to live this life … I am trying to bring these two things together, like still doing something I am interested in but also trying to see where I can make a decent future."

While initially aspiring to work in film production during her bachelor's studies, Iris was challenged by the immigration system in the US, which limited her access to the job market. This realization forced her to recalibrate her career expectations early on. By the time she started her master's, Iris had already accepted that her dream job in film might not materialize. In addition, her brief experience in film production as an intern challenged her idealized expectations of the industry and made her come to realize that even what she initially perceived

as a "dream job" could also be routine and demanding. That led her to adopt a more flexible and realistic approach:

> "I already knew that it was not going to happen, so I am just going to apply for everything that I find applicable to my skill set and my experiences … Now, I have this attitude of like a job is what you make of it. I am just much more open as well to just apply for different kinds of jobs."

### 4.3.4. Muddling-through

Muddling-through is a distinctive behavior within the career agility framework. It describes the approach to navigating one's career without a definitive plan, leaving considerable room for flexibility and responsiveness to opportunities and events as they arise. This approach emphasizes openness to exploration, readiness to recalibrate career goals based on newfound insights and changing circumstances, and continuously re-evaluating one's career position. At its core, it is a process of uncertainty management.

Early in her career, Olivia did not have a specific goal or endpoint in mind. Instead, she adopted an exploratory attitude, focusing on discovering what was interesting and relevant to her at different stages in her career. Such an approach reflects the willingness to engage with emerging opportunities without a fixed plan. Currently, Olivia finds herself in a phase in her career where societal expectations and peer pressure often dictate having a clear career vision. However, she stays committed to her ongoing openness to exploration:

> "I am at the stage where I need to have some vision, but I do not have it because my attitude has always been, let us get out there and see what is interesting, and let us be looking for something that resonates."

Relocating from the Middle East to Europe, Ella faced significant uncertainty. She had to navigate unfamiliar job markets, not knowing which job portals were relevant or how to negotiate or even understand salary levels in a different cultural and professional landscape.

She adopted an approach of learning and adapting as she advanced in her career, accumulating career knowledgeability in an unfamiliar context.

In Mexico, Adrian found the academic environment straightforward and easy to navigate, likely due to her familiarity with the local academic context. However, she encountered a different academic landscape and job market upon moving to the UK. Without prior experience or any direct contacts in UK academia, she had to deal with a high degree of uncertainty:

> "I had stereotypes that you see on movies and TV about Oxford and Cambridge and all these things, but I did not have any direct references, so I did not exactly know what to expect."

She had to learn, adapt, and accumulate knowledgeability as she went along. Despite the initial lack of clarity, she found the UK academic system to be straightforward once she became accustomed to it.

Initially, Max chose to study a field he was interested in (psychology) without a specific career goal in mind. His approach of "let us see how it goes" is a good representation of the "muddling-through" concept, which reflects an openness to exploring opportunities as they emerge and adapting based on experiences and interests. He also noted that the lack of a reliable source of information about the job market and career options left him to figure out things independently.

### 4.3.5. Resourcefulness

Resourcefulness represents the creative capacity to address challenges and make the most of available resources, regardless of how limited they may be, to achieve one's career goals. It encompasses the ability to identify and leverage opportunities, solve problems, and capitalize on existing resources, including through unconventional means. Such an approach is crucial when facing uncertainties and challenges such as limited access to resources or structural/labor market constraints.

The financial challenges Emma faced during the fourth year of her doctoral studies highlight her resourcefulness in managing her finances while fulfilling her academic commitments. With her funding completed, she relied on income from teaching to support herself. The situation became more challenging when her teaching hours were reduced, significantly impacting her financial stability. Her reaction to this setback was to start job hunting while finishing her PhD, which represents her ability to find practical solutions to ensure her academic and financial needs were met:

> "I remember crying about it because I was like, well, what am I going to do? I need this teaching. I need to finish my PhD. And I thought, well, I would finish the PhD and then start looking for jobs, but I do not really have that luxury. So, I am going to have to start looking a lot earlier."

Lily demonstrated resourcefulness while navigating the social dynamics of academia in Sweden. She recognized that being perceived as an "insider" could significantly impact her career trajectory as she came to understand that personal character and reputation can influence job opportunities in Sweden as much as academic achievements. Lily adopted a strategic/intentional approach to building her professional image within the Swedish academic community in her field, independent of her publishing record or research skills.

Eva illustrated resourcefulness through her ability to find and secure employment that fits her unique circumstances. She was able to secure a position in an international NGO based in the US and Ireland, offering remote work opportunities. This arrangement allowed her to work from Moscow without needing a work permit, addressing the challenge of geographical and legal constraints.

Olivia demonstrated resourcefulness in her job search process. She adopted a broad and balanced job search approach across multiple cities, including London, Berlin, and Singapore. She would simultaneously look for a "sure" job to cover basic expenses while pursuing more

ambitious opportunities, representing a pragmatic yet strategic approach to career planning. She also viewed job interviews as valuable experiences and a source of learning, regardless of the outcome. Such an attitude ensured that every step of her job search, even unsuccessful interviews, contributed to her professional growth and prepared her for future opportunities:

> "I am looking for something sure, just to pay my rent, but there is always a second option if things do not go the best way scenario. If I do not land this job, at least I will go through a couple of interviews and get this experience of doing an interview in English."

Ella faced a common challenge for many third-country nationals seeking employment in the UK: the limitations on visa sponsorships. When a potential employer in England expressed a preference to reserve visa sponsorships for technical departments, Ella made a strategic decision to find employment in Dublin, which was close enough to London but offered better prospects for her career under her visa conditions.

Alex, being aware of the potential challenges he might face regarding his legal stay in Europe after graduating, explored different avenues such as internships and job-seeking visas as potential solutions:

> "For me, those were some of the ways that I was trying to deal with these constraints in terms of the legal aspects and the knowledge base of the labor market."

While searching for jobs, Aria did not passively wait for opportunities; instead, she actively sought to enhance her skillset to increase her chances. She decided to familiarize herself with WordPress and video editing, which was a strategic move to align herself with the digital demands of contemporary jobs. Her proactive approach paid off when she secured a job with one of the leading global IT companies. It was not just her formal qualifications that enabled her to secure the job. It was her additional self-taught digital skills that made her stand out. Moreover, Aria's decision to shift to a technical position was a strategic move to mitigate gender bias, which she found to be more prevalent in non-technical roles.

Initially arriving on a tourist visa, Naomi was aware of its three-month limitation. Understanding the constraints of her situation, Naomi aimed to find a job within two months or return to Turkmenistan, where she had a job opportunity waiting. Moreover, upon securing a job, she managed to receive an exception from the Hungarian immigration office to have her work permit application processed in Hungary instead of the typical process of having to return to her home country and start her work permit application from there. This reflects her resourcefulness and ability to navigate complex bureaucratic processes. In addition, when she moved to a new job that she was allowed to do remotely for a company based in another EU country, she found a solution to maintain her legal residence in Hungary by registering as a business owner. This move was a creative solution to her employment and residency challenges, which allowed her to obtain a residence permit for gainful activity.

### 4.3.6. Growth orientation

Growth orientation is a proactive approach to personal and professional development that includes continuous skill enhancement, acquiring relevant qualifications, and strategically aligning one's career goals and interests with market demands. Individuals with a growth orientation ambitiously seek to enhance their expertise to advance their careers.

Aria's recognition of the necessity to gain relevant certifications for her planned transition from communication science to the IT sector reflects a growth-oriented mindset and an understanding that continuous learning and upskilling are crucial for career progression. Moreover, Aria found a role model within her company who successfully transitioned into a technical IT role, which reinforced her desire for professional growth:

> "I found a lady in my own company who did exactly what I did, but she grew on the technical ladder, not even on my ladder. She did a sidestep, and she really is IT now. They decided that or something like that. So OK, it is possible. She is my role model."

Sofia realized, while working with girls in her social work, that she needed to theoretically frame her practical experiences, which eventually fueled her desire for academic growth. This insight led her to pursue a degree in anthropology, combining her hands-on social work experience with a more theoretical and analytical background. Moreover, as she grew more aware of the underdevelopment of food studies in India, she developed the ambition of working as an anthropologist in the food and beverage industries. She has become aware that this knowledge would be in demand in regions with less understanding of the Indian context such as North America and Germany. Her efforts to pursue courses and training in specific market skills in operations, marketing, and management through online learning platforms also reflect a commitment to continuous learning and a growth-oriented mindset.

Chloe demonstrated a growth-oriented mindset as she decided to drop her studies in Hungary and transition to a business school in Denmark due to a change in her work focus towards international business and economy. This transition reflects her commitment to aligning her education with her evolving career interests and a desire to continue growing and learning in areas most relevant to her career goals.

Max, upon realizing the limitations of the academic job market, particularly in sociology, and as he grew interested in securing relevant and rewarding employment outside academia, he took measures to upskill himself in areas such as quantitative research and data analysis, which eventually granted him a satisfactory position in one of the leading research consulting firms in Europe.

# CHAPTER 5. CAREER KNOWLEDGEABILITY: A CONCEPTUAL MODEL

The analysis of the study participants' career stories not only answered the study questions and confirmed and further refined the study hypotheses, but also led to a broader understanding of career self-management dynamics. This broadened and enhanced understanding was the outcome of the holistic analysis of the participants' career self-management practices beyond those related to the career knowledgeability concept, which is the key focus of this exploratory research inquiry. Central to the emergent findings is the "career agility" multidimensional concept and its constituting elements (i.e., identified career agility behaviors and attitudes). This affirms the methodological and analytical utility of combining both deductive and inductive qualitative data analysis approaches in exploratory research. Such a combination of compatible and even synergistic methodological approaches allows for starting with a set of initial yet elaborate theoretical and conceptual assumptions on the nature of the phenomenon under study while allowing for empirical observations to validate, refine, and expand those initial assumptions/hypotheses. This results in a level of empirically grounded conceptual understanding of the phenomenon that is neither too buried in theory to the level that becomes detached from reality nor entirely driven by a narrow range of empirical observations that remain disconnected from theory and do not leverage the available scholarly literature.



## 5.1. Confirming the study hypotheses

In an attempt to answer the main study question, "What is the role of career knowledgeability in the career self-management process of higher education graduates from occupationally transversal disciplines?" a set of hypotheses was formulated in response to this study research question and its sub-questions.

**H-1: Career knowledgeability is a multidimensional concept consisting of labor market knowledgeability, occupational knowledgeability, and self-knowledgeability.**

The analysis of the participants' career stories, as elaborated in the previous chapter, offered solid evidence stemming from different real-life situations communicated by the participants on the substantial level of career knowledgeability all the participants, with varying degrees, were able to demonstrate. Such career knowledgeability was indeed multidimensional and multifaceted. It was evident concerning understanding labor market dynamics, demonstrating occupational or field-specific knowledge, and expressing a high level of self-knowledgeability.

Regarding **labor market knowledgeability**, the participants showcased their understanding of the characteristics of the labor market(s) they were navigating. For example, they demonstrated adequate knowledge of the different labor and immigration systems they were exposed to or the ability to navigate job market competition. They also indicated their adequate and up-to-date knowledge of market demands and whether they have what renders them competitive enough to secure employment in Europe. In addition, the study participants shared several stories/situations that affirm their in-depth understanding of recruitment practices in different job markets. Their understanding of the labor market went beyond formal knowledge to include awareness of labor market realities and the rules of the game that they need to embrace to secure their position as OTD-graduates and third-country nationals navigating the European labor market.

Similar knowledge and state of understanding were also evident in relation to their occupational fields of interest. Such **occupational knowledgeability** allowed them to successfully navigate different occupational (field-specific) job markets and make informed career choices accordingly. Occupational knowledgeability, in the case of OTD-graduates, was particularly influential in shaping their career journeys. It enabled them to evaluate available options and

make informed decisions about which occupational field would be more interesting and/or more feasible for them to enter.

When it comes to **self-knowledgeability,** it was evident in the shared career stories and specific examples/situations that the study participants tended to continuously engage in self-reflectiveness, an essential aspect of the career self-management process. Such self-reflectiveness resulted in a higher degree of self-knowledgeability that included deep reflections on their positions in the job market and their career trajectories; a set of self-efficacy beliefs that are continuously assessed, validated, and refined; self-awareness of career-related strengths and weaknesses; and acknowledgment of different career-related personal constraints while reflecting on how to deal with them.

**H-2: Career knowledgeability is a necessary condition, but not sufficient, for OTD-graduates to self-manage their careers toward achieving adequate employment outcomes.**

All the study participants, through their shared career stories, demonstrated, with varying degrees, adequate levels of career knowledgeability. Different aspects of their career knowledgeability were utilized at different stages of their careers and in various ways. However, as indicated in the previous chapter, the participants' career journeys were not without failures and mishaps. There were participants who struggled at the beginning of their careers to secure adequate employment, others who had to depart from their initial plans and pivot to new occupational fields for practical and pragmatic considerations, and those who, even after landing jobs in their fields of interest, became disenchanted with their job roles and had to seek career satisfaction elsewhere.

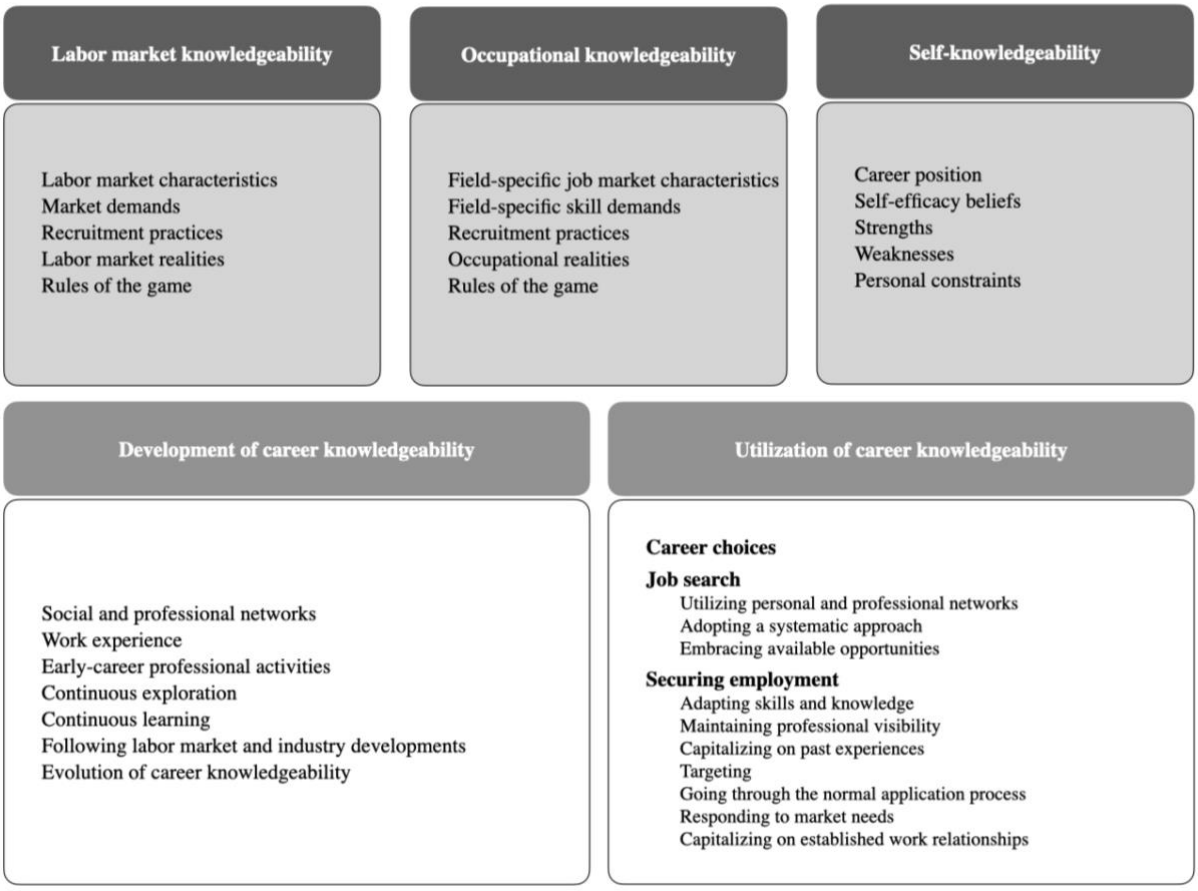
While throughout all those instances, the graduates' career knowledgeability was the driving force helping them readjust their career trajectories and make informed career choices, it was never enough to have adequate knowledgeability alone as a guarantee of adequate employment

and career success. There were instances where the lack of financial resources mandated study participants to return to their home country for some time before attempting to return to Europe, or when a physical limitation forced one of the participants to change occupational fields, or even when the immigration system necessitated one of the participants to prepare meals in a restaurant kitchen before being able to secure adequate employment. In all those instances, career knowledgeability was insufficient, on its own and in the face of stringent personal or structural constraints, to grant those graduates satisfactory careers at that time. However, in all other instances where these graduates successfully self-managed their careers by strategically navigating their labor markets and eventually achieving adequate employment and career success, they utilized the different aspects of their career knowledgeability while doing so, as affirmed by the analysis of their career stories.

**H-3: Career knowledgeability informs the different phases of the career self-management process as conceptualized in this study: forethought, self-reactiveness, and self-reflectiveness.**

Analysis of the participants' career stories showed how the different elements of career knowledgeability informed the three aspects/phases of career self-management. As summarized in **Figure 8**, career knowledgeability was utilized in three key areas of career-related interventions: career choices, job search, and securing employment. While the utilization of career knowledgeability is a direct manifestation of its role in the "forethought" aspect of the career self-management process (i.e., the goal-setting and planning aspect), its utilization in job search and securing employment translates to its role in informing and guiding "self-reactiveness" (i.e., the proactive and self-regulated aspect of career self-management). Both the forethought and self-reactiveness aspects of career self-management were informed and shaped by the participants' development and utilization of labor market knowledgeability, occupational knowledgeability, and self-knowledgeability.

*Figure 8. Nature, development, and utilization of career knowledgeability*




*Source: Created by the author*.

Meanwhile, self-knowledgeability represented the outcome of engagement in self-reactiveness, the third aspect of the career self-management process. Throughout their career journeys, the study participants were continuously engaged in self-reflectiveness, leading them to constantly accumulate, validate, and reassess their self-knowledgeability (including its different components as illustrated in the figure above and discussed in the previous chapter). Such self-knowledgeability also stimulated further self-reflectiveness.

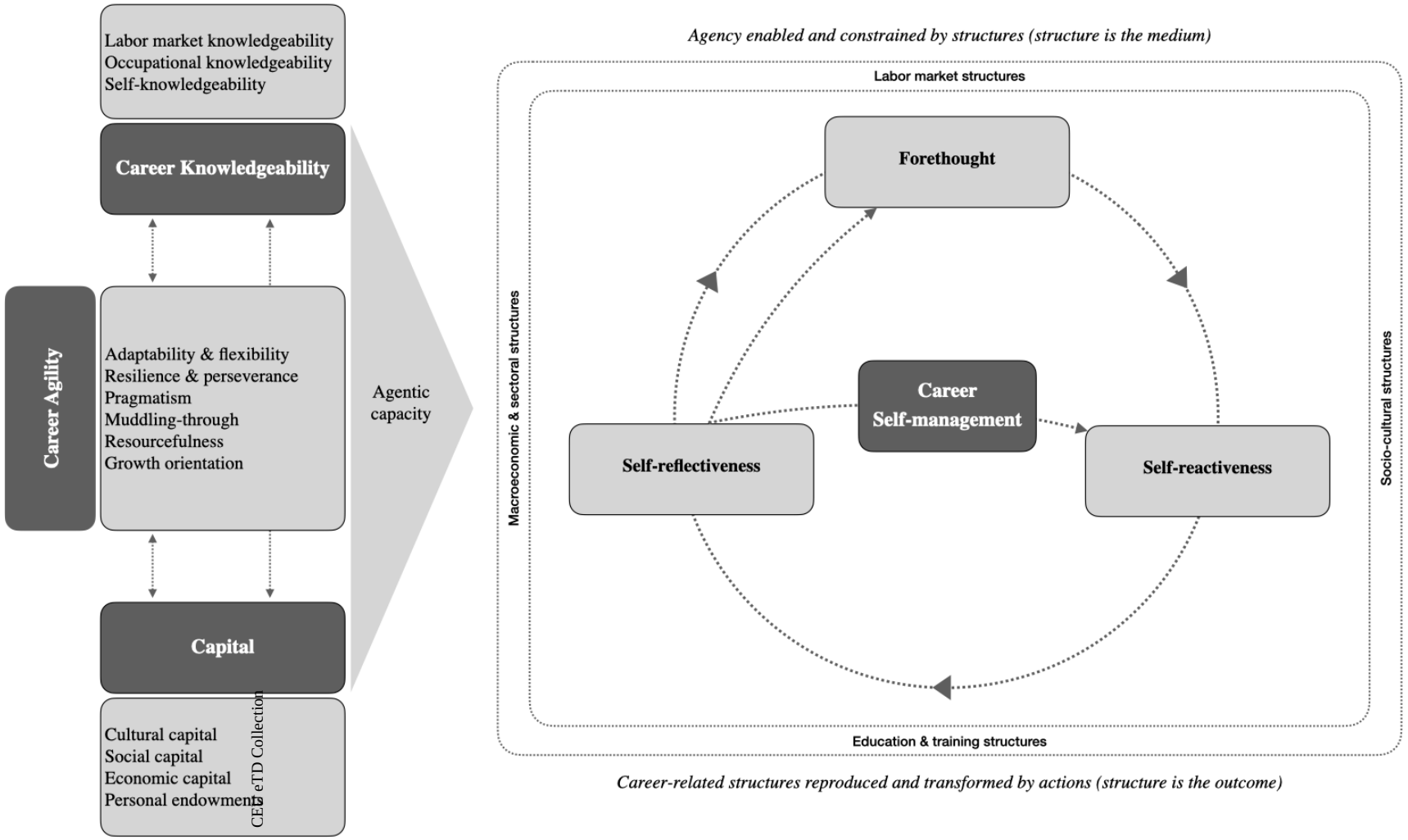
## 5.2. Career knowledgeability in career self-management: A conceptual model

The conceptual model below represents the key contribution of this exploratory inquiry into the nature and role of career knowledgeability in the career self-management process of OTD-

graduates (**Figure 9**). It offers a holistic framework for understanding and illustrating the agency-structure interplay in OTD-graduates' careers in general and the role of career knowledgeability within the context of OTD-graduates' career self-management in particular. It takes as its point of departure the provisional conceptual model hypothesized in an earlier chapter before conducting the study's empirical phase. In addition, the analyzed empirical observations contributed to validating, refining, and enriching the initial model.

Central to this model is the career self-management process itself. As previously elaborated, it consists of three stages/phases that operate in a dynamic and iterative way: forethought, self-reactiveness, and self-reflectiveness. While conceptualized as a process, it does not operate in such a strict way. Instead, it is a continuous process of setting career goals/plans and acting on them combined with self-reflectiveness, where such goals, plans, and actions are continuously examined, reassessed, and readjusted if needed. Such an iterative cycle, which was strongly manifested in the participants' career stories, takes place without the individuals being necessarily aware of its existence and functioning as a manifestation of their agency. Instead, it is a near-automatic process of exercising agency to self-manage one's career. The more the individual/graduate is conceptually aware of such a process, the better he/she can master it (e.g., through research-informed goal setting, deliberate planning, or more structured and evidence-based self-regulated actions).

*Figure 9. Career knowledgeability in career self-management conceptual model*






Source: Created by the author.

This cycle operates, however, within existing external structures. These structures can either hinder or obstruct career self-management (e.g., strict labor market regulations limiting the access of third-country nationals to European job markets) or facilitate it (e.g., active labor market policies or industry-relevant education and training programs). The following structures were identified within the context of career self-management:

- Socio-cultural structures.
- Labor market structures.
- Macroeconomic and sectoral structures.
- Education and training structures.

When conceptualizing career self-management as primarily an agentic process, these structures either enable or constrain the exercise of agency. In this case, structures are conceptualized as the medium through which agency is exercised. However, the structures can also be shaped by individuals' actions. For example, OTD-graduates success in navigating specific occupational fields (e.g., social media marketing) can influence the career development services offered by higher education institutions or even influence the introduction of specific upskilling continuing education programs (e.g., micro-credentials in social media marketing) that respond to the emerging needs of those graduates. Also, OTD-graduates ability to secure high-paying jobs can alter the social perception of those disciplines (i.e., socio-cultural structures) as much as such a social perception can influence a student's decision whether to join an OTD-related higher education program/course. Therefore, structure, as an outcome, can be either reproduced or transformed by agency (i.e., individuals' actions).

While career self-management is an exercise of agency, such agency is enabled and facilitated by the graduate's level of agentic capacity. As discussed earlier in this study, agentic capacity can be conceptualized on a spectrum; those with a higher agentic capacity have a higher ability

to exercise their agency vis-à-vis existing structural constraints, while those with limited capacity might struggle to steer their careers within existing constraints. The sources of such agentic capacity, within the context of career self-management, are career knowledgeability and access to capital. An individual/graduate with higher career knowledgeability and better access to different types of capital has a higher agentic capacity to self-manage his/her career and navigate existing structures than his/her peer with lesser knowledgeability and/or poor access to capital. Meanwhile, a higher level of knowledgeability can potentially result in better access (or possession) of capital, while access to capital can, in turn, contribute to higher knowledgeability.

From a policy perspective, what is particularly interesting about career knowledgeability is that it is relatively easier or more feasible to intervene with and enhance compared to other aspects of the agency-structure framework. While it is more challenging to transform well-established and potentially institutionalized structures and more complex to enhance graduates' access to capital (e.g., financial resources), it is more feasible and cost-effective to enhance graduates' career knowledgeability.

Within this context, career agility comes as the underlying approach that is crucial for self-managing one's career. While, in essence, it represents a form of psychological capital, career agility encompasses a set of behaviors and attitudes that are essential for dealing with change, uncertainty, and evolving career interests and goals. Career agility can also enhance career knowledgeability through continuous engagement in agile tactics in response to change and uncertainty. Such experiences would enrich different aspects of graduates' career knowledgeability. Meanwhile, a higher level of knowledgeability could encourage a career agile approach (e.g., knowing, through personal experience and knowledge communicated through peers, that repeated rejection can be a regular aspect of the job application process,

which can further enhance resilience). Moreover, some aspects of career agility can either enhance access to capital (e.g., resourcefulness in finding affordable tools for upskilling, which contribute to a higher cultural capital) or are facilitated by having adequate access to capital (e.g., social capital in the form of personal and professional networks, can surround an OTD-graduate with role models that instill in her/him a growth orientation tendency).

# CHAPTER 6. POLICY IMPLICATIONS

There are two possible avenues for utilizing the study findings and the research on career knowledgeability, particularly its role in enhancing the employment outcomes and career satisfaction of OTD-graduates (i.e., this study and future research on the career knowledgeability concept). First, ensuring that national and regional level policy interventions account for existing structural constraints and introduce measures to enhance the agentic capacities of OTD-graduates by enhancing their career knowledgeability. Second, utilizing the concept in directly enhancing career guidance and career development services offered by higher education institutions.

In terms of **policy intervention** for enhancing graduates' employment outcomes, this research can provide a basis for a policy analysis framework. Such an analytical framework would help assess the interactions of the planned policy intervention with existing structures, policies, and institutional arrangements across different policy domains and indicate how the identified interactions intervene, positively or negatively, with the intended policy outcomes.

Conceptualizing structure, policy, and policy intervention requires engagement with relevant public policy literature. Public policy, as a concept, has been subject to a wide array of interpretations. These interpretations included the intent of the government or the mere expression of it, the domain/area of policymaking, the government's decisions and proposals, governmental programs, outputs of the government's actions, and the policymaking process itself (Cairney, 2012). Central to these interpretations is a common idea that policymaking is concerned with purposeful action. In this project, I adopt the definition of Richards and Smith (2002) of "policy" as a formal decision or a plan of action that is designed to achieve a specific goal and adopted by a particular actor, while "public policy" is a more specific application of

the concept where the actor is a state organization (or a supranational organization). This interpretation of policy and public policy allows for a) the differentiation between policy as a proposed plan and policy as an enacted decision; b) the differentiation between policy as an action/introduced change to the state of affairs (output) and policy as a consequence of that action (outcome); and c) the differentiation between institutional policy and public policy depending on who the actor is.

The first of these three differentiations is critical to the analytical relevance of this research, where it can be used for policy design, dealing with policies as intended plans of action (i.e., proposed interventions). For example, the research findings and the proposed conceptual framework can be used to inform the design of policy interventions that enhance graduates' career knowledgeability. In addition, the study findings can support policy analysis (including policy evaluation). For example, assessing the extent to which the implemented policy has contributed to more knowledgeable graduates or alleviated certain structural constraints.

Concerning the second differentiation, it is crucial to utilize the study findings in distinguishing between three aspects of policymaking: policy outputs, policy outcomes, and policy tools. Policy outputs refer to the changes governments make to achieve particular outcomes (John, 2011). These outputs can take the form of laws, financial regulations, organizational restructuring, etc. Therefore, policy outcomes are considered consequences of these outputs/interventions (John, 2011). Meanwhile, governments employ an array of mechanisms/tools to achieve policy outcomes. Building on the works of Hood (1983) and Hood and Margetts (2007), John (2011) has offered a typology of these tools that include laws and regulations; public spending and taxation; bureaucracy and management; institutions; information, persuasion, and deliberation; and networks and governance. Within the context of this study, I consider enhancing graduates' agentic capacities (through, for example, enhancing

their career knowledgeability) and/or alleviating the identified structural constraints as the policy outcomes of interest. Different tools can be employed to achieve these outcomes depending on the context of the policymaking process.

In reference to the identified structures in the project, I perceive policy interventions (policy outputs) that are introduced using one or a combination of these tools as interventions to either put new structures in place or modify existing ones. Therefore, a policy here, at the conceptual level, is considered a structural element. For example, a change in student loan policy (policy output/intervention) that was introduced using (a hybrid set of tools), which included new a regulation and changes in public spending to reduce social inequality in access to higher education (policy outcome). Such a policy intervention can then be considered a modification to existing structures (access to higher education as part of the education and training structures).

However, policy tools/instruments create policy outputs with intended and unintended outcomes (John, 2011). In order to understand the mode of interaction between a policy that is being designed or analyzed and existing structures, I have drawn upon the concept of **policy integration**. The concept has gained recent prominence in policy discourse, most notably with respect to environmental policymaking (Meijers & Stead, 2014). Briassoulis (2017) examined the concept from the perspective of harmonizing different policies to create an integrated/coherent policy system. Such a policy system would minimize conflicts and overlaps while ensuring higher efficiency and effectiveness in delivering the intended policy outputs and outcomes (Briassoulis, 2017). The underlying assumption of the concept is that, in most cases, policy problems crosscut different policy domains, jurisdictions, and levels of governance (Candel & Biesbroek, 2016). Therefore, according to Underdal (1980), a policy is successfully integrated when its "constituent elements are brought together and made subject to a single,

unifying conception." Hence, the outcome of policy integration is a function of the interaction among the objects, goals, actors, procedures, and instruments of different policies and structures (Briassoulis, 2017).

Within the context of this research, I refer to the integration prerequisites that shape the impact a policy would have on graduates' employment outcomes as it interacts with existing policies and structures across different policy areas/domains as the **scope conditions**. The assumption is that the intended policy outcome will not be fully realized unless integrated within a policy system of relevant structures that do not conflict with or diminish the desired impact.

Briassoulis (2017) suggested four interrelated and interdependent dimensions across which policy integration occurs. The first is the **substantive dimension**, which relates to the underlying themes, concepts, and values governing different policies and the extent to which they are harmonized across different policy sectors to produce a particular policy outcome. For example, promoting self-employment requires harmonizing education and training policy (entrepreneurship education), access to finance policy, and taxation policy. The second is the **analytical dimension**, which relates to the spatial, temporal, and methodological alignment across different policies and sectors. Following the last example, the promotion of digital entrepreneurship in rural areas must be aligned with investment in IT infrastructure in these areas and accessibility to electronic payment services. Meanwhile, the **procedural dimension** is a derivative of the first two dimensions. Building on substantive and analytical integrations, different procedural arrangements should be in place to facilitate communication and coordination among different policy subsystems. An example is the interlinkages developed between higher education systems and labor market institutions to facilitate work-based learning for students or labor market integration of graduates. Finally, the **practical dimension** addresses the practicalities of knowledge management in terms of exchanging relevant data and

information in a compatible and consistent manner. Fulfilling these prerequisites, however, offers no guarantee of achieving the intended outcome. The failure to realize policy outcomes can be attributed to several factors, including ones external to the policy system (Briassoulis, 2017), such as an economic recession or a global health pandemic.

It is important to note that a policy intervention in a particular area that assumingly enhances graduates' employment outcomes might lead to a different outcome under different conditions (i.e., under a different configuration of structures, policies, and institutional arrangements). Therefore, the analysis conducted will always be contextually grounded. Indeed, the literature on **policy transfer** affirms the view that context influences the processes and outcomes of policy implementation.

Policy transfer was defined by Dolowitz and Marsh (2000) as "a process in which knowledge about policies, administrative arrangements, institutions, and ideas in one political setting (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political setting." Several studies have shown that policy transfer is influenced by the characteristics of both the policy and the problem itself, as well as the context surrounding them (Swainson & de Loe, 2010). Mossberger and Wolman (2003) pointed out the necessity of considering policy settings in the process of prospective policy analysis to predict the potential outcomes of a policy before it is put in place. Meanwhile, Bulmer and Padgett (2004), who studied policy transfer processes in the EU, have argued that these processes were heavily dependent on institutional variables. A very relevant example comes from the policy evaluation literature, where the assessment of the impact of the EU's Cohesion Policy (ECP) on firm growth between 2007-2013 in seven EU member states has shown that the impact of the same policy intervention has varied among and within countries. The variation in the achieved policy outcomes was attributed to national and territorial differences, where the

impact was greater in poorer countries with a higher need for policy support than in richer countries (Bachtrogler et al., 2019).

Therefore, the proposed conceptual framework in this study can play an important role in offering the variables/dimensions (e.g., graduates' access to capital or OTD-graduates' occupational knowledgeability of emerging industries and job roles) to be considered while designing new policies or evaluating implemented policy interventions. The aim is to ensure that the policy intervention has succeeded in (or has the potential for) enhancing graduates' agentic capacities in the face of constraints (by enabling better access to resources or enhancing their career knowledgeability), alleviating identified constraints, or both. It should also ensure that the implemented or planned policy intervention meets the scope conditions to ensure integration within existing policy systems and avoid potential conflicts that would diminish the desired impact.

Regarding **higher education institutions,** the study findings, particularly the proposed conceptual framework, can directly feed into designing career guidance activities and career development services that aim to enhance students' (and graduates'/alumni's) career knowledgeability. In the table below (**Table 3**), I offer a non-inclusive list of suggested interventions that could be introduced within the scope of the university career development services targeting students, alumni, or both.



*Table 3. Proposed career development services to enhance career knowledgeability*

| Intervention | **Description** | **Relevance to career knowledgeability** |
|---|---|---|
| Workshops and seminars | Labor market trends: Workshops/seminars led by industry experts to discuss current labor market trends, emerging occupational fields and job roles, and in-demand skills. | Labor market knowledgeability |
| | Occupational insights: Field-specific workshops/seminars where professionals from various industries and occupational fields share insider insights about their fields, including job market | Occupational knowledgeability |

| | | |
|---|---|---|
| | characteristics, skill demands, recruitment practices, and occupational realities. | |
| | Legal and regulatory aspects: Workshops/seminars that provide comprehensive information about the legal and regulatory frameworks affecting international students seeking employment in foreign labor markets. They could cover topics like visa and work permit requirements, recognition and validation of foreign qualifications, and taxation systems. | Labor market knowledgeability |
| | Self-discovery: Workshops on self-assessment tools (e.g., personality tests, skills inventories) to help students and graduates understand their strengths, weaknesses, and self-efficacy beliefs and reflect on their career progress and satisfaction. | Self-knowledgeability |
| Mentorship programs | Pair students with mentors in their fields of interest for personalized guidance, networking opportunities, and insights into the "rules of the game" in specific occupational areas. This can help understand formal and informal career and labor market information. It is also possible to introduce a peer career advising program where trained senior students, or recent alumni offer guidance and share their experiences with younger students. | Labor market knowledgeability; occupational knowledgeability |
| Networking events | Networking events and career fairs that bring together students, graduates, employers, and professionals from various industries. These events can facilitate informal learning and information exchange about the labor market and occupational (field-specific) opportunities and insights. | Labor market knowledgeability; occupational knowledgeability |
| Career exploration trips | Such as company visits, where students can engage with professionals and observe the work environment first-hand. This could include short-term job shadowing activities. | Occupational knowledgeability |
| Global career development programs | They would allow students to learn about and engage with international labor markets, including study abroad opportunities, international internships, and global career workshops. This can broaden their understanding of global employment trends and opportunities. | Labor market knowledgeability; occupational knowledgeability |
| Psychometric analysis tools | Offering a variety of free or subsidized psychometric tests and assessment tools to help students and alumni gain deeper insights into their personalities, interests, aptitudes, and values. | Self-knowledgeability |

Source: Created by the author.

# CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study has shed light on the agency-structure interplay in OTD-graduates' career self-management endeavors and the role individual agency plays in that regard. The conceptual lens used in this exploratory inquiry is the newly introduced concept of Career Knowledgeability. Career knowledgeability, conceptualized in this research as informing and guiding agentic behaviors (i.e., exercising career self-management), along with access to capital, shapes the level of graduates' agentic capacity to navigate career-related structures and potentially overcome their constraints.

Career knowledgeability, as a point of departure, was found to be utilized in informing and guiding forethought, self-reactiveness, and self-reflectiveness (the three aspects of career self-management as conceptualized in this study), while also being developed, validated, and refined through engagement in career self-management practices. With its three components of labor market knowledgeability, occupational knowledgeability, and self-knowledgeability, career knowledgeability made essential contributions to the ability of OTD-graduates to steer their careers, navigate the labor market, and achieve adequate employment and career satisfaction.

The analysis of the participants' career stories confirmed the study hypotheses as elaborated in the previous chapter:

- **H-1:** Career knowledgeability is a multidimensional concept consisting of labor market knowledgeability, occupational (field-specific) knowledgeability, and self-knowledgeability.
- **H-2:** Career knowledgeability is a necessary condition, but not sufficient, for OTD-graduates to self-manage their careers toward achieving adequate employment outcomes.

- **H-3:** Career knowledgeability informs the different phases of the career self-management process as conceptualized in this study: forethought, self-reactiveness, and self-reflectiveness.

Furthermore, the inductive, grounded theory analysis of the data allowed for the emergence of a set of career-related behaviors and attitudes that were conceptualized under the overarching concept of career agility. Career agility, which can be perceived as a form of psychological capital, represents the underlying approach to career self-management in the face of change, uncertainty, and evolving interests and career goals. Career agility allowed the study participants, on several occasions, to re-evaluate their career trajectories and the choices they had made (or need to make) and recalibrate their career paths accordingly. It also enabled them to effectively deal with the ambiguity and uncertainty encountered in their career journeys and achieve career satisfaction despite uncertainty, changing circumstances, and evolving interests.

As initially perceived and planned, this research inquiry was exploratory in nature. This meant that the goal was never, at any stage of the research project, to offer a universal/generalizable statement on the relationship between career knowledgeability and achieving adequate employment outcomes and career success (i.e., career satisfaction). Instead, this research was intended as an exploratory inquiry into the nature of agency-structure interplay in OTD-graduates' career self-management process in general and the role career knowledgeability (as a source of agentic capacity) plays within this context. The study, therefore, was designed to explore the nature, development, and utilization of career knowledgeability in the context of career self-management and to offer a better understanding and conceptualization of the concept within the broader framework of agency-structure interplay.

Besides shedding light on the nature of career knowledgeability and its three constituting components and their subcomponents, how it is acquired and developed, and how it is utilized

in career self-management, the key contribution of this study is the introduction of the career knowledgeability model. The model offered a holistic framework for understanding and illustrating the agency-structure interplay in OTD-graduates' careers in general and the role of career knowledgeability within the context of OTD-graduates' career self-management in particular.

This research inquiry remains an exploratory endeavor in nature that contributed to developing a better understanding of the nature and dynamics of the newly introduced career knowledgeability concept. However, analyzing the relationship (e.g., correlation) between the level of career knowledgeability and the probability/chances of achieving adequate employment outcomes (e.g., satisfactory current employment) and overall career satisfaction (i.e., as a subjective measure of career success) requires going beyond qualitative inquiry and the relatively narrow range of empirical observations. Therefore, this study can be positioned as the beginning of a research program into the nature and role of career knowledgeability in higher education graduates' career self-management practices (i.e., going beyond OTD-graduates). Such a research program would ideally require a) operationalization of the career knowledgeability concept, rendering it measurable and quantifiable (e.g., on a scale of one to ten where one is a very limited and ten is a very high level of career knowledgeability); b) a large sample of higher education graduates who can report on their levels of career knowledgeability across its different domains (e.g., incorporating the operationalization of the concept in a questionnaire) and on the perceived level of career satisfaction and other relevant outcomes; and c) applying quantitative data analysis techniques to assess and measure the relationship between the self-perceived level of career knowledgeability and the probability of achieving adequate employment outcomes and overall career satisfaction.

As part of this study, an initial operationalization of the concept was done for the purpose of the study participants' screening/filtering questionnaire that was used to identify and approach potential study participants who met the theoretical sampling criteria. This initial operationalization was validated and further refined based on the empirical observations collected and the analysis conducted, as illustrated in the following table (**Table 4**).

*Table 4. Proposed questionnaire for assessing the extent of career knowledgeability*

| **Question** | **Relevance** |
|---|---|
| **Labor market knowledgeability**<br><br>Kindly answer the following questions while considering the labor market(s) in the country (or countries) where you plan to work or have already achieved employment.<br><br>Scale: From 1 (not at all) to 10 (yes, completely). | |
| I have adequate knowledge of the labor market laws and regulations in the location(s) of interest to me. | Assessing their self-perceived knowledgeability of labor market characteristics. |
| I know which occupations (or fields) are currently in high demand in the labor market. | Assessing their self-perceived knowledgeability of market demands. |
| I am aware of the nature of the constraints imposed on me by the labor market, which might shape my career options. | Assessing their self-perceived knowledgeability of labor market characteristics. |
| I know which occupations (or fields) are expected to be in high demand in the future. | Assessing their self-perceived knowledgeability of market demands. |
| I know how and where to search for and find relevant job vacancies. | Assessing their self-perceived knowledgeability of recruitment practices. |
| I know what employers look for in a job seeker's application. | Assessing their self-perceived knowledgeability of recruitment practices. |
| I know the occupation-specific factors that affect employers' hiring decisions (e.g., having specific competencies, knowledge of some particular methods or techniques, having a certain level of job experience, etc.). | Assessing their self-perceived knowledgeability of recruitment practices. |
| I know the non-occupation-specific (administrative, regulatory, etc.) factors that might influence employers' hiring decisions. | Assessing their self-perceived knowledgeability of recruitment practices, labor market realities, and rules of the game. |
| I know which education and/or training options are most relevant to boosting my career prospects. | Assessing their self-perceived knowledgeability of market demands. |
| I am aware of the extent to which job opportunities are available and accessible to me in the location(s) of interest. | Assessing their self-perceived knowledgeability of labor market characteristics, market demands, and labor market realities. |
| I am aware of the main obstacles/constraints I might encounter as someone trying to work in a foreign country. | Assessing their self-perceived knowledgeability of labor market realities and rules of the game. |
| **Occupational knowledgeability**<br><br>Kindly answer the following questions while considering the occupational field(s) and the location(s) where you plan to work or have already achieved employment. | |

| | |
|---|---|
| Scale: From 1 (not at all) to 10 (yes, completely). | |
| I know which specific skills or competencies would increase my chances of achieving employment and/or further advancing my career. | Assessing their self-perceived knowledgeability of field-specific skill demands. |
| I am aware of the realities of my field(s) of interest based on first-hand experience and/or direct communication with professionals from that field(s). | Assessing their self-perceived knowledgeability of occupational realities. |
| I am aware of the extent to which job opportunities are available in my field(s) of interest. | Assessing their self-perceived knowledgeability of field-specific job market characteristics and field-specific skill demands. |
| I am aware of some specific obstacles/constraints I might encounter while seeking employment in my field(s) of interest. | Assessing their self-perceived knowledgeability of occupational realities. |
| I have knowledge of the average salaries in my field(s) of interest. | Assessing their self-perceived knowledgeability of field-specific job market characteristics. |
| I understand what it takes to successfully navigate the recruitment/hiring process in my occupational field. | Assessing their self-perceived knowledgeability of field-specific recruitment practices. |
| I know how much I might earn in the future as I achieve further career progress in my field(s) of interest. | Assessing their self-perceived knowledgeability of field-specific job market characteristics. |
| I know who the main potential employers in my field(s) of interest are. | Assessing their self-perceived knowledgeability of field-specific job market characteristics. |
| I know the unwritten rules and norms that can influence career progression in my chosen occupational field. | Assessing their self-perceived knowledgeability of field-specific rules of the game. |
| **Self-knowledgeability**<br><br>Kindly answer the following questions in relation to how you perceive yourself, your abilities, and your personal circumstances.<br><br>Scale: From 1 (not at all) to 10 (yes, completely). | |
| I am aware of some specific obstacles/constraints related to who I am (nationality, race, gender, family background, etc.) that I might encounter while trying to achieve employment. | Assessing their self-perceived knowledgeability of their personal constraints. |
| I am aware of my personal socio-economic circumstances that could impact my career development. | Assessing their self-perceived knowledgeability of their personal constraints. |
| In relation to the last question, I know how to deal with or overcome those obstacles/constraints. | Assessing their self-perceived knowledgeability of their strengths and self-efficacy beliefs. |
| I am aware of the skills, competencies, and abilities that I possess, which can increase my chance of achieving employment. | Assessing their self-perceived knowledgeability of their career position and their strengths. |
| I am aware of some specific resources (financial, social, cultural, etc.) that I possess, and I know how to capitalize on them to boost my career. | Assessing their self-perceived knowledgeability of their strengths. |
| I am confident that regardless of the challenges/obstacles that I might encounter, I will eventually achieve my career goals. | Assessing their self-efficacy beliefs and their self-perceived knowledgeability of their strengths. |
| I am confident that I have, or can acquire, what it takes (knowledge, experience, skills, professional connections, etc.) to achieve my career goals. | Assessing their self-efficacy beliefs and their self-perceived knowledgeability of their strengths. |
| I know how to get things done, including tasks that are relatively new to me. | Assessing their self-efficacy beliefs and their self-perceived knowledgeability of their strengths. |

| | |
|---|---|
| I am aware of my professional weaknesses and how they could impact my career advancement. | Assessing self-perceived knowledgeability of their weaknesses. |
| I clearly understand my current career status and prospects in my career path. | Assessing self-perceived knowledgeability of their career position. |

Source: Created by the author.

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# APPENDIX I: SCREENING QUESTIONNAIRE

| Question | Type of answer and/or scale |
|---|---|
| **Part I/IV**<br>Kindly provide anonymous background information about yourself and your educational and professional journeys. | |
| Citizenship | List of countries. |
| Current place of residence | List of countries. |
| Age | Text field. |
| Sex | Male.<br>Female.<br>Prefer not to say. |
| Academic field of your bachelor's studies | List of academic fields. |
| Year of graduation (bachelor's degree) | Text field. |
| Country (where you have completed your bachelor's studies) | List of countries. |
| How were your bachelor's studies funded? | ▪ Publicly funded (free or highly subsidized education).<br>▪ I received a scholarship that covered all the costs.<br>▪ My family paid for it (fully or partially).<br>▪ I paid for it (fully or partially).<br>▪ Other: |
| Have you completed a master's degree? | ▪ Yes.<br>▪ No, but I am currently enrolled in a master's program.<br>▪ No, I have not engaged in a master's education. |
| Academic field of your master's studies | List of academic fields. |
| Actual or expected year of graduation (master's degree) | Text field. |
| Country (where you have completed or are currently doing your master's studies) | List of countries. |
| How were your master's studies funded? | ▪ Publicly funded (free or highly subsidized education).<br>▪ I received a scholarship that covered all the costs.<br>▪ My family paid for it (fully or partially).<br>▪ I paid for it (fully or partially).<br>▪ Other: |
| Have you considered (or are you planning) to apply for jobs in the European Union and/or the United Kingdom after completing your master's studies? | ▪ Yes, and I have taken active measures towards that.<br>▪ Yes, but I have not taken any active measures towards that.<br>▪ No. |
| Current status of employment | ▪ Employed.<br>▪ Self-employed.<br>▪ Freelancer.<br>▪ Unemployed.<br>▪ In education/training.<br>▪ Other: |
| Field of your current employment | List of occupational fields. |
| Location of current employment | List of countries. |
| Is the country of your current employment different from your home country? | Yes/No |

| | |
|---|---|
| How satisfied are you with your current employment? | Scale: From 1 (unsatisfied at all) to 10 (very satisfied). |
| How many years of professional experience do you have (years of full-time or part-time professional activity since completing your bachelor studies)? | ▪ I have no professional experience.<br>▪ Less than 1 year.<br>▪ 1-2 years.<br>▪ 3-5 years.<br>▪ More than 5 years. |
| How related is your main field of employment to your bachelor's studies? | ▪ Highly related.<br>▪ Somewhat related.<br>▪ Not related at all. |
| How related is your main field of employment to your master's studies? | ▪ Highly related.<br>▪ Somewhat related.<br>▪ Not related at all. |
| How satisfied are you with your overall career progress? | Scale: From 1 (unsatisfied at all) to 10 (very satisfied). |
| How would you describe your family's household income during your pre-university school years (compared to that of the average population in your home country)? | ▪ Very low income.<br>▪ Low income.<br>▪ Moderate income.<br>▪ High income.<br>▪ Very high income. |
| What kind of pre-university schooling have you received, for the most part? | ▪ Public schools (free or highly subsidized education).<br>▪ Private schools (costs were paid by my family).<br>▪ I have been to both private and publicly funded schools.<br>▪ Homeschooling.<br>▪ Other: |
| What is the highest level of education that your mother has completed? | ▪ None at all.<br>▪ Primary education (i.e., elementary school).<br>▪ Lower secondary education (i.e., preparatory or middle school).<br>▪ Upper secondary education (i.e., high school).<br>▪ Post-secondary non-tertiary education (e.g., post-secondary diploma).<br>▪ Bachelor's or equivalent.<br>▪ Master's or equivalent.<br>▪ Doctorate or equivalent. |
| What is the highest level of education that your father has completed? | ▪ None at all.<br>▪ Primary education (i.e., elementary school).<br>▪ Lower secondary education (i.e., preparatory or middle school).<br>▪ Upper secondary education (i.e., high school).<br>▪ Post-secondary non-tertiary education (e.g., post-secondary diploma).<br>▪ Bachelor's or equivalent.<br>▪ Master's or equivalent.<br>▪ Doctorate or equivalent. |
| **Part II/IV**<br>*Kindly answer the following questions while considering the labor market(s) in the country (or countries) where you plan to work or have already achieved employment.* | |
| I have adequate knowledge of the labor market laws and regulations in the location(s) of interest to me. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know which occupations (or fields) are currently in high demand in the labor market. | Scale: From 1 (not at all) to 10 (yes, completely). |

| | |
|---|---|
| I know which occupations (or fields) are expected to be in high demand in the future. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know how and where to search for and find relevant job vacancies. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know what employers look for in a job seeker's application. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know the occupation-specific factors that affect employers' hiring decisions (e.g., having specific competencies, knowledge of some particular methods or techniques, having a certain level of job experience, etc.). | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know the non-occupation-specific (administrative, regulatory, etc.) factors that might influence employers' hiring decisions. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of the available education and/or training opportunities relevant to my field(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of the extent to which job opportunities are available and accessible to me in the location(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of the main obstacles/constraints I might encounter as someone trying to work in a foreign country. | Scale: From 1 (not at all) to 10 (yes, completely). |
| **Part III/IV**<br>*Kindly answer the following questions while considering the occupational field(s) and the location(s) where you plan to work or have already achieved employment.* | |
| I know which specific skills or competencies would increase my chances of achieving employment and/or further advancing my career. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of the realities of my field(s) of interest based on first-hand experience and/or direct communication with professionals from that field(s). | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know which education and/or training options are most relevant to boosting my career prospects. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of the extent to which job opportunities are available in my field(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of some specific obstacles/constraints I might encounter while seeking employment in my field(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I have knowledge of the average salaries in my field(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know how much I might earn in the future as I achieve further career progress in my field(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of the future career pathways that I might need to choose from as I achieve further career progress in my field(s) of interest. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know who the main potential employers in my field(s) of interest are. | Scale: From 1 (not at all) to 10 (yes, completely). |
| **Part IV/IV**<br>*Kindly answer the following questions in relation to how you perceive yourself, your abilities, and your personal circumstances.* | |
| I am aware of some specific obstacles/constraints related to who I am (nationality, race, gender, family background, etc.) that I might encounter while trying to achieve employment. | Scale: From 1 (not at all) to 10 (yes, completely). |
| In relation to the last question, I know how to deal with or overcome those obstacles/constraints. | Scale: From 1 (not at all) to 10 (yes, completely). |

| | |
|---|---|
| I am aware of the skills, competencies, and abilities that I possess, which can increase my chance of achieving employment. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am aware of some specific resources (financial, social, cultural, etc.) that I possess, and I know how to capitalize on them to boost my career. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am confident that regardless of the challenges/obstacles that I might encounter, I will eventually achieve my career goals. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I am confident that I have, or can acquire, what it takes (knowledge, experience, skills, professional connections, etc.) to achieve my career goals. | Scale: From 1 (not at all) to 10 (yes, completely). |
| I know how to get things done, including tasks that are relatively new to me. | Scale: From 1 (not at all) to 10 (yes, completely). |
| People who know me well (family, friends, close acquaintances) have high expectations of me. | Scale: From 1 (not at all) to 10 (yes, completely). |

# APPENDIX II: INTERVIEW PROTOCOL

| Main Question | Probing Question 1 | Probing Question 2 |
|---|---|---|
| **Profiling** | | |
| How would you describe your family background (socially and economically)? What kind of support did you receive from your family during and after your studies? | | |
| What do you consider to be your main career and personal objectives? | | |
| **Education and work experience** | | |
| Let us start from the beginning: why did you choose to study this specific academic discipline for your bachelor's degree? | | |
| What did you know about the job market for this academic discipline before making this choice? | How would you evaluate these perceptions and assumptions now? | |
| Can you describe what it was like during your undergraduate studies (regarding your academic performance, teaching and learning experience, extracurricular activities, etc.)? | | |
| Have you engaged in any paid or unpaid professional work during your studies? | If so, what have you learned from that experience in relation to realizing your career objectives? | Why did you choose (or choose not) to acquire work experience before graduation? |
| Thinking back to your time as a student, what were your perceptions and assumptions about the job market (general and field-specific)? | How would you evaluate these perceptions and assumptions now? | How has the mismatch between your prior perceptions and the occupational realities impacted your career? |
| What were your career objectives after graduating? | Why so? What kind of knowledge has contributed to your articulation of these objectives? | What measures have you undertaken to achieve those objectives? |
| Do you have different career objectives now? | Why so? | |
| How and when did you manage to land your first job in your occupational field of interest? | Why did you consider applying for that job? | How did it contribute to validating or refining your understanding of the labor market? |
| Can you describe your first job search experience to me? | | |
| How satisfied are you with your current job and with your career in general? | | |

| | | |
|---|---|---|
| Have your perceptions/understanding of the existing career opportunities and constraints changed? | If so, in what way? | What factors have contributed to that change? |
| How do you perceive yourself professionally (your skills, talents, knowledge, resources, and areas of strength and weakness)? | Have these perceptions changed over time? If so, in what way? | What has contributed to these changes? What was the impact of such a change? |
| What personal constraints are you aware of that make it more difficult for you to reach your full professional potential and achieve career objectives? | Have you overcome these constraints (or some of them)? If so, how? (reflect on actual experiences if possible). | If not, why cannot you? (reflect on actual experiences if possible). |
| What kind of job market and career opportunities are you aware of? | Are you taking advantage of these opportunities (or planning to)? | If yes, how? If no, why (what is preventing you)? |
| Have you considered seeking job opportunities abroad? If so, where to? If not, why? | If yes, have you undertaken measures towards that? If not, then why? | |
| Are you aware of any professionally rewarding education and training opportunities? | If yes, have you sought them? If not, why? | |
| What is next in terms of your career plan? | | |

# APPENDIX III: PARTICIPANT INFORMATION SHEET

| |
|---|
| **Research Project:** |
| Career knowledgeability: Agency-structure interplay in career self-management |
| **Researcher:** |
| Omar F. Abozeid<br>Doctoral Candidate, Higher Education Policy<br>The Doctoral School of Political Science, Public Policy and International Relations<br>Fellow of The Yehuda Elkana Center for Higher Education |
| **Introduction:** |
| Thank you for considering participation in this research project. This participant information sheet is intended to provide you with information about the research project and the expectations of participation. Please take the time to read this document carefully before deciding to participate. |
| **Project Background:** |
| This research project aims to investigate the role of Career Knowledgeability in influencing the employment outcomes of higher education graduates from third countries who have secured employment in the European Union or the UK. The study explores the sources, utilization, and impact of Career Knowledgeability on graduates' employment outcomes under various personal and structural constraints. The findings of this study are expected to inform the development of policy recommendations for enhancing graduates' employment outcomes. |
| **Research Procedure:** |
| If you choose to participate, you will be invited to a one-on-one interview conducted by the researcher. Depending on your location and preference, the interview will take place over a video conferencing platform or face-to-face. The interview will be recorded with your consent, transcribed, and analyzed by the researcher. The interview will last approximately 45 minutes and will focus on your professional journey between your home country and Europe, your career experiences, and your perceptions of the job market. You will be asked questions related to your knowledgeability of the job market, career interests, and your abilities, knowledge, and resources that have contributed to your successful employment in the EU or the UK. You are encouraged to share as much information as possible about your experiences. |
| **Risks and Benefits:** |
| There are no known risks associated with participating in this research project. However, you may feel uncomfortable discussing certain aspects of your professional journey, and you have the right to decline to answer any question. The benefits of participating in this research project include contributing to the development of policy recommendations for enhancing graduates' employment outcomes. |
| **Confidentiality:** |
| All information collected during the research project will be kept confidential and anonymous. Only the researcher will have access to the data collected. Your personal identifying information will not be disclosed or shared with any third party without your express consent. The research data will be stored securely and destroyed after the completion of the project. |
| **Voluntary Participation:** |

| |
|---|
| Your participation in this research project is entirely voluntary. You have the right to decline to participate, withdraw your consent, or terminate your participation at any time without penalty or prejudice. Your decision to participate or not to participate will not affect your relationship with the researcher or the institution. |
| **Contact Information:** |
| If you have any questions or concerns about this research project, please contact the researcher at abozeid_omar@phd.ceu.edu |
| **Consent:** |
| By participating in this research project, you indicate that you have read and understood the information provided in this participant information sheet. You consent to participate voluntarily and to have your information collected and documented for research purposes. |

# APPENDIX IV: INFORMED CONSENT

You are being invited to participate in a research interview. The study is part of Omar F. Abozeid's doctoral research project on the determinants of higher education graduates' employment outcomes. Omar is a doctoral candidate at Central European University (CEU) in Vienna (Doctor of Philosophy in Political Science program – Public Policy track). This interview aims to gather information related to the aforementioned research topic. Before you decide to participate, it is important that you understand the purpose, procedures, and potential risks and benefits associated with your involvement.

You will not be paid for your participation, and you may withdraw and discontinue participation at any time without any negative consequences. Your decision to participate or not to participate will not affect your relationship with the researcher or the institution. There are no known physical or psychological risks associated with participating in this interview. However, if you feel uncomfortable with any questions or topics, you are free to decline to answer or terminate the interview at any time. Notes will be written during the interview. For the purpose of preparing a full transcription of the interview, the researcher will record the interview. The recording will be used solely within the context of this research project and in compliance with the CEU Data Protection Policy and CEU Code of Ethics. The recording will be kept on a secured hard desk to which only the researcher has access, and it will be deleted after the completion of the research project.

All information collected during the interview will be kept confidential and anonymous. No personal identifying information will be shared or disclosed to any third party without your express consent.

By agreeing to participate in this interview, you indicate that you understand the purpose, procedures, and potential risks and benefits associated with your involvement. You are also giving your consent to participate voluntarily and agreeing to have your information collected and documented for research purposes.

If you have any questions or concerns regarding your participation in this interview, you may contact the researcher at abozeid_omar@phd.ceu.edu