The impact of human capital and formal/informal networks on graduate employment in the UK

The dissertation is submitted by Emrullah TAN to the University of Exeter for the degree of Doctor of Philosophy in Management Studies
October 2015

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature …………………….

Abstract: The purpose of this study is to explore the important factors that affect graduate employment such as human capital, social capital and university career services. It focuses on the graduate labour market in the UK and uses mixed methods. While quantitative data derive from a survey, qualitative data come from interviews and secondary sources in a case study. The survey includes 947 university graduates and qualitative data consist of 8 interviews, internal and external reports.

The findings show that the level of human capital and social capital affect the way graduates find a job and the use of social capital in job searches varies by ethnicity, age and academic level. However, gender and academic discipline do not affect the use of social capital in the UK graduate labour market. Moreover, the study shows that university career services can play an important role in job searches. Overall, however, direct application and online career services are two most widely used methods to find a job.

The originality of the research is twofold. Firstly, it illustrates the relationship between two important components in graduates' job search processes: human capital and social capital. Secondly, it examines the role of an institution: university career services and displays the importance of institutional approaches in building a bridge between students and employers.

Table of Contents

The lists of figures and tables

Abbreviations

AGR: Association of Graduate Recruiters

AUSSE: Australia Survey of Student Engagement

BHPS: British Households Panel Survey

CBI: Confederation of British Industry

CCSSE: Community College Survey of Student Engagement

CR: Critical Realism

DLHE: Destinations of Leavers from Higher Education

EGD: Employability and Graduate Development

ESRC: Economic and Social Research Council

HCT: Human Capital Theory

HE: Higher Education

HEFCE: Higher Education Funding Council for England

HESA: Higher Education and Statistics Agency

ISSE: Irish Survey of Student Engagement

ISSP: International Social Survey Program

JACS: Joint Academic Coding System

LFS: Labour Force Survey

OCS: Online Career Services

ONS: Office for National Statistics

PTS: Personal Transferable Skills

QAA: Quality Assurance Agency

RCT: Rational Choice Theory

RIOIP: Research Institute of Organisational and Institutional Performance

RO: Research Objectives

SSH: Strong Signalling Hypothesis

STEM: Science, Technology, Engineering and Medicine

UCAS: Universities and Colleges Admissions Service

UCS: University Career Services

WBL: Work Based Learning

WRL: Work Related Learning

WSH: Weak Signalling Hypothesis

1 Introduction

In this chapter, the importance, the aims and objectives of the study will be explained. Accordingly, it consists of four sections. In the first section, the importance and main components of the research will be outlined. The second section will introduce the aims, objectives as well as the research questions. The third section will briefly explain each chapter in the thesis and final section will summarise the chapter.

1.1 Background to the research: importance and main components

"More than three-quarters of students (76%) [in the UK] said a key reason for going to university was to improve their job opportunities" according to a survey by Sodexo (2014, p. 15). In a report titled 'An avalanche is coming', Barber et al. (2013, p. 64) highlighted upcoming challenges for universities in the 21st century and remarked that "universities… need to take the employability of their graduates much more seriously than they have in the past." The purpose of this study is to explore the key factors in graduate employment as well as the relationships between these factors in the context of the UK labour market.

A better understanding of the key factors in the UK graduate labour market will be useful not only for students but also for universities. As stated in the survey cited above, good career and job opportunities are the primary reasons for a substantial proportion of students who go to university. Hence, it is clear that graduate employment is important for university students. However, with the rise of the number of people who go to university, higher education institutions have come under two types of pressures. The first type of pressure is *top-down pressure*; public and private organisations such as Higher Education Statistics Agency (HESA) publish nation-wide surveys about employability rate of universities in the UK and create league tables based on these surveys. Therefore, it is important for universities to perform well in these league tables since it has a sizable impact on the reputation of the

institution (Mellors-Bourne, 2014). This is a typical example of the top-down pressure that universities are exposed and as a result universities should be more transparent and accountable in term of financial value of a degree (McNair, 2003). However, with the rise of tuition fees in 2012, parents and students started to question the economic value of university education more and more (Dey & Cruzvergara, 2014) and this has caused *bottom-up pressure*. In other words, parents begin to focus on the financial value of a university degree to make a more informed decision about the future career of their children. For this reason, university applicants look at various factors when they apply to a university. For instance, according to the Which (2014, p. 19) 38% of university applicants considered 'the link between university and employer' is an important element in their decision to choose a university. These different kinds of pressures, both top-down and bottom-up, indicate that graduate employment has a great deal of importance for different stakeholders including students, parents and higher education institutions.

To understand graduate employment, the study will explore three important components that affect graduate employment: human capital, social capital and institutional social capital. To explain briefly, human capital refers to one's knowledge and skills. Economists at the University of Chicago were the pioneers who popularised the term human capital and developed its theoretical framework in the late 1950s. A considerable number of studies have discussed the link between education and employment since then (Becker, 1964; Feng & Graetz, 2015; Jones, 1996; Mincer, 1958). However, not only economists but also politicians increasingly regard education as an economic tool (Ball, 2015). For instance, the former UK prime minister Tony Blair said that "education is our best economic policy" (2005 cited in Reay, 2008, p. 464). Similarly, President Barack Obama remarked that "we need to make

sure we are improving economic mobility… Higher education should not be a luxury, it is a necessity, an economic imperative…" (Obama, 2013). Hence, both economists and politicians view education as an important source of economic mobility and growth. For this reason, human capital is directly linked to employability and thus included as one of three components in this study.

On the other hand, some scholars (Coleman, 1988; Gauntlett, 2011; Schuller, 2001) also point importance of social capital. These scholars argue that personal and academic qualifications can be necessary but they are not always sufficient to find a job. They suggest that one's informal contacts as well as the level of trust among the members of society have a substantial impact on the job prospect of individuals. As Adler and Kwon (2002, p. 18) put it, "the core intuition guiding social capital research is that the goodwill that others have toward us is a valuable resource" because this goodwill does not only generate sympathy, trust, and forgiveness in society but also valuable information and privileges in the labour market. Hence, social capital needs to be taken into account in the analysis of graduate employment.

Further, in recent decades, university career services (UCS) have drawn considerable interest as well (Dey & Cruzvergara, 2014) since they attempt to build a bridge between students and business/industry to provide students with a smooth transition from university to work. This is sometimes called *institutional social capital* (Lee & Brinton, 1996) by which universities build networks to enable students to find a job. To compete with other universities in the league tables, higher education institutions invest substantial resources in their career services to increase their students' employability rate which is a significant factor in the calculation of the league tables (Harvey, 2001). UCS are not only important sources of

information for the students to find a job but also their employability programmes make the students aware of the challenges and opportunities in the labour market at the early stages of their university career. In that sense, these employability activities can be regarded as *early intervention* to prepare students for the world of work. These (human capital, social capital and university career services) are the three areas that will be explored in this research.

1.2 The aims and objectives

The aim of the research is: *To understand the factors that affect the job search methods of graduates.* Accordingly, the research objectives and questions are stated in Table 1.1:

Research objectives	Research questions
1. To analyse what kind of methods (channels of information) university graduates use to find a job.	1. What are the most popular methods that graduates frequently use to find a job?
2. To examine the characteristics of graduates who use their social capital in the labour market.	2. What are the characteristics of graduates in the UK labour market who receive significant help from their social capital to find a job: do they vary across gender, age and ethnicities?
3. To understand the relationship between social capital and human capital in job search.	3. Do the social ties that graduates use to obtain a job vary across different levels of academic qualifications, academic disciplines and degree classifications?
4. To find out the importance of strong and weak ties in job searches.	4.1 Does the hypothesis of the strength of weak ties have empirical support in the UK labour market? If so, to what extent? 4.2 What are the characteristics of graduates who receive help from their own families (strong ties) to find a job? Is there any non-random and generalisable pattern in demographic and academic characteristics of these people?
5. To explore the role of the university as an institution in the process of job search.	5.1 In what ways do university career services as an institution help their students to find a job? 5.2 What are the characteristics of the individuals who use university career services for job placements in terms of gender, ethnicity, academic levels, academic discipline and degree classifications?

Table 1.1 Research objectives and questions

The first four research objectives (RO) will be addressed through the primary survey while the mixed methods will be used to address the research objective 5. This issue will be discussed in the methodology chapter in detail. At this stage, it should be noted that the first four ROs can be adequately covered through a nation-wide survey while the last RO needs a detailed exploration of an organisational structure (university career services) and its operational modes. Hence, figures and statistical analysis alone will not be enough to address this particular research objective. For this reason, the mixed method has been used for RO5 while a large representative sample is considered sufficient to make generalisable inferences about the other first four research objectives.

Two issues should be clarified at the outset. First, this research primarily focuses on job search processes and channels of information to find a job rather than the other employment outcomes such as salary or any other financial aspects. Secondly, as noted, the study will focus on the UK graduate labour market. The reader now may ask, "why this study focuses on *the UK* in particular and why on university *graduates*?" In other words, why is the UK graduate labour market worth exploring? The reasons are essentially practical:

- First of all, the UK labour market is very competitive (Winterbotham et al., 2014) and it is possible to use a variety of channels of information to find a job from professional online career services to university career services and personal contacts. Thus, the UK *graduate* labour market would provide us with the opportunity to see what kind of channels of information is used by the most dynamics labour force (graduates) in a highly competitive labour market.

- Secondly, the UK has a very diverse population in terms of ethnicity. This enables us to see the impact of social capital in the labour market and how these social ties operate for particular ethnic groups.

- Thirdly, the use of the internet is quite high among the UK population and this considerably affects the spread of information and naturally job search processes because the internet does not only make things easier (borderless searches) but also much harder (intense competition due to the quantity of applications). According to the Internet World Stats (2014), almost ninety percent (89.8%) of the households in the UK have internet access. This competitive structure of the UK graduate labour market also makes it worthy of a further exploration.

- Fourthly, the UK has good institutions to keep records such as Labour Force Survey (LFS) and Higher Education and Statistics Agency (HESA). The latter, in particular, solely and extensively surveys the employment outcomes of the graduates. In most countries, however, recording systems are not as advanced as the ones in the UK. The well-kept records in the UK make it relatively easy to define the population, sample and strata.

- Finally, the graduate labour market should have a special importance for human capital theorists (Blondal et al., 2002) because university is a post-compulsory education. In other words, it is not only voluntary but also it requires a more careful career planning to get into, compared to other compulsory education. It is clear that the impact of human capital will be more salient on university graduates (BA, Masters, PhD) rather than on the other compulsory forms of education where students are obliged to go and finish the school.

For these reasons, the UK and graduate labour market are worthy of a detailed analysis and thus the subject of this thesis.

1.3 Summary and structure of the thesis

Chapter 1 is the introduction and briefly outlines the study and the research objectives and questions.

Chapter 2 discusses human capital theory. Firstly, it defines and gives a brief history of human capital theory. It then explores the concept of employability and the types of skills. In the final part, it discusses the structure of the UK graduate labour market and the key factors that have impacts on employment outcomes such as academic level, academic discipline and degree classification and university reputation. It is a pleasure to note that a part in this chapter has been published in a prominent academic journal, *Review of Educational Research* in 2014.

Chapter 3 focuses on the importance of formal and informal ties in job searches. The formal ties refer to institutions such as university career services while the informal ties refers to social capital. The chapter first begins with the definition and formation of institutions and it discusses *how* institutions come into being. It later focuses on *why* society needs institutions and what is the raison d'être for their existence in the first place. To answer this question, the chapter reviews three different institutional approaches: rational choice institutionalism, sociological institutionalism and historical institutionalism. Finally, it focuses on informal ties and explores the concept of social capital and its role in job searches in the light of empirical studies. Since this is the final chapter in the literature review, the hypotheses of the research are provided at the end of the chapter. This will show the link between the literature review and the hypotheses developed from it.

Chapter 4 describes the methodology and research design showing the consistency between research objectives and data collection methods. The chapter consists of three parts. The first part discusses the ontological and epistemological position of the research. The second part is dedicated to the collection and analysis of the quantitative data in which sampling method, estimation of sample size and statistical techniques used in data analysis are discussed. The third part describes the selection of the case study and how the interviews are conducted.

Chapter 5 focuses on the results of the survey and tests the hypotheses of the research. There are 26 hypotheses related to the importance of family, university career services and faculty members in job searches. The chapter presents the outcomes of these hypotheses and provides a brief explanation for each hypothesis. However, there are also some survey findings that are rather interesting but not hypothesised; the chapter presents them as well.

Chapter 6 discusses the case study. It is divided into four parts. The first part provides the structure of the organisation being studied (University of Exeter Career Services). It then moves on to student and employer engagement respectively and shows how the bridge between the two (student and employers) is established. It finally reviews the impact of delivered employability activities based on internal reports and the UK-wide surveys.

Chapter 7 is the conclusion chapter. The most important findings of the study are discussed in light of the studies in the literature. The findings are compared and contrasted with other empirical research in the field and the implications of the present research are analysed. The chapter ends with the limitations of the study and shows some direction for the future research.

1.4 Summary of the chapter

Table 1.2 shows the summary of the chapter.

	Description
Purpose	To understand the key factors affecting graduate employment
Importance	Top-down and bottom-up pressures show that graduate employment is important for various stakeholders including students and universities
Main components	Human capital Social capital Institutional social capital
Explanation of the components	Human capital: one's knowledge, and skills Social capital: one's networks, family, friends in the labour market Institutional social capital: a university's employer networks
Context	The UK graduate labour market
Why the UK graduate labour market	UK graduate labour market is competitive, ethnically diverse and has well-defined population, sample and strata because of good institutions (LFS and HESA)

Table 1.2 The summary of the chapter

2   Human capital

In this chapter, human capital theory will be discussed. The aim of this chapter is to introduce human capital and illustrate in what ways human capital factors affect graduates' employment outcomes. The chapter firstly outlines human capital theory and discusses employability. It then reviews the structure of the UK graduate labour market in light of the empirical findings and finally provides a summary of the chapter.

2.1 Definition and brief history[1]

Human capital is defined as "productive wealth embodied in labour, skills and knowledge" (OECD, 2001) and it refers to any stock of knowledge or the innate/acquired characteristics a person has that contributes to his or her economic productivity (Acemoglu & Autor, 2014). In essence, human capital theory suggests that education increases the productivity and earnings of individuals, therefore, education is an investment. In fact, this kind of investment is not only crucial for individuals but it is also the key to the economic growth of a country. As Alfred Marshall put it "the most valuable of all capital is that invested in human beings" (Marshall, 1890, para. VI).

The term human capital has a long but discontinuous history (Kiker, 1966). It was formally introduced in the 1950s and its analytical framework was developed mostly by academics at Chicago School of Economics such as Theodore Schultz and Gary Becker. At that time, the term human capital was severely criticised by some liberal academics due to its negative connotations with slavery. In fact, even before the twentieth century, the liberal philosopher J. S. Mill (1806 −1873) criticised it and noted that "the human being himself… I do not class as wealth. He is the purpose for which wealth exists" (Mill, 1909, p. 47). The

---

[1] This section of the thesis mainly comes from my published article (see Tan, 2014).

human capital theorist Schultz (1959) referred to these liberals as sentimentalists because they argued that treating human beings as if they were a commodity or machine could lead to the justification for slavery. At that period of time, this issue was so sensitive in the USA that even Becker (1993) himself later acknowledged that he was rather hesitant for the title of his book, *Human Capital*, when he was about to publish it because he was afraid of the potential severe criticisms by the liberals. To his surprise, the once bitterly criticised term *human capital* has become a popular topic in economics and led him to the Nobel Prize in 1992. Furthermore, the concept has been widely used as an instrument to shape educational policies in some countries (Ball, 2015; Marginson & Rhoades, 2002). It should be noted that human capital is not only limited to education, it is an extensive concept and covers many areas from health to migration but the scope of the dissertation is confined to education.

Human capital theory derives from the neo-classical school of thought in economics. Therefore, to have a clear and complete picture of it, the neo-classical economic model and its basic assumptions about human behaviours need to be understood. In this model, individuals are assumed to seek to maximise their own economic interests. Accordingly, human capital theory postulates that individuals invest in education in the hope of getting a higher income in the future. These investments, as Blaug (1992, p. 207) put it, are not only "for the sake of present enjoyments but for the sake of pecuniary and non-pecuniary returns in the future." This approach is closely associated with *methodological individualism*. This is the doctrine that the roots of all social phenomena could be found in the individual's behaviours. This conforms to the assumption that human capital formation is typically undertaken primarily by those individuals who seek to maximize their interests (Blaug, 1992). Having said that, the human capital economists do not necessarily disregard the non-monetary contributions of

education to the individual and society. They also acknowledge the social, cultural, intellectual and aesthetic benefits of education but these are called positive externalities. In his reply to a human capital critic, Schultz (1961, p. 1038) argued that "it is altogether proper that people should prize highly the cultural contributions of education and they will continue to do exactly that; but it is very short-sighted of us not to see its economic contributions."

As Marginson (1989, p. 1; 1992) described, the line of assumptions in HCT goes as follows: the individual acquires knowledge and skills through education, that is human capital. These knowledge and skills will increase his or her productivity in the workplace. This increased productivity will bring a higher salary to the individual since the wage of a person, in the ideal labour market, is determined by the person's productivity. Therefore, people would invest in education up to the point where the private benefits from education are equal to the private costs. In light of this set of assumptions, the logic of HCT becomes clear that education and training increase human capital and this leads to a higher productivity rate, which in turn brings a higher wage for the individual (Marginson, 1992). Based on this train of reasoning, human capital theorists claim that education and earnings are positively correlated and thus education should be promoted (Tan, 2014, pp. 412–413).

2.2 Employability: general and specific skills

Human capital economists distinguish between two types of skills: general and specific skills (Becker, 1993). The former provides an employee with skills that can be of use across different firms and industries. On the other hand, the latter provides the acquirer with skills that are solely used in one firm but not in others (Kessler & Lulfesmann, 2006).

However, the distinction between general and specific skills is also examined within a broader framework and general skills are often referred to as employability skills. These

skills are regarded as core work skills that enable individuals to constantly acquire and apply

new knowledge and skills (Brewer, 2013, p. 6). Thus, employability skills can be considered

as "the skills that make specific knowledge and technical skills fully productive" (UKCES,

2009, p. 9). Sometimes employability skills are termed generic skills, soft skills and

transferable skills (Brewer, 2013). As Autor (2001) put it, general skills are transferable

skills and they can be used in many firms rather than just in one firm. Simply, general skills

have many buyers (employers) in the labour market. Therefore, these kind of skills provide

individuals with greater flexibility and employability. Time management, analytic thinking,

problem solving, team-working, communication, numeracy and IT skills are typical examples

of generic skills (Sung et al. 2013) and these kinds of skills increase the market value of an

employee (Hansson et al., 2004).

On the other hand, specific skills are not transferable skills. This type of skill is useful

only to one particular firm. Since specific skills have one single buyer (employer), specific

skills do not have a marketable value (Autor, 2001). For instance, an employee can be trained

to run particular machine or particular software programme that is peculiar to one firm but not

used in other firms. The employee then will have a specific skill. Some forms of skill are not

completely general neither entirely specific but they increase productivity (Becker, 1993).

Therefore, it should be noted that although theoretically a sharp distinction is made between

general and specific skills, empirically it is not always easy to draw a crystal-clear line

between the two types of skills (Fleischhauer, 2007).

The importance of generic skills has been highlighted by numerous articles and reports in

the literature (Archer & Davison, 2008; Brewer, 2013; UKCES, 2009). The literature[2]

---

[2] Starting from here, the following three paragraphs and figures come from the report that I have co-authored for Pearson (Tan et al., 2015). It should be stated explicitly to avoid any issues with self- plagiarism.

suggests clearly that soft skills are quite often given priority over technical skills. For example, it is rather commonplace to read sentences like this: "75% of long-term job success depended on people skills, and only 25% on technical skills. Hence soft skills are extremely important in increasing one's own productivity in an organisation" (Reddy et al., 2013, p. 347).

However, there are some empirical studies that challenge this common wisdom. For instance, a revealing example comes from the United Kingdom. Figure 2.1 highlights the most important factors in graduate recruitment and the most demanded degree subjects by employers (CBI, 2012). Although it is true that employability skills are the most valued attributes (81%) by the employers, degree subjects are also seen as an important factor (70%). That is, the 70% of UK employers pay attention to the degree subject of job applicants in the recruitment process. Moreover, Figure 2.1 shows that STEM subjects (Science, Technology, Engineering and Medicine) are highly valued by the employers. The survey suggests that half of the UK employers prefer job applicants with a technical degree (STEM subjects). Whilst 17% of the employers prefer job applicants with a Business degree, only 28% of the employers do not state any particular preferences and can recruit from any academic disciplines.
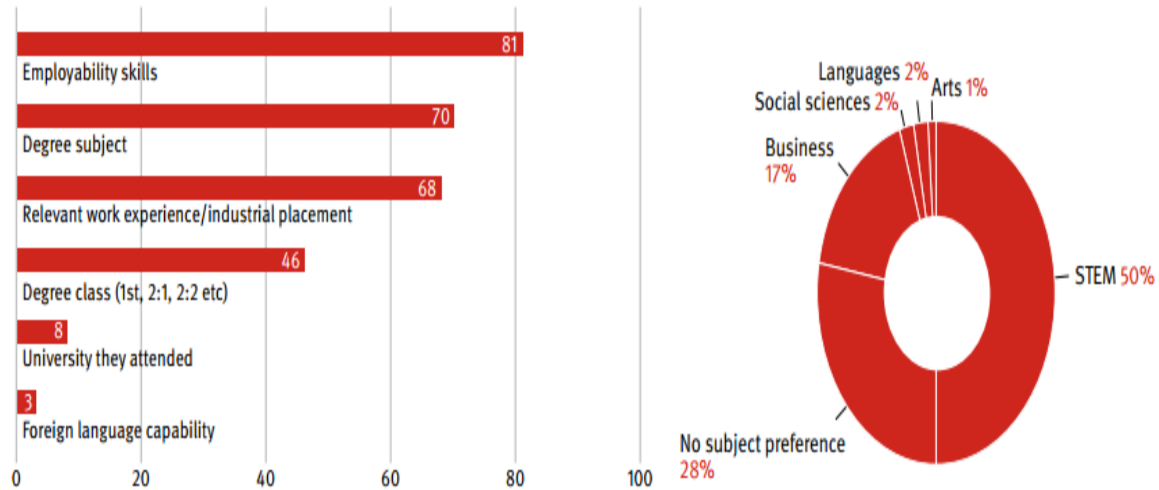
Figure 2.1 Most important factors in graduate recruitment and Degree subjects preferred by employers, (CBI, 2012, p. 47)

Similarly, the Eurobarometer study (2010), surveying 7036 employers in 31 European countries, demonstrates that sector specific skills are the second most demanded skills in the recruitment of university graduates (see Figure 2.2). Although other employability skills such as teamwork, communication, IT and 'ability to adapt' are also considered very important, sector specific skills are the second most important skills demanded by employers across 31 European countries.

Figure 2.2 Importance of various skills of graduates in 31 European countries, (Eurobarometer, 2010, p.12)

There are also some other studies that demonstrate the extent of the shortage in technical skills across the world such as the most recent Talent Shortage Survey by Manpower Group (2015). Therefore, although soft skills rather than technical skills are emphasised in the literature, to a great extent, it contradicts the empirical evidence. Particularly the report by the Confederation of British Industry (CBI) given above clearly shows this contradiction at the UK level. This, of course, does not mean that employability skills are not important but rather it indicates that additional tehcnical skills can be required by many employers both in the UK and across Europe.

The employability model of Fugate et al.

There are a number of employability models such as the CareerEDGE model by Pool and Sewell (2007), USEM model by Yorke and Knight (2006) and Solent Capital Campus Model by Jones and Sant (2013). However, the employability model of Fugate et al. (2004) seems to

be more relevant for the scope of this study. Fugate et al. describe three components that are essential for employability. They are human-social capital, adaptability and career identity (see Figure 2.3). Human capital refers to one's knowledge and skills. Social capital will be explained later but now it is sufficient to say that it is one's social connections that can provide help in finding a job. The second component in this model is personal adaptability, which refers to employee's willingness and ability to keep up with changes.
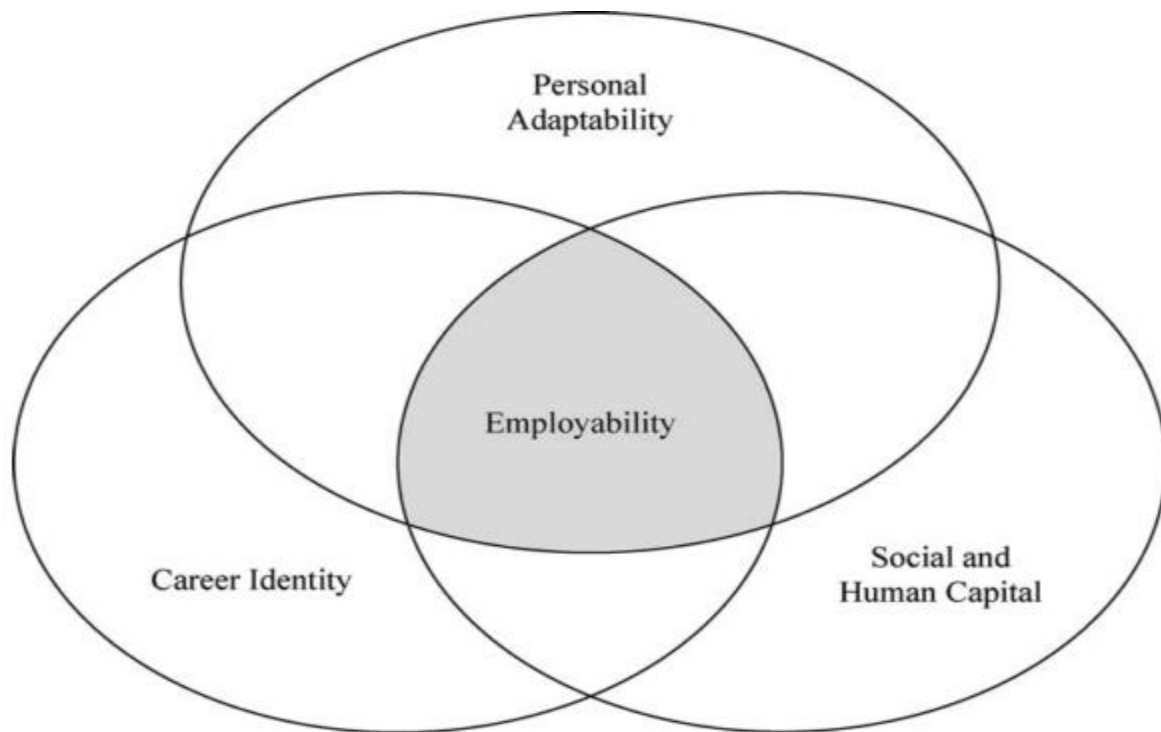
Figure 2.3 Heuristic model of employability, (Fugate et al., 2004, p. 19)

Career identity is another construct of this model. As Meijers (1998, p. 190) explained, "a career identity is a structure of meanings in which the individual links his own motivation, interests and competencies with acceptable career roles." Thus, it requires the knowledge of the self as well as the awareness of the career that is suitable one's skills and aspirations. A lack of awareness of these may lead to various problems such as unclear vocational identity (Blustein & Noumair, 1996) and individuals may have difficulty in deciding which career

path to pursue. This particularly "increases with the number of vocational identity

alternatives the individual encounters" (Vondracek, 1985, p. 7).

2.3 Signalling[3]

Human capital theory is challenged by some other competing theories, most notably

signalling theory developed by Spence (1973). Human capital theorists claim that education

enhances a person's skills and leads to a higher productivity level in the workplace, which in

turn will bring a higher wage to the person. Signalling theory provided another explanation

for this higher wage. The theory suggests that the education levels of individuals indicate

their certain innate characters such as their propensity to be intelligent, their dedication, time

management skills and ability to follow instructions. The signalling theorists argue that what

the school does is to classify students according to their intelligence and commitment through

the processes of admission requirements and grading (Soldatos, 1999). By doing that, it

establishes a supposed hierarchy of students based on their academic successes, by which the

potential productivity level of an individual, more or less, can be predicted. In practice, it

enables employers to sort out and re-assess job applicants once more before their recruitment.

In this assessment and selection process, the applicants signal their desirable but unobservable

skills (time management, discipline etc.) via their academic credentials while the employers

screen and identify them by the help of the same academic credentials (Brown & Sessions,

2005). Therefore, the employers require a minimum level of schooling from the applicants in

order to *screen* them out (Weiss, 1995). In this connection, signalling theorists emphasise

two points. The first is that schooling may reflect higher productivity without causing it

because education is not the source but the signal of higher productivity of educated people

since schools identify the able and committed individuals and eliminates the less able ones in

---

[3] Although there are some changes, this section comes from the author's own article (Tan, 2014)

the process. The second is that due to imperfect information in the labour market, the education level of a person is simply taken as a proof of his or her higher ability to produce while in fact there is not necessarily a correlation between education and productivity (Mankiw et al., 2012). It follows the conclusion that education may increase a person's wage without increasing his or her productivity per se (Blaug, 1976).

Psacharopoulos (1980) aptly distinguished two forms of signalling; strong signalling hypothesis (SSH) and weak signalling hypothesis (WSH). The difference between the two is that SSH suggests that education has little or no impact on productivity but it just reveals individuals' innate ability to work whereas WSH suggests that education has two functions: to foster productivity and to signal individuals' innate abilities. SSH has been empirically refuted to a great extent while WSH has some empirical support (Clark, 2000; Jaeger & Page, 1996). Weak signalling hypothesis has some empirical support because particularly, in initial hiring of recent graduates. Since signalling theory stems from the theory of decision-making under uncertainty, the primary example of the signalling effect can be found at this initial stage, because the employers do not have sufficient information about the productivity of the applicants apart from their educational qualifications (Spence, 2002). There are a substantial number of studies which confirm that initial wages can be higher for educated persons due to imperfect information on the expected productivity level of the applicants (Chan & Chi-Hua, 2015; Soldatos, 1999). However, once this initial period is over, the wage is primarily determined by productivity rather than by academic qualifications. Namely, the employer no longer pays the individual on the basis of his or her academic credentials once his or her work performance has become clear (Tsang, 1986). This supports WSH's claim that educational

qualifications sometimes may lead to undeserved higher wages, particularly in the initial hiring of recent graduates.

On the other hand, to test strong signalling hypothesis empirically, the difference between self-employed and salaried employees with the same education level is thought to be a good measure (Brown & Sessions, 1999). Since the self-employed are assumed to be the unscreened group, they do not have to signal their innate abilities to the employer (Kjelland, 2005). Hence, if strong signalling hypothesis is true, there should be a noticeable wage difference between paid employees (screened) and self-employed (unscreened) with similar educational background (Kedir et al. 2012) and as a result, self-employed persons should have lower monetary returns to education compared to salaried employees. However, the overwhelming majority of the empirical studies found that there are no substantial difference between salaried employees and self-employed with the same educational background (Chevalier, Harmon, Walker, & Zhu, 2004; García-Mainar & Monteuenga-Gómez, 2005; Van der Sluis & Van Praag, 2004). This indicates that education, in general, leads to higher productivity and, it, in turn, leads to higher wages, which contradicts strong signalling hypothesis.

The conclusion is that SSH does not have empirical support since a considerable number of empirical studies show that education also increases productivity. However, as shown above, there is a signalling effect in the labour market, particularly in the initial wages of recent graduates since the employers do not have sufficient information about the productivity level of the candidates. Hence, as WSH suggested, education has two functions: to foster productivity and to signal individuals' skills and abilities.

2.4 The structure of the UK labour graduate market and empirical studies

This section will introduce the structure of the UK graduate labour market and display important factors that may affect employability outcomes in light of the existing literature. However, it should be stated that a considerable number of UK-wide empirical studies on graduate employment use Labour Force Survey (LFS) and Higher Education Statistics Agency (HESA) as their main sources of data (Blundell, et al., 1999; Kidd, et al., 2014; O'Leary & Sloane, 2004; Walker & Zhu, 2013). Therefore, mainly these two sources will be used quite extensively in this section since they cover the graduate labour market on a UK-scale.

2.4.1 General outline

First of all, it is useful to display the proportion of the graduates in the UK labour market. Figure 2.4 shows the percentage of graduates in the labour market from 1992-2013.
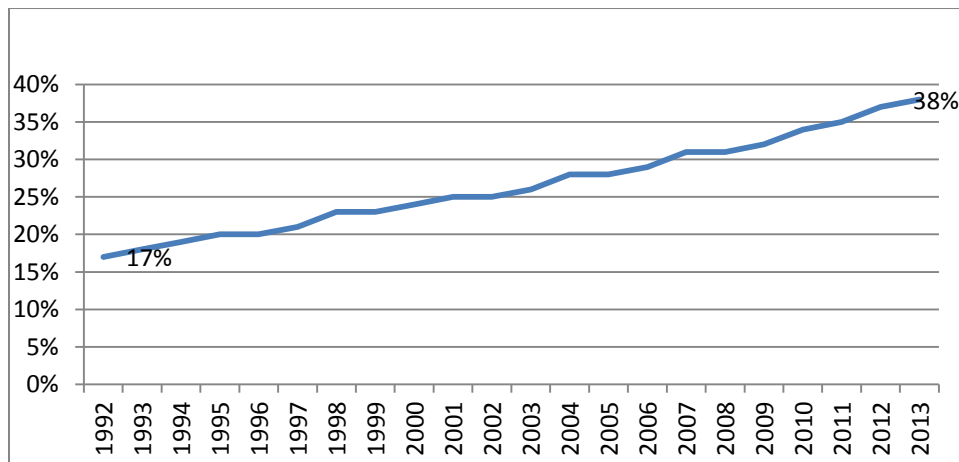
Figure 2.4 Graduates in the labour market (LFS, 2013, p. 4)

As can be seen, the percentage of graduates in the labour market has been rising steadily in the given period. In 1992, it was 17% and it went up to 38% in 2013 in twenty one years. There are a number of reasons for this steady increase. Firstly, not only in the UK but also in the world, there have been massive investments in tertiary education (Imre & Griffiths, 2013).

In that sense, it is not surprising that the percentage of the graduate in the UK has been rising

steadily in conformity with the general trend in the world. Secondly, maybe more

importantly, the UK governments actively promoted university education particularly after

1999. For example, while talking about unemployment and the needs of the 21th century, the

former Prime Minister Blair (1999) said that "so today I set a target of 50 per cent of young

adults going into higher education in the next century." This target was not met by the

specified time, which was 2010 but university education was encouraged by various policies

as a means to fight unemployment (Spermann, 2015). However, some graduates

organisations questioned the effectiveness of this approach. For instance, the Association of

Graduate Recruiters (2010, para. 5) reported that this 50% target has "driven down standards

and devalued the currency of a degree and damaged the quality of the university experience."
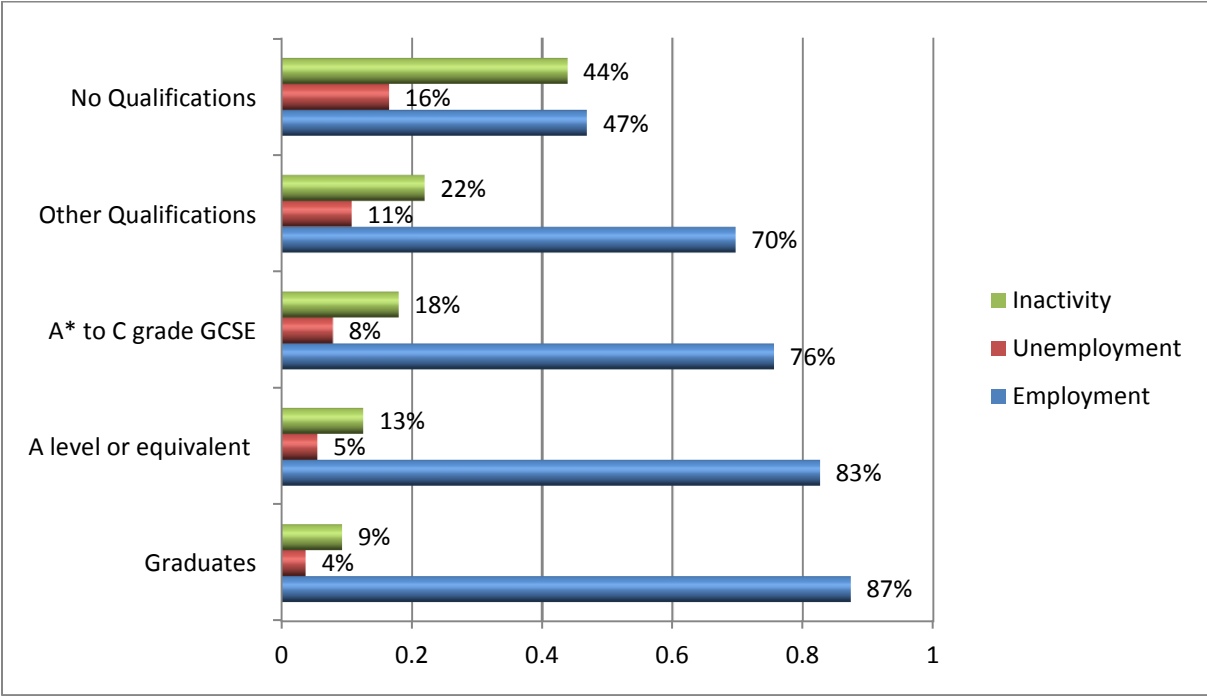
Figure 2.5 Employment, unemployment and inactivity rates by education (LFS, 2013, p. 5)

Figure 2.5 shows the employment and unemployment rates of the entire UK labour market

by education level in 2013. The graduate employment rate was 87% which was higher than

the employment rate of those with A level qualification (83%) while those with 'no qualification' had considerably lower employment (47%) and higher inactivity rate (44%). University graduates had an unemployment rate of 4% and those with A levels had 5%. The unemployment rate for those with other qualifications was 11% while 'no qualifications' was 16%. In general, these figures indicate that graduates were more likely to be in employment and far less likely to be out of the labour market than those with lower qualifications or no qualifications.

If university graduate employment is analysed by gender based on the same LFS report, it is found that the percentages of male and female graduates in employment were similar, 89% of male graduates and 86% of female graduates were in employment as of June 2013. Female graduates had a slightly lower employment rate because they were more likely to be out of the labour market to take care of the family. 7% of female graduates stated that looking after family/home is the main reason not to take part in the labour force, compared to 1% of male graduates who did not join the labour market for the same reason (Labour Force Survey, 2013, p. 24).

However, it would also be useful to look at the employment rate of graduates from a longitudinal perspective. Figure 2.6 displays the trends in the main activities of graduates 3.5 years after graduation, collated from the subsequent four longitudinal surveys.
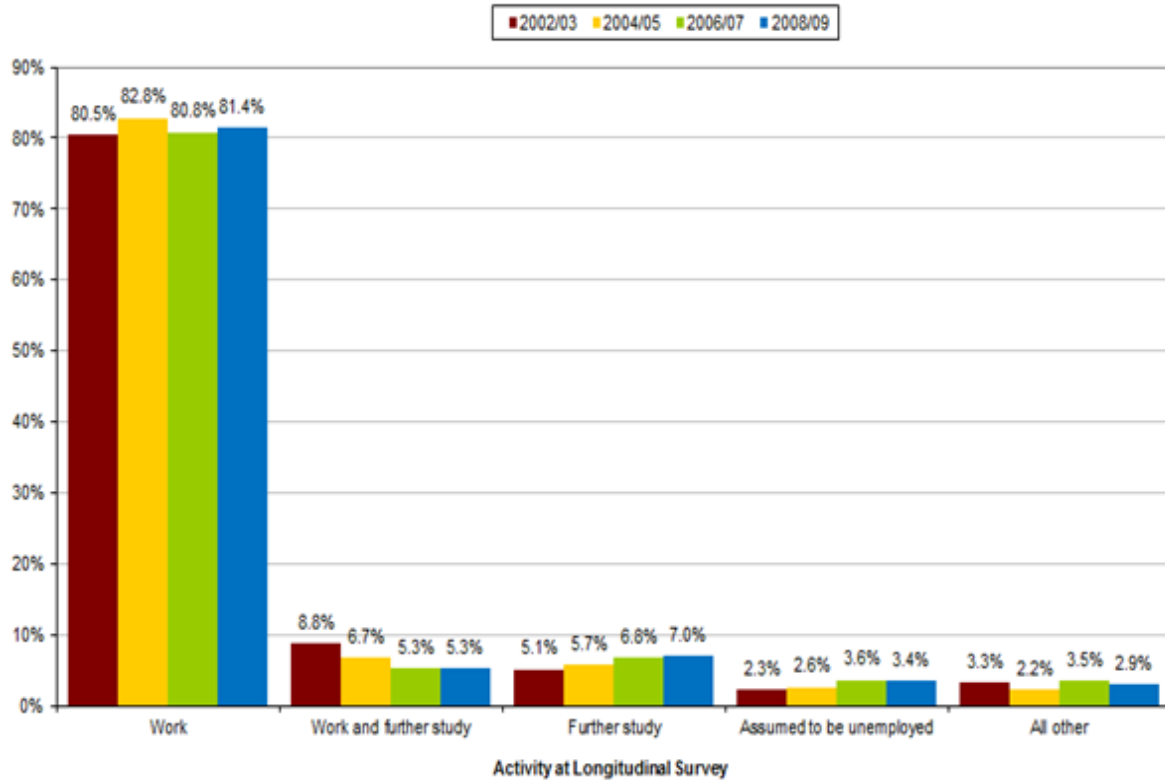
Figure 2.6 Destination of leavers 2003-2009 (HESA, 2013)

The figure shows that the percentage of graduates working either full-time work or part-time work has increased slightly from 80.8% in 2007 to 81.4% in 2009. As seen, the unemployment rate is consistently below 4% among university graduates in this period. Hence, it is possible to say that employment rates of graduates have been consistently high and above 80% in the years shown above.

The graduate employment rate is important, however, another dimension of employment is whether university graduates can get a *graduate* level job. Elias and Purcell (2013) have defined a non-graduate job as the jobs that do not normally require knowledge and skills developed through higher education. This phenomenon is also called over-education which indicates the excess education of employees whose academic qualifications are more than required by their job (Kedir et al., 2012, p. 2). Examples of non-graduate jobs would be receptionists, sales assistants, home carers, bank and post office clerks (Elias & Purcell,

36

2013). According to latest LFS report (2013, p. 13), almost half of the employed recent

graduates were working in a non-graduate position.

   To put it in a broader context, it will also be useful to take a look at the historical trend in

over-education (see Figure 2.7).
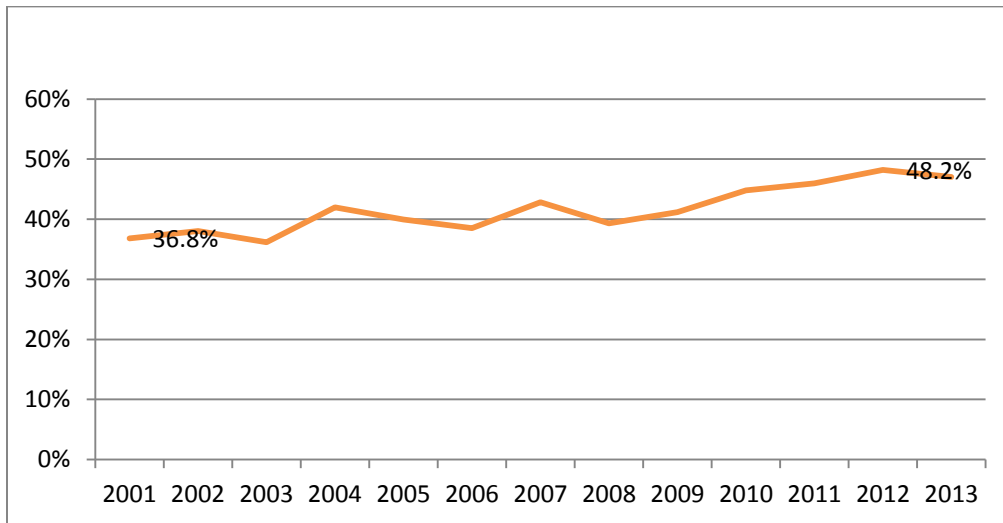
Figure 2.7 Graduates in non-graduate jobs (LFS, 2013, p. 12)

   The LFS report (p. 13) highlights that the percentage of recent graduates who were

employed in non-graduate jobs has risen from 37% in 2001 to 47% in 2013. Although there

were ups and downs in the percentages of the graduates in non-graduate jobs between 2001

and 2008, after the 2008 recession there was a noticeable steady increase and it reached the

peak in 2012 with 48.2%. This may indicate both lower demand for graduate skills and an

increased supply of graduate labour.

   On the other hand, the graduates of some subjects can be more likely to be employed in

non-graduate jobs. Table 2.1 illustrates that the employment status of the graduates in some

academic disciplines after six months after graduation. Mostly the graduates in humanities,

such as drama, arts and history are more likely to find themselves in non-graduates jobs

compared to those in technical disciplines such as medicine and dentistry graduates. The

unemployment level was also high in humanity subjects in general but it was the highest for some technical subjects such as in computer sciences (15%), chemical engineering (13%), accounting and finance (13%).

Subjects	Non-graduate jobs[4]	Graduate jobs[5]	Unemployed	Studying
Drama & Dance	38%	37%	10%	8%
Arts & Design	34%	38%	14%	8%
Accounting & Finance	31%	44%	13%	12%
History	31%	27%	9%	25%
Philosophy	27%	30%	11%	24%
Law	22%	20%	8%	38%
Computer Science	20%	50%	15%	10%
Economics	18%	43%	9%	17%
Mathematics	17%	33%	10%	26%
Chemical Engineering	8%	52%	13%	21%
Vet. Medicine	5%	86%	3%	4%
Dentistry	0%	92%	0%	0%
Medicine	0%	92%	0%	5%

Table 2.1 The graduates of different subjects by employment in non-graduate and graduates jobs (Compiled from the Complete University Guide, 2015)

Related to the previous point, subjects can also have an impact on graduates employment outcomes and salary. Figure 2.8 shows both the employment rate and average salary of graduates by subjects. Interestingly, the graduates with a degree in media and information studies had the second highest employment rate but the lowest average gross annual wage. Their average wage was £25,000 less than that of a graduate with a degree in medicine/dentistry. In science degrees, those with a degree in biological sciences were the least likely to be employed and had the lowest gross annual wage on average.

---

[4] In this table green indicates desired outcomes whereas red indicates undesired outcomes. Hence, in this column, red indicates high level of non-graduate jobs (which is not desired) while green indicates low level of non-graduate jobs.
[5] In this column, red indicates low level graduate jobs while green indicates high level graduate jobs.
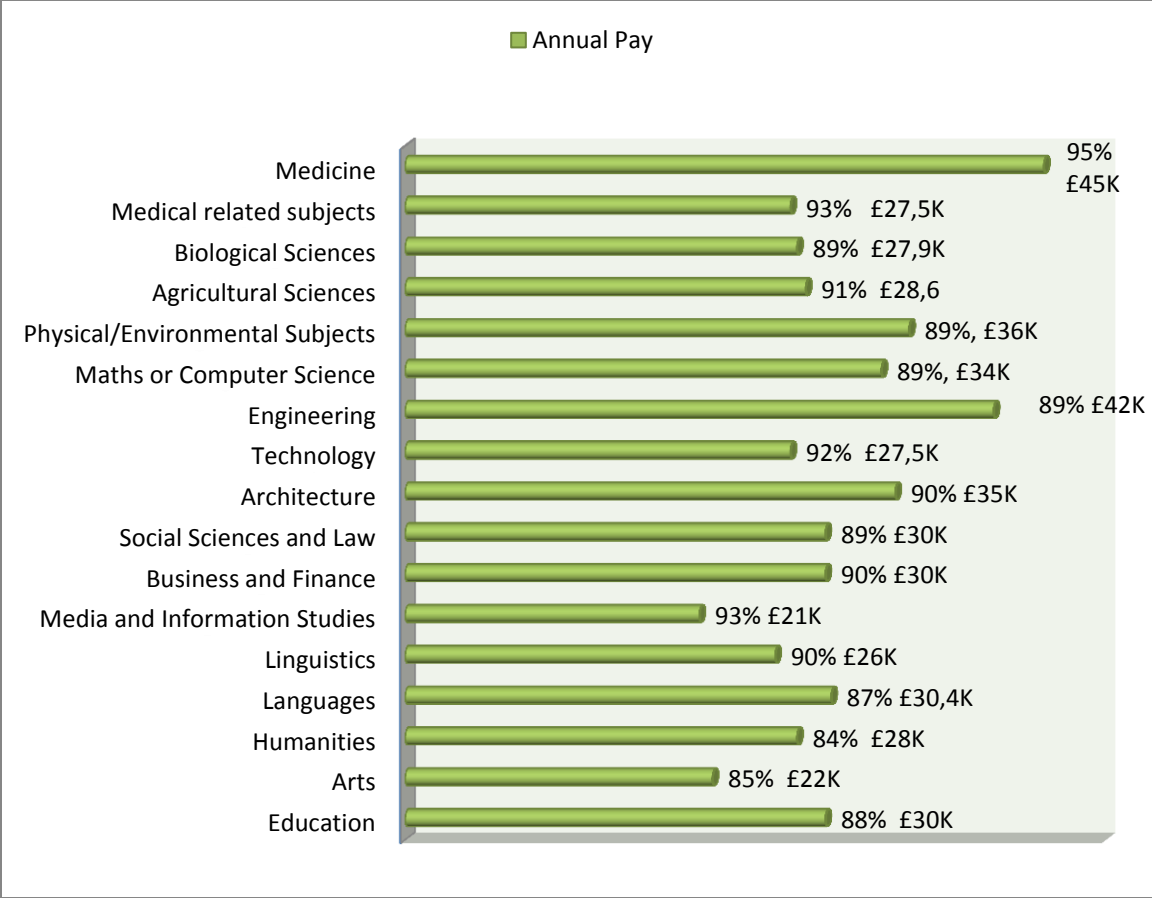
Figure 2.8 Employment rate and annual pay by subjects (LFS, 2013, p. 17)

This may be due to the fact that 35% of them were working in non-graduate roles. Those who have a degree in a subject belonging to the arts had relatively low employment rates and comparatively low gross annual pay. This again can be attributed to the possibility that 40% of graduates with a degree in arts subjects were working in non-graduate posts, according to LFS report (2013, p. 19). In other words, from an economic perspective, these graduates can be regarded as being over-educated at that point in time.

Figure 2.9 illustrates the importance of academic qualification in job searches: whether a qualification is formally required in the job application process. As can be expected, a university degree is a formal requirement in the job application for medical positions with almost 85% while the figures sharply go down for mass communication and business studies

related jobs with around 13%. Computer sciences, agriculture related subjects and biology graduates are the least likely to have had a job which requires a formal qualification out of all STEM subjects. Education department graduates have the highest degree of use (56%) of their formal qualification among all social sciences graduates.
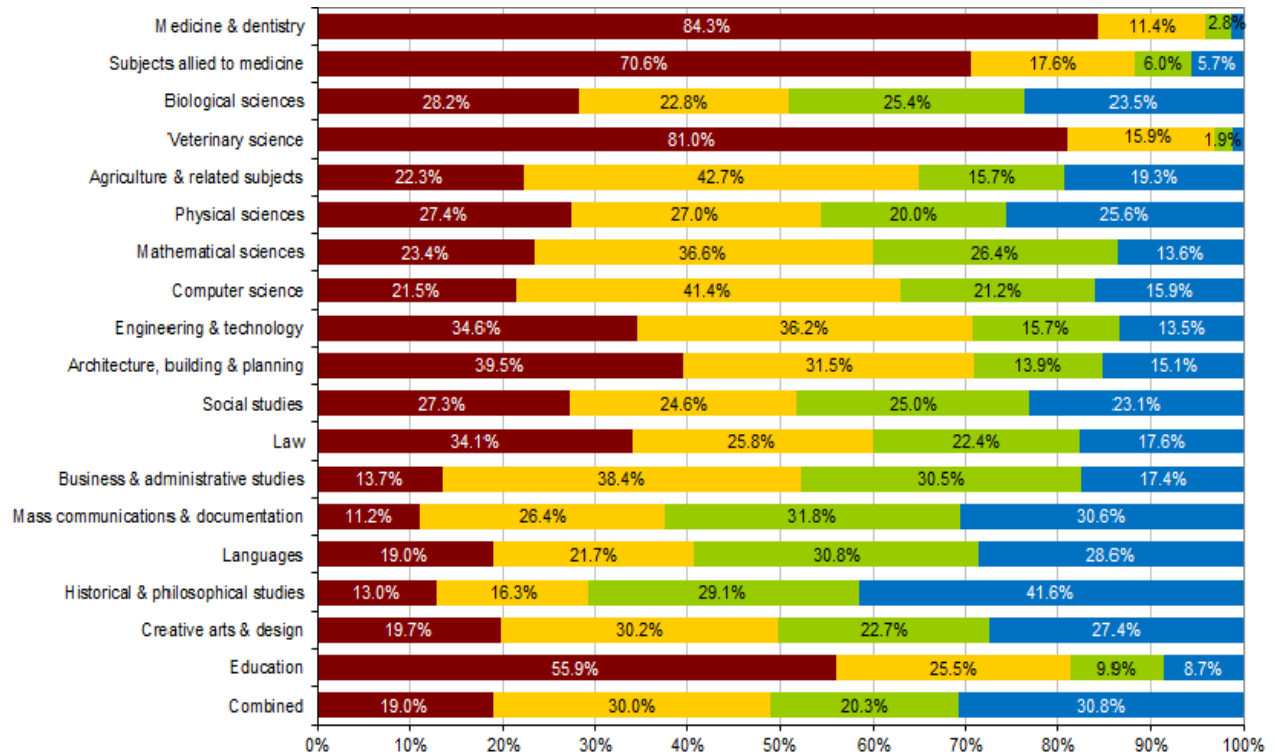
Figure 2.9 Graduates 2008/09 in employment by subjects and importance of subject studied (HESA, 2013)
Brown= Formal requirement, Yellow= Important, Green= Not important but helped Blue= Not important.

2.4.2 Gender

With regard to gender, Walker and Zhu (2010, p. 3) stated that women are less likely to have Masters or Doctoral degrees. They noted that average hourly wage differentials between different degrees are clearly visible: males with a first degree earn 20% more while females with first degree earns 31% more than the same gender with A-levels only, indicating a lower degree of gender discrimination in the graduate labour market; males with a Master degree earn 12% more, while female with a Master degree 17% more than the same gender

with a first degree alone; male with a PhD earn 4% more, while female with a PhD earn 7% more than the same gender with a Master degree.

In parallel to the above studies, Blundell et al. (1999) found that the average annual return for a first degree is between 5-8% for men while 10-13% for women in the UK. O'Leary and Sloane (2004) estimated the rate of return for undergraduate, Masters and PhD degrees in the UK. They found that the returns are higher for female graduates than for male graduates in all degrees. On average, 20%, 29% and 31% are for men and 35%, 40% and 60% are for women in undergraduate, Masters and PhD degrees respectively.

In another study, O'Leary and Sloane (2008, p. 207) noted that women graduates have a higher rate of return to their university degrees than men in most of the geographical regions of the UK in comparison to the same gender with A levels. Walker and Zhu (2013) compare the difference between those who have an A level and a first degree. Their study shows that men increase their earnings by 23% while women by 31% on average. Conlon and Patrignani's study (2011) suggests that a university degree adds almost 23.5% to the income of a male while 29.7 % to that of a female over a lifetime. However, this should not be interpreted that women earn more than men because as Ono (2001) pointed out, women's rate of return on education is greater than that of men in *relative* terms rather than in *absolute* terms because women's wages start with a low baseline.

To clarify Ono's point, an example is provided in Table 2.2. If females with an A-level get £12000 annually on average and females with a first degree get £18000, the increase is 50%, which is much higher in relative terms than a 30% increase that took place in men's salary with a first degree, from £15000 (A level) to £19500 (first degree). However, the

males are still advantageous in absolute terms since their initial baseline wage is high (£15000).

	A-level	First degree	Increase (%)
Female	£12000	£18000	50%
Male	£15000	£19500	30%

Table 2.2 An example to illustrate the importance of the baseline wage and why a university degree has more impacts on female graduates (Source: Author)

Hence, all of the above empirical findings related to gender should be interpreted this way. In other words, in many studies, the rate of return on women's education can be higher than that of men but it is just in *relative terms.*

2.4.3 Degree classification and university reputation

The other important factor that has an impact on the graduate employment outcomes is degree classifications. For instance, Feng and Graetz (2015, p. 1) discovered that "A First Class increases the probability of working in a high-wage industry by thirteen percentage points relative to an Upper Second. The corresponding estimate for an Upper Second, relative to a Lower Second, is eight percentage points." Mason et al. (2006, pp. 19–20) also emphasised the importance of degree classification and noted that "the probability of graduates with a First Class or Upper Second degree being employed is almost a third higher than for graduates with a lower class of degree." Figure 2.10 displays the average earnings by degree classification in the UK and as seen there is a positive correlation between the classification degrees and earnings. Two points need to be highlighted in this figure. First, across almost all degree classifications male graduates noticeably outperform female graduates in terms of wage, maybe with the exception of the graduates with a Third. Secondly, the starting salary for a graduate with a First degree honour is on average 18%

42

higher than someone with a Third (Ramsey, 2008, p. 28).
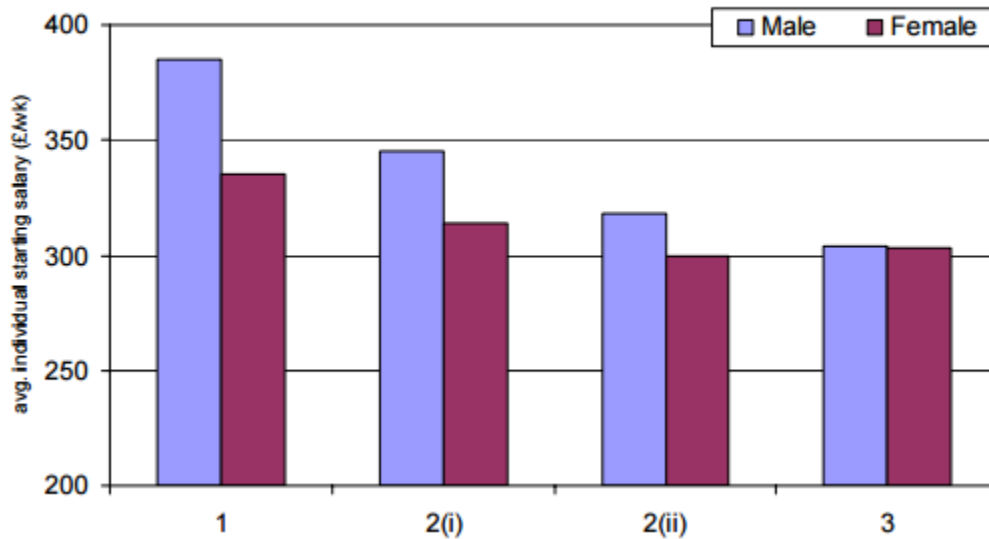
Figure 2.10 Average earnings by degree classifications, (Ramsey, 2008, p. 28)

Not only degree classifications but also university reputation has an impact on the labour

market outcomes. As expected, some university graduates tend to earn more than some

others since a portion of employers, particularly the top ones, pays attention to university

reputation when they recruit. Figure 2.11 illustrates the universities targeted by top

employers in the UK.

1. Manchester	14. Edinburgh
2. Nottingham	15. Loughborough
3. Warwick	16. Sheffield
4. Cambridge	17. Southampton
5. Oxford	18. Exeter
6. Durham	19. Newcastle
7. Bristol	20. London King's College
8. London University College	21. York
9. London Imperial College	22. Cardiff
10. Leeds	23. Strathclyde
11. Bath	24. Glasgow
12. London School of Economics	25. Leicester
13. Birmingham	

Figure 2.11 25 universities targeted by top employers (HighFliers, 2015, p. 33)

The company called Highfliers runs this survey annually and almost every year these 25 universities come at the top of the list with a slight variation in the ranking. Not surprisingly, employers favour some universities over others and target the graduates of those universities. Accordingly, it creates a wage differential and some graduates earn more than others. Table 2.3 shows the average graduate salary of top 10 universities after five years of graduation. The graduates of the prominent universities such as London Business School, Oxford, Warwick and Cambridge are at the top of the list.

	Institution name	Average salary
1	London Business School	£69,000
2	Oxford University	£54,000
3	Warwick Business School	£53,000
4	Cambridge University	£52,500
5	Cass Business School	£50,500
6	LSE	£50,000
7	University of Sheffield	£49,000
8	Edinburgh University	£48,500
9	Imperial College London	£47,000
10	University of Birmingham	£46,500

Table 2.3 Top 10 universities by salary (Emolument 2015 cited in Graddiary.com, 2015)

As a result, it is possible to argue that degree classifications and university rankings are two important factors that influence graduates positions in the labour market.

2.5 Summary

The chapter introduced human capital theory and related concepts such as employability and generic/specific skills. As Fugate et al.'s (2004) employability model suggests human capital and social capital are important components of employability and thus have impacts on labour market outcomes. The impact of human capital in the UK labour market has been explored and found that some factors such as gender, academic level, subject degree, degree classification and university ranking may affect employment outcomes. The next section will

explore whether these factors also affect the way graduates use their social capital in the labour market.

3   Institutional and social ties

As noted in the introduction chapter, this study will focus on three components that affect graduate employment. In the previous chapter, the first component, human capital is explained. In this chapter, the other two components, institutional and social ties, will be discussed. Some terms will be used interchangeably. For instance, institutional social capital and institutional ties, and social capital and social ties will be used synonymously (Turunen, 2009).

Since this research focuses on institutional social capital in general and university career services in particular, this chapter will start with the definition of institution, and then, new institutionalism and different competing institutional approaches will be described to explain why institutions are important in society. It was thought different institutional approaches should be discussed because without having a clear understanding of the functions of institutions in society, the importance of institutional social capital in the labour market cannot be fully understood.   After having discussed the functions of institutions, the roles and importance of university career services in the employment process of university students will be explained. Subsequently, social capital and its importance in the labour market will be examined in the light of empirical studies. Lastly, since this is the final chapter in the literature review, the hypotheses of the research will be provided at the end. This will show the link between the literature review and the hypotheses to be tested.

3.1 Institution

First of all, it would be useful to ask what an institution is and what the roles of institutions are in society. An institution is defined as a custom, tradition or law that has existed for a long time and is accepted by many people in society (Cambridge Online Dictionary, 2015). As indicated in the phrase 'existed for a long time', institutions are *durable* structures, and

systems of established social rules that accommodate both formal and informal social interactions (Hodgson, 2006, p. 13). Durability is the main characteristic of institutions because durability generates stable expectations of the behaviours of others and thus it enables ordered thought, expectations and action by imposing form and consistency on human activities (Hodgson, 2006, p. 2). Governments, firms, laws, money and marriage are typical examples of institutions (Searle, 2005).

Searle (2005, pp. 5–6) maintains that there are three primitive notions that explain social and institutional reality. The first is *collective intentionality*. Here, intentionality means the directedness and purposiveness of the mind. Collective intentionality comes in a variety of modes, including shared intention, joint attention, shared belief, collective acceptance, and collective emotion (Schweikard & Schmid, 2013). However, it is not an exclusive characteristic of human species. Collective intentionality is displayed in the cooperative behaviours of both humans and animals. Therefore, it is the basis of all societies, human and animal alike but human collective intentionality creates special and sophisticated forms of social reality that differs from those of animals, which will be discussed below.

Searle's (2005) second concept is the *assignment of function*. Human beings have the capacity to use tools and assign functions to the tools. For instance, a pen is a tool that we write with. If someone tries to eat foods with the pen, although it may practically be possible, it would be inappropriate to do it because the pen is not designed for that function. In that sense, human beings cannot only use tools but also can assign a function to a tool. However, some animals as well can use tools although their ability to use it is far less developed than that of human beings.

Searle's third concept is *status function*. This term makes a distinction between social facts and institutional facts because it is a special kind of assignment of function that enables humans to perform an action in virtue of the collective acceptance by the community (Searle, 2005, p. 7). Money, private property and political leadership are the examples of that kind. That is, a piece of paper does not have an intrinsic value, however if it is called money and recognised as a medium of exchange, that piece of paper will have the *power* to buy an item. Hence, the *status function* differentiates human societies from animal societies because human beings are able to assign functions to an object which is not inherent in the object. For instance, if a particular line is supposed to be the border, no one can cross that line unless they are authorised to do so. The line itself does not have an intrinsic capacity to stop people but if it is collectively recognised as a border, it acquires a quality which it did not previously have. This collective acceptance is the key to the formation and preservation of an institutional entity and it is unique to human societies, because human beings are able to create a new form of reality by ascribing a status to an object.

It should be noticed that some words have been frequently used to describe an institution such as recognition, authorisation and acceptance. These words indicate the basic characteristics of an institution, which is its assigned status function. Searle (2005, pp. 9-10) asserts that institutional facts only exist in virtue of collective acceptance of a certain status, where that status carries functions that cannot be performed without the collective acceptance of the status. To Searle, this is the glue that holds society together.

Searle (2005) argues that the role of institutions is not to constrain people by rules and regulations but rather to form new sorts of power relationships. The purpose of this power relationship is to *enable* people to carry out certain set of actions under a new set of concepts

such as duties, obligations, authorisations, permissions and certifications. Therefore, status functions create a deontological relationship in a society, based on rights, duties, rules and obligations. Searle (2005, p. 10) maintains that human beings are capable of a deontology that no other species is capable of. Institution is the result of this deontological relationship in a community. This provides human with an enormous power, facilitates certain transactions in an effective way and thus increase human's capacity for action. To conclude this section:

1. Institutions are the product of collective intentionality.

2. Institutions are deontological structures based on rights, duties, obligations and authority.

3. Institutions derive their legitimacy from collective recognition and acceptance. This, in turn, provides desire-independent reasons for actions. If something is a duty or obligation you have a reason to do it regardless your inclinations at the moment

4. Institutions enable as well as constrain certain set of actions and they increase human's capacity for action. Traffic rules both regulate and facilitate the flow of traffic. (Searle, 2005).

3.2 New institutionalism

After having examined the formation of an institution and *how* it comes into being, in this part, *why* societies build institutions will be explained. Accordingly, three different competing institutional approaches to explain the roles of institutions will be reviewed; rational choice institutionalism, sociological institutionalism and historical institutionalism. The umbrella term for these three approaches is *new institutionalism*.

It should be noted at the outset that new institutionalism is not a theory since it hardly has empirically testable variables or relationships. However, it has theories within itself. It

covers multi-disciplinary topics and these topics have different implications in different academic disciplines (RIOIP, 2008). Rather, new institutionalism is a paradigm and a paradigm is a world view or framework to break down to complexity of the real world highlighting what is important and where to look at when dealing with a phenomenon (Guba & Lincoln, 2005; Patton, 1990). In that respect, new institutionalism is an approach that stresses the significance of institutions in social life and it places a special emphasis on the role institutions play in structuring behaviour (Steinmo, 2008, p. 123). The basic precept of the new institutional approach is the notion that institutions should occupy a central place in social, political, and economic analysis (Siebecker, 2008, p. 263).

The differences between old and new institutionalisms are multi-faceted. Bell (1998, p. 4) notes that the old institutionalism displayed little interest in cumulative theory building and its main emphasis was on description, not on explanation or theory building. In the old institutionalism, issues of influence, coalitions, and competing values were crucial, along with power and informal structures. This is a sharp contrast with new institutionalism whose emphasis on legitimacy, the embeddedness of organisational fields, and the centrality of rules, norms, routines and scripts (Greenwood & Hinings, 1996, p. 1223). This approach has been influential for the last three decades. Lecour (2005, p. 3) maintains that new institutionalists have made the case for giving institutions analytical primacy, but substantial disagreements seem to remain about how institutional analyses should be carried out.

Siebecker (2008, p. 257) argues that new institutionalism came into existence as a rejection of a much more static treatment of institutions associated with the legal formalism that dominated the first half of the twentieth century. In contrast, old institutionalism attempted simply to describe human behaviour as a product of formal structures and rules

rather than to explain a dynamic relationship between norms and practices or a dialectic

exchange between rules and institutional structures. A lack of attention, in old

institutionalism, to what animated individual behaviour to establish institutions and its

inability to design a more general theory that could apply across institutional settings limited

the attractiveness of the old institutional approach (Siebecker, 2008). Therefore, this

understanding fell into disfavour not because it asked the wrong questions, but rather its

answers were either largely descriptive and historically specific or so abstract and devoid of

explanatory power (DiMaggio & Powell, 1983, p. 2) .

New institutionalist movements can be broadly classified into three: sociological,

historical and rational choice institutionalisms, although there are also other less important

ones such as actor-centred institutionalism and constructivist institutionalism. These

approaches have a common view on the importance of institutions but they have different

theories and methods to account for the existence and functions of institutions in society

(Koelble, 1995). These three major approaches will be briefly explained in turn.

3.2.1 Rational choice institutionalism

The rational choice approach derives from neo-classical economics and is based on the

idea that individuals rationally seek to maximize their utility. This approach adopts a

deductive methodology. That is, explanations and working hypotheses are deduced from

abstracted first principle assumptions about the motives and behaviour of actors (Bell, 1998,

p. 5). In this view, social norms and institutions are the outcome of repeated interactions in

society. The role of institutions is to stabilize exchange relationships, to promote cooperative

behaviour among self-interested individuals, and to minimize transaction costs between the

parties in iterative interactions (Koelble, 1995, p. 239). Therefore, institutions do not come

into being unwillingly, but rather, rational individuals design them to achieve certain ends by defining the rules, procedures, incentives and sanctions in exchange relations. These enforcement mechanisms induce cooperation while discourage non-cooperative behaviours in society (Koelble, 1995, p. 240). Hall and Taylor (1996, pp. 12–13) point out the four characteristics of the rational approach. Firstly, this approach assumes that individuals have a certain set of desires and tastes, and accordingly they act to obtain these ends. Secondly, the interactions among individuals can be interpreted within the framework of the game theory because the mechanism in a game works similarly: there are defined constraints and competing individuals who desire to maximize their utility in a given environment. Thirdly, the repeated interactions in exchange bring institutionalization because rational behaviours are conditioned on expectations about the behaviour and reactions of others. When these expectations about the behaviours of the other people takes on a clear and concrete form across individuals, and recur over a long period of time, these expectations and strategies can be classified as *institution* (Calvert, 1995, pp. 73–74). Fourthly, unlike the other two approaches, (sociological and historical institutionalisms), the rational-choice perspective can generate a theory with empirically falsifiable predictions about institutions and their behaviours. This means that firstly, the rational approach can predict what kind of institutions can prevail in a given situation and secondly, why people are motivated to follow institutionalised patterns of behaviour (Greif & Kingston, 2011, pp. 13–14).

3.2.2 Sociological institutionalism

Sociological institutionalism suggests that the interests and actions of individuals are determined neither by historical constraints nor rational choices but instead by customary adherence to certain cultural values, routines, or patterns (Siebecker, 2008, p. 261). In many

situations, people just follow the established rules, procedures and routines. Hence, it is possible to say that individual decisions are not made for reasons such as selfishness, love or rational calculation but rather decisions are deeply rooted in habit, norms and routine, and are always constrained by limited information and bounded rationality. Most individuals are inherently conservative, once they establish a routine they are inclined to stick to it. *Cognitive* and *cultural embeddedness* may account for why individuals tend to keep status quo (Siebecker, 2008). In this approach, it is claimed that individuals are so embedded in their social, economic and political environments that it is hardly necessary to make a reference to rational behaviour because even the very term rationality depends on social environment (Koelble, 1995, pp. 234–235). Therefore, the proponents of this approach, such as DiMaggio and Powell (1991), completely reject the rational-actor model arguing that institutions must be considered as *independent variables* to which people respond (Makano, 2008, p. 186). The sociological institutionalists focus on the ways institutions can affect preferences and identities of actors and they claim that institutions provide individuals with an identity and meaning in their social life (Korpi, 2001).

Steinmo (2008, p. 126) notes that sociological institutionalists, in contrast to the rational approach, view human beings as primarily social beings. Thus, humans are not as self-interested as rational choice scholarship claims, but rather, individuals are *satisficers* and act habitually. In this view, institutions frame the way in which people see the world and institutions are not just a set of rules within which they should work. As Steinmo (2008) notes, sociological institutionalists argue that individuals do not comply the rules and norms just to maximize their interest, but rather human beings generally follow a *logic of appropriateness* – meaning that rather than asking ourselves 'what do I get out of X?' people

firstly ask themselves questions like 'what should I do?' or 'what is the appropriate thing to do in this specific context?' To this approach, institutions (rules) are social norms that are crucial to our everyday life and social interactions (Steinmo, 2008).

In addition, DiMaggio and Powell (1983) suggest that institutions adapt and adjust to their environment in an isomorphic fashion. Isomorphism is a process that forces one institution to resemble other institutions. In other words, institutions tend to get similar to each other over time since they face the same set of environmental conditions and constrains. Accordingly, the isomorphic processes can take three forms: a) coercive: legal and informal sanctions, b) mimetic: actors imitate practices of the other organisations when they have to respond to uncertainty and c) normative: with the growth of professionalism those who have similar educational backgrounds tend to have similar views or see the things similarly (DiMaggio & Powell, 1983, p. 153).

3.2.3 Historical institutionalism

In contrast to the deductive method of rational choice approach, the historical institutionalist methodology is inductive (Thelen & Steinmo, 1992, p. 10). Historical institutionalists argue that it is possible to find *through empirical investigation* that institutional structures had profound effects on shaping political strategies, outcomes and, ultimately, political preferences (Steinmo, 2008, p. 125). Historical institutionalists do not think that humans are simple rule followers, as in the case of sociological institutionalism nor that individuals are simply strategic actors who use rules to maximize their interests, as in the case of rational institutionalism. Historical institutionalism stands between the two approaches. That is, human beings are both norm-abiding rule followers and self-interested rational actors (Steinmo, 2008, p. 126). As Koelble (1995, p. 233) notes that in a decision-

making process, individuals do not ask the question that "how do I maximize my interests in this situation?" but rather they ask "what is the appropriate response to this situation given my position and responsibilities?" The answer should be both in accordance with the desire of the individual and with the historically established norms and rules in the society.

Historical instituitionalists believe that history matters and provide at least three reasons for it (Steinmo, 2008, pp. 127 -129). First of all, social events take place in a historical context, which has direct impacts on the formation and consequences of a particular event. For instance, the process of industrialisation is quite different for the late developers than for the early developers. Gerschenkron (1962) argues that *when* a country industrialises necessarily affects *how* it industrialises. This detail is easily forgotten in large scale, cross national studies which compare a range of countries across continents while historical evolutions in those countries are ignored or seen as inconsequential in the data analysis. Secondly, agents or actors can learn from their past experiences. These experiences cannot be neglected as if actors fundamentally behave the same irrespective of time and context. Therefore, historical institutionalists attempt to analyse the variables in their appropriate context. Moreover, policies and practices at some point in the past affect the subsequent decisions in the future. Lastly, expectations and preferences are moulded by the past. History is not composed of *a chain of independent events* that can be taken out of its proper context and treated as isolated cases. The passage of time or continuity does matter (Steinmo, 2008, pp. 127 -129).

Steinmo (2008, p. 127) claims that historical institutionalism is like evolutionary biology. The similarity is the very assumption that the objects of analysis – living organisms – are fundamentally different from inanimate matter. While objects in physics mostly adhere to

constant laws of nature, biological organisms may not follow the same pattern of behaviour across time and space because living organisms interact with their environments as well as with themselves. Therefore they are obliged to respond and adjust to the necessity of their peculiar environment. As a result, when institutions are analysed, history, time and context should be taken into account since institutions are responsive to the environment in which they live.

Next, an institution which is designed to help university students in their employment will be discussed and later which institutional approach mentioned above provides a better framework for this study will be stated.

3.3 University career services as an institution

Up to now, the need for institutions has been discussed from general perspectives. This section, however, will focus on a particular institution: university career services (UCS). There is a growing interest in this area because UCS have become an important channel in the early employment career of graduates (Mcgrath, 2002).

In the UK, the Higher Education Statistic Agency (HESA) publishes an annual report titled Destination of Leavers from Higher Education (DLHE) covering not only the employability rate of universities but also whether graduates have obtained a graduate level job or not (HESA, 2009). This increases completion among universities. Hence, it is clear that employability is an important factor for universities. Accordingly, universities have developed different ways to increase their graduates' employability. In this regard, university career services help students in employment issues and have a range of employability activities and programmes. Generally, university career services are expected to

- develop self-knowledge related to career choice and work performance by identifying, students' personal characteristics, competencies, interests and values

- obtain educational and occupational information to develop their understanding of the world of work.

- take responsibility for developing career decisions, graduate/professional school plans, and job-search competencies.

- gain experience through student activities, community service, student employment, research projects, cooperative education and internships.

- link with alumni, employers, professional organisations, and others who will provide opportunities to develop professional interests and competencies.

- seek a desired employment opportunity or entry into an appropriate educational, graduate, or professional program.

- Prepare students to manage their careers after graduation. (NACE, 2014, p. 5)

It can be said that the basic goal of UCS is to make their students more marketable to employers (McCorkle et al., 2003). For this reason, UCS also provide the following services: mock interviews, resume critiquing, databases on employers, internship placement assistance, assessment testing, resume books/postings, job listings and job search training (Garver et al. 2009, p. 2).

The importance of UCS has sharply increased over the last decades. Hanover Research Institute (2012, p. 2) reported that in recent years, university career services (UCS) have undergone major shifts in both structure and function. Traditionally, UCS focused on job placement and informational resources, current career services, however, are characterised by an increased commitment to lifetime career preparation (Dey & Cruzvergara, 2014).

Garver et al. (2009, p. 2) provide several reasons for the evolution that has taken place in career services. First of all, the competition in the graduate job market has become very intense. Second, the employability rate has become a significant factor in the university ranking system. Third, higher tuition fees have changed the expectations for 'financial return on investment.' Finally, graduate recruitment has become less dependent on on-campus recruiting. Many employers have cut back on their on-campus recruiting due to seeking cost-efficiencies. Therefore, students should be more proactive in job search to take advantage of the opportunities. Table 3.1 displays the major historical shifts in the structure and function of university career counselling.

	1940-70s	1970-90s	1990-2010	2010-2030
Environmental factors	GI Bill & manufacturing boom	Self-actualization movements, diversity of candidates and opportunities and fewer jobs	Dot Com boom technology university funding globalization and generational changes	Economic downturn, fewer jobs, society's expectations value of higher education, social media
Purpose	Placement	Decision making and skill development	Preparing, educating and revenue generating	Building connections and communities
Method	Employment service	Counselling workshops and print resources	Coaching, courses, career fairs and web resources	Facilitating relationship development and social media
Typical Name	Placement centre	Career development centre	Career services	Career and professional development
Stakeholders	Students and employers	Students	Students, employers and parents	Community: students, alumni, employers, parents, faculty administrators and government
Theoretical Orientation	Trait factor (criteria matching)	Typology: matching based on personality interests and skills	Eclectic: based on counsellor's theoretical orientation	Design thinking: strength based chaos and happenstance
Provider identity	Job filler	Generalist counsellor	Supportive, coach, organiser and educator	Customized connector, relationship developer and group facilitating
Provider skills	Processing	Counselling	Multitasking, coaching and coordinating	Facilitating synthesizing connecting and specialized expertise
Director profile	Placement director	Director, senior counsellor, staff trainer	Executive director: manager of operations employer developer and	Elevated role: (AVP, VP, Dean): visionary, strategic leader and change agent

			fundraiser	
Reporting line	Student affairs	Student affairs	Student/academic affairs	Enrolment management advancement and development alumni relations academic affairs
Location	Placement office	Counselling office	Web, classroom and event hall	Mobile, social media and hot spots
Employer recruiting strategy	Demand	Selective	Experiential learning (early identification)	Branding and campus engagement
Industry growth	Manufacturing and mining	Retail and service	Technology, finance, real estate, government	STEM, energy, social impact, healthcare and media
Measures of success	Placement data	Appointments and attendance at programs	Learning outcomes, engagement and generated revenues	Employability: first destinations, reputation and engagement

Table 3.1 Evolution in university career services (Dey & Cruzvergara, 2014, pp. 16–17)

Dey and Cruzvergara (2014, p. 5) note that each shift in the delivery of career service in higher education was affected by changes in economic, political, social, generational, and cultural norms. For instance, the economic downturn of 2008 has changed the landscape for higher education once again, raising questions about the value of a college degree and engaging all stakeholder communities, including alumni and parents. As a result of environmental, social, and technological pressures, many universities began to reinvent their career services, moving them from the traditional transactional model of career services toward a customised connection model, which in practice would accommodate specialized career development support, internship and employment opportunities as well as mentoring and experiential learning. Due to the significant functions of career services in the employment of university graduates, greater investments have been made in counselling services. As a result, career and professional development have become a significant element of the student experience rather than a mere resource that they seek when they approach graduation (Dey & Cruzvergara, 2014, p. 8).

UCS may also address another problem which has a wider implication for the whole economy: over-education referring to the underutilisation of a graduate's knowledge, skills and capabilities due to the low quality of the job he or she landed in (Tsang, 1986; Wright & Sissons, 2012). It could also be argued that if UCS are used effectively, they may reduce the mismatch and as a result students and employers as well as the wider economy will benefit from it. Carroll and Tani (2014) highlight this point:

> "Jobs found through university careers offices are associated with lower
> probability of over-education relative to jobs found through advertisements
> and personal contacts… The role of university careers offices and fairs in

matching the skills of graduates with the needs of employers appears more

effective than other forms of job search." (p. 1)

In conclusion, it can be said that university career services are expected to play a critical

role in the employment of university students/graduates. Due to the extensive services they

cover, from basic career counselling to building institutional networks between students and

alumni/employers, there has been a growing recognition of the importance of UCS (Sheldon,

2009). Therefore, university career services will be analysed both qualitatively through a

case study and quantitatively through statistical methods to have a detailed picture of these

services.

3.4 Empirical studies on university career services

In this section, the impact of university career services on graduate employment is

discussed. The characteristics of individuals who take advantage of career services are

explored but one of the problems is that although there are case studies concerning university

career services, there is no detailed and generalisable study in this area in the UK. Therefore,

this section will mostly be based on case studies and some empirical works in other countries.

The study conducted in the US by Fouad et al. (2006, p. 407) found that "about half of

students were aware of career services but much fewer had used those services." However,

the study by Hanover Research Institute (2012, p. 4) in the US points out that there has been

an ongoing transformation in career services in recent years, as universities increasingly seek

to develop full-service career development offices. Dey and Cruzvergara (2014) also reported

that university career services have started to play more significant roles in recent years.

Similarly, Smith (2014) also stressed the increasing importance of UCS in students' career

development and employment.

If the characteristics of those who use university career services most are examined, the following picture emerges. In terms of gender, Rochlen and O'Brien (2002, p. 55) found that male students in the US are less likely to take advantage of university career services in job searches. The study found that some of the reasons for men's lack of interests in career counselling included inconvenience/lack of time, preferences to solve problems alone and concerns about career counselors' competence. Fouad et al. (2006) also found that females are more likely to use university career services. Anastasia et al. (1999, p. 206) discovered that "females felt it more important to become aware of career opportunities and to receive career counselling than males."

It is also claimed that ethnicity is an important factor and some ethnic minority groups are less likely to use UCS (Blasco et al., 2002). Falconer and Hays (2006, p. 220) highlight that "ethnic minority students on predominantly White campuses have traditionally underused career services." Carter et al. (2007, p. 400) examined the frequency of use of career services among different ethnicities and found that "White students appeared to be most likely to attend 10 or more sessions (5.9%) compared with 1.8% …for Black." Shivy and Koehly (2002) found that ethnicity is a statistically significant factor, and Asians and Africans differ in the use of UCS. Wen and Madera (2013, p. 165) also highlighted racial disparities and noted that "university career services might adjust career assistance strategies according to the racial background of the students…" On the other hand, Mau and Fernandes (2001) found no significant difference in the use of UCS among different ethnicities. However, the literature, in general, suggests that different ethnic groups take advantage of UCS in different degree.

Some studies (Kuh & Hu, 2001; Pool & Sewell, 2007) noted that employers are more interested in STEM subjects (Science, Technology, Engineering and Medicine) and the

holders of STEM degrees are more likely to find a job if they use university career services. Similarly, Dey and Cruzvergara (2014) highlighted the importance of STEM subjects and maintained that UCS increasingly want to build a bridge between their students and the companies which are specialised in the STEM fields. The Confederation of British Industry (CBI, 2012) reported that not only degree subjects but also degree classifications (1st, 2:1, 2:2 etc.) are important for employers in the recruitment process. Eddy and Burke (2006, p. 487) also stressed the importance of degree classifications and remarked that students with higher degree classifications made greater use of university career services.

HESA (2009) reported that academic level is an important factor in using UCS. For instance, postgraduates were less likely to have found their jobs through university careers services (3.3%) than first degree graduates (5.9%). On the other hand, Lee and Brinton (1996, p. 188) emphasised the importance of university reputation and noted that "students from top- and second-ranked universities were more likely than others to rely on institutional social capital (the help of the placement office, professors, or friends and alumni of their own universities)… in obtaining their first jobs." It is also found that full-time students are more likely to obtain a job through UCS (Eddy & Burke, 2006).

Another channel of information through which university students find a job is faculty members/academic staff at university. It is found that females and ethnic minorities are less likely to take advantage of faculty members to find a job (Gibson, 2005; Noel & Smith, 1996). Pascarella and Terenzini (2005) and Kim and Sax (2007) also emphasised the variation among different ethnicity in terms of student-faculty members interactions. Graham (2015) also noted the importance of ethnicity in faculty members-students interactions. In respect to academic levels, perhaps it is not surprising that faculty members are quite

frequently used by doctoral students to find a job compared to the other students at masters and undergraduate levels (Johnson et al., 2007). Moreover, the literature indicates that STEM subject holders compared to social sciences graduates, and those with high degree classifications compared to low degree classifications are more likely to find a job through faculty members (Anaya & Cole, 2001; Kuh & Hu, 2001). Brown and Hesketh (2004) found that prestigious universities' faculty members are more helpful in finding a job to their students. Kuh and Zhao (2004) discovered that full-time students are more likely to interact with faculty members and receive work-related help from them compared to part-time students.

In conclusion, however, it seems that employment through faculty members and the characteristics of the people who use academic staff to find a job have not been explored extensively. This study will address this particular gap.

3.5. The position of the present study in terms of the role of institutions

To link this section to the previous one (new institutionalism: rational, sociological and historical), a further explanation is needed. Although it should be acknowledged that sociological and historical institutionalism enrich our understandings about the nature of institutions, it appears that rational choice institutionalism provides a better framework for the present research because of its pragmatic assumption about the motives/rationale behind institutions. The rational choice approach suggests that an institution is a vehicle to obtain the common goals of rational individuals in a cost/time effective way (minimisation of transaction cost). Thus, institutions encourage fruitful cooperation in society. Accordingly, this research assumes that in the context of university career services, there is a cooperative relationship in which the three parties, students, universities and employers, increase their utilities. Firstly, university students benefit from this cooperation by obtaining better job

opportunities. Secondly, universities want to increase their institutional social capital to provide their students with a smooth transition from university to work. As noted, employability is an important performance indicator of institutional quality and a significant component in university rankings (Harvey, 2001). Thus, a university builds a better reputation for itself, by increasing its employability rate by investing in UCS. Finally, the third party (employers) gain a privilege by tapping into potentially high quality human resources through this cooperative relationship (Mason, 2002). Hence, all parties involved take advantage of the existence of institutional social capital and they all aim to maximise their benefits in a formal and structured way.

As proposed by rational choice institutionalism, the common interest of the different groups induces a cooperative relationship and enables individuals to obtain what they want in a cost-effective way. University career services can be considered as a bridge in this co-operative relationship. This may possibly explain why we need institutions and why they are so important in society. For this reason, the rational choice approach appears to offer a better framework for this study, compared to the other two institutional approaches. The sociological approach states that humans are not as self-interested but rather they act habitually. First of all, in the case of UCS, all parties involved want to increase their monetary benefits through better employment or recruitment opportunities. In other words, in this case of UCS, self-interest is very much at play for all parties. Hence, sociological institutionalism does not offer a good framework for this study. The historical institutionalism, on the other hand, states that time and context affect the way institutions operate. This seems to be a reasonable explanation. It can be well argued that institutional practices are affected by time and context. However, although institutional practices may

change over time and across different places, the basic goal of an institution remains the same: to use its resources efficiently to solve a given problem. Here, efficient means time and cost effective. Even if it is a charity organisation for homeless people, it will have a rational goal, which is to use its resources efficiently to reach out as many homeless people as possible so that it can save more lives with its limited budget. Although the ways it is done (practices) may differ from one time to another or one place to another, the primary purpose is the same: to use resources efficiently. Therefore, it can be concluded that rational choice institutionalism provides a better explanation of the subject (UCS) under the investigation of the current research.

Next, a different form of capital, social capital, that has impacts on employment will be explained.

3.6 Social capital

It is not uncommon that in the social sciences there can be a variety of definitions for the same term. Similarly, there are a number of definitions of social capital in the literature. The World Bank (2015, para. 1) defines social capital as "the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions… Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together." Another frequently cited definition is by Bourdieu and Wacquant (1992, para. 119) who define it as ''the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.'' In this definition, four terms should be highlighted: resources, networks, institutionalized relationships and mutual recognition (Klapper, 2008, pp. 107–108). These are the key terms that emphasise the economic value (resource), the social value (networks), the customary value (established over a period of time

like institutions) and the origin of the legitimacy (predicated on mutual recognition) of social capital.

Coleman (1990, p. 302) suggests that social capital is defined by its function. It is not a single entity but a range of different entities having at least two characteristics in common: these entities are all embedded in a social structure, and they facilitate certain actions of individuals who are within the structure. In essence, as Field (2003, pp. 1–2) argues, the central argument of social capital theory is that *relationships matter*. The idea is that social ties are valuable assets because interactions enable individuals to build communities and to knit the social fabric, which, in turn, creates a sense of belonging and identity. The basic ingredients rooted in social capital such as trust and tolerance bring not only emotional benefits but also financial ones.

Burt (2000, pp. 347–348) notes that social capital is a metaphor about advantage. Society can be seen as a marketplace in which individuals exchange different kinds of goods and ideas in pursuit of their interests. In this market, certain individuals perform better and receive higher returns to their efforts. Some take advantage of their physical and non-physical resources more than others. The human capital explanation of the inequality is that the individuals who do better are more able, more intelligent, and more articulate ones. In this regard, social capital is a complement to human capital. The thesis of social capital is that the people who perform better are somehow better connected (Ellison et al., 2007). Hence, networking can be seen as a process of institutionalisation within and between different units or entities. Actors, either individually or collectively, may be able to pursue different types of networking strategy (Kitagawa, 2003, p. 37).

Flap (1991) and Lin (1999) make a distinction between the formation of social capital and the use of social capital. This distinction is important because having strong social connections does not indicate your ability to use it. As Burt (2004, p. 354) put it, a network itself does not act, it is a context for action.

Putnam (2001) makes a distinction between bridging and bonding in social capital. Bridging is a loose connection between people who may provide useful and new information to each other but usually not emotional support (Granovetter, 1983). Whereas bonding social capital is visible between individuals in strongly-connected and intimate relationships such as family and close friends (Ellison et al., 2007, p. 1145).

There is also a disagreement in respect to the structure of social capital; whether it consists of open or closed networks. Based on this distinction, some scholars emphasise the individual and open aspects of social capital while some others think that social capital is composed of collective and closed networks. For instance, Burt (1992) and Lin (1999) suggest that social capital consists of open networks. These scholars argue that social capital is a pool of resources for the individual, which may be helpful for the individual's goal attainment such as career advancement, power and influence. As Lin (2001) put it, individuals invest in social relations with expected returns in the marketplace. In contrast, Coleman (1988) and Fukuyama (1995) argue that social capital is composed of closed networks with high trust between members.

On the collective level, social capital is associated with norms, trust and social cohesion (Flap & Völker, 2004, p. 154). These values create sense of belonging, identity and cooperation in a society. Coleman's thesis for the closed form of social capital is based on his studies of high-school students. Coleman (1988) argues that closure can predict why certain

students are more likely to drop out of high school. For example, children in families with two parents and few children are less likely to drop out of high school since two parents living together can more effectively take care of their children. Moreover, children who have lived in the same neighbourhood for a long time are less likely to drop out because parents, teachers, and other people in the neighbourhood are quite likely to know one another and collaborate in the supervision of a child (Burt, 2000, pp. 372–373). Table 3.2 shows the different kinds of capital:

	The Classical Theory	The Neo-Capital Theories		
		Human Capital	Social Capital Open	Social Capital Closed
Theorists	Marx	Schultz, Becker	Burt, Lin	Coleman, Fukuyama, Putnam
Explanation	Social relation: a means of exploitation by capitalists	Accumulation of useful skills for labour market	Access to information and resources for power, influence and money	Protection, cooperation, sense of belonging and identity
Capital	Not for consumption but an investment in production.	Investments in technical skills and knowledge	Investment in social networks	Investment for mutual recognition and acknowledgement
Level of Analysis	Structural (classes)	Individual	Individual	Collective

Table 3.2 Different forms of social capital (Lin, 1999, p. 30, modified by the author)

Social capital indicates a relationship between different individuals. However, there are different theories about the ways these relationships are built and utilised. The next section explains these theories.

3.6.1 Strength of weak ties

Granovetter (1973 and 1983) argues that in a social network, it is not strong ties that generate valuable pieces of information but rather it is weak ties that are likely to produce

new information and fresh ideas. This argument rests on the assumption that strong ties tend

to bond similar individuals to each other. Thus, it creates a cluster of similar people who are

mutually connected to one another. Granovetter (1973) suggests that the information

obtained through such a network tie is more likely to be redundant and therefore this kind of

network is not a channel for innovation (Krackhardt, 1992, p. 216). On the other hand, weak

ties can be considered as *bridges* that provide a link between otherwise the two disconnected

individuals or groups (Krackhardt, 1992, p. 216). Hence, it is likely that a person can receive

more useful information from an acquaintance than from a close friend. The reason is that

strong ties tend to occur among similar individuals who have similar channels of information

while weak ties tend to occur among different types of individuals who quite probably have

different sources of information. It should be noted that Granovetter does not ignore the

value of strong ties, on the contrary, he argues that "weak ties provide people with access to

information and resources beyond those available in their own social circle; but strong ties

have greater motivation to be of assistance and are typically more easily available" (1983, p.

209). Granovetter (1983) argues that strong ties are particularly valuable at the time of risk

and uncertainty, they may provide more emotional supports at difficult times. For instance,

Ericksen and Yancey (1977, p. 23,27) observed that "some people typically find it

advantageous to maintain strong networks and …these people are more likely to be young,

less well-educated, and black. …Strong networks seem to be linked both to economic

insecurity and a lack of social services."

   Granovetter's theory has enjoyed empirical support in general but two problems seem to be

obscure in the theory. First, there is a substantial degree of ambiguity about the definition of

strong and weak ties. Namely, what is a strong or weak tie and how it can be measured. It is

agreed that family and close friends are assumed to be strong ties (Granovetter, 1983). Here

the problem starts because it is possible to define one's family but how is it possible to define

what a close friend is. Granovetter (1973) maintains that the strength of a tie can be

considered linear based on its four characteristics; intensity, intimacy, duration and

reciprocity. He (1973, p. 1361) noted that "the strength of a tie is a (probably linear)

combination of the amount of time, the emotional intensity, the intimacy (mutual confiding),

and the reciprocal services which characterize the tie."   For instance in respect to duration, if

person A spends a considerable time with person B, and frequently see each other we may

say that there is strong tie between the two persons, but then what is meant by the words

considerable and frequent is still less precise. It is also worth noting that it can be distinctly

misleading to consider a relationship as strong if the frequency of contact refers to classmates

or colleagues because a student may see their classmates every day but may not have a strong

relationship with them. However vague and controversial it might be, the issue of duration

can be more or less solved for empirical research purposes. The greater problem is, however,

that how is it possible to measure the level of intensity and intimacy or reciprocity? These

terms are quite subjective as well (Krackhardt, 1992, pp. 216–217).

    The concern about subjectivity is also worthy of consideration. Nevertheless, Feld (1982)

reminded that researchers should not fall the victim of *too much abstraction* when they

attempt to measure the strength of ties. Hence, in practice, researchers have developed

several ways to overcome this problem. Lin et al. (1978) measured the recency of contact.

Wellman and Wortley (1990) asserted that emotional support should be measured since it is

the strongest predictor in determining the strength of relationship. Marsden and Hurlbert

(1988) contended that *closeness* is the only reliable indicator which can determine the

strength of a relationship since it is independent of the other predictors (Krackhardt, 1992, p.

217). Figure 3.1 displays the hypothesis of strength of weak ties.

Group/Network
Group members, because of their frequent interaction, tend to think alike over time. This reduces the diversity of ideas, and in worst-case scenarios leads to "groupthink"

Weak Ties
Weak ties are relationships between members of different groups. They are utilized infrequently and therefore don't need a lot of management to stay healthy. They lead to a diversity of ideas, as they tie together disparate modes of thought.

Strong Ties
Strong ties are relationships between people who work, live, or play together. They are utilized frequently and need a lot of management to stay healthy. Over time, people with strong ties tend to think alike, as they share their ideas all the time.

Figure 3.1 Strength of weak ties (Zelanka, 2007)

3.6.2 Structural hole theory

The theory is introduced by Burt (1992) and suggests that social capital consists of open networks. This approach has quite common features with the strength of weak ties argument but differs slightly. The main argument of structural holes theory is that opinion and behaviour are more homogeneous within a group than between different groups. Hence, people connected across groups are more familiar with alternative ways of thinking and behaving. It is possible to talk about the existence of social capital where individuals have an advantage due to their location in a network because networks provide information, opportunities and perspectives that can be useful to the individuals in the networks. Most social structures can be described as dense clusters of strong connections (Burt, 2004). Information within these clusters is likely to be rather homogeneous and redundant

whereas, non-redundant information is quite often acquired through contacts in different clusters. Therefore, it is not the number of people in the same cluster but rather it is the structural holes in different clusters which enable the transfer of novel information between two separate clusters. As a result, a network that has many structural holes tends to generate fresh information and innovative opinions. The conclusion is that an ideal network structure should have access to many different clusters through structural holes (Burt, 1992). It is important to note that structural holes theory shares the same grounds with the strength of weak ties theory. Namely, both approaches stress the significance of weak ties to obtain new information. However, they differ in what is the more effective structure of a network to obtain useful information (Borgatti & Halgin, 2010; Burt, 1992).

Burt (2001) points out the significance of the *loose tie* between different clusters. This loose tie is maintained by a broker. The structural hole between two groups does not imply that people in the groups are unaware of the existence of one another but it rather means that the each group focuses on their own activities in a way that they do not participate in the activities of the other group. Holes are buffers, like an insulator in an electric circuit and individuals on either side of a structural hole circulate in different flows of information. Thus, structural holes provide an opportunity for the flow of dissimilar information between separate clusters, and thus control the projects that bring together people from opposite sides of the hole (Burt, 2001, p. 208).

3.7 Empirical studies in job searches

In section 3.4, empirical studies on university career services and faculty members to find a job were discussed. In this section, a lengthy discussion is dedicated to the remaining job search methods. For this reason, it is divided into two parts. In the first section, empirical

studies on the use of social capital in the labour markets will be discussed and in the second part, impersonal search methods such as direct application, online career services and newspaper advertisements will be discussed in light of empirical studies.

3.7.1 Empirical studies in social capital

Social capital has been considered an important source of information in the labour market for a long time (De Schweinitz, 1932; Granovetter, 1973; Montgomery, 1991). For instance, half a century ago, Rees (1966) made a distinction between formal and informal networks: the formal networks include public employment services, private employment agencies and newspaper advertisements while the informal network include referrals from family, relatives/friends, and employees.

Social capital can also be seen an important resource for the access to information in the labour market and those who have more social capital may have a competitive advantage in job searches. It is generally agreed that there is a widespread use of friends, relatives, acquaintances in the labour market while this tendency often varies by demographic characteristics such as gender, ethnicity and education (Ioannides & Loury, 2004). However, empirical studies provide a mixed picture of the impact of social capital. Bewley (1999), Galeotti and Merlino (2014) suggest that roughly 30-60% of jobs are obtained through family, friends, or other acquaintances.

International Social Survey Program (ISSP, 2001), consists of 30,000 respondents in 30 developed countries, illustrates that more than 10% of respondents found their last job through their family, 7% from other relatives and 13% from close friends (cited in Kramarz & Skans, 2014). Using British Households Panel Survey (BHPS), Cappellari and Tatsiramos (2011) found that there are large effects of friendship networks. Their estimates suggest that an additional employed friend increases a person's job finding probability by as much as 13

percent. In Sweden, the most widely-used channel for youths to find jobs is through networks; 40% of 19-24-year olds who were employed in 2004 reported that they found their jobs through personal networks and only less than 6% found a job through the public employment agency (Kramarz & Skans, 2014, p. 9).

Bachmann and Baumgarten (2013, p. 12) showed that among EU countries, Latvia has the highest (91%) and Germany has the lowest (39%) use of informal search methods. Furthermore, in most of the Mediterranean countries, apart from Portugal, direct applications and search via personal networks considerably outweigh the use of the public employment services. The same holds true for the Central and Eastern European countries where the use of direct methods relative to public employment agency is above the EU average. In Britain, however, 67% of job searchers used public employment agency and 50% of them used friends/relatives to obtain a job. The lowest search method was through private employment agency with 24%, 'studying advertisement' had the highest rate with 82% in Britain. In Germany, 90% of job seekers' main source of employment is public employment agencies while 39% of job seekers' is friends/relatives.

In a small-sample study in Spain, Villar et al. (2000) found that out of 135 university graduates, 65 of them (48.1%) found a job through formal channels, 44 of them by means of strong ties (32.6%), and 26 of them through weak ties (19.3%). The results are in tune with the earlier studies that most job leads come from informal contacts (relatives, friends or acquaintances). Almost 52% of graduates in the sample obtained their jobs through informal channels. Villar et al. (2000) conclude that their finding supports the major role of networking strategies in the labour market.

However, there have been a considerable number of studies on the importance of social capital in the labour market. Therefore, it would be useful to break it down and examine it thoroughly.

3.7.1.1 Gender and social capital

Generally speaking, there is a visible gender based groupings in the use of social capital in the labour market. That is, women learn about job opportunities from other women and men from other men (Fernandez & Sosa, 2005). Hence, women who use informal job search methods are more likely to obtain employment in female-dominated industries (Mencken & Winfield, 2000; Stainback, 2008). Hanson and Pratt (1991) noted that personal contacts often lead women to local jobs. They found that in women-dominated industry, 60% of women obtained their jobs through the help of family or social network, compared to 32% of men. Hanson and Pratt (1991) conclude that weak ties help women in women's occupations and that "networking is crucial for expanding women's opportunities in male-dominated occupations" (p. 240). Ports (1993) discovered that unemployed women are less likely to obtain help from their friends and relatives. Ports also found that 20 percent of women used their friends and relatives in finding a job, compared to 26.6 percent for men.

Highlighting the effective use of social capital by men, Broadbridge (2010, p. 826) noted that "women do suffer an apparent deficit to men in their accumulation of social capital" and even if they have the same social capital, "men acquired social capital and used networking techniques more strategically and instrumentally than the women with regard to career development purposes " (ibid, p. 815). Emmerik (2006) discovered that men are more effective in taking advantage of their social capital for career-related purposes (instrumental ties: hard social capital) while there was no significant difference between two genders in taking advantage of their social capital for emotional support (expressive ties: soft social

capital). In other words, to Emmerik's study, men were effective in using both kinds of social

capital: hard and soft social capital. Forret and Dougherty (2004) highlighted the same issue

and suggested that women can be less comfortable asking their friends for career-related help.

Hence, overall, the literature suggests that men, compared to women, are more able to use

their social capital both before they find a job (in job search) and after they found a job (in an

organisation setting).

3.7.1.2 Ethnicity and social capital
A substantial number of studies show that ethnicity is an important determinant in taking

advantage of social capital and some minority groups are negatively affected by it since they

have limited social capital in the labour market (Falcon, 1995; Mcdonald et al., 2009;

McDonald, 2011; Parks-Yancy et al., 2006).

A number of empirical studies revealed that South Asians actively take advantage of a

range of social capital in the labour market including family, relatives and close friends. For

instance, Smith (1997, p. 174) noted that "the South Asian would be more likely to seek out

opportunities through relatives and friends." Moreover, the same pattern can also be

observed in other countries. In Canada, Nanavati (2009, p. 25) found that "social capital

turns out to be a significant predictor of employment… for South Asians."

On the other hand, a thorough examination of the literature shows that Africans are the

least likely minority group to benefit from their social capital in the labour market including

from their family and close friends. Similarly, Battu et al. (2011) discovered that "Blacks

(Black-Caribbean and Black-African) are the least likely to use personal networks [9.6%]…"

Giulietti et al. (2013, p. 663) also found similar results: "the incidence of finding a job

through social networks varies between 19% for Black Africans… while the same proportion

for White British-born is 29%." As DiTomaso (2013) documented, the same phenomonon,

black people's lack of social capital, exists in the USA. Similarly, O'Regan and Quigley (1993, p. 231) discovered that "Whites and males may be more useful in providing knowledge or more autoritative in providing references than are minorities or women"

In general, the literature suggests that that there is a variation among different ethnicities in term of finding a job through informal contacts. Figure 3.2 clearly shows this variation in the UK labour market (see Turkuaz –ask friends, relatives etc). According to the figure, Black people are less likely to use their social capital.
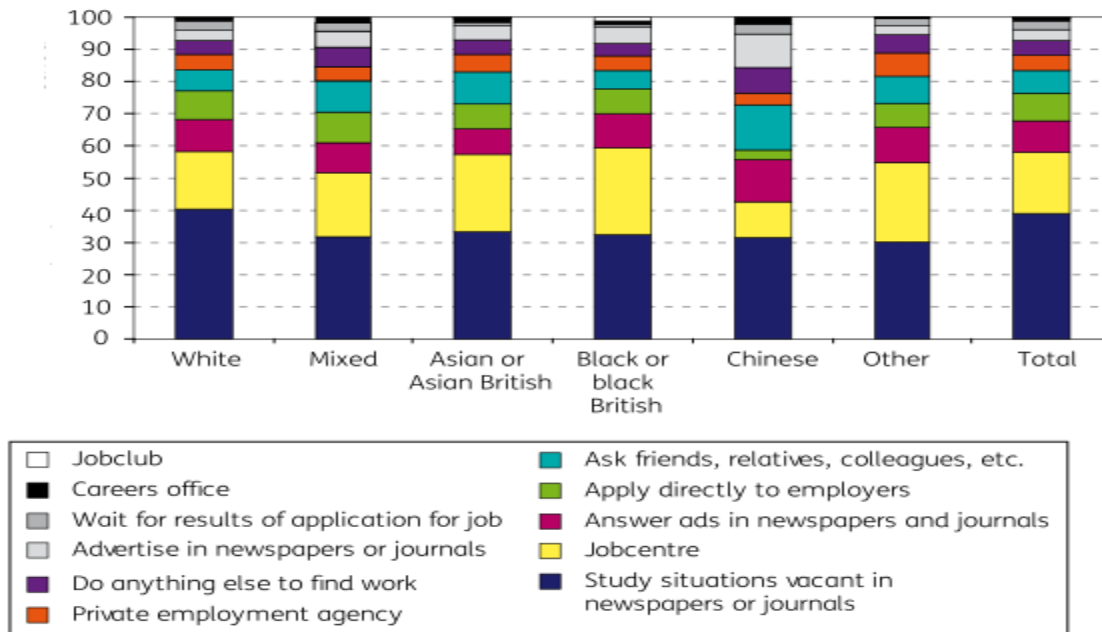
Figure 3.2 Main method of job search by ethnicity, non-retired job seekers aged 16-69 years in the UK (Labour Force Survey cited in Green et al., 2011, p. 23)

3.7.1.3 Age and social capital

McDonald and Mair (2010) take age into account and claim that both the quantity and quality of occupational networks tend to increase with age. Their study suggests that social capital tends to accumulate across the life course. These findings are consistent with prior research which found work-based social capital increases with experience (Lambert et al.,

2006). However, some studies such as Kalmijn (2003), Wellman et al. (1997) also

discovered that the use of social capital tends to reduce as people get older.

   On the other hand, what seems to be the common finding in the literature is the importance

of family in young people's early career. For instance, Kramarz and Skans (2014, p. 1) found

that "strong social ties (parents) are an important determinant of where young workers find

their first job." Franzen and Hangartner (2006) found that social capital is important in early

ages, particularly just before joining the labour market. Schneider (2006) also emphasised the

importance of social capital for the first job. Similarly Moerbeek and Flap (2008) noted that

family as social capital is "important to a person's labour market position early on in the

career" (cited in Ao, 2008, p. 9). Broadbridge (2010, p. 815) also confirmed that "women

and men had benefited from borrowing social capital early in their career."

3.7.1.4 Education level and social capital

   A substantial bulk of the studies has shown that there is a negative correlation between

years of education and social capital use. In their UK-based study, Giulietti et al. (2013)

illustrated that less educated individuals are more likely to use their personal contacts as their

main job search method. This confirms previous studies which found that social capital are

very important for less educated workers (Böheim & Taylor, 2002). Battu et al. (2011, p. 52)

claim that particularly the more educated, i.e. university graduates, are more likely to offer

themselves directly to potential employers and more likely to respond to advertisements and

less likely to make use of personal networks. It can be said that educated individuals are

more pro-active in selling themselves to potential employers through more mainstream

methods. Furthermore, Battu et al. (2011) also suggest that the greater use of personal

networks by people with no qualifications indicates that they are more likely to use local

information networks and thus have a limited job search area. However, the more educated

and skilled people seem to operate geographically in a wider labour market and they are less reliant on localised informal personal networks (Böheim & Taylor, 2002, p. 12).

Family and the other strong ties are particularly important for low educated young persons, whereas the impact of weak ties tend to be largely independent of the level of education. This seems to be a common finding in many countries across the world. For instance, Márquez and Ruiz-Tagle (2004, pp. 4–5) found that "more educated workers tend to shy away from informal search methods" in Venezuela. Weber and Mahringer (2008, p. 168) discovered that in Australia, "higher educated workers are more likely to find jobs via media advertisements or other channels, but they are not especially likely to find jobs… [through] personal contacts." In Spain, Rieucau (2008, p. 475) found that "when all the other variables are controlled for, people with a tertiary education are more likely to have found their job thanks to a job advertisement [in the media] than people with a primary education."   Thus, a considerable number of studies both in the UK and across the world indicate that personal contacts are more important sources of information for finding a job for people with low education rather than those with high education.

3.7.1.5 Degree classifications and academic disciplines
Etcheverry (2001; 1996) has extensively explored the relationship between social capital and human capital and she found that degree classifications and social capital are positively correlated. Gasevic (2014, p. 1) "students with more social capital have a significantly higher academic performance (operationalized as Grade Average Point score)." In his empirical study, Barret (2006, p. 12) stated that "the relationship between social capital and GPA is clear." Burke (2016) also shows how social capital can be an important determinant of degree classifications.

However, there is a different dynamic in the labour market and those who have high

grades are less dependent on their personal networks. For instance, Labini (2004, p. 10)

found that "the probability of being helped by a relative is negatively affected by degree

classifications." Kramarz and Skans (2014, p. 1) found that strong ties are more significant

for low-educated graduates with *low grades* and "the effects are larger if the graduate's

position is 'weak' (low education, bad grades)."

In respect to academic disciplines, the graduates of some disciplines such as Humanities

and Arts are more likely to need the help of their social capital in the labour market. For

instance, Labini (2004) found that

> engineering graduates rely relatively little on family contacts and probably, this is
>
> due to the more precise skill content of engineers' occupations and the selectivity of
>
> the program: their degree provides more specific skills than other disciplines. The
>
> opposite seems to be true for the Humanities and Economics and Business, who
>
> often use their family contacts. (p. 20)

Hence the literature suggests social capital is more likely to be used by individuals with

low degree classification and by the graduates of some disciplines such as Humanities and

Business. The importance of academic discipline and degree classifications are pointed out

by the studies above. However, this area needs to be explored more and this study will fill

this gap.

3.7.1.6 University reputation and social capital

As discussed in section 2.4.3, university reputation is an important determinant in the

labour market and employers take it into consideration in their recruitment process.

However, some studies found that university reputation is also important in the creation of

social capital. For instance, Federkeil (2009, p. 22) maintained that "reputation can be

understood as a form of social capital that can be used in a competitive field … [and] reputation as social capital can be transformed into economic capital."

Kariya and Brinton (1998) divided social capital into two categories. Private social capital and institutional social capital. Private social capital refers to an individual's access through his or her *personal network* while institutional social capital refers to an individual's access by virtue of belonging to a particular *organisation* (*ibid*, p. 182). Accordingly, Lee and Brinton (1996) found that

> the reliance on private social capital [family, friends] is inversely related to university prestige … Graduates of top or second-ranked universities were significantly more likely to say that institutional social capital [university career services] was effective, rather than private social capital [family, friends]. (p. 186)

Brinton (2000) also noted that there is an inverse relationship between in the use of institutional social capital and private social capital both in the US and Japan labour markets. In other words, those who graduated from prestigious universities are less likely to use their family to find a job.

3.7.1.7 The importance of parents' education and social capital

Labini (2004) notes that there is a positive correlation between parental education and the use of family ties in the labour market. Educated parents tend to be more helpful to their children in job searches. Kramarz and Skans (2014, p. 1) found that "strong social ties (parents) are an important determinant of where young workers find their first job."

Labini (2004) compared low and high educated parents in terms of help they provide to their children in the labour market (Table 3.3) and found that there is a statistically significant difference between the two groups.

	Family help
Low educated parents	6.1
High educated parents	10.1
T-statistics difference	-5.55***

Table 3.3 Parents' education and their help in the labour market, (Labini, 2004, p. 24) ***: statistically significant at 1%.

Labini (2004, p. 24) concluded that "individuals with more educated parents use family ties almost twice as much as the ones with less educated parents." Moreover, Iannelli (2002, p. 45) examined twelve European countries and found that "in the analysis of the effect of parental education on young people's early occupational destinations it emerged that in all countries there is both a significant direct and indirect effect of parental education on young people's destinations." Earlier empirical studies also highlighted the importance of education of parents, for instance, O'Regan and Quigley (1993, cited in Spalter-Roth et al. 2013, p. 2) noted that parents can provide help in job searches and "help from this strong tie is more likely when parents (especially white males) themselves have high amounts of human capital including graduate degrees" Hence, the literature suggests that education of parents is an important factor for children to receive help in the labour market.

3.7.1.8 Regions and social capital

Social capital is also affected by region because every town may have their own advantages and disadvantages in terms of population, infrastructure, culture and industrialisation level. These factors affect the relationships in that community. Brook (2005, p. 116) described the typical characteristics of individuals with high and low social capital (Figure 3.3).

High social capital	Low social capital
Lives outside London region	Lives in London region
Aged 30 and over	Aged 29 and under
Women	Men
Married	Single
Highly educated	Little or no education
Higher income	Lower income
Employed	Unemployed
Least deprived area	Most deprived area
Homeowner	Private renter
5 and over years of residence	0 to 4 years of residence

Figure 3.3 Illustrative characteristics of people with high and low social capital (Brook, 2005, p. 116)

 As seen, two factors in this table are related to regional dimensions of social capital: Outside/inside London and Least/most deprived area. Similarly, Laursen et al. (2012, p. 179) noted that "given that individuals are proximate within geographical regions, these geographic spaces play a key role in defining the geographic boundaries of social capital."

 Moreover, Ponzo and Scoppa (2010) found that social capital is more useful in less developed regions and in high unemployment labour markets. The same study emphasises the importance of strong ties in less developed regions noting that "furthermore, the fact that informal networks are used more intensely in high unemployment regions, where a job has a much higher value, and in areas with strong family ties and low social capital represents indirect evidence that they tend to be used to favour the employment of family members rather than to find the best possible applicants" (*ibid*, p. 90). Alesina and Giuliano (2007) also discovered that the impacts of strong and weak ties considerably vary across regions.

3.7.2 Empirical studies in impersonal search methods

Up to this point, formal and informal channels of information have been discussed. However, apart from formal and informal channels, there are other popular methods to find a job such as online career services (ONS), direct application and newspaper advertisements, which can be called impersonal channels (Spalter-Roth et al. 2013).

Online career services (OCS) should also be discussed separately because with the advent of the internet, the way people search a job have considerably changed and this has had a substantial impact on job search and recruitment processes (Kroft & Pope, 2014). Particularly well educated young individuals are attracted more to seek job through online recruitment (Shahila & Vijayalakshmi, 2013, p. 121). If some of the popular online career websites in the UK such as Reed.co.uk or Targetjob.co.uk are visited, it will be seen that they offer a variety of options in terms of job types, location, sector and duration. Furthermore, once registered, these career services keep emailing the job-seekers of the potential jobs that match their criteria. Also, some websites such as Wikijobs.co.uk and Prospects.co.uk are exclusively dedicated to graduates and provide valuable job interview advices and different kinds of psychometric and aptitude tests, in addition to job search facilities. All these facilities are free of charge.

As will be documented, the literature presents substantial evidence for the effectiveness of this method of job search. For example, French and Sally (2010, p. 182) reported that candidates increasingly choose online job search methods and 89% of graduates search online for jobs. Online search is also a convenient method for employers as well as candidates (Parry & Tyson, 2008). Branine (2008, p. 508), who studied e-recruitment, found that "the most popular and common method of recruitment used by most of the respondents is the

internet… where organisations did use the internet, the most popular method was their company website [direct application], followed by graduate recruitment sites [OCS].”

The same patterns exist across many developed countries. For instance, in the US, Maurer (2015, para. 2) noted that the majority of Americans (54 percent) have searched jobs on the Internet in 2015, and nearly as many (45 percent) have applied for a job online. Weitzel et al. (2010) reported that the 1000 largest firms in Germany recruited 72% of their new hires through the internet compared to only 13.7% through job advertisements in print media (cited in Kaas & Manger, 2011). Pohler and Willness (2014, p. 479) highlighted the significant role online career services play in recruitment practises in Canada.

The internet has also made easy to apply directly to employers since a significant number of firms, particularly larger ones, have online application facilities (Kaas & Manger, 2011). For instance, the CIPD survey (2009, p. 2) found that the most commonly used methods for attracting candidates in the UK are direct application/organisation's own website (78%), online career services (76%) and local newspaper advertisements (70%). Bachmann and Baumgarten (2013) found that not only in the UK but also in most of the European Union countries, direct application is a quite popular method and is more frequently used than public employment agencies.

In the annual survey by HESA (2009, p. 27), UK university graduates are asked what kind of information channels they use in their job search. The survey found that newspapers advertisements are primary sources of information for postgraduates while employer's websites (direct application) were the most commonly used source for first degree graduates.

To provide a broader perspective for the impact of social capital in different countries, ISSP's survey (2001) would be revealing. In this comparative study, the respondents in 28

countries were asked how they found a job. The three options were 'through strong ties',

referring to family/close friends, and 'through weak ties' referring to acquaintances or

through 'the other methods' such as through direct application and public employment

services etc. (Table 3.4). In general, it is noticeable that there is a substantial variance across

the countries. The importance of personal networks is relatively high in the some European

countries such as Italy, Hungary, and Cyprus as well in some developing countries such as

Philippines and Brazil. The use of social capital in the Scandinavian labour markets is

comparatively low. Japan, USA, Canada and Germany are in the middle. Job searchers in

Britain do not seem to use their personal contacts to a great extent in comparison to the most

of the countries in the table. In total, 31% of the people used their personal networks to

obtain a job, of which 22.69% is strong ties, 8.37% is weak ties.

	Strong ties (%)	Weak ties (%)	All (%)	N
Finland	16.47	9.3	25.77	1269
Austria	26.35	NA	26.35	850
Denmark	16.68	11.38	28.06	1151
Norway	17.36	10.98	28.34	1457
Australia	20.33	10.58	30.91	1087
Great Britain	22.69	8.37	31.06	824
New Zealand	20.65	10.43	31.08	930
N. Ireland	22.34	10.15	32.49	1025
Germany	21.17	12.68	33.85	1167
Canada	24.29	11.99	36.28	984
France	26.64	10.71	37.35	1186
Switzerland	21.68	17.42	39.1	752
Japan	25.95	15.34	41.29	1102
Poland	19.21	24.9	44.11	1036
USA	30.83	13.46	44.29	1077
Latvia	21.06	25.00	46.06	940
Slovenia	31.66	14.99	46.65	894
Czech Rep.	22.69	24.38	47.07	1124
Spain	33.77	14.04	47.81	1140
Israel	37.13	11.88	49.01	1061
Russia	27.71	22.62	50.33	1061
Italy	32.51	18.53	51.04	966
Hungary	22.94	29.94	52.88	1286
Cyprus	44.27	17.51	61.78	811
Brazil	55.21	12.36	67.57	1699
Chile	44.5	23.71	68.21	1164
Philippines	69.39	13.46	82.85	1039

Table 3.4 Job placement via social capital (ISSP 2001, calculated by Franzen & Hangartner 2006, p. 357)

It is clear that strong ties are much more widely-used than weak ties in Britain. However, as

it is seen, in a number of developed countries such as Finland, Austria, Denmark and Norway

almost 70% or more use other search methods to find a job rather than family and friends. In

Great Britain too, the overwhelming majority of people (69%) did not find a job through their

personal networks. This indicates that the other formal and impersonal search methods are

quite important in Great Britain to find a job, implying the limited use of social capital in the country.

Based on these different variables explained in sections and 3.4 and 3.7, Figure 3.4 has been constructed. The importance of these variables in job searches will be explored in the findings chapters.

Job search process

Individual

Channels of information

Result

1. Personal characteristics

- Gender

- Age

-Ethnicity

2. Human Capital

- Education level

- Academic discipline
- Degree classifications (grade)

- University reputation

3. Other variables

- Education of parents

- Region

1. Informal ties

-Family

- Close friends

-Acquaintances

-**2. Formal ties**

- Employment agency

- University career services

- Faculty members *

3. Impersonal

- Direct application

- Online career services

- Newspaper advertisements

Useful info lead to

Employment

Figure 3.4 Job search process

* Normally, faculty members should be considered as informal ties. However, we considered them as formal ties since this form of relationship requires a formal institution (university) in which faculty members and students can interact. Moreover, faculty members may use a university's resources to connect their students to business/industry. However, employment through faculty members has also a social capital dimension (Spalter-Roth et al., 2013).

3.8 Hypotheses to be tested

Finally, after an extensive review on the literature, twenty-one hypotheses have been developed. Table 3.5 shows these hypotheses and related research objectives. References indicate that previous empirical studies pointed out the significance of that particular factor (i.e. age, gender and academic discipline) in the job search process. Research objective 1 does not appear in the table but it will be addressed through descriptive statistics.

Table 3.5 Hypotheses to be tested

Hypotheses		References	Research objectives
Employment through family			
1. Personal characteristic			
H1 Gender	Female graduates are less likely to find a job through family.	Fernandez & Sosa, 2005	RO2, RO4
H2 Age	Family help is more frequently observed at younger ages (22-29).	Moerbeek & Flap 2008	RO2, RO4
H3 Ethnicity	There is a variation between different ethnicities in finding a job through family.	McDonald, et al. 2009	RO2, RO4
H4 Education of parents	Education of parents is positively correlated with the use family in the labour market.	Iannelli, 2002	RO4
2. Human capital			
H5 Education level	More educated[6] people are less likely to use their family ties to find a job.	Battu et al., 2011	RO3, RO4
H6 Academic discipline	Finding a job through family varies significantly by academic discipline.	Labini, 2004	RO3, RO4
H7 Degree classification	Graduates with low degree classification are more likely to use their family.	Kramarz & Skans, 2014	RO3, RO4
H8 University ranking	Graduates of the prominent universities are less likely to use their family.	Brinton, 2000	RO3, RO4
3. Location			
H9 Region	Family help will vary by region.	Ponzo &Scoppa, 2010	R04
Employment through UCS			
1. Personal Characteristics			
H10 Gender	Females are more likely to find a job through UCS.	Fouad et al., 2006	RO5
H11 Graduation year[7]	The percentage of students who find a job through UCS has increased gradually.	Dey & Cruzvergara, 2014	RO5
H12 Ethnicity	There is a variation in the use of UCS by ethnicity.	Blasco et al., 2012	RO5
2. Human capital			
H13 Education level	More educated people are less likely to use UCS.	HESA, 2009	RO5
H14 Academic discipline	Finding a job through UCS significantly differs by academic discipline.	Pool & Sewell, 2007	RO5
H15 Degree classification	Those with high degree classification are more likely to find a job through UCS.	CBI, 2012	RO5

---

[6] More educated indicates a higher academic qualification. For instance, a person with a PhD degree is more educated than a person with a Master or Bachelor degree.

[7] In family, age is used by it does not make sense for UCS because people use UCS when they are at university. Thus, age is replaced by graduation year.

H16 University rankings	University ranking makes a significant difference in the UCS placements.	Lee & Brinton,1996	RO5

3. Mode of study

H17 Full/part-time	Full-time students are more likely to find a job through UCS than part-time students.	Eddy & Burke, 2006	RO5

Employment through faculty members

1. Personal characteristics

H18 Gender	Women are less likely to find a job through faculty members.	Gibson, 2005	RO2, RO5
H19 Ethnicity	There is a variation in finding a job through faculty members by ethnicity.	Kim and Sax, 2007	RO2, RO5

2. Human capital

H20 Education level	Finding a job through faculty members significantly differs by education level.	Johnson et al., 2007	RO3, RO5
H21 Degree classification	Those with high degree classification are more likely to use faculty members to find a job.	Anaya & Cole, 2001	RO3, RO5

3.9 Summary

This chapter can be summarised as follows:

- Since this study focuses on institutional social capital, the roles and functions of institutions are discussed in this chapter. Accordingly, new institutionalism and different school of thoughts in this movement was discussed. New institutionalism has three main schools of thoughts: sociological, historical and rational choice approaches. Sociological approach emphasises the norm and logic of appropriateness in the formation of institutions (Steinmo, 2008). Historical approach attributes primary importance to history and context while rational choice approach claims that institutions are effective means to minimise transaction costs and create stable expectations (Hodgson, 2006). Thus, institutions are designed to achieve certain goals and encourage fruitful cooperation. As the philosophical position of this dissertation, it should be acknowledged that sociological and historical institutionalism enrich our understandings about the nature of institutions in society, however, this study tends to be in line with the rational choice approach which suggests that institution is a vehicle to obtain the common goals of rational individuals in a cost and time effective way (minimisation of transaction cost).

- As an institution, university career services act like a bridge between different interest groups and induce cooperative actions among them as rational choice institutionalism suggests. For this reason, universities make substantial investments to increase their institutional social capital to enhance their students' employment prospects (Dey & Cruzvergara, 2014). This will also contribute to the reputation of the university since employability is one of the components in the university ranking system (Harvey, 2001). As Villar et al. (2000, p. 390) pointed out, due to the gradual increase of financial

pressure on universities and competitiveness in higher education market, employment rates of graduates have become one of the most important performance indicators of institutional quality. This puts extra pressures on universities and as a result universities make substantial investments in their career development services.

- University students, on the other hand, benefit from UCS to obtain employment opportunities. Moreover, the third parties (business, industry) also gain privilege in this institutionalised relationship, by tapping into potentially high quality of human resources (Mason, 2002). Hence, UCS as institutions serve for the interests of the three different groups.

- Social capital is one's potential resources in his or her social relationship with the others. These resources can be particularly helpful in job search. Strength of weak ties theory argues that in these social relationships, our weak ties, rather than our close ties, are likely to produce more useful information in job search.

- Empirical studies provide evidence for the importance of social capital in the labour market. However, the degree to which people take advantage of social capital may differ by gender, age, ethnicity and academic levels. The literature also illustrates that some other variables such as degree classifications, education level of parents and regions can also be important in capitalising on social capital.

4 Methodology

This chapter discusses four main issues. Firstly, the philosophical position of the study is introduced. Secondly, *why* a particular data collection technique is chosen out of a range of different alternatives is explained. Thirdly, *how* data are collected and what kind of procedures is implemented in the research design will be described. While the question *how* data are collected is related to the method, *why* a particular method is chosen is related to the methodology (or the justification of the method) (Clough & Nutbrown, 2012). Finally, since the study uses both qualitative and quantitative methods, what kind of strategy is used to integrate the two different types of research methods will be described.

However, it would be useful to recall the objectives of the study because the methodology chapter is also about the consistency between the objectives and the methods used to reach those objectives. There are five research objectives (see Table 1.1 in Chapter 1). The first four research objectives are about job search process and the relationships between graduates (their academic levels, disciplines and degree classifications) and the channels of information they use to find a job (newspaper advertisements, direct application, family and friends etc.). These four research objectives can be addressed through a survey based on a large sample. A representative sample would be sufficient to make generalisable inferences about the job search patterns in the UK graduate labour market. Hence, a section in this chapter is dedicated to the quantitative methods only, which will explain the survey and statistical analyses used in this study. However, research objective 5 is about the role of university career services in providing students with employment opportunities. This particular objective is different from the other research objectives because finding a job through newspaper advertisements, direct application and family/friend help can be random. For

instance, one's friend can help him or her to find a job incidentally. Namely, the friend did not make any strategic plan beforehand to help that person but rather made him or her aware of a job opportunity when the opportunity became available. Here, it is not possible to talk about a pre-planned and well-designed strategy. However, as suggested by the rational institutionalist approach, a university career service is an institution and institutions have rational goals, aims and strategies. In that regard, the institution, UCS, is specifically designed to facilitate students' job search and foster students' employability. This non-random and rationally-designed structure of UCS enables us to focus on UCS in depth. For this reason, not only a survey but also a case study will be used to address research objective 5. In other words, mixed methods will be used to address research objective 5 only. Accordingly, the second part of this chapter is dedicated to the research design and data collection in the case study. However, before these two methods are explained, the philosophical position of the research will be outlined first.

4.1 Epistemological and ontological position

First of all, it is worth noting that philosophy has two main branches from which all other philosophical disciplines derive: ontology and epistemology (Magee, 2010). Therefore, an ontological and epistemological view is necessary to build the philosophical foundation of a research inquiry.

The term ontology comes from Greek word onto-logia and means the study of existence, referring to the nature of existence and reality. It deals with the questions such as what exists, what is real and what are the relationships between different forms of existences (Hofweber, 2014). In that regard, ontology is one's belief about the nature of existence and reality. Epistemology, however, is one's belief and criteria of knowledge. Epistemology is related to

the questions such as what is the appropriate way to attain true knowledge and what are the necessary and sufficient conditions for a piece of information to be true (Steup, 2014)?

4.1.1 Critical Realism

This research adopts Critical Realism (CR) as its ontological and epistemological stance. Therefore, in this part, CR and its paradigms will be described.

Before explaining critical realism, it would be useful to start with the definition of realism. Realism in philosophy is generally defined as "the view that entities exist independently of being perceived or independently of our theories about them" (Phillips, 1987, p. 205). Schwandt (1997, p. 133) adds "scientific realism is the view that theories refer to real features of the world. 'Reality' here refers to whatever it is in the universe (forces, structures, mechanism etc.) that causes the phenomena we perceive with our senses."

It is worth noting that there are many forms of realism. Although it is possible to accept (or reject) realism as a whole, it is not uncommon for philosophers to be selectively realist about different topics. Hence, it would be perfectly possible to be a realist about the everyday world of macroscopic objects and their properties, but a non-realist about aesthetic and moral values (Miller, 2014, para. 1).

Here, a distinction should be made between realism and objectivism. A distinctive feature of realism is that it denies that we can have any "objective" or certain knowledge of the world while it accepts the possibility of alternative valid accounts of any phenomenon. All theories about the world are grounded in a particular perspective and worldview, and therefore all knowledge is partial, incomplete, and fallible (Tashakkori & Teddlie, 2010, p. 151). As Lakoff (1987) states:

Scientific objectivism claims that there is only one fully correct way in which

reality can be divided up into objects, properties, and relations… Scientific

realism, on the other hand, assumes that 'the world is the way it is' while

acknowledging that there can be more than one scientifically correct way of

understanding reality… (p. 265)

In this connection, Frazer and Lacey (1993, p. 182) note that "even if one is a realist at the

ontological level, one *could* be an epistemological interpretivist . . . [since] our knowledge of

the real world is inevitably interpretive and provisional…" In line with this argument, critical

realism proposes an ontological realism, which is that there is a real world that exists

independently of our perceptions, theories, and constructions while accepting a form of

epistemological constructivism and relativism, our *understanding* of this world is inevitably a

construction from our own perspectives and standpoints (Maxwell, 2010, p. 5). The different

forms of realist approaches agree that there is no possibility of attaining a single, correct

understanding of the world (Maxwell, 2010, p. 5). As Putnam (1999) remarks that there is no

"God's eye view" that is independent of any particular viewpoint. Having said that it is

important to underline that critical realism rejects the idea of multiple realities while it

accepts that there are different valid *perspectives* on reality (Tashakkori & Teddlie, 2010, p.

153).

Within an ontological context, the positivist approach concerns a single, concrete reality

while the constructivist approach proposes mind-dependent multiple realities. However,

critical realism concerns multiple perceptions about a single, mind-independent reality (Healy

& Perry, 2000). Thus, critical realists assume that a reality exists, however, it cannot be fully

or perfectly apprehended (Guba, 1990, p. 23). This approach recognises that perceptions

have a certain degree of plasticity (Churchland, 1988) and that there are differences between reality and people's perceptions of it (Bisman, 2010, p. 9).

In this regard, critical realism takes a realistic (in philosophical sense) but a critical approach toward the phenomenon being studied (Tashakkori & Teddlie, 2010). It emphasises the knowability of reality but it does not exclude the subjective and contextual relationships between the knower and the known (Tashakkori & Teddlie, 2010). This pragmatic position has enjoyed, often implicitly, a widespread acceptance as an alternative both to naïve realism and to radical constructivist views that deny the existence of any reality apart from the construction of human mind (Tashakkori, & Teddlie, 2010, p. 154).

4.1.2 Critical realism and the philosophical position of the present study

To put critical realism into the context of the present study, the author believes that the relationship between different variables (gender, age, academic level) and different job search techniques (online career services, direct application, and university career services) can be derived through statistical techniques and interviews but it is hardly possible to make causal inferences between them because the characteristics of variables and the relationship between them are strictly time bound and not stable. Empirical studies in this area can be useful for policy-making purposes but their findings do not indicate any precision or causality. As a result, although some statistical findings in this study can be generalisable, they can only imply strong or weak correlations between variables rather than any causal relationships between them. Even it is possible to say that this correlation is strictly time-bound and the same phenomenon may not be observed three or five years down the line.

This time bound-ness is related to the nature of social sciences. In positive sciences, there are regularities (Hume 1975, cited in Millican, 2006). For instance, water is the combination of two hydrogen and one oxygen molecules and whenever these two elements come together

in this proportion, it will produce water. This is regular and universal. These regularities in

natural sciences enable researchers to establish laws and casual inferences. However,

particularly in contemporary social sciences, researchers do not aim to find laws or

regularities, as there is no such a thing, but rather researchers want to find *tendencies*. As J.

Stuart Mill (1872, p. 82) said that " it is evident, in the first place, that Sociology… cannot be

a science of positive predictions, but only of tendencies."

Accordingly, the aim of social scientists in empirical studies can be to find patterns and

tendencies. If X happens, Y *tends* to follow rather than if X happens, Y *will* follow. For

instance, a researcher may find that 'males are more likely to take advantage of their social

capital in the labour market.' However, this finding does not indicate any regularity or

causality, since there is no regular or causal relationship here but it may only indicate

tendencies and these tendencies are rather time-bounded and may change over time and may

not be applicable in another context. Nevertheless, this finding, the strong correlation

between gender and the use of social capital, can be useful for policy-makers to develop new

policies at that point in time and in that particular context.

Hence, three conclusions can be drawn from this discussion. The first one is rather

obvious, that the outcomes derive from statistical analyses and interviews do not indicate any

causal relationship but a degree of correlation. Second, the researcher may use multiple

methods to understand the complexity of a social phenomenon. Therefore, where applicable,

mixed methods can be used to provide alternative valid accounts of the phenomenon under

study because there can be more than one scientifically correct way of understanding reality

(Lakoff, 1987, p. 265). Third, the outcomes in this study show tendencies at a particular *time*

and in a particular *place* from a particular *perspective*. Hence, the study does not claim any

sort of scientific precision or objectivity in its statistical or qualitative analyses but rather it establishes academic justifications for the methods being used in the research design and data collection processes. All of these justifications are based on some set of assumptions and as Guba (1990) noted, assumptions cannot be proven or disproven in any foundational sense. If it were possible to prove them scientifically, there would be no doubt about how to practice a scientific inquiry (Guba, 1990, pp. 18–19). Furthermore, by definition, an assumption means an unproven statement from which a conclusion can be drawn. Hence, assumptions cannot be proven (Guba, 1990) but should be reasonable and justified.

In conclusion, the research embraces the critical realist approach and assumes that there is a single reality but there can be multiple perceptions about the single reality. This reality can, however incomplete, and fallible it may be, be attained through robust empirical techniques consist of both qualitative and quantitative data.

Accordingly, the research is based on both quantitative and qualitative data. Quantitative data come from a survey while qualitative information derives from semi-structured interviews in a case study and secondary data. The justification for each method will be explained in turn.

4.2 Survey

4.2.1 Survey sampling

This research aims to explore the job search experiences of university graduates in the UK. To obtain a variety of information that will reflect the diverse job search experiences of the graduates, the study needed a considerable number of graduates. This is only possible by using a survey technique with a large representative sample in the target population. Therefore, the survey method has been chosen to collect the data. This section provides information about surveys and the type of sampling technique used in this study.

"A survey is any activity that collects information in an organised and methodical manner about characteristics of interest from some or all units of a population using well-defined concepts, methods and procedures" (Statistics Canada, 2010, p. 1). Surveys can be categorised into two: sample surveys and census surveys. In a sample survey, data are collected from only a fraction of units of the population whereas in a census survey, data are collected from all units in the population (Statistics Canada, 2010). There are two types of survey sampling methods: probability and non-probability samplings (see Figure 4.1). The difference between the two is *random selection*. Non-probability sampling does not involve
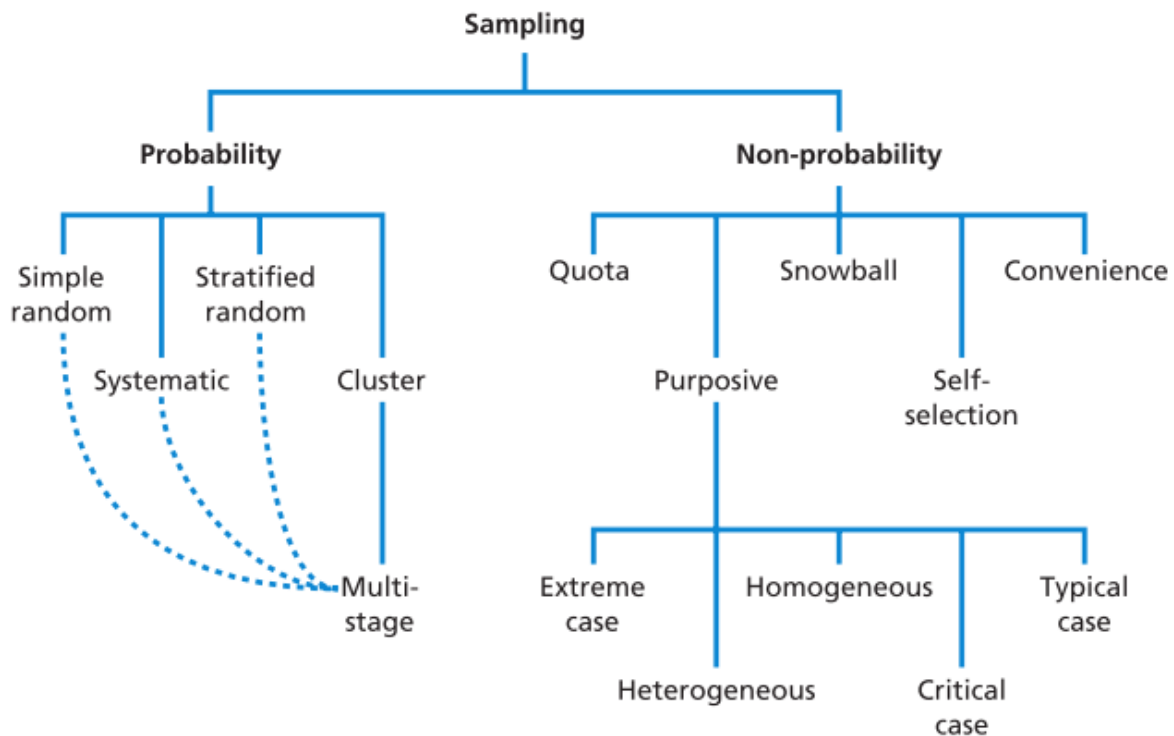
Figure 4.1 Classifications of sampling methods, (Saunders, et al., 2009, p. 213)

random selection while probability sampling does (Trochim, 2006). In probability sampling, each unit in the population has an equal chance of being selected. On the contrary, in non-probability sampling, the probability of any particular unit of the population being chosen is

unknown (Zikmund, et al. 2010, p. 395). Thus, random sampling is only possible if each unit in the defined population has the equal probability of being selected. Hence, random sampling requires a sampling frame. A *sampling frame* is a complete list of all members in a population[8] (Saunders, et al., 2009). Sarndal et al. (2003, p. 11) noted that an ideal sampling frame must have the following features:

1. There is a complete list of all members of the population studied

2. All members in the target population can be found at the time the research is conducted (their contact information is available and the respondents are willing to participate)

3. The frame is ordered in logical and systematic way, (all members are assigned a numerical identifier).

These criteria ensure that a sampling process is complete, accurate and up-to-date, and every member of the target population has a known, non-zero chance of being selected (Turner, 2003, p. 4). If a sampling process does not meet one of these criteria, it cannot be called random. In this study, the population is the graduate labour market in the UK which is almost 12 million and it is not possible to obtain the sampling frame of this population, (their names and contact information). Hence, non-probability sampling was used in this research because the complete list of the population was not available. However, although it can be fast and cost effective, Fowler (1984) suggests that reliability and bias cannot be estimated in non-probability sampling methods because the sample units are selected on the basis of their availability (e.g. respondents volunteered).

---

[8] In daily language, a population refers to the number of people who live in a particular geography. However, in statistics, a population has a much broader meaning and is defined as all units that are being studied (Bluman, 2012). Hence, it can be humans, animals, plants or institutions (Bluman, 2012, p. 4).

It, then, calls into question that if a study fails to use random probability sampling due to lack of the sampling frame, does that mean that the outcomes of the study are not representative for the population studied? Before move on to representativeness, some of the criticisms about probability or random sampling methods should be noted. Although random sampling methods are more robust and generate more reliable results compared to non-random sampling methods, it is not always possible to use a random sampling method. Particularly, there are two kinds of obstacles in random sampling: I) the population size can be quite large or unknown. II) the respondents in the sampling frame may be inaccessible or too costly to access (Baker et al., 2010). By pointing out these obstacles, Yang and Banamah (2014, p. 19) noted that

It is these practical constraints, not the fundamental logic of probability sampling, that make survey researchers to seek for alternatives to probability sampling that are of low-cost as well as with a satisfactory level of representativeness. Indeed, given the large amount of time, money and other resources invested in probability sample surveys, the declining response rates have led some researchers to claim that probability samples with low response rates are no better than volunteering samples (Brick, 2011; Levy & Lemeshow, 1999). Conversely, some have pointed out that a well-designed non-probability sampling scheme such as quota sampling could produce a quasi-representative sample (Neuman, 2011, p. 243).

In the same token, Groves (2006, p. 667) reminds that

With probability sampling, both repeated callbacks and refusal conversion are required. But given the rising costs of achieving higher response rates and the findings of few nonresponse biases in lower response rate surveys, some in the field

106

are questioning the value of the probability sampling framework for surveys. They

ask, 'What advantage does a probability sample have for representing a target

population if its nonresponse rate is very high and its achieved sample is smaller than

that of nonprobability surveys of equal or lower cost?'

These kinds of criticisms show that although probability sampling is ideal, it may not

always be possible or practical to use this sampling method due to costs or accessibility.

For these reasons, a quota sampling method was used in this study. In this method, the

sample is divided into categories by gender, age, ethnicity, education level etc. in a way

that every subgroup has the same proportion with the one in the population. For example,

if 45% of a population is male and 55% is female, similarly, there will be 45% male and

55% female in the sample, and the other subgroups (age, ethnicity and education level

etc.) will also have a proportional representation in the sample.

With respect to the representativeness of the quota sampling method, a considerable

number of empirical studies provide evidence for it. Davidson et al. (2009) noted that

the research industry knows from decades of practice – such as repeated

comparison of surveys of voting intention with actual election outcomes – that

quota samples are capable of providing estimates that match actual population

figures with a high degree of accuracy. (p.3)

Cumming (1990) compared the two different types of sampling method, probability

and quota sampling methods. The surveys were designed to provide information for the

planning of local health promotion programs in Australia. The survey in the probability

sampling had 484 respondents while in the quota sampling 1727 respondents. After

having compared the two surveys, Cumming (1990, p. 132) concluded that "unless a very

high response rate can be achieved, quota sample surveys with age and sex quota controls may be an acceptable alternative to probability sample surveys for gathering local data…"

Similarly, Ehrenberg (2000, p. 287) maintained that "it has been shown empirically, by checks against known data, that well controlled quota sampling gives representative results for quite a wide range of topics." Moreover, Orton (1994), Groves (2004), Myant and Hope (2006) also made a case for the use of quota sampling.

Despite the frequent use of quota sampling in empirical studies, further measures were taken in this study to compensate the potential weaknesses of quota sampling:

1. The sample size was increased to a large extent. As shown in Table 4.4 (pages 124-125) the minimum required sample size for the population was 384 but 1000 respondents[9] participated in the research, which is 2.6 times as much as the required sample size.

2. Subcategories included as many dimensions as possible such as gender, age, ethnicity, education level, and ethnicity. When different subcategories are controlled, it is more likely to obtain a representative sample. As Gschwend (2005, p. 91) suggested that "scholars should gather as much evidence as possible …ensure that their achieved sample represents the population on as many dimensions as possible. The more evidence they are able to compile the more confidence there is that their estimation results are robust."

---

[9] 1000 respondents in total but after elimination of the some low quality responses, 947 respondents remained. Further details can be found in section 4.2.5 (pages 134-135)

3. Where applicable, the outcomes of the survey were compared to those of other nation-wide surveys such as DLHE's survey. It was found that the outcomes of this study are similar to those of the DLHE survey (see Table 6.10, page 249).

Hence, there were three reasons to use a quota sampling in this study. 1. There was not a sampling frame for the population and thus it had to be a non-probability sampling. 2. The literature provides a considerable number of examples for the effectiveness and representativeness of a quota sampling method (Brick, 2011; Groves, 2004; Yang & Banamah, 2014). 3. To compensate its weakness, some cautionary steps were taken such as increasing the sample size considerably and including as many subcategories as possible. Figure 4.2 shows that why probability sampling was not chosen and how quota sampling method was chosen out of several non-probability sampling methods (follow yellow circles).
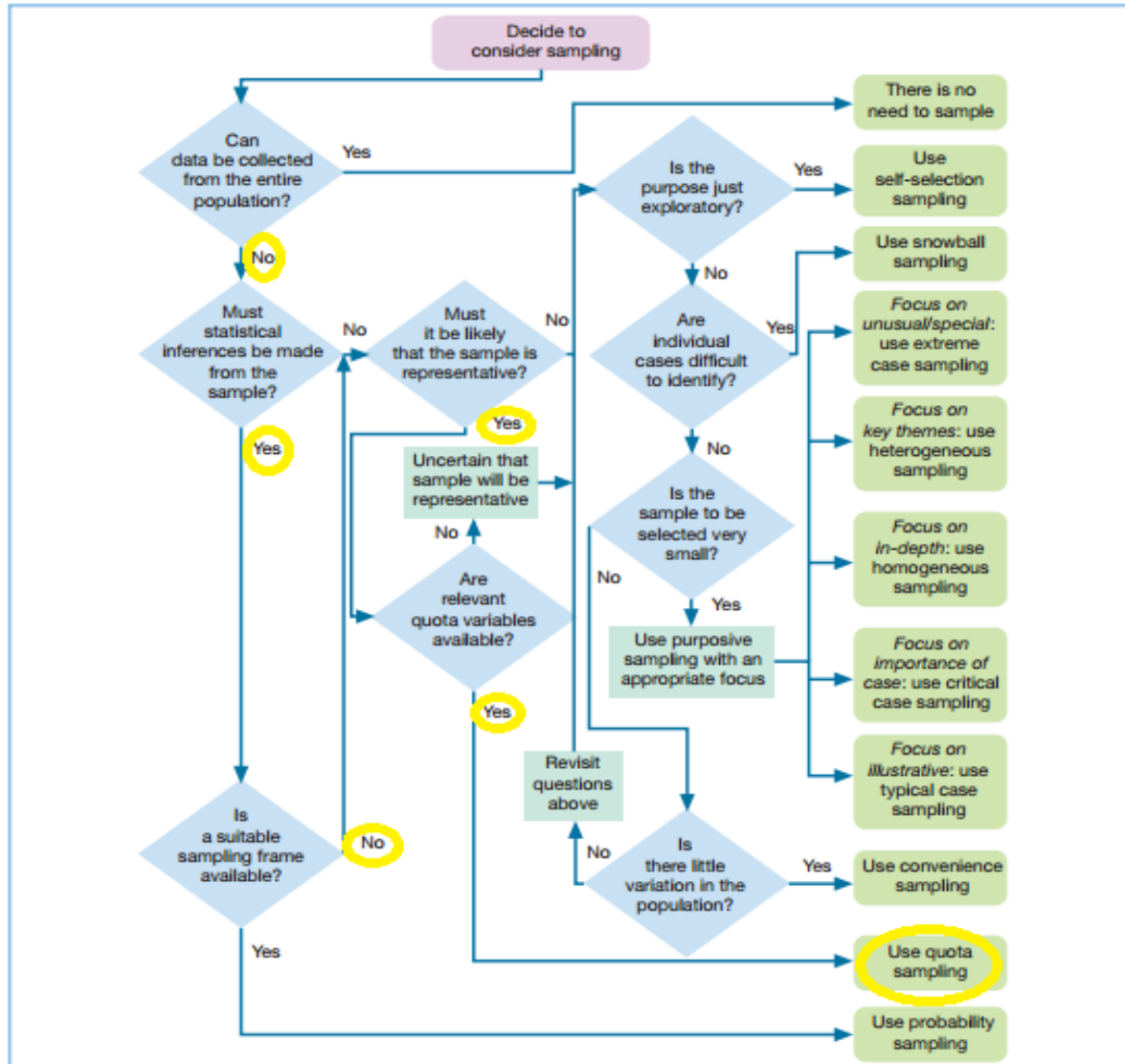
Figure 4.2 Selecting a non-probability sampling technique, (Saunders, et al., 2009, p. 234)

4.2.2 Web-based Survey

There are different kinds of questionnaires in terms of the way it is conducted. They can generally be divided into two categories: self-administered and interviewer administered surveys (see Figure 4.3). Salant and Dillman (1994, p. 35) suggested that "no single method can be judged superior to the others in the abstract. Instead each should be evaluated in terms of a specific study topic and population, as well as budget, staff, and time constraints." This

study used a web-based survey. Hence, a detailed discussion will be dedicated to this

technique and its advantage and pitfalls.
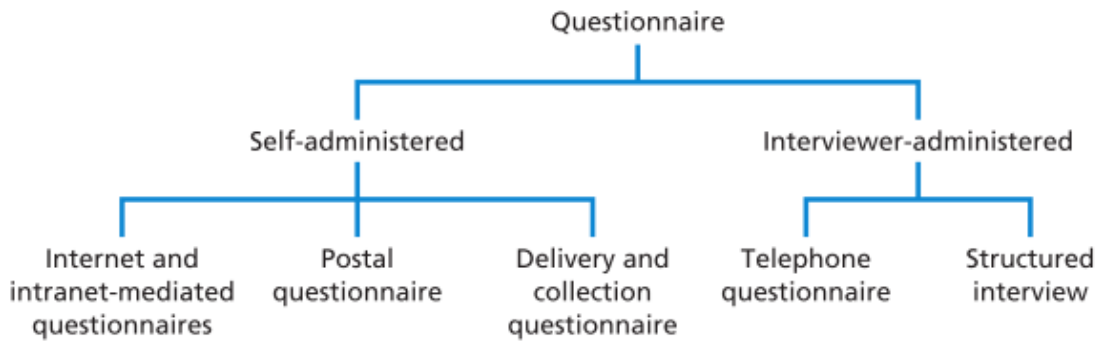
Figure 4.3. Types of questionnaires (Saunders et al., 2009, p. 363)

With the advent of the internet, the transfer and flow of information have radically

changed (Hoonakker & Carayon, 2009). Accordingly, a considerable number of web-based

surveys have been conducted over the last decade. Naturally, scholars have questioned this

new way of data collection. In this section, the upsides and downsides of web-based surveys

will be briefly explained. Hoonakker and Carayon (2009, p. 350) summarised the advantages

and disadvantages of web-based surveys (see Table 4.1). Most of the advantages in the table

below are peculiar to online surveys only. However, most of the disadvantages, such as

sampling error, measurement error, and nonresponse error, and to a lesser extent, lack of

anonymity, illiteracy, are the common problems in traditional postal surveys as well.

Advantages	*Disadvantages*
• Easy access to large (worldwide) populations	• Coverage error

• Speed	• Sampling error
• Reduced costs	• Measurement error
• Reduced time and error in data entry	• Nonresponse error
• Ease of administration	• Lack of anonymity
• Higher flexibility	• Computer security
• More possibilities for design	• Computer illiteracy
• Higher response quality	• Non-deliverability

Table 4.1 Advantages and disadvantages of internet surveys (Hoonakker & Carayon, 2009, p. 350)

With regard to the advantages, Hoonakker and Carayon note (2009, p. 350) that online

surveys provide researchers with easier and cheaper access to a large quantity of samples. The

speed of the response is usually much faster and the quality of the data is better (Cobanoglu et

al., 2000; Gustavsson et al., 2009; Miyagi et al., 2014). Costs are lower and, in general, there

are fewer errors since the data are not entered manually most of the time. Once the survey is

completed, it is ready to analyse and the data is already coded in and it can easily be

transformed into statistical software programmes such as SPSS and Excel. Furthermore, in

terms of design, various formats can be used for backgrounds, colours and images. There are

user friendly facilities such as skip patterns (e.g., If yes, go to Question 5; if no, go to

Question 12) that enable respondents follow the instruction without any hassle (Hoonakker &

Carayon, 2009). Replication can be avoided through unique identifier code embedded in the

email. These advantages are peculiar to web-based surveys only.

On the other hand, there are also some downsides that need to be tackled. As Hoonakker

and Carayon (2009, p. 365) note that the major threats to the validity of internet surveys are

coverage error; the part of people with lower incomes, less education and living in rural

towns are less likely to have access to the internet (Gosling et al., 2004, p. 98) and *sampling error*; only a subset of the target population is in the sample yet generalisation is made about the whole population. In this connection, Gosling et al. (2004) suggest that it is possible to say that traditional samples also over-represent highly educated individuals from high-income families. For instance, they (2004, p. 98) noted that in traditional survey methods "70% of samples used in correlational studies [in the US], thus ensuring that participants are far more educated than the population at large." Furthermore, Lebo (2000, p. 11) sixteen years ago noted that "the internet is far from being a bastion of highly educated, well-paid users. While the vast majority of high education/high income people use the internet, those with less education and lower incomes log on in impressive numbers." Hoonakker and Carayon (2009, p. 365) argued that coverage error and sampling error will become less important as the gap between internet users and the general public is beginning to close.

In this study, however, the main focus is university graduates in the UK. According to the Internet World Stats (2014) almost ninety percent (89,8) of the households in the UK have access to the internet. Therefore, it can be assumed that since university graduates are highly educated, the overwhelming majority of this population would not have a serious problem in accessing the internet. Therefore, it is unlikely to suppose that this study will suffer from coverage error or sampling error.

Another issue that needs to be addressed is the quality of the online surveys and whether there is a consistency between the outcomes of the online surveys and those of traditional methods such as via post, telephone or in the lab. Many studies have contrasted these two different methods and their findings indicate that the two survey methods generate comparable results (Birnbaum, 2004). Krantz and Dalal (2000) reviewed nine studies

comparing online and lab surveys and they concluded that the two methods generated considerably similar results (cited in Birnbaum, 2004, p. 824). In a study of a 13-item quality of life scale, Lansky et al. (2002) found that despite some variations in individual items, the mean scores for mail and internet surveys were similar (cited in Hoonakker & Carayon, 2009, p. 362). In their extensive analysis, which consists of 510 published traditional samples, Gosling et al. (2004, p. 99) found that "the data provided by internet methods are of at least as good quality as those provided by traditional paper-and-pencil methods." Buhrmester et al. (2011, p. 3) also conferred that "the data obtained are at least as reliable as those obtained via traditional methods."

   In a medicine-related study, Van den Berg et al. (2011) compared both paper-based survey and online survey and they concluded that with a degree of caution, researchers should strongly consider using web-based questionnaires given the many advantages of web-based over paper-based questionnaires. Pealer et al. (2001, p. 547) examined the feasibility of collecting health risk behaviour data from undergraduate students through a web-based survey. Undergraduates were randomly selected and assigned to two different groups; a mail survey group and a web survey group. No statistically significant differences were found between the two groups in terms of demographics, response rates and item completion errors. Furthermore, the response rate to sensitive questions was higher in the web-based survey sample. In a recent study, Miyagi et al. (2014, p. 1347) advised that the social networking site is an efficient method "to recruit young women into health surveys, which can effectively be performed online." Fenner et al. (2012) have also noted that web-based surveys have a strong potential for yielding demographically representative samples. Hence, in the light of a

thorough literature review, it can be safely said that web-based surveys have a substantial support for its use and applicability in the literature.

The other potential disadvantage of online surveys, cited in Table 4.1, is computer security. Security poses a serious threat for all internet surveys. Internet users have grown suspicious of receiving e-mails from strangers because these e-mails can bring all sorts of computer security risks including viruses, Trojan horses, and worms (Hoonakker & Carayon, 2009, pp. 351, 366). To overcome it, two different survey companies Qualtrics and SurveyMonkey were used. These companies are well-known in their fields (Sappleton, 2013). Their security statements and relevant legal and technical standards can be read on their websites in a great detail[10]. It will be seen that their security measures pertaining to the accessibility, confidentiality and storage of data meet the required standards and regularly being tested and approved by multiple security agencies (Hite, 2011). Therefore, it is reasonable to assume that the data used in this survey are stored in a very secure space in those companies. Regarding spam and viruses, the survey companies send an email to a respondent, which is exclusive to the recipient with its unique identification code. These emails cannot be replicated, forwarded or used more than once, which means that they cannot be spams. Moreover, survey companies always make security assessments and update and improve their safety standards (Hite, 2011).

In terms of anonymity, Hoonakker and Carayon (2009, p. 351) noted that lack of anonymity can be a threat for internet surveys because as soon as respondents finish the survey, their IP numbers are visible and from their IP numbers they can be traced back. In

---

[10] Security statements can be found: http://www.qualtrics.com/docs/QualtricsSecurityWhitepaper.pdf
and https://www.surveymonkey.com/mp/policy/security/

fact, this has some benefits such as that the researchers can check out whether the same person has taken the survey more than once or whether the respondents are real persons or the survey is taken by the same people more than once. However, on the downside, the respondents' computers can be traced back but not their names or surnames. This issue is still problematic. To partly overcome it, the respondents are re-assured that their private information will not be transmitted over a third party (see Appendix 1). Furthermore, their private information, their IP numbers are the only private information we have, will be stored on a secure computer and relevant information will be destroyed right after the research. This partly alleviates the question of anonymity but without IP numbers the researcher has no way of knowing whether a survey is taken multiple times by the same person or not. Therefore, like the other traditional survey methods such as postal or phone or in other kind of interviews, some private information is kept recorded but not revealed to the third party. Online surveys are similar to other manual surveys in the sense that the researcher may have some private information of the respondents but this would not constitute any violation of privacy as long as it is not exposed to a third party. It is also worth mentioning that Survey Monkey is praised for its commitment to preserve the anonymity of respondents by Buchanan and Hvizdak (2009, pp. 42–43), who wrote a detailed article about the research ethics of online surveys.

Computer illiteracy is also considered a problem in web-based surveys in Table 4.1. Those with low or no education may not have a good command of computer and thus fail to respond. However, the sample in this study is composed of university graduates. In a Labour Force Survey report by Green et al. (2011, p. 37), it is shown that 92% of university graduates in the UK use the internet to search for work, (it does not mean the other 8% does not know

how to use the internet but rather they primarily use the other search methods to find a job such as direct application or family, friends etc…) So, it is rather unlikely to assume that university graduates will lack of basic computer skills to fill out an online survey. Therefore, computer illiteracy would not pose a major threat to the validity of this research.

In Table 4.1, there are other disadvantages of web-based surveys such as measurement error, which is a common problem for traditional survey techniques. This is a statistical problem rather than the one that is exclusive to web-based surveys. Thus, it will not be explained here. The other problem is non-response error, where a respondent may not complete some parts of the survey. This is less likely to be the case for web-based surveys because a respondent cannot move on the next question, if he or she has not answered a question. Alternatively, the respondent may leave the survey completely, if he or she is not happy with it. In that regard, online surveys provide more freedom to the respondents since the respondents are free to go on or to give up. For instance, in a lab survey or phone-based survey, other people are present, so respondents would have to explain that he or she would like to quit the study (Birnbaum, 2004). In contrast, web participants are free of any such possible social pressure or embarrassment since they will simply have to click a button to give up the survey (Birnbaum, 2004, p. 817).

In conclusion, as outlined above, there is a substantial agreement in the literature that online surveys are as accurate as traditional surveys in terms of the outcomes they generate and disadvantages can be overcome if adequate care and attention are given (Buhrmester et al., 2011; Hoonakker & Carayon, 2009).

In addition to that, Table 4.2 is the concise summary of very detailed analysis of web-based surveys by Gosling et al. (2004):

Preconceptions	Findings
1. Internet samples are not demographically diverse (Krantz & Dalal, 2000).	**Mixed**: Internet samples are more diverse than traditional samples in many domains (e.g., gender), though they are not completely representative of the population.
2. Internet samples are maladjusted, socially isolated, or depressed (Kraut et al., 1998).	**Myth**: Internet users do not differ from nonusers on markers of adjustment and depression.
3. Internet data do not generalise across presentation formats (Azar, 2000).	**Myth**: Internet findings replicated across two presentation formats of the Big Five Inventory.
4. Internet participants are unmotivated (Buchanan, 2000)	**Myth**: Internet methods provide means for motivating participants (e.g., feedback).
5. Internet data are compromised by anonymity of participants (Skitka & Sargis, 2005).	**Fact**: However, Internet researchers can take steps to eliminate repeat responders.
6. Internet-based findings differ from those obtained with other methods (e.g., Krantz & Dalal, 2000).	**Myth:** Evidence so far suggests that Internet-based findings are consistent with findings based on traditional methods (e.g., on self-esteem, personality), but more data are needed.

Table 4.2 Six preconceptions about internet methods (Gosling et al., 2004, p. 95)

Gosling et al. (2004) discuss these factors at length and conclude that web-based surveys are reliable. Next, research design will be explained. However, it would also be useful to end this section with a comparison of different survey techniques to give a broader idea the potential advantages and disadvantages of different survey techniques.

Attribute	Internet- and intranet-mediated	Postal	Delivery and collection	Telephone	Structured interview
Population's characteristics for which suitable	Computer-literate individuals who can be contacted by email, Internet or intranet	Literate individuals who can be contacted by post; selected by name, household, organisation, etc.		Individuals who can be telephoned; selected by name, household, organisation, etc.	Any; selected by name, household, organisation, in the street etc.
Confidence that right person has responded	High if using email	Low	Low but can be checked at collection	High	
Likelihood of contamination or distortion of respondent's answer	Low	May be contaminated by consultation with others		Occasionally distorted or invented by interviewer	Occasionally contaminated by consultation or distorted/invented by interviewer
Size of sample	Large, can be geographically dispersed		Dependent on number of field workers	Dependent on number of interviewers	
Likely response rate[a]	Variable, 30% reasonable within organisations/via intranet, 11% or lower using Internet	Variable, 30% reasonable		High, 50–70% reasonable	
Feasible length of questionnaire	Conflicting advice; however, fewer 'screens' probably better	6–8 A4 pages		Up to half an hour	Variable depending on location
Suitable types of question	Closed questions but not too complex, complicated sequencing fine if uses IT, must be of interest to respondent	Closed questions but not too complex, simple sequencing only, must be of interest to respondent		Open and closed questions, including complicated questions, complicated sequencing fine	
Time taken to complete collection	2–6 weeks from distribution (dependent on number of follow-ups)	4–8 weeks from posting (dependent on number of follow-ups)	Dependent on sample size, number of field workers, etc.	Dependent on sample size, number of interviewers, etc., but slower than self-administered for same sample size	
Main financial resource implications	Web page design, although automated expert systems providers are reducing this dramatically	Outward and return postage, photocopying, clerical support, data entry	Field workers, travel, photocopying, clerical support, data entry	Interviewers, telephone calls, clerical support. Photocopying and data entry if not using CATI.[c] Programming, software and computers if using CATI	Interviewers, travel, clerical support. Photocopying and data entry if not using CAPI.[d] Programming, software and computers if using CAPI
Role of the interviewer/field worker	None		Delivery and collection of questionnaires, enhancing respondent participation	Enhancing respondent participation, guiding the respondent through the questionnaire, answering respondents' questions	
Data input[b]	Usually automated	Closed questions can be designed so that responses may be entered using optical mark readers after questionnaire has been returned		Response to all questions entered at time of collection using CATI[c]	Response to all questions can be entered at time of collection using CAPI[d]

Figure 4.4 Main attributes of questionnaires (Saunders et al., 2009, p. 364)

4.2. 3 Research design

As Yin (2003, p. 26) simply put it, research design is a logical plan for getting from here to there. It starts with the formation of the research questions/objectives and ends with a set of conclusions. Between these two points, start and end, the researcher collects, interprets and analyses data (Yin, 2003). Therefore, research design is a kind of road map that guides the researcher through the process. In that sense, a well-designed plan is an indispensable requirement for a high quality research. A research plan should include four basic elements as shown below:

Construct validity: identifying correct operational measures for the concepts being studied.

Internal validity: seeking to establish a causal relationship, whereby certain conditions are believed to lead to other conditions, as distinguished from spurious relationships. (This is for explanatory or causal studies only and not for descriptive or exploratory studies).

External validity: defining the domain to which a study's findings can be generalised.

Reliability: demonstrating that results are consistent and stable over subsequent administrations of the survey. The operations of a study can be repeated, with the same results. (Yin, 2003, p. 40)

With regard to *construct validity*, the surveys in the literature have been carefully examined and then survey questions are developed accordingly. In fact, after obtaining formal permission, some questions from official sources such as UK Official National Statistics (ONS) and Higher Education Statistics Agency (HESA) are used with minor modifications. It can be assumed that their questions are well-designed since these organisations are the leading ones in the field.

After examining previous national statistics (Kitchen et al., 2008; LFS, 2013), the questions such as ethnicity, nationality, and age groups are categorised and designed (Table 4.3).

In order to ensure the quality of the survey, a pilot study was conducted among PhD students at University of Exeter Business School in May 2014. The purpose of the pilot study was fourfold. Firstly, to see whether there would be any technical problems, such as that some functions may not work properly or the received answers may not be recorded. Secondly, some questions may not be clear in terms of wording or grammar, this kind of questions would be identified with the feedback by the pilot respondents. Thirdly, to have an idea about what would be the average completion time of the survey. Fourthly, what the survey analysis page would look like once the data had been fully collected in terms of tables, charts and graphs.

The survey was emailed to the pilot respondents through SurveyMonkey. Twelve people participated in it. They reported that some questions were unclear and there were some missing options in a question. One question had two separate questions in it. Some words could be replaced by better alternatives to clarify the meaning. These issues were addressed and the necessary amendments were made before the actual survey was launched.

To construct *internal validity*, several variables were defined as dependent and independent variables and the relationship between them was specified. The variables such as gender age, ethnicity, education levels, academic discipline, degree classification, university reputation and education of parents were classified as independent variables and the variables such as employment through family, university career services etc. are categorised as dependent variables. Some of these independent variables are quite standard such as gender, age, education level and the others such as academic discipline, degree classification, university reputation and education of parents derive from literature. After

having specified the dependent and independent variables, the rest is relatively easy because now the question is that what kind of relationships exists between these two types of variables and whether this relationship is significant or not. Moreover, some discussions were held with statisticians at the Business School about the statistical issues such as what kind of statistical tests could be used after the data have been collected. Their suggestions were also taken into account.

To build *external validity* and generalisability of the survey, the methods and the results of official statistics were examined. The required sample and strata were compiled from official statistical data. Accordingly, the size, age, gender, location and ethnicity of the university graduates in the UK labour market were compiled and a sample was constructed. Accordingly, the first task was to determine the number of university graduates in the UK labour market.
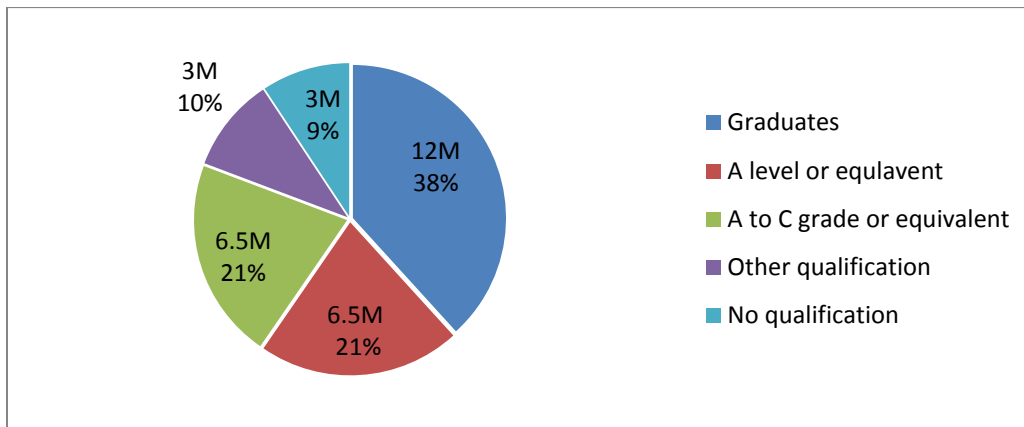
Figure 4.5 Employment in the UK by education level (Labour Force Survey, 2013, p. 3)

Figure 4.5 shows that there are around 12 million (11.989.000) university graduates in the UK. This was the population from which the sample would be drawn.

The second task was to specify the demographics of the sample. With a slight flexibility

in some figures, the following representative sample was derived from the reports of Labour

Force Survey (LFS) and HESA (Table 4.3).

Male/Female ratio	Graduate & Undergraduate	Age groups		Location	Race
45% Male 55% Female	75% Undergraduate 25% postgraduate	22-24 25-29 30-39 40-49 50+	25% 40% 15% 14% 6%	England 83 % Scotland 9% Wales 5% Ireland 3%	85% main ethnicity (English, Scots, Irish, Welsh) 15% others minorities (African, Asian, Caribbean, EU citizens and Mixed etc.)

Table 4.3 Demographics of the UK graduate labour market (Kitchen et al., 2008; LFS, 2013)

The third task was to calculate the necessary sample size to get a representative sample.

The formula below was used to estimate it:

SS =(Z²*(p)*(1-p)/c²

In which SS = sample size, Z = Z value (e.g. 1.96 for 95% confidence level)

p = percentage choosing a case as decimal (.5 used for sample size needed)

c = confidence interval (e.g. .05 = ±5)   (Survey System, 2015)

If the variables in the equation are plugged in, the result will be [(1.96²*0.5*0.5)/0.05²= 384]

Alternatively, the required sample size can easily be obtained from

Table 4.4. As seen in the table, at least 384 respondents are required to represent the UK

university graduates with 95% confidence level (CL) and a 5% confidence interval (CI).

Population size	Margin of error	
	5%	1%
100	80	99
300	169	291
500	217	475
1,000	278	906
10,000	370	4899
100,000	383	8762

1,000 000	384	9512
10,000,000	**384**	9594
100,000 000	384	9603

Table 4.4 The required sample size for confidence level 95% (Boyd, 2006, p. 30)

The fourth task was to learn whether the sample with these specified demographics could be found. Several survey companies such as SurveyMonkey, Qualtrics and Populus were contacted for the feasibility and price of the project. After receiving the prices from the companies, the final decision was made and SurveyMonkey and Qualtrics were chosen. In terms of sample size, it was decided that 500 respondents from each company would participate in the survey. Therefore, the sample size became 1000. Normally, 384 respondents were enough to meet the statistical requirement as outlined above. However, to increase reliability of the survey, it was decided that the sample size should be larger. This strategy turned out to be an effective one because when the survey was fully conducted and finished, after a careful examination some respondents had to be removed due to the poor quality of their answers. What is meant by *poor quality* will be explained later. If it had been 384, the statistical analysis would not have been robust after the removal of those problematic cases.

4.2.4 Classification issues in the survey

There were two questions in the survey whose options had to be classified systematically to run statistical analyses: the UK universities and academic disciplines (Question 9 and 10 in Appendix 1). This section will describe how universities and academic disciplines will be classified.

The importance of university reputation in the labour market was discussed both in Chapter 2 (section 2.4.3) and Chapter 3 (section 3.6.6). Hence, to understand the impact of

university reputation, the UK universities had to be classified and analysed. In this study, the UK universities were grouped into five categories.

- First group universities are top universities such as The University of Cambridge, the University of Oxford , St. Andrews, London School of Economics (LSE) and Imperial College of London (this is obtained from the recent rankings of four different sources: The Guardian Education, The Complete University Guide, Higher Times Education and Wealth-X &UBS Billionaire Census 2014). Originally, the first group would include The University of Cambridge and the University of Oxford only because traditionally the University of Oxford and the University of Cambridge have been considered different from the other universities in the UK and even they are commonly called Oxbridge (Barnes, 1996; Deslandes, 2005). However, the sample size of these two universities would be small, so the other three universities were added based on the careful examination of different rankings cited above. It should be noted that normally, these five universities belong to the Russell Group. However, it was thought that the University of Cambridge and Oxford should not be put in the same basket with the other Russell Group Universities such as University of Birmingham and Bristol. Otherwise, it would be quite problematic because as Wakeling and Savage (2015, pp. 291–292) noted "[there is] strong evidence of distinct stratification of outcomes by university attended, even within the prestigious Russell Group [RG]. There are marked differences in entry to elite positions for graduates of different universities… We show systematic, and considerable, inter-university differences within the RG." So, these five universities were considered the top universities in the UK although they are formally Russell Group universities.

Power (2008) also takes a similar approach and classifies LSE and Imperial College as elite universities along with Oxbridge. The University of St. Andrews was also categorised as an elite university. For instance, an article in Oxford Royale Academy (2014, para. 6) noted that "St Andrews is …the third best university in the UK according to the Guardian University Guide… The university commands the fourth-highest grades in the UK for its entry requirements, and the Complete University Guide places it third after Oxford and Cambridge." Hence, these five universities were classified as top universities in light of the empirical findings and university rankings of different organisations. There is strong evidence in the literature that Russell Group Universities are not homogenous (Power, 2008; Wakeling & Savage, 2015) and thus they should be classified differently within themselves.

- Second is Russell Group universities, which consists of 24 top universities excluding the ones in the first group.

- Third is the rest of the universities in the UK.

- Fourth is the Open University. Since it has a different mode of education, distant learning, it is thought that the graduates of the Open University should be considered separately.

- Fifth group is those who graduated from a foreign university but work in the UK. For instance, it can be someone who graduated from a Pakistani university but works in this country.

One may question the validity of this classification because different studies used different classification systems in their works. For instance, Denicolo et al. (2010) had just two categories: pre-1992 and post-1992 universities. On the other hand, Woodward et al. (2004)

had three main categories for the UK universities; pre-1960 universities, 1960-1990 universities, and post-1990 universities, while Narasimhan (1996) had three categories: pre-1900 universities, 1900-1990 universities and post-1990. However, these classifications are quite problematic because, for instance, according to the classification of Denicolo et al. (2010), the University of Oxford (founded in 1167), the University of Sheffield (1905), the University of Bradford (1966), and the Open University (1969) would be in the same category since these four universities were founded before 1992. On the other hand, the category used in this study made a clear distinction between those four universities and placed them in four different categories. The other two classifications mentioned above, that of Woodward et al. (2004) and Narasimhan (1996), had also similar categorisation problems. Because of the inadequacy of the existing classifications in the literature, a different approach was taken in this study, which seems to be more appealing intuitively compared to the other three mentioned above. As will be seen, this approach produced a very useful outcome and captured an interesting detail (see Figure 5.3, page 182).

For the classification of academic disciplines, Joint Academic Coding System (JACS) was used. This coding system is also used by HESA and Universities and Colleges Admissions Service (UCAS) in the UK to classify academic disciplines. This is a very comprehensive coding system in which all academic disciplines are organised in twenty main categories (see Appendix 2 for a detailed grouping of academic disciplines). However, although there are twenty main categories in JACS, 16 categories were used in this study because some academic disciplines had a small sample size. For instance, there were just five graduates in Veterinary Sciences in the sample and it was not possible to make a meaningful statistical analysis with this small sample. Therefore, Veterinary Sciences are combined with 'Subjects allied to Medicine'.

Similarly, Engineering, Technology and Architecture were combined in the same heading and finally all kinds of languages and linguistic studies were grouped together (see Table 4.5, brown indicates the merges of academic disciplines).

Original classification of JACS	How they are grouped
Medicine	Medicine
Subjects allied to Medicine	Subjects allied to Medicine
Veterinary Sciences	
Biological sciences	Biological sciences
Physical sciences	Physical sciences
Mathematical sciences	Mathematical sciences
Computer science	Computer science
Engineering	Engineering, technology and architecture
Technologies	
Architecture	
Social Studies	Social studies
Education	Education
Law	Law
Business and Administration Studies	Business and administration studies
Mass communication and Documentation	Mass communication & Documentation
Languages and linguistic studies	Languages and linguistic studies
European languages and literature studies	
Historical and philosophical studies	Historical and philosophical studies
Creative arts & design	Creative arts and design
Combined	Combined

Table 4.5 How academic disciplines were grouped in the study (Source: Author, based on HESA's JACS, 2015)

4.2.5 Data collection for survey

Surveys are particularly effective if the researcher wants to know a great number of people's opinions on a matter. However, from the design to the implementation of the survey, clear and well-defined objectives need to be specified (Saunders, et al., 2009). Moreover, the language of the survey should be clear and concise so that respondents will not have any difficulty to understand it. If the sample size is estimated in accordance with statistical methods and if respondents are representative of the sampled population, it is quite possible to say that surveys can generate fairly reliable information (Sekaran, 2003). However

each step, from design to language and sampling, needs to be taken with an extreme care (Greener, 2008).

The survey is composed of 21 questions (Appendix 1). As said earlier, the two survey companies are used to find the specified sample: SurveyMonkey and Qualtrics. Both of them are well-known and preferred by academics (Sappleton, 2013).

The data collection took place between 28 May and 27 June 2014. Respondents were emailed through SurveyMonkey and Qualtrics, and these companies have a large number of people in their databases, who voluntarily take a survey. The email had a hyperlink and with a brief cover letter explaining the purpose of the study and the email address of the author if the respondents have an inquiry. Each email had its unique identification code. This means that the email cannot be forwarded or replicated and only the recipients can use the link to participate in the survey.

However, the survey was not run simultaneously with the two companies because it would be more suitable to run it with one company and then wait for the results. Based on the results, if a particular error appears frequently in the first survey, it would be rectified in the second survey. For example, a question was frequently misunderstood in the first survey and this question was slightly amended to make sure that the respondents in the second survey do not get it wrong again. However, similar mistakes occurred for this particular question in the second survey again and this question had to be removed from the survey and not analysed. Fortunately, this question was not extremely important for the survey and down the line a similar question was already asked more plainly in the survey. So, it did not harm the reliability of the first survey but it helped to improve the quality of the second survey. In this way, it was ensured that the valuable experience of the former could be transmitted to the

latter but by keeping in mind that there should not be a significant difference between the two surveys since it may affect the replicability of the survey and pose threat reliability. At the end, both surveys were almost identical apart from one question with a slight change. This did not affect the response quality because the slightly changed question was removed and not used in the data analysis.

However, although surveys are effective means of collecting data in a relatively short space of time, some of the issues is beyond the control of the researcher such as honesty of respondents. Namely, how the researcher can be sure that respondents have answered survey questions honestly and accurately. Dishonesty, fake and inaccurate answers in surveys have been discussed in detail in literature because it directly affects the quality and usefulness of a survey and may pose danger to the validity of the survey (Zikmund et al., 2010). This is particularly true about sensitive questions such as respondents' weight (Hancock et al, 2007), borrowing habits (Karlan & Zinman, 2008), smoking or sexual behaviours (Chesney & Penny, 2013). It is also the case that respondents tend to give socially desirable answers in face-to-face or phone interviews (De Leeuwu, 2005). These incidences are called *respondent bias* (Zikmund et al., 2010). The cause of respondent bias can be dishonesty or inability to understand questions. Although the former refers to deliberate misleading answer by a respondent, the latter refers to the respondent's inability to comprehend questions, both types of errors fall in the same category and called respondent bias (Fluid Survey, 2015, para. 2). In the present research, the following steps were taken to deal with this issue.

1. Sensitive questions were avoided as much as possible. Sensitive questions are the kinds of questions that respondents are more likely to give misleading answers because these questions may be a source of embarrassment for the respondents or

simply they may not want to share this kind of information with anyone (Tourangeau & Yan, 2007). One of the advantages of the survey conducted in this research was that it was a self-administered survey. This gives more freedom to the respondents. In that regard, Statistics Canada (2010, p. 50) reports that " [a self-administered] questionnaire can be completed without the presence of an interviewer and therefore is good for sensitive questions" while phone or face-to-face interviews may not be appropriate for these kind of questions. Hence, respondents were given more freedom to continue or discontinue in this research, which is encouraging for respondents to provide honest answers.

2. To prevent any fake answers, straight-line and Christmas tree answers were carefully examined. For instance, some participants may always click on 'agree, agree, agree, agree' button for each question in the survey. This is called a *straight-line* answer. While some respondents may diagonally answer the questions, which will look like a Christmas tree ($>$) from left hand-side (Survey Gizmo, 2015). These kinds of answers may look like random answers and thus harder to detect than straight line answers but these can easily be spotted by a careful examination. These answers may indicate that respondents answered without reading the questions. However, as Cole et al. (2012) noted, sometimes it can be straight-line or Christmas tree answers and can perfectly make sense. In this case, that participant should not be removed but if there are straight-line and tree answers in many questions and if they are unlikely to be coherent, then it becomes problematic and the participant can be removed.

3. Survey completion time can be another factor to decide whether respondents read the questions or not (Bredl et al., 2008). Some respondents completed the survey quite

quickly, like in ninety seconds or so. Their surveys were also carefully examined

because some respondents can be a fast reader and can finish the survey quickly.

However, if a survey is completed in seventy seconds, it was discarded because it was

thought that it is not possible to complete it in such a short space of time.

Nevertheless, some respondents finished the survey in two minutes and forty seconds,

and they were kept in because their answers were consistent, there was nothing

suspicious in their answers. Dillman (2000) maintained that the facilities such as

scrolling, skip questions, checking the boxes and dropdown menu make web-based

survey relatively easy and decrease completion time of a survey. Thus, although their

completion time was relatively fast, some of the respondents were not removed

because their answers were consistent and there were no suspicious signs such as

straight-line and Christmas tree answers in their surveys.

4. Another way to detect the respondents who did not read the questions is attention

   filtering questions. For instance, Question 20 (see Appendix 1) has eleven sub-

   questions. One more sub-question was added which ask that 'if you want to continue,

   please check 'a lot of help'. If a respondent did not read the question, he or she will

   possibly check another option, and he or she will be disqualified immediately. Several

   respondents were disqualified because they checked a different option. This made

   sure that respondents read the question before they answer.

5. IP address of the respondents was checked in case the same respondents may take the

   survey more than one time, which may distort the reliability survey.

6. However, the cause of the problem is not always dishonest answers. Sometimes,

   respondents may misunderstand questions and provide inaccurate answers. As

explained in Chapter 4.2.3, before the actual survey, a pilot survey was conducted to make sure that questions are clear and the survey was revised and refined accordingly to avoid potential misunderstandings.

7. Nevertheless, even the best worded and well thought out questions are not bullet proof to inaccurate answers, therefore, it is recommended that every question has an opt-out choice such as Don't Know, Not Sure or Undecided (Fluid Survey, 2015, para. 4). Thus, in the survey, some questions had choices such as 'not available' or 'if others please specify' so that respondents can choose another option or express themselves in an open-ended box if the available options do not reflect their opinions.

When the survey results were coming in, each of one thousand respondents was carefully examined to discover whether there were any contradictions in their answers. Based on this meticulous examination, the respondents were classified into three groups:

➢ Quite problematic

➢ Contradictory

➢ Alright

'Quite problematic' means that the answers of the respondents show similar patterns such as straight-line and Christmas tree answers, which may indicate that respondents did not even read the questions. After a careful examination, if a respondent's answers are straight-line, incoherent and unlikely to be true, this survey is removed. In addition, survey completion time was also a major defining factor in this category, a very short completion time was seen unusual and removed.

The second category 'contradictory' implies that there are no straight-line or Christmas tree answers but there may be some incoherent answers in the survey. This is somewhat problematic but overall the survey makes sense and thus can be used.

The third category was 'alright', it means that the survey is fine and no straight line nor contradictory answers in it and thus should be kept.

After a rigorous elimination process, it has been found that there are twelve poor quality responses out of five hundred in Qualtrics while forty-one in SurveyMonkey. Qualtrics and SurveyMonkey were contacted for problematic responses. Qualtrics offered replacements for them, while SurveyMonkey declined to provide any replacements. However, the respondents in Qualtrics were mostly fine and their replacements would not make any big difference. Therefore, it was decided that there was no need for any replacements since the sample size (1000) was far greater than the statistically required sample size (384).

In order to deal with quite problematic and contradictory answers, apart from the steps explained above, the UK Office for National Statistics (ONS) and Statistics Canada were contacted by email. Their views on how they cope with contradictory responses were taken. The UK ONS stated that "in face-to-face interviews and telephone interviews, you have to accept whatever you are told by respondents" but ONS did not provide any useful information on the other survey techniques such as postal and web-based. In their email, Statistics Canada advised a statistical procedure called *imputation* which is helpful in dealing with contradictory and missing data. However, the imputation technique was not used because this method seemed rather arbitrary. In the end, it was decided that the quite problematic responses will be removed completely. In total, there were 53 problematic cases and they were removed. Thus, the sample size became 947 (1000-53). Hence, 5667

respondents were contacted in total and 947 complete responses were obtained, which means that the response rate was 16.7% (947/5667).

4.2.6 Data analysis

Once data were fully collected, it was analysed with SPSS. SPSS is a statistical package that is widely used in social and health sciences (Field, 2013). The study is explanatory and explanatory studies attempt to find relationships between independent variables (explanatory variables) and dependent variables. This kind of research is led by hypotheses that specify the nature, direction and strength of the relationships between variables and therefore, as Sue and Ritter (2012, p. 13) put it, "the explanatory study clearly has more applied value than the descriptive one."

If there are many independent variables and the researcher wants to examine how they interact with each other or whether there is any strong correlation between them, regression analyses can be used. In regression analyses, it is possible to put many independent variables (i.e. gender, age, ethnicity, education level, geography) in a model and examine their correlations with the dependent variables being studied (i.e. income). In that regard, regression is more effective and powerful than 'differences analyses' such as T-tests, Chi Square or Man-Whitney tests because these tests can only show differences between two different groups but they do not show the interactions between different variables. For instance, a T-test or Chi Square test can show whether there is a significant difference in the income levels of bachelor and master degree holders but they do not show the impact of gender, ethnicity, region, subject degrees etc. on the income level. In multiple regression analyses, however, it is possible to see, the impact of each variable at once and how the other variables will be affected if you increase or reduce one particular variable (such as education level). In that sense, multiple regression analysis is a much more powerful technique than the

other parametric and non-parametric tests. For this reason, a regression analysis was chosen

(follow yellow boxes in Figure 4.6).
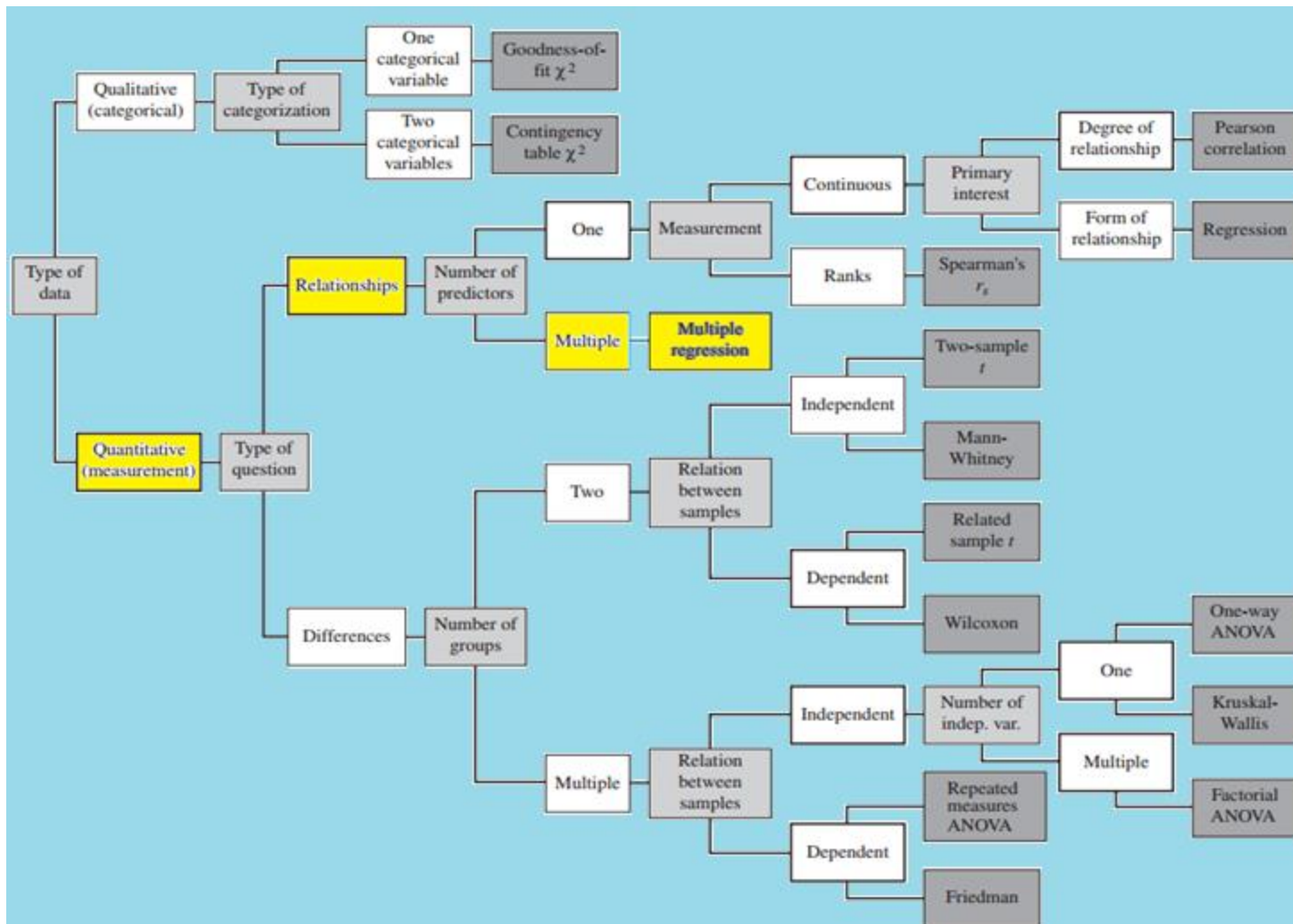
Figure 4.6 Decision tree for statistical analysis (Howell, 2010, p. 10)

However, there is a range of regression analyses. In this study, logistic regression (logit) is used to analyse the data. Logistic regression is preferred because linear regressions require continuous dependent variables and several assumptions such as normality, linearity and homoscedasticity. However, in social sciences, quite often questions include categorical/ordinal variables rather than continuous ones such as questions with Likert scales (strongly disagree, disagree, neutral, agree etc.). In these circumstances, Burns and Burns (2008, p. 569) noted that "in instances where the independent variables are categorical, or a mix of continuous and categorical, and the DV [dependent variable] is categorical, logistic regression is necessary."

There is also Linear Discriminant Analysis (LDA) for categorical variables, which can be an alternative to logit. However, as Pohar et al. (2004, p. 143) noted, while both logit and LDA are appropriate for the development of linear classification models, linear discriminant analysis makes more assumptions such as normal distribution for independent variables and homoscedasticity (variances are the same for each predictor/independent variable). Thus, logistic regression is the more flexible and more robust method in case of violations of these assumptions.

Furthermore, logit does not have many assumptions. Here are the basic features of logit:

- Logistic regression does not assume a linear relationship between the dependent and independent variables.

- The dependent variable must be a dichotomy (2 categories).

- The independent variables need not be interval, nor normally distributed, nor linearly related, nor of equal variance within each group.

- The categories (groups) must be mutually exclusive and exhaustive; a case can only be in one group and every case must be a member of one of the groups.

- Larger samples are needed than for linear regression... A minimum of 50 cases per predictor is recommended. (Burns & Burns, 2008, p. 570)

These assumptions are relatively easy to meet. Therefore, logistic regression has been chosen to analyse the results.

To use logistic regression, variables should be dichotomous. For instance, one of the dependent variables comes from this survey question (Q20): "what is the degree of help you have received from the following people or institutions in your job search." The options included university career services, family, online career services, employment agency and direct application etc. The answer had a Likert scale ranged from 1 to 5 (one is no help, four is a lot of help and five is not available, N/A[11]). To be able to use logistic regression, the scale had to be divided by two to create binary variables: 'no help', 'little help' and 'not available' (1, 2 and 5 on the Likert scale) were considered no help and converted to zero (0) while moderate help and a lot of help (3 and 4 on the Likert scale) were considered significant help and converted to one (1). This conversion to binary variable is necessary because logistic regression has to have just two variables, zero (0) and one (1). The rest of the process was relatively easy. Since the dependent and independent variables had already been identified, SPSS can easily do the rest. However, to be able to use SPSS and make sense of the statistical tables it generates, several SPSS training sessions and many statistics lectures

---

[11] Here, a question can be asked; what is the difference between 'not available' and 'no help'? 'No help' means, for example, that a person used employment agencies and did not find a job through employment agencies while 'not available' means that the person did not use employment agencies at all. However, in the final analysis, to use logistic regression, both options were collapsed and converted to zero although the question had to be asked in this way and include these two distinct categories.

were attended and numerous statistical videos were watched and a very substantial amount of time was dedicated to learn the rationale behind the statistical formulas.

Finally, apart from the hypotheses, there are some other interesting findings about gender and ethnicity, which will be highlighted in Chapter 5 (section 5.2). To examine them, some statistical differences tests will be used. If Figure 4.6 (page 138) is visited again, it will be seen that in differences analyses, when there are two groups and if they are independent either a Mann Whitney test or two-sample t test can be used. However, a t test is a kind of parametric tests, which require normal distribution and continuous variables while the variables used in this study are either nominal or ordinal (Bluman, 2012). Hence, a t test cannot be used. In the case of gender, it consists of two groups (males and females), they are independent[12]. That is why, Mann Whitney test should be used to examine differences in gender.

However, in the case of ethnicity, there are more than two ethnic groups and for multiple, independent groups, either ANOVA or Kruskal Wallis tests can be used. Since ANOVA tests are parametric tests, they cannot be used. Thus, a non-parametric test, Kruskal-Wallis test will be used in testing differences among different ethnic groups.

4.2.7 Ethical considerations for survey

In the very beginning of the survey, respondents were made aware of the purpose and scope of the study as well as the name of the person who is in charge of the project and his email address. The email address of the PG office of Exeter Business School was also provided, in case the respondents may want to complain about the survey.

---

[12] Independent, in this context, means 'does not overlap'. For instance, gender consists of two groups, males and females and these two groups do not overlap. Either a person can be in one group or another but not both. In other words, statistically speaking, independent means mutually exclusive.

The respondents were ensured of the anonymity of their answers and were told that participation in the survey is entirely voluntary and participants are free to leave survey at any point (see Appendix 1).

4.3 Case study

The study used a case study to explore university career services. Gerring (2004, p. 342) defined a case study as "an intensive study of a single unit for the purpose of understanding a larger class of (similar) units." Eisenhardt (1989, p. 534) defined it as "a research strategy which focuses on understanding the dynamics present within single settings." Yin (2003, p. 1) noted that "in general, case studies are preferred strategy when 'how' or why questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context." In other words, a case study method is suitable when a researcher wants to obtain a deep understanding of a contemporary event and when the relevant behaviours cannot be manipulated by the researcher.

As Yin (2003) points out, there are several criticisms levelled at the case study method. For instance, it is claimed that a case study does not have sufficient scientific rigour due to the fact that it does not have a specified set of standards. Therefore, research based on this method may be biased and sloppy. It is also alleged that a case study does not provide a scientific generalisation. Namely, how is it possible to generalise a study from a single case? Yin (2003) replies that there is a distinction between statistical generalisation and analytical generalisation. In analytical generalisation, the investigator strives to generalise a particular set of results to a broader theory. Unlike in statistics, it is not a generalisation based on a sample in a defined population but rather it is a theoretical generalisation that indicates that a theory may have much wider applicability than the particular case studied. In this, it is similar to experiments in the physical sciences, which make no claim to statistical

representativeness, (e.g. physicists do not draw random samples of atoms), but instead assume that their results contribute to a general theory of the phenomenon (Maxwell, 2005, 2007). Yin (2003) argues that scientific facts are hardly based on single experiments but they are usually based on a multiple set of experiments that have produced the same results under different conditions. In that regard, qualitative research is also generalisable with multiple-case studies but requires a different concept and the appropriate research designs.

Case studies vary according to the purpose of the research and the unit of analysis. With regard to the purpose, there are three kinds of case studies: descriptive, exploratory and explanatory. In respect to the number of units, there are four kinds of case studies, as follows:

   a) One case: holistic single case study (e.g. a university)

   b) One case with subunits: embedded single case study (e.g. a university with different faculties)

   c) More than one case: holistic multiple case study (e.g. several universities)

   d) More than one case with subunits: embedded multiple case study (several universities with different faculties)   (Yin, 2003, p. 40)

If a case study is defined as "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2003, p. 13), it is possible to say that there is a fair match between the scope/purpose of the present research and the case study method. In this part of the study, a contemporary phenomenon (institutional social capital/university career services) will be explored in depth and a set of behaviours will be analysed in their own real contexts. Furthermore, the study will explore both the central

university career services and its branches in different faculties. This is called embedded single case study due to the number of unit and sub-units included in the research.

Before the implementation of the case study, the checklist for case studies by Runeson and Host (2009) is reviewed. This is an extensive and in-depth checklist that enables the researcher to monitor the study from the start to the end. It consists of thirty-eight questions in four categories: design, data collection, analysis of collected data and reporting (see Appendix 3).

Lethbridge et al. (2005, p. 313) noted that there are three kinds of data collection techniques in case studies by the degree of human contact it requires. First degree: Direct methods such as interviews and focus groups. Second degree: Indirect methods where the raw data are collected directly without actually interacting with the participants during the data collection (Runeson & Host, 2009, p. 46). There is no actual interaction between the researcher and the subject studied.   For instance, the researcher can read some documents such as internal reports. Third degree: Independent analysis of work artifacts where already available data is used. For example, the researcher can analyse the websites and videos available online. As Lethbridge et al. (2005, p. 313) noted "this taxonomy is informative because the degree of contact reflects the kinds of data that can be collected, the resources required, the flexibility available to the researcher, and the reliability of the resulting information." In this study, a mix of all data collection methods were used; first degree (interviews), second degree (internal reports) and third degree (relevant websites as well as online videos such as workshops).

4. 3.1 Case study design

It should be highlighted that this case study will only address research objective 5: the role of university career services in the employment of graduates.   As noted above, an embedded

case study was used in the research and accordingly this part of the study focuses on four areas of the university career services (see Appendix 4 for the interview questions):

- The organisational structure of the UCS

- Student engagements

- Employer engagements

- The impact of the UCS

Accordingly, the themes and sub-themes were analysed in this order. The first three areas are descriptive and exploratory. Therefore, the relevant websites and internal reports, as well as interviews have provided a wealth of information on these areas. However, the fourth area, the impact of university career services, is different from the other three in the sense that there has to be a system to measure the impact.   For this reason, the nation-wide secondary sources such as DLHE and High Fliers surveys are used to measure and compare different universities in the UK in terms of the number of students who obtained a job through university career services. They are also compared through heat-map analysis, which is "a graphical representation of data where the individual values contained in a matrix are represented as colors" (Survey Analytics, 2015, para. 1). Hence, it was possible to measure the impact of the university career services through multiple sources.

4.3.2 The selection of the case study

The study uses purposive sampling. This sampling technique is non-random and is tied to the objectives of the researcher while it also suggests that there is no one *best* sampling strategy because which is *best* will depend on the context in which the researcher is working and the nature of the research objectives (Palys, 2008, p. 697). However, there are many purposive sampling techniques such as extreme case sampling, typical case sampling,

disconfirming sampling and paradigmatic case sampling. The extreme case sampling is employed in this study because, as will be discussed, the University of Exeter has received significant awards and praises by respectable organisations due to its extreme successes in career services. For this reason, extreme case sampling is more preferable in this context because this type of sampling is used "to obtain information on unusual cases, which can be especially problematic or especially good in a more closely defined sense" (Flyvbjerg, 2006, p. 244), and the University of Exeter has been unusually successful in the delivery of career services (Barber et al., 2013).

Miles and Huberman (1994, p. 34) identified six criteria for the selection of a case study subject:

1. The sampling strategy should be relevant to the conceptual framework and the research questions addressed by the research.

2. The sample should be likely to generate rich information on the type of phenomena which need to be studied.

3. The sample should enhance the 'generalisability' of the findings (as noted by Yin 1994, it should have analytical generalisability rather than statistical generalisability)

4. The sample should produce believable descriptions/explanations.

5. Is the sample strategy ethical? Whether permission can be obtained or not, is there any associated risk or benefit for the researcher or participants.

6. Is the sampling plan feasible in terms of cost, time and accessibility?

The study has focused on the University of Exeter's Employability and Graduate Development (EGD). The reason that the University of Exeter has been chosen as a case study is that it meets at least the five criteria given by Miles and Huberman (1994). While

146

generalisability (Point 3) is always questionable in case studies, it will be seen later in the impact section in chapter 6 that the nationwide survey by DLHE shows that the University of Exeter has also many common characteristics with other university career services across the UK.

   The University of Exeter has been chosen for three reasons. Firstly, it should be acknowledged that it is feasible to collect data at University of Exeter due to its physical proximity to the researcher. Secondly, the University of Exeter Career Services has made a great progress in terms of employability of its graduates. In that sense, it sets good example and this is also acknowledged by the leading figures in this area. For instance, in their report titled "Avalanche is coming: Higher education and the revolution ahead", Barber et al. (2013, p. 6) wrote that "a great example of the future is the excellent employability centre at Exeter University in the UK which offers all students sustained advice and promotes volunteering as well as academic success." Furthermore, at the Associate of Graduate Recruiter reward ceremony in 2012, the author of the Wilson Review, Tim Wilson (2012, para. 11) said that "within the majority of universities, graduate employability is an increasingly important agenda; and that requires partnership with employers, large and small, private and public. By winning these awards, Exeter has been recognised as a national leader in this field." Finally, rather than having superficial interviews with several university career services, it is worth exploring one career service at a time in depth and at length. Thus, it is very likely that it will generate richer and more profound information, which can be compared and contrasted previous studies to analyse generalisability. For these reasons, it can be confidently said that University of Exeter's Career Services is one of the most prestigious employment services in the UK and worth exploring in greater detail.

4.3.3 Data collection

A fortunate event

When I was preparing to email to the senior figures at the University of Exeter Career Services for a series of interviews, something unexpected happened. I received a generic job advertisement from the university career services for a post entitled Literature Reviewer. They were looking for three people who would review the university employment services at different universities across the globe. This literature review would synthesise best practice approaches of careers and employment support delivered by universities across the globe. It would focus on five areas, as it was written in the letter given to us:

- Best practice methods of embedding employability skills into curriculum and the pedagogy of employability skills;

- How higher education institutions can design a coherent employability programme to support their students and graduates throughout their student and alumni journey;

- What employability skills employers value the most in graduates;

- How institutions can build relationships with employers to provide a clear communication about 'needs' as well as pathways for internships and employment?

- Concerning all the research questions above – how is impact measured?

The report would cover employability from different perspectives and it was a golden opportunity to grasp and fortunately I obtained the post. Hence, I actually worked for the university career services for a project sponsored by Pearson between March and June 2015. The final report of this work can be seen in Tan et al. (2015).

As a result, it was possible to conduct numerous meetings and have email conversations with the top figure in the organisation and read the internal reports that include the mission statements and evaluation/assessment of organisational performance. Moreover, the meetings

we held are rather informal and friendly in its natural context. Thus, it was possible to obtain

much better quality of information than I would have, if had had formal interviews.

Data collection process

The datasets for the case study derive from three sources. First, the website of Exeter

University career services was utilized for generic information. The website was reasonably

comprehensive, up-to-date and well-organised. It was possible to gather a wealth of

information from the website and therefore was often used in the research. Second, the

internal, external assessment reports and interviews were used to obtain in-depth information.

Finally, nationwide surveys such as DLHE were used to measure the impact of career

services on university graduates.

In total, six recorded interviews were conducted and three informal meetings were held

(see Table 4.6). The interviewees were from both the central university career services as

well as from different faculties such as Business School, Law School and College of

Humanities.

No	Position	Formal/informal[13]	Number of interviews	Duration
Interviewee 1	The head of EGD	Informal	11 meetings	1 hour each
Interviewee 2	Graduate employer liaison officer	Formal	1	40 minutes
Interviewee 3	Employer liaison for mentoring & internships	Formal & informal	2 meetings	20 mins each
Interviewee 4	Employability officer in Humanities	Formal	1	45 mins
Interviewee 5	Graduate careers manager in Business School	Formal	1	75 mins
Interviewee 6	Employability and outreach manager in Law School	Formal	1	35 mins

---

[13] Formal refers to a voice recorded interview with a signed interviewee consent form and informal means
unrecorded interviews.

Interviewee 7	Consultant for Engineering School	Formal	1	20 mins (withdrawn)
Interviewee 8	Careers operations and graduate destinations manager	Informal	1	20 mins
Interviewee 9	Career consultant	Formal	1	50 mins
Total		7 formal + 3 informal	20 meetings	985 minutes

Table 4.6 The interviewees and their positions (Source: Author)

The initial contact with interviewees was made by email. They were asked whether they would be willing to participate in the research. The email was written in a simple language and less formal style. Academic language was avoided and the basic concepts were explained in a clear and short fashion so that the potential interviewees should feel comfortable to read and reply. For example, rather than the sentence "I would like to *interview* you about…", more friendly phrases such as "I would like to have a short conversation/chat with you about…" are used to reduce formality. This style was used to sound less formal not to intimidate interviewees (Schilling, 2013).

In the initial informal meetings, preliminary information was gathered. The informal meetings were a kind of feasibility test to learn what sort of information could be collected and from whom. The most important outcome of these meetings was to obtain the organisational structure of the Career Services because the different kind of units in the organisation and the names of the employees in all units were written in the structure. This accelerated the process because once the names and responsibility of all employees had been obtained, it would be easier to choose the potential interview candidates. Based on the research questions, the relevant units and names are identified and emailed for a formal interview. In the later stage of the informal meetings, the collected information is double-checked and the follow-up questions are asked.

The formal interviews were semi-structured and lasted between 20-75 minutes. Before the interviews, a folder was created for each interviewee based on chronological order of the interviews. The folder name included the order, abbreviation of the name and the relevant department. For instance, if the folder name is 02_JaneK_Humanities, it means that Jane K. from the College of Humanities and interviewed in the second chronologic order. The relevant materials for each interviewee such as questions and some statistical documents were stored in these folders because each participant was asked slightly different questions and shown different statistical figures and graphs. The interviews were held in different places including the offices of the interviewees and any convenient meeting rooms in the school. Interviews were face-to-face and recorded by a voice-recorder. As soon as the interview was over, it was uploaded onto the laptop, google-drive and also saved in a memory stick to make sure that the recordings were stored in multiple places against any loss or computer crash. The interview consent form was also scanned and put in the relevant folder.

During the interview, two bottles of water were kept present on the table in case the interviewee may become dehydrated. This was an insignificant detail but on some occasions interviewees had several meetings in the day and rushed from one meeting to another, with no break between them. Sometimes, they hastily came to the meeting and having slightly run out of breath on hot summer days. That is why, some interviewees very much appreciated and thanked when they saw a bottle of cold water on the table ready for them.

During the interview, sometimes, slightly irrelevant topics were also talked about to make the interview less formal. At the end of the interview, each interviewee was asked whether they could provide some more information such as internal reports or useful websites that they think that it might be of use. In this way, the stream of information was kept flowing

even after the interview and some of them emailed very valuable documents, web links in the subsequent days. The interviews were listened to again mostly within two or three days, and because of the length of the interviews, only the relevant parts were transcribed to save some time.

4.3.4 Ethical considerations in the case study

With regard to the interviews, before each interview, the purpose of the research, ethical guidelines and each point in the interview consent form were thoroughly explained to the interviewees. In the consent form (see Appendix 5), the interviewees were informed about anonymity, the right to refuse to answer any questions, the recording and transcription of the interviews. The consent form was read before the interview but is asked to be signed after the interview because it was thought that in this way, the interviewees would feel more comfortable and know what they were to sign. Moreover, the structure of the interview was described to let the interviewee know what kind of question he or she could expect. Some technical words were explained before the interview to make sure that interviewees were familiar with the terms.

As noted before, to reduce formality, when the potential interviewees were emailed, they were asked for a brief *conversation* rather than for an *interview*. Since conversations sound more informal and friendly. This strategy worked well and all the interviewees seemed to know that they would be asked a series of questions about their organisations and practices. However, on one occasion, this strategy backfired. An interview was conducted and the interviewee left the room after signing the consent form. After a while, she emailed me and said that she was withdrawing her interview and complained that she was asked for a brief conversation, not for an interview. She was kindly emailed back and assured that her interview would not be included in the research. In a further email, to assure her more, she

152

was informed that her recording was deleted and her consent form was destroyed immediately. She was told that her interview would not be used. Apologies were offered and she was politely thanked for her feedback. She also replied and thanked for my considerations and wished me good luck for the study.

On another occasion, the participant was happy to be interviewed but not happy to be recorded. She felt that if she said something wrong, it could be used against her when the study is published. Although I tried to explain the nature of the study and ethical principles about anonymity/confidentiality to comfort her, she was not convinced. Therefore, we started to talk off the record. However, several minutes later, I felt that that taking notes was not an effective way to remember the striking and vivid-descriptions she was making. Therefore, I had another go and insisted and ensured her that the interview would be strictly confidential and the parts of the conversation which will be used in the study will be transcribed and sent to her for her approval. Finally she agreed to be recorded but it seemed that there was still worry at the back of her mind throughout the talk. After the interview, I explained more about the confidentiality issues and told her that just a couple of her sentences will be used in the 250-page thesis and possibly hardly anyone will read the entire PhD thesis. She laughed and felt more comfortable.

In the case study, some internal reports were used. Before obtaining them, the relevant persons were asked that the report they were to provide should not contain any confidential information that would harm their organisations. Moreover, they were explicitly told that the information and reports they provide would be used in the research. They were promised that no unintended disclosure or leakage take place that would potentially harm either the organisation or the informers. For instance, an interviewee provided some sensitive

documents and he reminded that the documents could be used in the thesis but should not be published publicly. He required me to sign a disclosure agreement and provided some information about grey literature and the relevant ethical code of conduct (see Appendix 6 for the agreement).

   To show the location of the Career Zone, some photographs were used. To be able use them, the relevant unit at the University of Exeter was contacted and their permission was asked. They allowed the use of the photo/images as long as a proper reference is made and no members of the staff are shown in the photos.

4.4 Mixed method strategy

Before ending this chapter, the integration strategy of two types of research methods, quantitative and qualitative, should be discussed. There are three important points when two different research techniques are combined and analysed: purpose, timing and weight.

In terms of purpose, there are five types of mixed methods (Greene et al., 1989, p. 259).

- TRIANGULATION seeks convergence, corroboration, correspondence of results from the different methods.

- COMPLEMENTARITY seeks elaboration, enhancement, illustration, clarification of the results from one method with the results from the other method.

- DEVELOPMENT seeks to use the results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions.

- INITIATION seeks the discovery of paradox and contradiction, new perspectives of frameworks, the recasting of questions or results from one method with questions or results from the other method.

- EXPANSION seeks to extend the breadth and range of inquiry by using different methods for different inquiry components.

With regard to purpose, the mixed method strategy of this research is primarily expansionist since the case study mostly covers the areas that cannot be covered by the survey. However, triangulation between the survey and case study will also be made where it is applicable but the case study will mostly be descriptive and exploratory rather than confirmatory.

In respect to timing, there are two kind of mixed methods strategies: sequential and concurrent (Creswell et al. 2003). In mixed methods, a researcher can either undertake a qualitative study first and then quantitative later or the other way around. This is called

sequential mixed methods. Alternatively, quantitative and qualitative studies can be conducted simultaneously, which is called concurrent mixed methods (Jayakody, 2012). Accordingly, this study firstly undertook quantitative research and in the light of its findings, the qualitative part of the research was designed and conducted.

Finally, mixed method studies can also be classified by their weight. It implies the priority or weight given to the each types of data (Creswell et al., 2003, p. 168). It may take three forms:

- The two methods may have an *equal priority* so that both techniques play an equally important role in addressing the research problem (QUAN + QUAL).

- A *quantitative priority* where a greater emphasis is placed on the quantitative methods and the qualitative methods are used in a secondary role (QUAN → qual).

- A *qualitative priority* (QUAL → quan) where a greater emphasis is placed on the qualitative methods. (Creswell & Clark, 2011, p. 59)

As noted, mixed methods will be used in this research to address research objective 5 only, (the importance of university career services). Hence, in this research, a *qualitative priority* approach is used to address research objective 5. The Career Services of the University of Exeter is examined through a case study in great detail while the survey method is used to make generalisable inferences about the sample and contrast whether the case being studied has similar partners with the other cases in the sample. In other words, the qualitative part has more space than the quantitative part to address RO 5, which is called qualitative priority mixed methods.

4.5 Summary Error! Reference source not found. Figure 4.7 will be helpful to summarise the

methodology chapter.

	Quantitative	Qualitative
Critical Realism - Not objectivist but realist, mind independent existence - One reality but multiple perceptions - Can accommodate both quantitative and qualitative approaches		
Purpose	Explanatory	Descriptive and exploratory
Data collection method	Survey	Interviews and secondary data
Number of participants	947	9 (Formal and informal)
Sampling techniques	Stratified sampling	Purposive sampling
Analysis used	Logistic regression	Theme and heat-map analyses
Generalisability	High (Statistical generalisability)	Limited (Analytical generalisability)
Mixed method integration strategy	Primarily expansionist, sequential, qualitative priority	

Figure 4.7 The summary of the data collection methods (Source: Author)

5 Quantitative results

In this chapter, the quantitative data will be analysed. There are twenty one hypotheses to be tested as outlined in Table 3.5 in Chapter 3. This chapter consists of two sections. Firstly, the outcomes of the twenty one hypotheses will be presented. Accordingly, the first section starts with the most popular methods to find a job and then the hypotheses for employment through family, employment through university career services and faculty members will be presented respectively. In the second section, however, other important findings will be presented because there are some striking results about gender, ethnicity and age, which should be highlighted although they are not hypothesised. Before moving onto the results, the breakdown of the sample is provided in Table 5.1.

Table 5.1 The composition of the sample

	Frequency	Percent	Cumulative percent
Gender			
Female	533	56.3%	56.30%
Male	414	43.7%	100.00%
Education level			
Foundation	44	4.6%	4.60%
Bachelor's degree	677	71.5%	76.09%
Masters	144	15.2%	91.3%
PhD	82	8.7%	100.0%
Ethnicity			
English	640	67.6%	67.6%
Scottish	66	7.0%	74.6%
Welsh	30	3.2%	77.7%
Irish	28	3.0%	80.7%
S. Asian	44	4.6%	85.3%
Afro-Caribbean	23	2.4%	87.8%
EU and USA citizens	65	6.9%	94.6%
The rest	51	5.4%	100.0%
Age			
22-24	198	20.9%	20.9%
25-29	354	37.4%	58.3%
30-39	155	16.4%	74.7%

40-49	152	16.1%	90.7%
50+	88	9.3%	100.0%
Universities			
Oxbridge, LSE, St. Andrews, Imperial	40	4.3%	4.3%
Russell Group	227	24.4%	28.7%
The rest in UK	568	61.1%	89.8%
Open University	36	3.9%	93.7%
Foreign Universities	59	6.3%	100.0%
Grade			
First class honour (70%+)	215	23%	23%
Upper second (60-69%)	470	50%	72%
Lower second (50-59%)	202	21%	94%
Third and pass	60	6%	100%
Region			
London	194	20.5%	20.5%
North East	46	4.9%	25.3%
North West	92	9.7%	35.1%
Yorkshire and The Humber	80	8.4%	43.5%
East Midlands,	58	6.1%	49.6%
West Midlands	71	7.5%	57.1%
East of England	51	5.4%	62.5%
South East	143	15.1%	77.6%
South West	80	8.4%	86.1%
Wales	39	4.1%	90.2%
Scotland	74	7.8%	98.0%
Northern Ireland	19	2.0%	100.0%

5.1 Channels of information to find a job

To get a broader picture, it would be useful to start with a general comparison. Figure 5.1 shows the percentage of each channel of information that graduates used in finding a job. It clearly displays that direct application is by far the most commonly used method among university graduates while online job career service (OCS) and family are the second and third respectively.
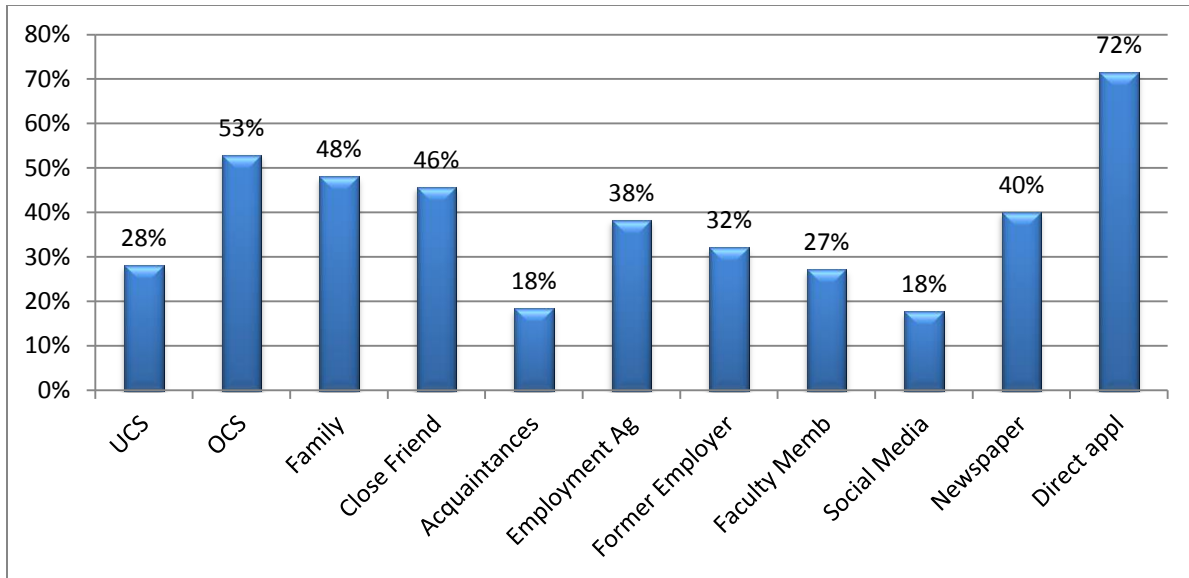
Figure 5.1 Channels of information in job search (Source: Author)

It is found that weak ties (acquaintances) are not a more important source of information than the strong ties (family and close friends), which contradicts with the prediction of the strength of weak ties theory. In fact, as it is seen weak ties (acquaintances) is one of the least effective sources in finding a job with the average of 18%. Thus, there is no evidence to support the claim that weak ties are more useful than strong ties in the graduate labour market. This finding supports the ISSP 2001 study, which discovered that strong ties are much more important than weak ties in the labour market in the UK (cited in Franzen & Hangartner, 2006, p. 357).

Not surprisingly, as noted in Chapter 3 (section 3.7.2 , page 86), impersonal channels such as direct application, online career services and newspaper are quite frequently used by a considerable number of people in the UK graduate market. Since university graduates are the most dynamic group in the labour market, it is no surprise that impersonal channels appeal to them. There are plenty of empirical studies supporting this phenomenon. For instance. French and Sally (2010, p. 182) reported that job seekers are increasingly choosing online job

search methods with 89 per cent of graduates only searching online for jobs. Branine (2008, p. 508) found that "the most popular and common method of recruitment used by most of the respondents is the internet… where organisations did use the internet, the most popular method was direct application and OCS."

CIPD survey (2009, p. 2) found that the most commonly used methods for attracting candidates in the UK are direct application (78%) and local newspaper advertisements (70%). Direct application and OCS are increasingly being used in the labour market and they affect the use and importance of social capital. This issue will be extensively discussed in Chapter 7 (section 7.2) as to whether the extensive use of impersonal channels to find a job reduces the importance of social capital.

After this general introduction, more detailed analyses will be presented in the subsequent sections.

5.1.1 Employment through family

In this section, a set of hypotheses will be tested one by one. First of all, however, the regression model will be explained briefly. The model consists of independent variables (explanatory variables) which may potentially affect the use of family in the graduate labour market. The dependent variable is 'employment through family', which refers to those whose family helped them to find a job. Help, in this context, means that their family actually helped them to find a job, it does not include psychological or emotional help from family.

To measure the impact of each explanatory variable (gender, age, ethnicity etc.) on finding a job through family (γ), the following specification is designed:

$$\gamma = \beta_0 + \beta_1(Gender) + \beta_2(Age) + \beta_3(Ethnicity) + \beta_4(Education\,of\,Parents) +$$

$$\beta_5(Education\,level) + \beta_6(Subject) + \beta_7(Grades) + \beta_8(University\,Ranking) +$$

$$\beta_9(Region) + \in_1$$

The logit analysis has generated Table 5.2:

Table 5.2 Logistic regression for employment through family

	Beta coefficient	Standard error	Wald	df	Sig.	Exp(B)
Gender	.020	.159	.016	1	.900	1.020
Age			26.576	4	.000	
22-24	1.330	.335	15.771	1	.000	3.780
25-29	1.457	.313	21.612	1	.000	4.295
30-39	1.144	.331	11.945	1	.001	3.139
40-49	.684	.334	4.197	1	.040	1.983
50+ (reference category)						
Ethnicity			13.795	7	.055	
English	-.209	.330	.400	1	.527	.812
Scottish	-.223	.522	.182	1	.670	.800
Irish	-.632	.595	1.127	1	.288	.531
Welsh	-.604	.582	1.076	1	.300	.547
S. Asians	-.953	.465	4.189	1	.041	.386
Afro-Caribbean	-1.694	.618	7.509	1	.006	.184
EU and USA citizens	-.831	.434	3.667	1	.055	.435
Other (ref. cat.)						
Parents' education			9.219	2	.010	
One has a degree	.213	.182	1.368	1	.242	1.238
Both have a degree	.599	.198	9.129	1	.003	1.821
None has (ref. category)						
Education level			12.886	3	.005	
Foundation	1.595	.476	11.207	1	.001	4.928
Bachelor	.748	.299	6.248	1	.012	2.114
Masters	.900	.326	7.619	1	.006	2.460
PhD (ref. category)						
Academic disciplines			17.135	15	.311	
Medicine	.914	.549	2.777	1	.096	2.495
Medicine related	.023	.474	.002	1	.961	1.024
Biological sciences	.731	.432	2.864	1	.091	2.078
Physical sciences	.537	.467	1.319	1	.251	1.710
Math sciences	.728	.538	1.835	1	.176	2.072

162

Computer science	.612	.445	1.895	1	.169	1.844
Engineering & Tech	1.127	.478	5.551	1	.018	3.087
Social studies	.288	.429	.450	1	.503	1.333
Education	.644	.452	2.024	1	.155	1.903
Law	.660	.496	1.769	1	.183	1.935
Business & Admin	.429	.409	1.098	1	.295	1.535
Mass Com.& Doc	.311	.599	.270	1	.603	1.365
Languages	.291	.441	.436	1	.509	1.338
Historical & Phil. Stu	-.223	.496	.202	1	.653	.800
Creative arts & design	.301	.433	.483	1	.487	1.351
Combined (ref. cat.)						
Degree classifications			6.523	4	.163	
Upper second	.261	.193	1.840	1	.175	1.299
Lower Second	.194	.229	.717	1	.397	1.214
Third	-.589	.454	1.682	1	.195	.555
Pass	.687	.504	1.861	1	.173	1.988
First class (ref. cat.)						
University Ranking			10.276	4	.036	
Top five	-.688	.492	1.953	1	.162	.503
Russell group	-.524	.369	2.018	1	.155	.592
The rest	-.726	.347	4.389	1	.036	.484
Open university	-1.629	.547	8.883	1	.003	.196
Foreign uni.(ref. cat.)						
Region			3.298	11	.986	
North East	-.772	.616	1.572	1	.210	.462
North West	-.788	.677	1.358	1	.244	.455
Yorkshire & Humber	-.765	.639	1.435	1	.231	.465
East Midlands	-.942	.642	2.158	1	.142	.390
West Midlands	-.628	.665	.892	1	.345	.534
East of England	-.735	.649	1.280	1	.258	.480
South East	-.808	.666	1.475	1	.225	.446
South West	-.707	.624	1.286	1	.257	.493
Wales	-.888	.643	1.906	1	.167	.412
Scotland	-.501	.758	.437	1	.509	.606
N. Ireland	-.554	.685	.653	1	.419	.575
London (ref. category)						
Constant[14]	-1.041	.902	1.333	1	.248	.353

---

[14] Omnibus Test MC χ^2 113.556 p=.000
 Nagelkerke R^2=.153
 Hosmer & Lemeshow χ^2 5.682 p=.683

H1: Female graduates are less likely to find a job through family.

The first hypothesis in this section was that women are less likely to take advantage of their family ties in job searches. The findings show that men are slightly more likely (1.02 times, see Exp(B) in the table) to use their families to find a job. However, this is not statistically significant as the p value is .900 > 0.05 with the coefficient 0.020. Therefore, it can be said that males, overall, are more likely to make use of their family ties than females, although it is not statistically significant. Thus, the hypothesis is rejected and it is concluded that there is not enough evidence to support the claim that males and females graduates differ in finding a job through family.

It is also worth noting that the UK Labour Force Survey (Green et al., 2011) reported that men were slightly more likely than women to use their social networks (family, close friends, acquaintances), which is also consistent with the findings of this study. Similarly, Ports (1993) found that women are less likely to obtain help from their friends and relatives. Ports' findings suggest that 20 percent of women used their friends and relatives in finding a job, compared to 26.6 percent for men in the US labour market. In different countries, the same phenomenon occurs; for instance, Ponzo and Scoppa (2010, p. 94) found that in Italy "about 32% of men use informal networks and 28% of women." However, the results of this study, show that there is almost no difference between two genders in receiving help from their families in the UK graduate labour market.

H2: Family help is more frequently observed at younger ages (22-29).

It is conjectured that graduates will make use of their family more in their early careers. The results indicate that a family's help is more important in the early period of graduates' careers than that of the late period. In that regard, the youngest and the second youngest groups are around 4 times more likely to use their family than the eldest age group and this is statistically significant, p is $0.000 < 0.05$. This suggests that strong ties are particularly significant when people are about to join the labour market. This finding is consistent with the study of Kramarz and Skans (2014, p. 1) who found that "strong social ties (parents) are an important determinant of where young workers find their first job." Some earlier studies such as Kalmijn (2003), Wellman et al. (1997) also discovered that the use of social capital tends to reduce as people get older.

As a result, it can be concluded that there is enough evidence to support the hypothesis that generally the use of family in job searches is observed at younger ages.

H3: There is a variation between different ethnicities in finding a job through family.

Hypothesis 3 stated that there is a variation among ethnic groups in the use of family ties to find a job. The logistic regression results confirm that there are significant differences. For example, South Asian people are less likely than English, Scottish, Irish and Welsh to get help from their families with the partial coefficient -0.953 and this is significant (p 0.041 <0.05). Afro-Caribbean graduates are much less likely to use their families with a greater negative coefficient -1.694. This is also statistically significant (p 0.006 <0.05).

In conclusion, the findings suggest that there is sufficient evident to support the claim that there is a significant variation among different ethnic groups in the use of family to find a job. This difference is particularly salient among minorities.

In the survey, respondents were asked to choose one of the three categories in respect to the education status of their parents: none of the parents has a university degree (group 0), one of the parents has a degree (group 1) and both of the parents have a degree (group 2). The aim was to test the following hypothesis:

> H4: Education of parents is positively correlated with the use family in the labour market.

Hypothesis 4 predicted that the education level of parents is an important factor in employment through family. As seen in Table 5.2, there is a consistent increase in the education level of parents and the degree of help they provide to their children. It is clear that group 2 receives much more help from their parents than the other groups in job searches. Group 2 are 1.82 times more likely to receive help from their families than group 0. That is statistically significant (p=0.003). Although Group 1 is 1.23 times more likely than group 0 to use family as a source of information, this is not significant statistically (p=.242>0.05). What is obvious is that when the education of parents increases, the amount of help they can provide their children also increases proportionally. This is congruent with some findings in the literature. For instance, Iannelli (2002, p. 45) found that "in the analysis of the effect of parental education on young people's early occupational destinations it emerged that in all countries there is both a significant direct and indirect effect of parental education on young people's destinations." Labini's study (2004) on Italian university

graduates also yielded a positive correlation between parental education and the use of family. In the current study, it is particularly the case for those whose parents both have a university degree. In conclusion, there is enough evidence to support the claim that educated parents are more likely to help their children in job searches.

> H5: More educated people are less likely to use their family ties to find a job.

Hypothesis 5 was that there is a negative correlation between education level and employment through family. It is found that there is a gradual decrease in the use of family to find a job as education level increases. Namely, those who have foundation degrees are the ones who most take advantage of their family ties to get a job while those who have bachelor degrees are the second and those who have PhD degrees are the last in using their families to find a job. To be more precise, the logistic regression table shows that foundation degrees are almost 5 times more likely than PhD degrees to use their family and get a job, which is significant (p value 0.001 <0.05).   Bachelor degrees are twice as much likely as PhD degrees to use their family and get a job, which is also significant (p value 0.012 <0.05).   Thus, it can be concluded that there is enough evidence to support the claim that more educated people are less likely to use their families to find a job. This finding is similar with the substantial bulk of the previous studies which suggest that there is a negative correlation between years of education and the use family ties in the labour market (Battu et al., 2011; Böheim & Taylor, 2002).

Kramarz and Skans (2014, p. 15) note that "parental ties matter more for the less educated." In their UK-based study, Giulietti et al. (2013) illustrated that less educated individuals are more likely to use their personal contacts as their main job search method.

One of the explanations is that those with a PhD degree, for example, are more likely to offer themselves directly to potential employers and they are also more likely to respond to advertisements and are less likely to make use of personal networks. In other words, these educated groups are more pro-active in selling themselves to potential employers through more mainstream methods (Battu et al., 2011, p. 52). Furthermore, Ponzo and Scoppa (2010) found that

> education has a strongly negative relationship with the use of informal networks:
> one more year of education reduces the probability of using an informal job search
> channel by about 2.6 percentage points… Individuals attaining high levels of
> qualifications typically do not search through informal networks and firms do not use
> informal channels to fill high-skilled positions. (p. 94)

In conclusion, the findings in the current study confirms hypothesis 5.

H6: Finding a job through family varies significantly by academic discipline.

For hypothesis 6, although there is a variation in the degree of help the graduates of each discipline receive from their families, no meaningful patterns seem to exist in general. For instance, medicine, engineering and law graduates are more likely to use their family to find a job. This finding differs from some other studies. For instance, in Italy, Labini (2004) notes that:

> engineering graduates rely relatively little on family contacts and probably, this is
> due to the more precise skill content of engineers' occupations and the selectivity of
> the program: their degree provides more specific skills than other disciplines. The

opposite seems to be true for the Humanities and Economics and Business, who

often use their family contacts. (p. 20)

The results of this study differ from that of Labini's in that regard. However, overall there is no observable pattern to draw a generalisable conclusion. Therefore, hypothesis 6 has been rejected and it can be said that there is no evidence to support to claim that graduates of technical sciences are less likely to find a job through family.

H7: Graduates with low degree classification are more likely to use their family.

Hypothesis 7 stated that there is a negative correlation between degree classification and family help a graduate receives. In other words, those who have low grades are more likely to receive help from their families and find a job. However, the logistic analysis indicates that there is no statistically significant difference between over-performing and under-performing graduates. Although those with the lowest grades, 'pass', are twice (1.98) as much as likely than those with the highest grades to find a job through family, this does not have a statistical significance (p $0.05<0.173$). It is also worth noting that apart from one exception, those who have a Third, all groups are more likely to receive help from their families than those with high grades. Therefore, the hypothesis has accurately predicted the direction of the relationship by claiming that there is a negative correlation between the level of degree classifications and employment through family. Although the negative correlation is correctly predicted, the strength of relationship is so low that hypothesis 7 has to be rejected.

This finding does not correspond to those of some other studies. For instance, in the Swedish graduate labour market, Kramerz and Skans (2014, p. 1) discovered that "the effects are larger if the graduate's position is 'weak' (low education, bad grades)." In Italy, Labini (2004, p. 10) found that "the probability of being helped by a relative is negatively affected by high school grade." However, the present study could not find this kind of relationship in the UK graduate labour market.

In conclusion, hypothesis 7 is rejected because there is not sufficient evidence to support the claim that students with low grades are more likely to use their family ties to find a job.

H8: Graduates of the prominent universities are less likely to use family.

In this part, the reputation of university and its impact on family help will be analysed. In order to do that, universities are divided into five different categories as explained in methodology chapter (see section 4.2.4).

Hypothesis 8 stated that those who graduated from prestigious universities are less likely to get help from their family to find a job. However, the results show that overall there is not a statistically significant difference between the graduates of high or low ranking universities apart from Open University. Although this hypothesis accurately predicted that high-ranking universities are less likely to use their family to find a job, it is not statistically significant. Therefore, hypothesis 8 is rejected because there is no evidence to support the claim that graduates of first-class universities are less likely to use their family to find a job. This finding is different from that of Lee and Brinton (1996) who found that in South Korea

the reliance on private social capital [family, friends] is inversely related to university prestige … Graduates of top or second-ranked universities were significantly more likely to say that institutional social capital [university] was effective, rather than private social capital [family, friends]. (p. 186)

However, the finding of the present study differs from that of Lee and Brinton. In conclusion, hypothesis 8 has been rejected.

<div style="border:1px solid orange; padding:1em;">
H9: Family help will vary by region.
</div>

Hypothesis 9 stated that region is an important factor in terms of getting help from family. However, there is not much difference across the regions. If London is taken as the reference category, it is seen that there is no statistically significant difference in any regions. Thus, there is not enough evidence to support to claim that there is significant variation in the use of family to find a job across the UK regions. Hence, hypothesis 9 has been rejected.

5.1.2 Employment through close friends

In the strength of weak ties theory, close friends are also considered strong ties (Granovetter, 2005). This form of ties will be explored as well. However, there are no specific hypotheses in the present study about the role of close friends in the labour market because there is not much detailed research about it in the literature. The characteristics of people who receive help from their close friends to find a job will be analysed very briefly.

Table 5.3 Close friends logistic regression analysis

	B	S.E.	Wald	df	Sig.	Exp(B)
Education			3.813	3	.282	
Foundation	.468	.450	1.081	1	.298	1.596
Bachelor	.113	.280	.163	1	.687	1.120

	B	S.E.	Wald	df	Sig.	Exp(B)
Masters	.454	.309	2.166	1	.141	1.575
PhD (ref. cat.)						
Age			11.696	4	.020	
22-24	.650	.303	4.600	1	.032	1.915
25-29	.664	.279	5.659	1	.017	1.942
30-39	.764	.301	6.439	1	.011	2.147
40-49	.157	.303	.270	1	.603	1.170
50+ ref. category						
Gender	.078	.155	.250	1	.617	1.081
Female (ref. cat.)						
Ethnicity			11.853	7	.105	
Scottish	.327	.281	1.356	1	.244	1.387
Welsh	-1.212	.475	6.512	1	.011	.298
Irish	.251	.416	.363	1	.547	1.285
S. Asians	.451	.360	1.566	1	.211	1.570
Afro-Caribbean	-.495	.477	1.078	1	.299	.610
EU and US citizens	-.026	.308	.007	1	.933	.974
The rest	.201	.317	.401	1	.527	1.222
English (ref. cat.)						
Academic disciplines			21.835	15	.112	
Subjects allied to medicine	-.459	.497	.855	1	.355	.632
Biological sciences	-.396	.459	.743	1	.389	.673
Physical sciences	-.118	.484	.059	1	.808	.889
Mathematical sciences	-.910	.553	2.707	1	.100	.403
Computer science	-.240	.465	.267	1	.605	.786
Engineering & technology	-.386	.490	.622	1	.430	.680
Social studies	-1.053	.466	5.099	1	.024	.349
Education	-.199	.485	.169	1	.681	.819
Law	-.902	.527	2.929	1	.087	.406
Business & Adm. Studies	-.641	.440	2.126	1	.145	.527
Mass com. & documentation	-.476	.616	.598	1	.439	.621
Languages	-.677	.475	2.032	1	.154	.508
Historical & philosop. studies	-1.437	.531	7.341	1	.007	.238
Creative arts & design	-.372	.463	.643	1	.423	.690
Combined	-.664	.522	1.617	1	.203	.515
Medicine (ref. cat.)						
Degree classifications			4.951	4	.292	
First class honour	.424	.490	.748	1	.387	1.528
Upper second (60-69%)	.468	.474	.974	1	.324	1.597
Lower second (50-59%)	.368	.486	.573	1	.449	1.444
Third (40% - 49%)	-.399	.612	.425	1	.515	.671

Pass (ref. cat)						
University ranking			9.454	4	.051	
Top five	.250	.371	.454	1	.501	1.284
The rest in UK	-.232	.173	1.802	1	.179	.793
Open University	-1.291	.465	7.708	1	.005	.275
Foreign universities	-.173	.358	.232	1	.630	.842
Russell Group (ref. cat.)						
Constant[15]	-.604	.706	.731	1	.392	.547

The logistic regression analysis in Table 5.3 shows that help received from close friends in the labour market does not differ across education level. What is clear is that PhD holders are least likely and foundation degree holders are most likely to receive help from their close friends compared to other degree holders. However, this difference is not statistically significant since none of the p values is less than 0. 05.

In terms of age groups, middle aged individuals (30-39) are more likely to use their close friends and find a job than the other younger and older age groups. This difference is statistically significant since the p value 0.011< 0.05.   The logistic regression analysis illustrates that age is a quite significant factor in the use of close friends to find a job. Although, males are slightly more likely than females to use their close friends, it is not statistically significant (p = 0.617). In respect to degree subjects, only the graduates of social studies (p= 0.024) and historical & philosophical studies (p=0.007) seem to less likely to use their close friends in finding a job while the rest does not differ statistically. In terms of the grades, overall no significant difference has been found since all the p values are highly above 0.05.

Afro-Caribbean are by far less likely to receive help from their close friends but, overall, there is no significant difference among any ethnicities in getting help from their close

---

[15] Omnibus Test MC χ^2 75.135 p=.000
　Nagelkerke R²=.104
　Hosmer & Lemeshow χ^2 11.016 p=.201

friends. With respect to the importance of university ranking, as seen in the table, the graduates of top five universities are more likely to find a job through close friends compared to the graduates of Russell Group universities but this is not statistically significant (p= 0.501> 0. 05). However, the graduates of the Open University are least likely to receive help from their social capital and it significantly differs from the other graduates (p=0.005< 0.05).

5.1.3 Employment through university career services

In this part, university career services and their impact on the employment of graduates will be discussed.

The logistic regression model is largely the same as 'employment through family.' However, instead of age, the year of graduation is included because students mostly use university career services while they are at university. Therefore, age is replaced by year of graduation. The mode of education is also included because full-time and part-time students should not be considered alike. The regression analysis has generated Table 5.4.

$$Employment\ through\ UCS\ (\gamma)=\beta_0 + \beta_1(Gender) + \beta_2(Year\ of\ graduation) +$$
$$\beta_3(Ethnicity) + \beta_4(Education\ level) + \beta_5(Subject) + \beta_6(Grades) +$$
$$\beta_7(University\ Ranking) + \beta_8(Mode\ of\ Education)+\in_1$$

Table 5.4 Employment through UCS

	B	S.E.	Wald	df	Sig.	Exp(B)
Gender	.310	.174	3.180	1	.075	1.363
Female (ref. cat.)						
Graduation year			12.452	2	.002	
1990s	-.578	.267	4.679	1	.031	.561 (1.78)
1980s and below	-1.093	.360	9.232	1	.002	.335 (2.98)
2000s (ref. cat.)						
Ethnicity			5.763	7	.568	
Scottish	.103	.313	.109	1	.741	1.109
Welsh	-.700	.515	1.847	1	.174	.496

174

Irish	.441	.452	.955	1	.328	1.555
S. Asian	.152	.382	.158	1	.691	1.164
Afro-Caribbean	-.384	.575	.445	1	.505	.681
EU and USA citizens	-.490	.367	1.788	1	.181	.612
The rest	-.177	.346	.262	1	.609	.838
English (ref. cat.)						
Education level			1.651	3	.648	
Foundation	.375	.510	.539	1	.463	1.454
Bachelor	-.121	.292	.171	1	.680	.886
Masters	.048	.332	.021	1	.885	1.049
PhD (ref. cat.)						
Academic disciplines			20.352	15	.159	
Subjects allied to Medi.	-.941	.524	3.234	1	.072	.390
Biological sciences	-.815	.478	2.910	1	.088	.443
Physical sciences	-1.158	.519	4.976	1	.026	.314
Mathematical sciences	-.802	.582	1.901	1	.168	.449
Computer science	-.706	.479	2.173	1	.140	.493
Engineering & Techno	-.117	.498	.056	1	.814	.889
Social studies	-.968	.488	3.927	1	.048	.380
Education	-.121	.502	.058	1	.809	.886
Law	-.193	.534	.131	1	.717	.824
Business & Adm. Stud.	-.263	.447	.346	1	.556	.769
Mass com.& Documen.	-.516	.673	.589	1	.443	.597
Languages	-.829	.496	2.797	1	.094	.437
Historical & Philosophic.	-.890	.539	2.724	1	.099	.410
Creative arts & design	-1.037	.495	4.396	1	.036	.355
Combined	-.577	.567	1.037	1	.309	.562
Medicine (ref. cat.)						
Degree classifications			24.066	4	.000	
Upper second class	-.465	.199	5.437	1	.020	.628
Lower second class	-1.177	.260	20.465	1	.000	.308
Third	-1.355	.581	5.442	1	.020	.258
Pass	-1.299	.676	3.692	1	.055	.273
First class (ref. cat.)						
University ranking			9.641	3	.022	
Top five	.203	.383	.282	1	.595	1.226
The rest in UK	-.462	.189	5.945	1	.015	.630

Foreign universities	-.885	.406	4.755	1	.029	.413
Russell Group (ref. cat.)						
Mode of education	.744	.315	5.581	1	.018	2.103
Part-time (ref. cat.)						
Constant[16]	.025	.563	.002	1	.964	1.025

H10: Females are more likely to find a job through UCS.

Hypothesis 10 stated that women are more likely to take advantage of university career services (UCS) in job placements. The regression table indicates that it is not women but men are (1.3 times) more likely to use UCS when they were at university. However, it is not sufficient to claim that there is a statistically significant difference between males and females since p 0.075 >0.05. For this reason, hypothesis 10 is rejected and concluded that based on the findings, there is no significant difference between two genders in the use of UCS to find a job.

H11: The percentage of students who find a job through UCS has increased gradually.

In the survey, respondents were asked when they graduated from university. Those who graduated in 2000 and afterwards were classified as 2000s and those graduated in 1990-1999 were classified as 90s and so on. The reason for this was to learn whether there is any historical pattern in the use of UCS because the literature (Dey & Cruzvergara, 2014; Harvey, 2001) suggests that due to intense competition among universities, universities look for alternative ways to increase employability level of their graduates to have a better position in

---

[16] Omnibus Test MC χ^2 95.484 p=.000
  Hosmer &Lemeshow χ^2 3.042 p= .932
  Nagelkerke R^2=.144

the league table. Hence, hypothesis 11 is based on the idea that professionalism, connecting students to business, in UCS has increased by time. In other words, students and universities are expected to engage in job placement activities more over time.

   Thus, hypothesis 11 stated that those who graduated 1990s are less likely to find a job through UCS than those in 2000s. The logit analysis shows that those graduates in 2000s are more likely to use UCS and find a job. Accordingly, the 2000s graduates are 1.78 times more likely than the 1990s graduates to use UCS and this is also significant (p=0.031).[17] The 2000s graduates are almost 3 (2.98) times more likely than the 1980s graduates to find a job through UCS and it is significant (p=0.002). Therefore, there is sufficient evidence to support the claim that more students are able to find a job through university career services in recent years than in the past years. Thus, the hypothesis has been confirmed.

   As universities are becoming more and more professional (Crossman & Clarke, 2010) and competition in the labour market gets harder, universities look for an alternative way to increase their students' employment rate. As a result, university career services are becoming an important place through which university students find a job. This finding is quite novel as there is no generalisable study in this area that has tested the importance of university career services in the UK and its historical trends. Moreover, this finding can also be interpreted as such that when the number of graduates increases year by year, the labour market becomes more and more competitive. In this increasingly competitive market, the importance of university career services has risen and students want to take advantage of these services more. Therefore, institutional social capital, to be able to connect students to industry, is getting more and more important. Harvey (2001) highlighted this point and noted

---

[17] These figures (1.8 and 2.98) are in brackets in the logit table above because if the coefficient is put in e^.578, it is possible to obtain 1.78 and again e^1.093=2.98.

that graduate employability is increasingly being considered a critical benchmark for measuring performance of universities at the institutional level.

H12: There is a variation in the use of UCS by ethnicity.

Hypothesis 12 stated that there would be a variation in the use of university career services by ethnicity. Although English, Scottish and Irish are more likely to use UCS, none of them is statistically significant. Welsh are the least likely ethnic group among all ethnicities to use UCS but this is also not significant (p= 0.496> 0.05). Irish students are 1.5 times more likely than English students to use UCS and find a job but again this is not statistically significant (p=0.328 > 0.05). Afro-Caribbean people are less likely than English to use UCS with a negative coefficient -0.384. However this can also be attributed to chance as it is far above the significance level (p=0.505> 0.05). Overall, there are not significant variations between ethnicities in terms of use of UCS. Thus, there is not enough evidence to support the claim that a particular ethnicity is more likely to find a job through university career services. Thus, hypothesis 12 has been rejected.

H13: More educated people are less likely to use UCS.

Hypothesis 13 stated that there should be a negative correlation between the level of education and the degree of help a student receives from university career services (UCS) to find a job. The logistic regression results show that people with foundation degree are 1.4 times more likely than PhD students to use UCS but this is not statistically significant (p is 0.05<0.463). Moreover, it can be said that there is only a very slight difference between

Masters and PhD students in favour of the former (1.05 more likely) and again this is not statistically significant (p is 0.05<.885). Overall, as predicted, there is a negative correlation between education level and the use of UCS but this correlation is negligible. Therefore, hypothesis 13 is rejected and it is concluded that education level is not a significant factor in the use of university career services. In other words, despite some small variations, all level of students, foundation, bachelor and master, use university career services in a similar degree.

> H14: Finding a job through UCS significantly differs by academic discipline.

The logit analysis shows that there is no meaningful pattern in the use of UCS by graduates in different academic disciplines. However, certain groups of graduates are less likely to find a job through UCS such as the graduates of physical sciences, social studies and creative arts. However, overall it cannot be said that the graduates of any academic discipline are more likely to use UCS for employment.

On the other hand, what is clear is that Medicine graduates are more likely to get a job through UCS than the graduates of all academic disciplines. However, this variation does not reach a statistically significant level. As a result, there is no empirical support for hypothesis 14 and it is rejected.

It is also important to note that the finding tells the variations between different academic disciplines but it does not explain why these variations exist. Some students, for instance students of technical sciences, may not use UCS because they do not need it or they can easily directly approach employers and find employment. On the other hand, social sciences or creative arts students, for example, may want to use it but there may not be sufficient job

179

opportunities available. Nevertheless, these are just speculations that cannot be confirmed or refuted by the findings of this study.

H15: Those with high degree classification are more likely to find a job through UCS.

Hypothesis 15 is that the students with high degree classification are more likely to find a job through UCS. The logit regression shows that this is really the case. Those who have the highest grade are more likely than the upper second and the lower second classes to find a job through UCS and the differences are statistically significant ($p=0.020<0.05$ and $p= 0.000 < 0.05$ respectively). Therefore, it can be said that there is sufficient evidence to conclude that those with high grades are more likely to find a job through UCS and thus the hypothesis is confirmed. However, in order to illustrate more clearly, Figure 5.2[18] would be helpful:
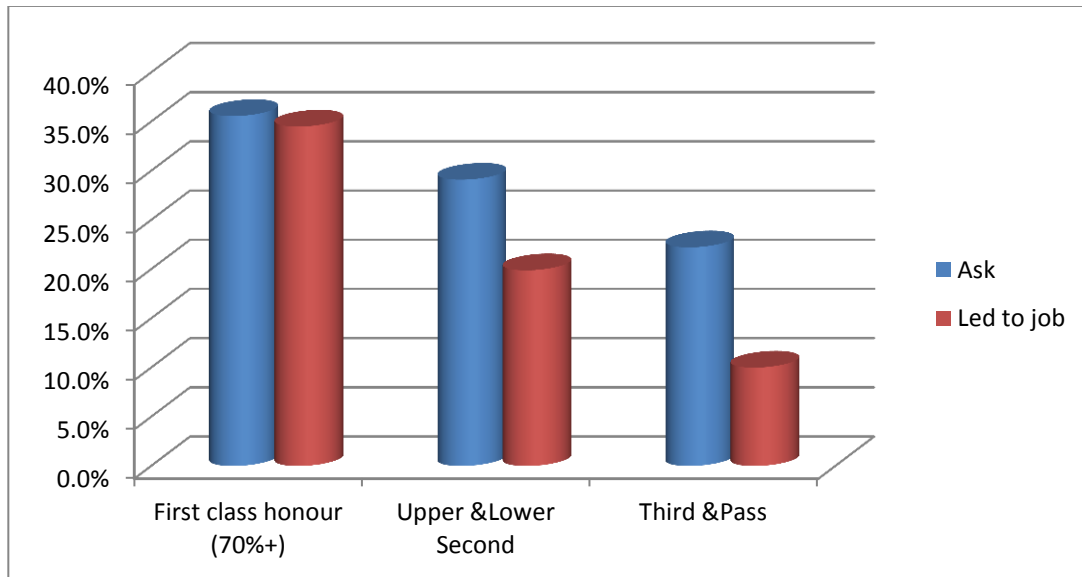
Figure 5.2 The percentage of students who asked for help and got a job by using UCS (Source: Author)

In Figure 5.2, it can be seen that there is a gradual decrease in asking university career services and finding a job through UCS. Moreover, there is a positive correlation between the

---

[18] This figure comes from Question 16 and 18 in the survey.

grade and the use of UCS. In other words, when the academic performance level goes up, it is more probable that a student will use university career services. This finding is also consistent with the study of Mendez and Rona (2010, p. 59) who found "a positive association between placements and improved academic performance." However, Mendez and Rona's study had a very limited sample size (83 students) and surveyed just engineering students while the present study has a much larger sample (947) and found similar results surveying a range of academic disciplines.

H16: University ranking makes a significant difference in the UCS placements

Before testing the claim, a clarification is needed. As explained in methodology chapter, the UK universities are divided into five categories: top five universities, Russell Group universities, the rest of the universities in UK, Open University (OU) and Foreign universities. However, it is the case that Open University students do not use their university career services and faculty members. This is quite understandable because OU students are physically far away from the school and most of them are already working full or part time, therefore, they cannot actively use or do not need to use university career services. That is why this group of students has been excluded from the analyses for the two sections, employment through UCS and employment through faculty members). To illustrate this point more clearly, it would be useful to take a look at Figure 5.3.
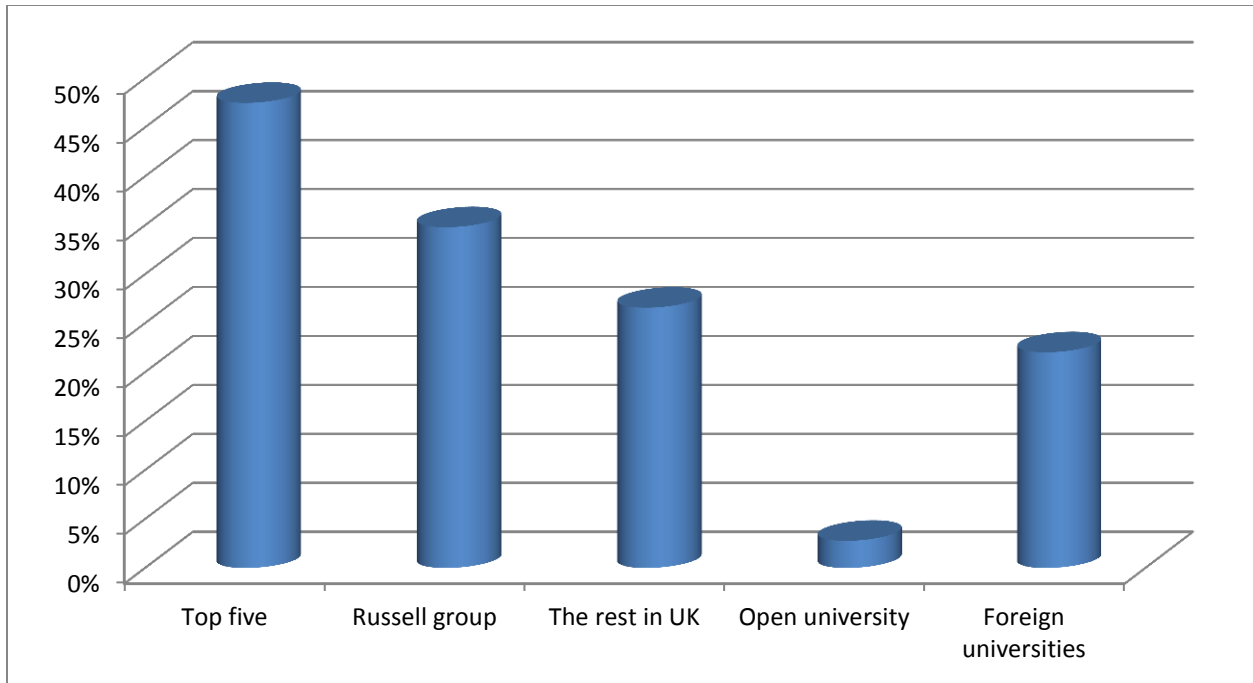
Figure 5.3 Degree of help provided by UCS (Source: Author)

The figure clearly shows that the OU students do not use their university career services in practice, compared to the other universities. Therefore, it was thought that Open University graduates should be excluded from the regression analyses of UCS. If Open University were included or combined with another group of universities, quite probably it would be in 'the rest in the UK' and it would decrease the average of this group considerably. To avoid this, it was excluded from the analysis. The figure above clearly justifies this decision and the discussion made in methodology chapter in section 4.2.4 about the classification of the universities.

Hypothesis 16 states that the degree of help that university graduates receive from their universities is positively correlated with university rankings. In other words, employment career services of first-class universities are better than the others. The logit regression shows that top universities provide much better employment career services comparing to other

universities. The students of the top five universities enjoy the greatest amount of job placement support from their university career services. Russell Group Universities are the second best in employment career services.

To be more precise, the students in the first-class universities are 1.2 times more likely than those in Russell Group Universities to find a job through UCS. However, this difference is not statistically significant (p= 0.595 > 0.05). Russell Group Universities, on the other hand, are significantly more likely than "the rest of the universities in the UK" to use employment career services and find a job (p= 0.015 <0.05).

Thus, the findings suggest that first and second class universities provide better employment services for their students. Similar patterns can also be found in other competitive labour markets. In their S. Korea-based study, Lee and Brinton (1996, p. 186) noted that "graduates of the most prestigious universities were the most likely to report that institutional social capital was the most effective (57 percent), and graduates of the least-prestigious universities were the least likely to do so (43 percent)." However, Lee and Brinton (1996, p. 186) also noted that "the differences in the use of institutional social capital among university ranks are not statistically significant." Nevertheless, the logistic analysis table in the present study shows that there is a positive correlation between the ranking of universities and the assistance they provide to their students. However, in some cases the correlation is statistically significant while in others not. Thus, it is concluded that there is a partial evidence to support the claim that the effectiveness of employment career services is positively correlated with the university ranking.

As predicted, full-time students take advantage of university career services more than part-time students. The logit table shows that full-time students 2.1 times more likely than part-time students to find a job through university and this is statistically significant, (p= 0.018<0.05). However, this is not an unexpected finding because part-time students can study and work at the same time and thus less likely to need UCS.

5.1.4 Employment through faculty members

In this part, the characteristics of the graduates who use faculty members to find a job will be examined. The model specification for this analysis is exactly the same as employment through university career services. Therefore, it will not be included here. The logistic regression has yielded **Error! Reference source not found.**:

Table 5.5 Employment through faculty members

	B	S.E.	Wald	df	Sig.	Exp(B)
Gender	0.658	0.181	13.15	1	0.000	1.93
Female (ref. cat.)						
Graduation year			7.562	2	0.023	
1990s	-0.825	0.371	4.957	1	0.026	0.438
1980s and below	-0.51	0.27	3.576	1	0.059	0.6
2000s (ref. cat.)						
Ethnicity			1.841	7	0.968	
Scottish	-0.226	0.341	0.437	1	0.508	0.798
Welsh	0.128	0.448	0.082	1	0.774	1.137
Irish	-0.017	0.489	0.001	1	0.973	0.983
S. Asian	-0.144	0.418	0.119	1	0.73	0.866
Afro-Caribbean	0.225	0.534	0.178	1	0.673	1.253
EU and USA citizens	-0.362	0.371	0.949	1	0.33	0.696
The rest	-0.087	0.355	0.06	1	0.806	0.916
English (ref. cat.)						
Education level			15.073	3	0.002	

	B	S.E.	Wald	df	Sig.	Exp(B)
Foundation	-0.636	0.512	1.544	1	0.214	0.529
Bachelor	-1.087	0.288	14.251	1	0.000	.337 (3.0)
Masters	-0.708	0.327	4.686	1	0.030	0.493
PhD (ref. cat.)						
Academic disciplines			34.091	15	0.003	
Subjects allied to Medicine	-0.52	0.52	0.999	1	0.318	0.595
Biological sciences	-1.62	0.507	10.211	1	0.001	0.198
Physical sciences	-1.269	0.524	5.876	1	0.015	0.281
Mathematical sciences	-2.708	0.757	12.8	1	0.000	0.067
Computer science	-1.545	0.502	9.482	1	0.002	0.213
Engineering & Technology	-1.419	0.525	7.317	1	0.007	0.242
Social studies	-1.346	0.501	7.215	1	0.007	0.26
Education	-0.913	0.524	3.04	1	0.081	0.401
Law	-1.634	0.588	7.733	1	0.005	0.195
Business & Admin. studies	-1.356	0.47	8.314	1	0.004	0.258
Mass com.& Documentation	-2.3	0.871	6.979	1	0.008	0.1
Languages	-2.16	0.57	14.341	1	0.000	0.115
Historical & Philosophical stud.	-1.026	0.546	3.539	1	0.060	0.358
Creative arts & design	-1.018	0.492	4.281	1	0.039	0.361
Combined	-0.885	0.567	2.437	1	0.119	0.413
Medicine (ref. cat.)						
Degree classifications			26.456	4	0.000	
Upper second class	-0.398	0.204	3.786	1	0.052	0.672
Lower second class	-1.271	0.279	20.704	1	0.000	0.28 (3.59)
Third	-2.512	1.043	5.801	1	0.016	0.081 (12.3)
Pass	-1.331	0.682	3.804	1	0.051	0.264
First class (ref. cat.)						
University rankings			0.682	3	0.878	
Top five	0.169	0.406	0.173	1	0.678	1.184
The rest in UK	0.077	0.207	0.14	1	0.708	1.08
Foreign universities	0.307	0.398	0.593	1	0.441	1.359
Russell group (ref. cat.)						
Mode of education	0.387	0.299	1.676	1	0.195	1.473
Part-time (ref. cat.)						
Constant[19]	1.157	0.576	4.029	1	0.045	3.18

[19] Omnibus Test MC χ^2 135.515 p=.000
Nagelkerke R²=.204
Hosmer &Lemeshow χ^2 10.78 p=.214

Hypothesis 18 states that female students compared to male students are less likely to take advantage of faculty members in employment process. The regression analysis shows that men are 1.93 times more likely than women to find a job through faculty members and this is statistically highly significant (p=.0.000<0.05). Therefore, the finding supports the claim that women are less likely to find a job through academic staff. Thus hypothesis 18 has been confirmed.

It would be interesting to know what the main cause of this disparity is. Some studies maintain that there is discrimination against women in academia (Knights & Richards, 2003) but it is not really possible to know what the underlying reason is for this difference. From the data at hand, it cannot be deduced whether women are less likely to ask faculty members for help in job search process or faculty members are more willing to help men rather than women. In order to clarify it, it would be reasonable to look at different levels of education and identify at which education level the deviation occurs. In Table 5.6, it is clear that there is a noticeable difference between males and females in Master degree while in the other degrees, bachelor and PhD, there is no substantial difference. At master level, 45% of males obtained considerable help from faculty member in contrast to 19% of females.

Education level			Gender		Total
			Male	Female	
Foundation	No help	Count	8	20	28
		% within Gender PhD	61.5%	80.0%	73.7%
	Considerable help	Count	5	5	10
		% within Gender PhD	38.5%	20.0%	26.3%
Bachelor	No help	Count	205	308	513
		% within Gender PhD	73.7%	79.4%	77.0%

	Considerable help	Count	73	80	153
		% within Gender PhD	26.3%	20.6%	23.0%
Masters	No help	Count	33	68	101
		% within Gender PhD	55.0%	81.0%	70.1%
	Considerable help	Count	27	16	43
		% within Gender PhD	45.0%	19.0%	29.9%
PhD	No help	Count	24	12	36
		% within Gender PhD	44.4%	46.2%	45.0%
	Considerable help	Count	30	14	44
		% within Gender PhD	55.6%	53.8%	55.0%

Table 5.6 Degree of help from faculty members * Gender, cross tabulation (Source: Author)

Unfortunately, this area does not seem to have been explored in detail in the literature. In other words, there is a gap in the literature about what kind of students use faculty members to find a job. Therefore, it is not possible to say something definite about why female master's degree students obtain less support from faculty members. However, when it comes to PhD level, a similarity can be seen between two genders and they obtain similar degree of support from faculty members (55% vs 53%). This is important because, as it will be seen later, faculty members are most helpful at PhD level in assisting their students.

H19: There is a variation in finding a job through faculty members by ethnicity.

Hypothesis 19 is that ethnicity is an important factor in finding a job through faculty members. Despite a visible variation between different ethnicities, there is no statistically significant difference among any ethnicity to confirm the hypothesis. In fact, the partial coefficients are quite low ranging from -0.362 to 0.225 and the overall p value for ethnicity is 0.968, which is far above the critical p value (0.05), and suggests that all groups are quite similar to each other in terms of finding a job through faculty members. Hence, there is not

sufficient evidence to support the claim that one particular ethnicity has a significantly higher probability of finding a job through faculty members. Thus, the hypothesis has been rejected.

H20: Finding a job through faculty members significantly differs by education level.

Hypothesis 20 states that there would be significant differences in the use of faculty members among people with different educational levels. In the logit analysis table, it is clear that PhD graduates use faculty members/academic staff far more than other educational groups; foundation degree, bachelor and masters. Accordingly, PhD graduates are 3.0^{20} times more likely than Bachelor degree graduates to use faculty members to find a job. This is statistically significant (p =0.000). As it is seen in Figure 5.4, PhD students frequently use faculty members to find a job. This is not an unexpected outcome.

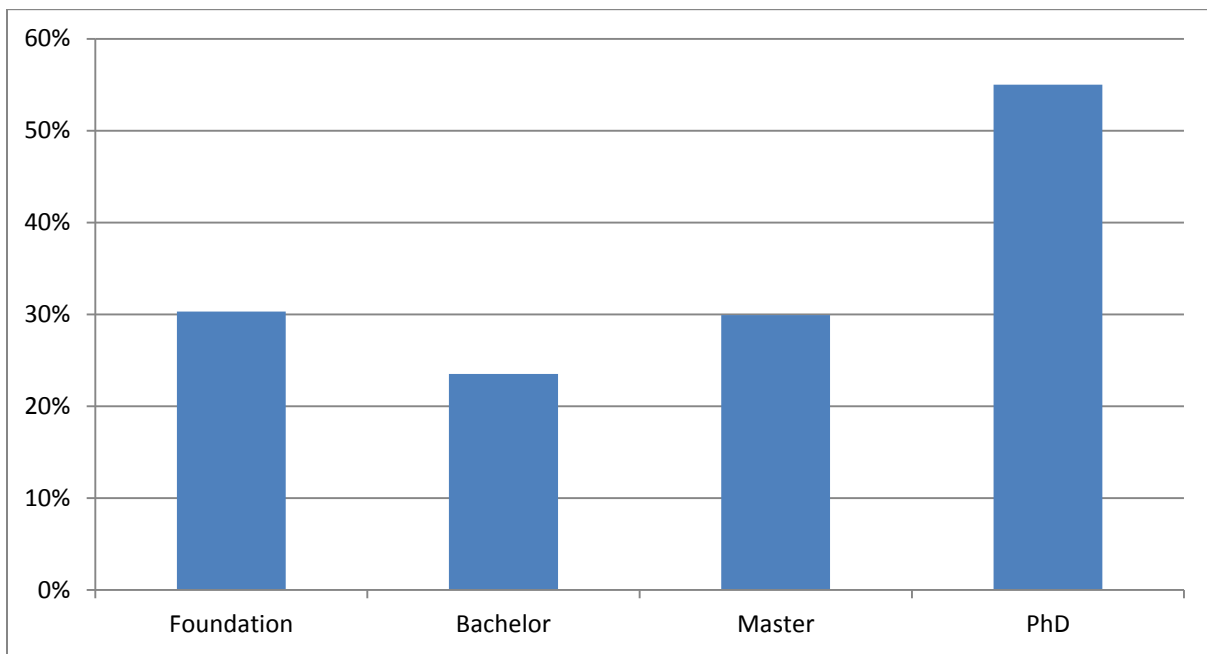

Figure 5.4 Employment through faculty members on average (Source: Author)

---

[20] The figure (3.0) appears in the brackets in the logit table 5.5. If the beta value is put in e^(1.087)= 2.96, which is roughly 3.0.

As Johnson et al. (2007, p. 64) reminded that "since advisors work with their doctoral advisees for the longest period of time and the most intensively, it follows that they are likely to invest the greatest energy in these students." Golde and Dore (2001) also noted that most of the PhD students are primarily interested in academic career and their supervisors may help them in getting an academic position or if there is a collaborative work between university and private sector, faculty members may connect them to industry. Thus, the regression analysis indicates that there is a statistically significant difference among different levels of university graduates in the use of faculty members in job search process. Hence, hypothesis 21 has been supported by the empirical finding.

H21: Those with high degree classification are more likely to use faculty members to find a job.

It is predicted that a degree classification is an important factor to obtain help from faculty members. The logit analysis illustrates that it is indeed a very important determinant. For instance, first class honour students are almost times more likely than upper second class students to find employment through faculty members. However, this is not statistically significant but very much close to significance (p=0.052>0.05). First class honour students are also 3.6 times more likely than lower second class students and 12.3 times more likely than third class students to find a job through faculty members. These figures statistically significant, p=0.000 and p=0.016 respectively. Therefore, it can be concluded that those with high grades are more likely to use faculty members to find a job. Thus, hypothesis 21 has been confirmed.

Hence, all hypotheses in this study have been tested.   Table 5.7 summarises the outcomes of

the twenty one hypotheses.

Table 5.7 The outcomes of the hypotheses

	Hypotheses	Outcome
Employment through family		
1. Personal characteristic		
H1 Gender	Female graduates are less likely to find a job through family.	Rejected
H2 Age	Family help is more frequently observed at younger ages (22-29).	Confirmed
H3 Ethnicity	There is a variation between different ethnicities in finding a job through family.	Confirmed
H4 Education of parents	Education of parents is positively correlated with the use family in labour market.	Confirmed
2. Human capital		
H5 Education level	More educated people are less likely to use their family ties to find a job.	Confirmed
H6 Academic discipline	Finding a job through family varies significantly by academic discipline.	Rejected
H7 Degree classification	Graduates with low degree classification are more likely to use their family.	Rejected
H8 University ranking	Graduates of the prominent universities are less likely to use family.	Rejected
3. Location		
H9 Region	Family help will vary by region.	Rejected
Employment through UCS		
1. Personal characteristics		
H10 Gender	Females are more likely to find a job through UCS.	Rejected
H11 Graduation year	The percentage of students who find a job through UCS has increased gradually.	Confirmed
H12 Ethnicity	There is a variation in the use of UCS by ethnicity.	Rejected
2. Human capital		
H13 Education level	More educated people are less likely to use university career services.	Rejected
H14 Academic discipline	Finding a job through UCS significantly differs by academic discipline.	Rejected
H15 Degree classification	Those with high degree classification are more likely to find a job through UCS.	Confirmed
H16 University ranking	University ranking makes a significant difference in the UCS placements.	Confirmed
3. Mode of study		
H17 Full/part-time	Full-time students are more likely to find a job through UCS than part-time students.	Confirmed

Employment through faculty members

1. Personal characteristics

H18 Gender	Women are less likely to find a job through faculty members.	Confirmed
H19 Ethnicity	There is a variation in finding a job through faculty members by ethnicity.	Rejected

2. Human capital

H20 Education level	Finding a job through faculty members significantly differs by education level.	Confirmed
H21 Degree classification	Those with high degree classification are more likely to use faculty members to find a job.	Confirmed

5.2 Other important findings

The dataset in the present study is quite diverse and rich. However, up to now, only the hypotheses have been tested and explained. Now, some other important results related to gender, age and ethnicity will be provided which has not been hypothesised. It is considered that this set of information should also be given to complete the whole picture.

5.2.1 Gender

In terms of gender, Figure 5.5 has been obtained.
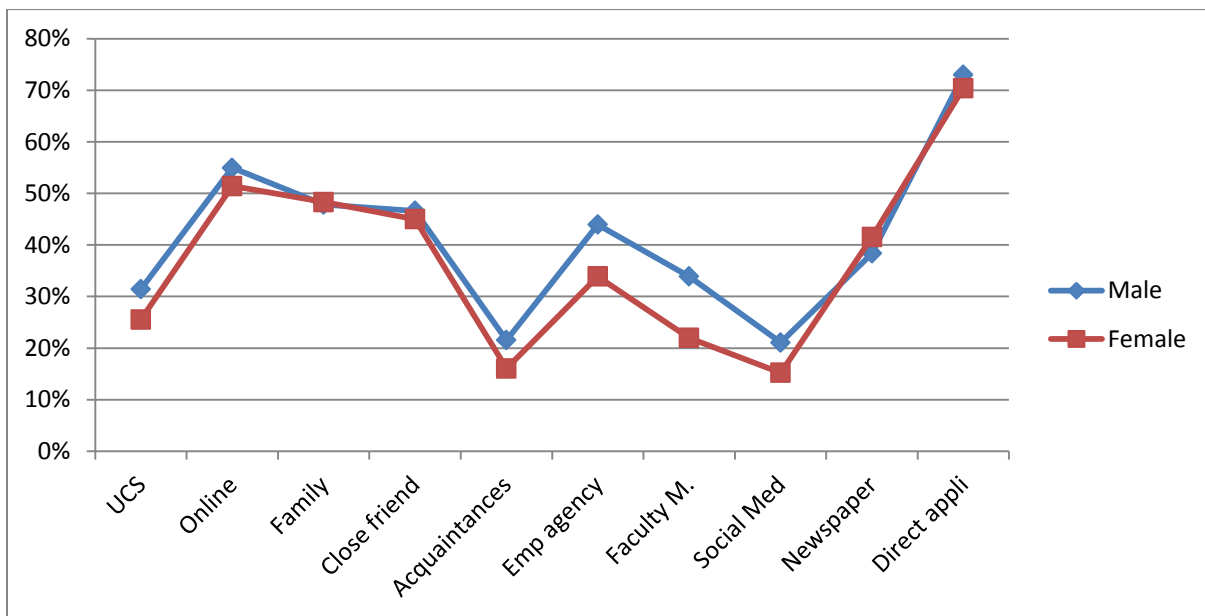
Figure 5.5 Information channels by genders (Source: Author)

In the previous part, employment through UCS, family and close friends were examined and no significant difference was found in these items in terms of gender. Employment through faculty members was also examined previously and a significant difference was found and Figure 5.5 visually shows this difference. This section will focus on other popular job search methods.

If the figure is analysed, it will be seen that direct application, online job career services, family, close friends and newspaper advertisements are most commonly used five methods in

finding a job for both males and females. As noted, family and close friends were already

examined and no significant difference was found. Table 5.8 shows that there is not a

significance difference between males and females in the other three most popular search

methods: direct application, online career services and newspaper advertisements whose p values

are far greater than the significance level (0.05), .531, .327 and.277 respectively. However,

significant differences are observed in the relatively less effective search methods. For instance,

the table shows that there is a significant difference between men and women in the use of

acquaintances, employment agencies and social media.

	Test Statistics	St. Error	df	Significance
Online career services	106, 250	3.603	1	.277
Acquaintances	103.412	2.788	1	.030
Employment agency	100.136	3.492	1	.002
Social media	103.442	2.756	1	.020
Newspaper advertisements	112.630	3.516	1	.327
Direct application	28.467	1.206	1	.531

Table 5.8 The difference in job search methods by gender, Mann-Whitney differences analysis (Source: Author)

In other words, men and women use the most effective search methods in similar degrees

while they tend to differ in less effective methods. This demonstrates a common pattern in the

behaviours of men and women in the graduate labour market in the UK.   Possibly it can be

attributable to the assumption that rational actors tend to behave similarly to reach their goals

(Becker, 1993).

5.2.2 Ethnicity

In the previous sections, the logistic regression analyses showed that ethnicity can be an

important factor to find a job. While it was found that employment through UCS and faculty

members does not significantly differ by ethnicity, some significant differences were found

employment through family and close friends.   For instance, African graduates were less likely

to get help from their family while Welsh graduates were less likely to use their close friends to
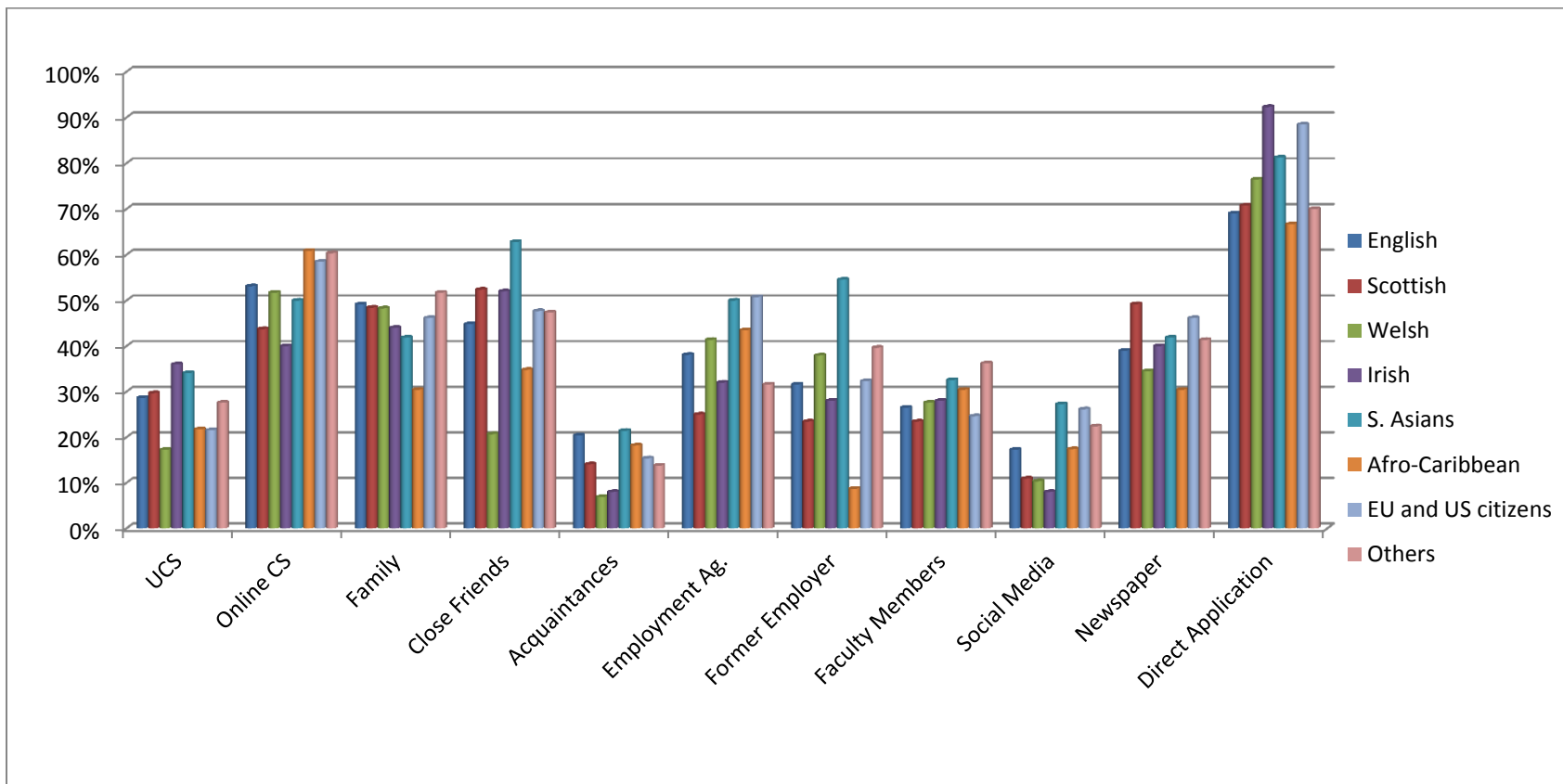
find a job. This can also be seen in Figure 5.6.

Figure 5.6 Channels of information by ethnicity on average (Source: Author)

When it comes to the other search methods apart from the ones discussed in the previous logistical regression analyses, Table 5.9 demonstrates that the most popular methods such as direct application, online job career services and newspaper advertisements are greatly used by all ethnic groups in the UK and there is no significant difference in none of these popular search methods by ethnicity. Only employment through former employers significantly differs (p 0.004<0.05) by ethnicity in Table 5.6. This can also be seen in Figure 5.6, Afro-Caribbean graduates are less likely to receive help from former employers.

	Test statistics	df	Significance
Online career services	10.507	7	.162
Acquaintances	7.746	7	.356
Employment agency	12.699	7	.080
Former employers	20.801	7	.004
Social media	13.753	7	.056
Newspaper advertisements	5.066	7	.652
Direct application	7.883	7	.343

Table 5.9 The difference in job search methods by gender, Kruskal Wallis differences analysis (Source: Author)

What is also clear in Figure 5.6 is that South Asians very actively use all sorts of information channels to find a job from family, close friends to employment agencies and former employers. More importantly, it is also evident that Afro-Caribbean graduates are less likely to use their social capital (family, close friends and former employers) in comparison to most of ethnic groups.

In that regard, the American scholar DiTomaso (2013) who wrote on the racial issues quite extensively, noted that:

> The most obvious explanation for this entrenched disparity is racial discrimination. But in my research I have found a somewhat different culprit: favoritism. Getting an inside edge by using help from family and friends is a powerful, hidden force driving inequality in the United States. …If African-Americans are not part of the same networks, they will have a harder time finding decent jobs. (para. 2-3)

197

It is not possible to claim for sure that the same phenomenon (racial inequality in social capital) is the case in the UK graduate labour market as well but it is clear that ethnicity may be an important factor in taking advantage of social capital to find a job. However, it should be noted that ethnicity does not always play a negative role in the labour market for minorities. Ethnicity can also play a positive role and be an important source of help to find a job, as in the case of South Asians.

In conclusion, two points can be highlighted:

- Ethnicity is an important factor in taking advantage of social capital.

- Most popular job search methods such as direct application, online career services and newspaper do not differ significantly by ethnicity.

5.2.3 University career services

Respondents were asked whether they used university career services when they were at university to find a job. The results indicate infrequent use of UCS and accordingly the overwhelming majority did not get in touch with UCS for finding a job as shown in Table 5.10:

		Frequency	Percent	Cumulative Percent
Valid	Yes, I did	275	29.0	29.0
	No, I did not	672	71.0	100.0
	Total	947	100.0	

Table 5.10 The frequency of people who used UCS when they were at university (Source: Author)

Almost 29%, 275 respondents, said that they used UCS. It indicates that university career services were not frequently used by the majority of the students. This finding is in conformity with that of Fouad et al. (2006, p. 416) who discovered that some students were aware of the services but only a small fraction had used them.

Of those who used UCS, 25.8% said that they received considerable help from UCS which

actually led to employment (Table 5.11). However, for most respondents, it did not produce a

tangible outcome (46.9%= 100%-53.1%).

		Frequency	Percent	Cumulative Percent
Valid	Yes, it did	71	7.5	25.8
	It partially helped	75	7.9	53.1
	No, it did not	129	13.6	100.0
	Total	275	29.0	
Missing	System	672*	71.0	
Total		947	100.0	

Table 5.11 Did the help lead to employment? *672 is the number of people who did not applied to UCS (Source: Author)

The respondents who obtained a job through UCS were also asked in what ways they got the

job. Figure 5.7 shows the means by which respondents actually obtained a job with the aid of the
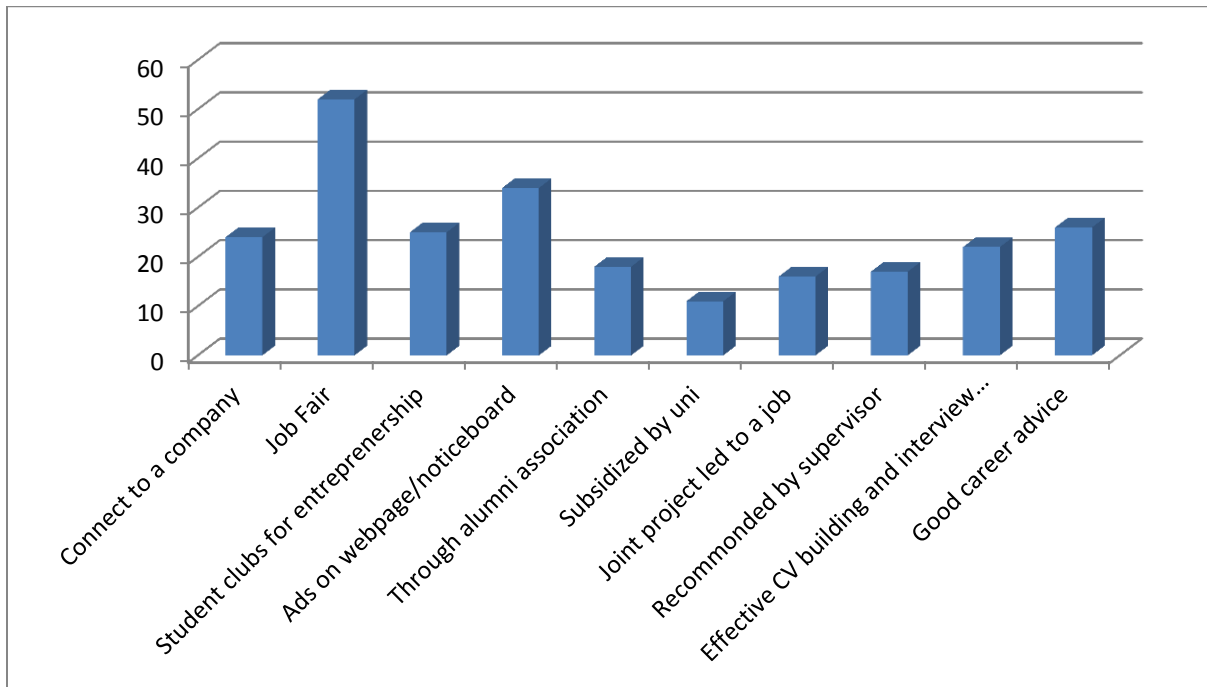
university:

Figure 5.7 The usefulness of different methods (in frequency) (Source: Author)

The findings suggest that there is a variety of ways that a university can help students. As can

be seen, the most widely used method to find a job while a person is at university is job fairs

with the highest number by far while university's direct involvement to connect their students with a company is also an important way of getting a job. Similar to our finding, Fouad et al. (2006, p. 415) also noted the importance of career fairs: "interestingly, the career fair is widely advertised, held in the student union, and appears to be the most visible service provided by the career center with 69%."

5.3 Summary

This chapter has tested a series of hypotheses and the outcomes of these hypotheses are shown in Table 5.7. In general, the results show that direct application, online career services and family are the most important sources of information to find a job in the graduate labour market (see Figure 5.1). With respect to family, academic level, ethnicity and education of parents are significant factors in receiving help from family while gender, academic disciplines and university ranking are not. Finally, degree classification is an important predictor in receiving help from university career services and faculty members. In other words, those with a high degree classification are more likely to find a job through UCS and faculty members. The implications of these findings will be discussed in the conclusion chapter. Next, the qualitative data will be analysed.

6   The case study

This chapter explores the University of Exeter's Career Services as a case study. It addresses research objective 5: the role of university career services in the employment of university students. The aim of this chapter is to describe the ways in which a university builds bridges between its students and employers to provide the students with a smooth transition from university to work. However, there are several components in this process, ranging from student engagement to employer engagement as well as being aware of the skills demanded by employers. The chapter discusses these various components in the following five sections. It starts with the description of the University of Exeter and its career services: the location and organisational structures. It then moves on to the student engagement and explains the programmes designed by the career services to increase students' awareness of employability. The third part discusses employer engagements and the skills demanded by employers. The fourth section analyses the impact of the university career services based on various materials from internal reports to the DLHE survey. The final part briefly summarises the chapter.

6. 1 Description of the career services

The University of Exeter is located in Devon/South West. It has around 20 000 students, 2200 members of staff and six Colleges over three campuses. It is a member of the Russell Group, which represents the 24 leading universities of the UK (Matrix report, 2013, p. 1). Employability and Graduate Development (EGD) is the formal name of the University's career services and is one of the six academic services at the University (Figure 6.1).
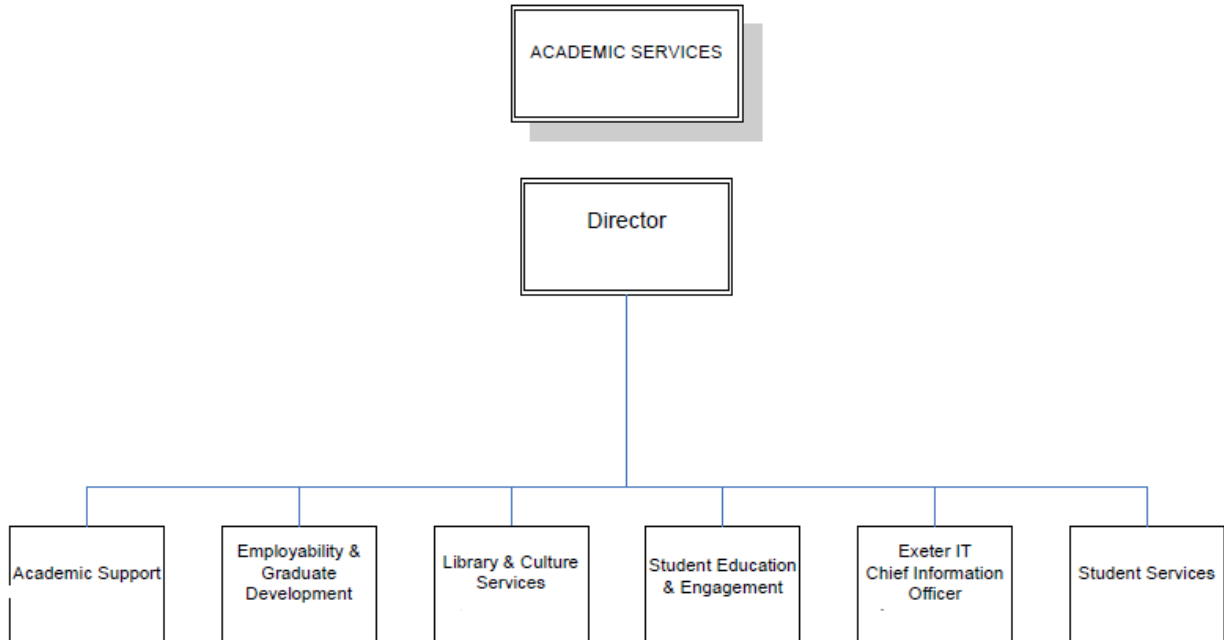
Figure 6.1 Academic services at the University of Exeter (Source: An interviewee)

6.1.1 Location

One of the advantages of the EGD is its location. It is at the centre of the campus, in a building called Forum which has a variety of services including a supermarket and coffee shops. This facilitates visiting the Career Zone, the name of the career office. It is so convenient that while students may be in the Forum building for another reason such as shopping or drinking coffee, they may go to the Career Zone for a random visit. The location of the Career Zone has grabbed attention, for instance, in their work titled "An avalanche is coming", Barber et al. (2013) praised the location of the University's career services with the following words:

> [Universities] need to take the employability of their graduates much more seriously than they have in the past. Michael was impressed on a recent visit to Exeter University by its Employability Centre, symbolically located at the heart of the campus in a spectacular new building. No student could possibly miss it (unlike the

classic 20th century careers centre tucked away in a dowdy corner of a university and

exuding lack of status. (p. 63)

To reflect these words, a series of pictures are presented below, which show where

EGD and Career Zone are situated (the images are used by the permission of the

University of Exeter).

Image 6.1 Career Zone is located in the Forum

Image 6.2 A view inside the Forum where the Career Zone is.

Image 6.3 Career Zone in the Forum Building

6.1.2 Structure of the organisation

Employability and Graduate Development has 30 full-time employees and two main divisions, Employability & Curriculum Services, and Employment Services. The Career Zone in Employability Services engages with students and provides a variety of services from CV building, one-to-one interviews to offering part and full-time job opportunities. Employment Services focuses on employers, developing relationship as well as enhancing and sustaining it. Employability & Curriculum Development deals with curriculum and work-related learning to enrich the module contents and make them more relevant to the world of work (Matrix report, 2013, p. 2). The structure of the organisation can be seen in Figure 6.2.

Figure 6.2 EGD Organisational structure (shortened)
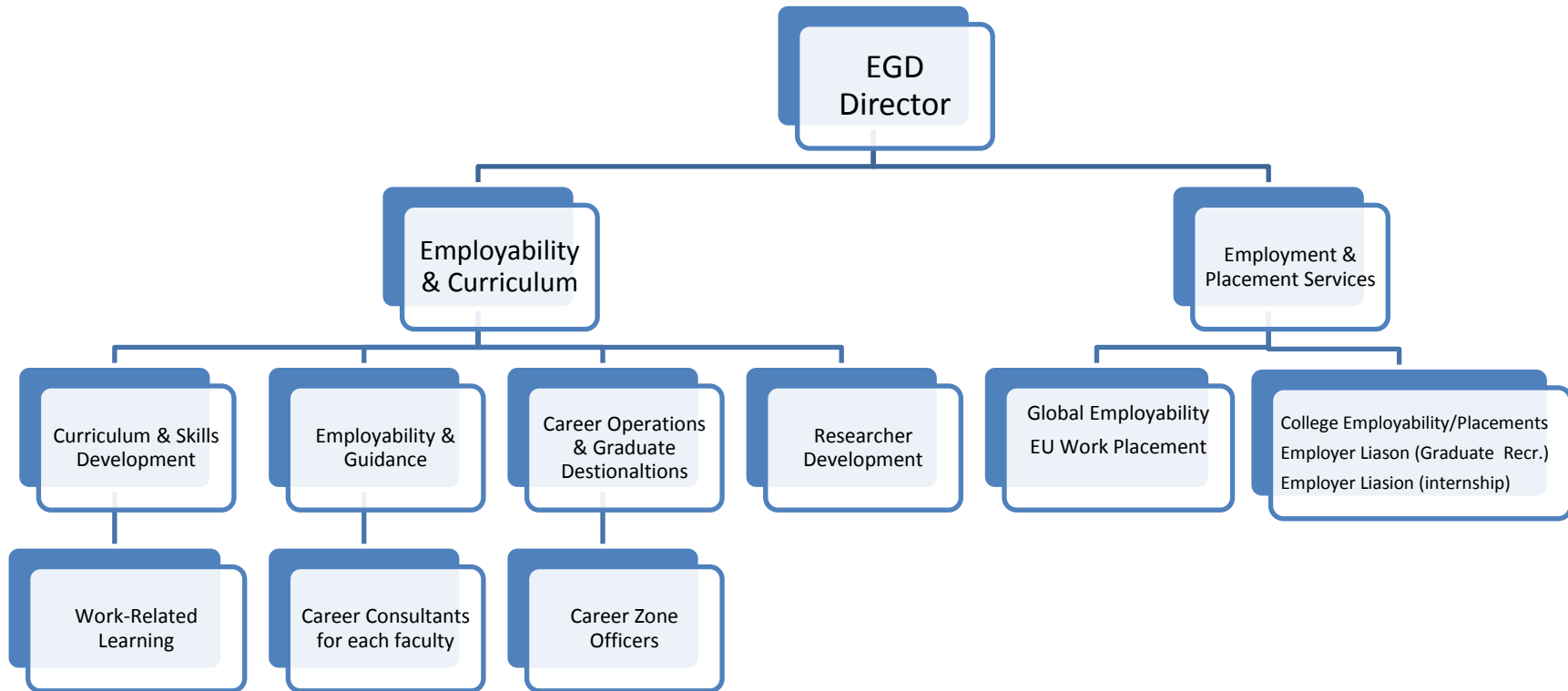
In general, two concepts are important in structuring the organisation: work-related learning (WRL) and work-based learning (WBL). WRL refers the modules and learning activities in which the concept employability is embedded and can be through curricular or extra-curricular activities. WBL, on the other hand, refers to instructional programs that use the workplace as a site for student learning. Work-based learning programs are formal, structured, and strategically organised by instructional staff and employers (Bragg et al., 1995, p. 1). It typically takes place in an actual workplace through internships and work placements (Harvey, 2004).
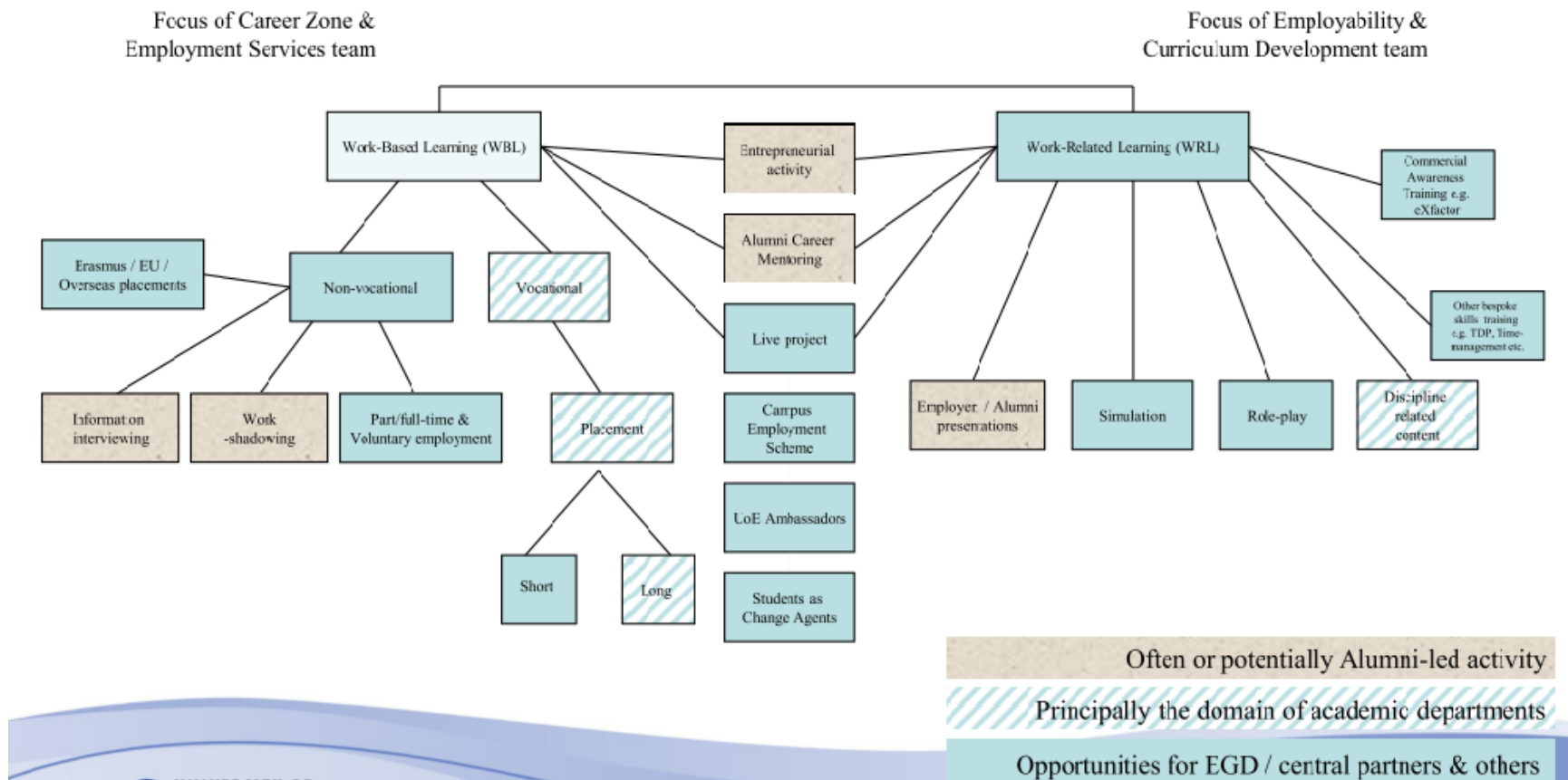
Figure 6.3 Work-based learning and work-related learning, (Source: the presentation of the EGD Head officer, PPT 2 Slide 11)

As seen in Figure 6.3, the tasks and responsibilities are structured around work-based learning and work-related learning. The former is primarily delivered by the Career Zone and includes internship, vocational and voluntary employments while the latter is delivered by the Employment and Curriculum team and includes discipline related contents, role plays and simulations.

6.1.3 The strategic goals

Employability is the core strategy of the organisation. In the first meeting with the head of EGD, he said that there are several reasons why university career services have become so important. First of all, parents want to know the rate of return on education: if their children obtain a degree, whether it will really pay off. An interviewee at EGD also underlined this point:

> Parents are often very keen [about employability] because there is a lot of, you know, concerns about the cost. What you are going to get for the money and they talk [ask] to us about, you know, 'is there much part-time work available in Exeter?', 'do you have internships?'… That sort of things. (Interviewee 5)

Secondly, there is an increasing pressure from government and other institutions such as Higher Education Statistics Agency (HESA) for more accountability and transparency for the employability rate (Harvey, 2001). For instance, the nation-wide surveys such as DLHE and Highfliers show the employment rate of each university on an annual basis. These surveys are analysed by various organisations such as universities and companies. Therefore, it is important to perform well in these nation-wide surveys. Thirdly, the head of EGD emphasised that although there can be some exceptions, most of the time, the main reason for getting a university degree is employment. The reasons he provided overlap with those provided by McNair (2003 cited in Taylor & Hooley, 2014, p. 487) who highlighted the rising importance of graduate employability due to "the changing nature of the graduate labour market, mass participation in HE, pressures on student finance, competition to recruit students and expectations of students, employers, parents and government (expressed in quality audit and league tables)."

Hence, the intense pressure from parents, government as well as from the other competitor universities has made it imperative for the EGD to re-define the goal of the career services. Accordingly, the strategic goal of EGD has been redefined as "to assist students with career

preparation, identification and creation of relevant opportunities and their successful transition

into graduate level work and further study upon graduation" (Internal report 1, p. 3, underscored

in original). Hence, the goal of the university is to enable graduates to obtain *a graduate level*

job rather than just *a* job.

In order to complete the process successfully, a student is generally expected to have obtained

the following knowledge, skills and competencies:

A good degree
+
PTS (Personal Transferable Skills)
+
Career Management Skills (Self-awareness, interview skills, job hunting strategies etc)

+

Work related learning and work experience
+
Enterprise and professional skills, commercial awareness
+
Self efficacy and personal effectiveness

=

Graduate job   (PPT3, Sl. 3)

It is also worth noting that students, in this context, do not only include Undergraduates and

Postgraduates but also all pre-entry applicants and Early Career Researchers. EGD has been

structured to support the students with this strategic goal and holistic approach (Internal report 1,

p. 3). In other words, EGD does not consider that it is just responsible for the employment of the

students who are about to graduate but rather EGD views it as a continuous process which starts

from the pre-registration period until the attainment of a graduate level job. Within this

framework, EGD runs a programme called 'never too late' and students are given support after

three years of graduation. One of the interviewees noted that:

The idea is that they are not just cut off. They are given support. If they are in the

first job, if they want advice how to take the next step up, they can still come

back... It is a part of our 'never too late' campaign.   (Interviewee 3)

In accordance with the strategic goal, the members of staff in EGD are trained to make sure that

they have a clear idea of what their targets are and how to achieve them. The accreditation

review by an independent inspector company also praised the member of staff in EGD noting

that:

all staff and managers interviewed had a clear understanding of the University

strategic objective, and of the aims and objectives for their functional area in

relation to the department Plan and the University's strategic objective. (Matrix

report, 2013, p. 7)

6.2 Student engagement

In order to build good relationships with employers, the students of the University need to be

highly employable so that it can attract employers' interests. To make them more employable,

EGD engages with students at the central and faculty levels. To increase students' awareness of

employability, first of all, the EGD begins to introduce employability to students from Day 1.

As soon as students register, they are introduced to a scheme called eXfactor (Figure 6.4).

Through this scheme, students are encouraged to plan their career path and set targets year by

year. This scheme has got the Best of the Best and Graduate Development Awards by Associate

of Graduate Recruiters (AGR) in 2012. An interviewee said that Exeter is "the only university

that has ever won that award."
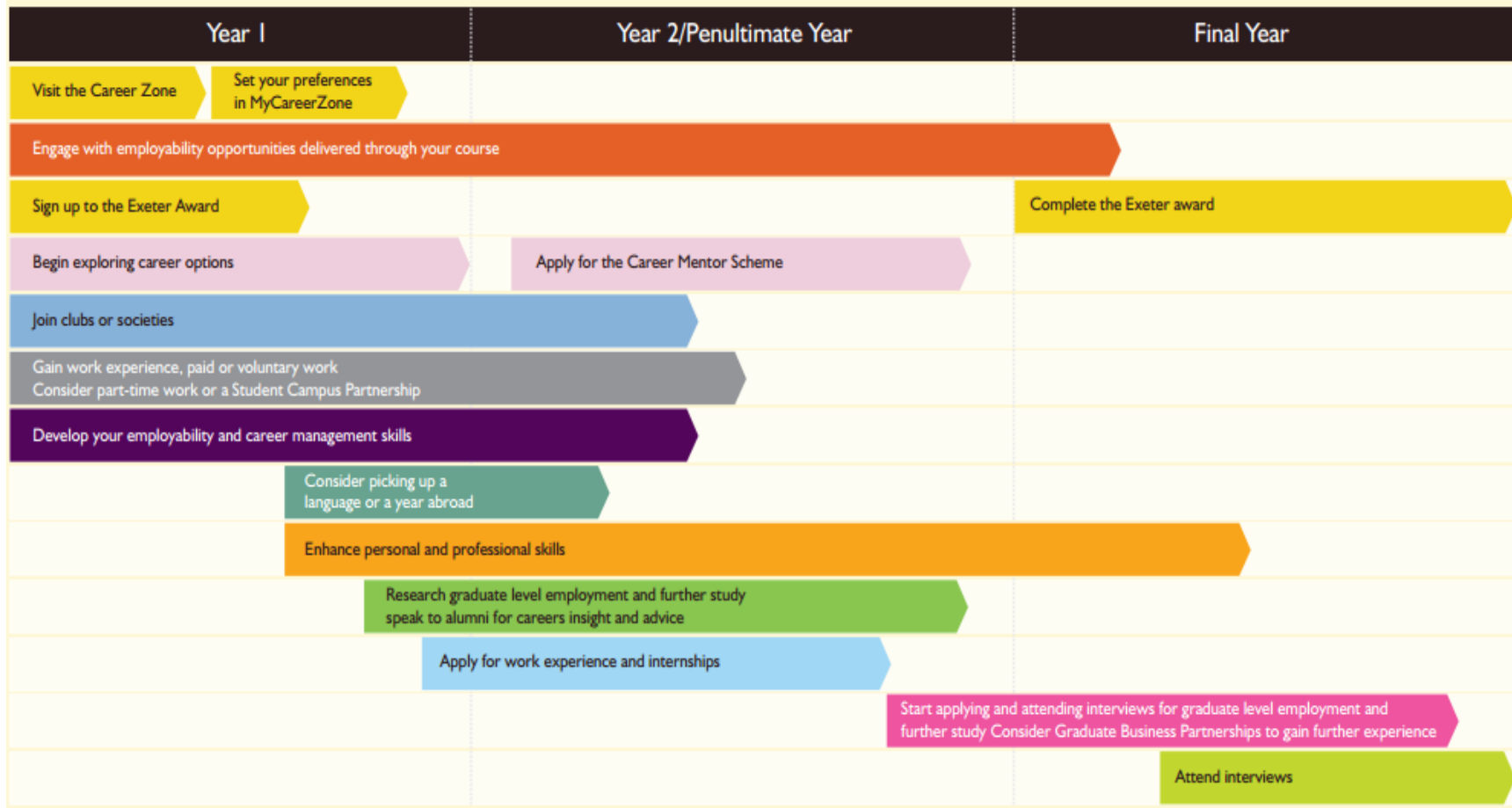
Figure 6.4 eXfactor scheme (The University of Exeter's website, 2013)

Another noteworthy programme is the Exeter Award (Figure 6.5). In 2008, EGD launched

the Exeter Award to encourage participation in extra-curricular activities by providing official

recognition and evidence of attendance at skills sessions and training programmes including

sport and musical events. Around 2,700 students joined in the first year of the Award. This

employability programme is also cited as a good example by the Confederation of British

Industry to show how to engage with students and promote employability (Sheldon, 2009, p. 41).
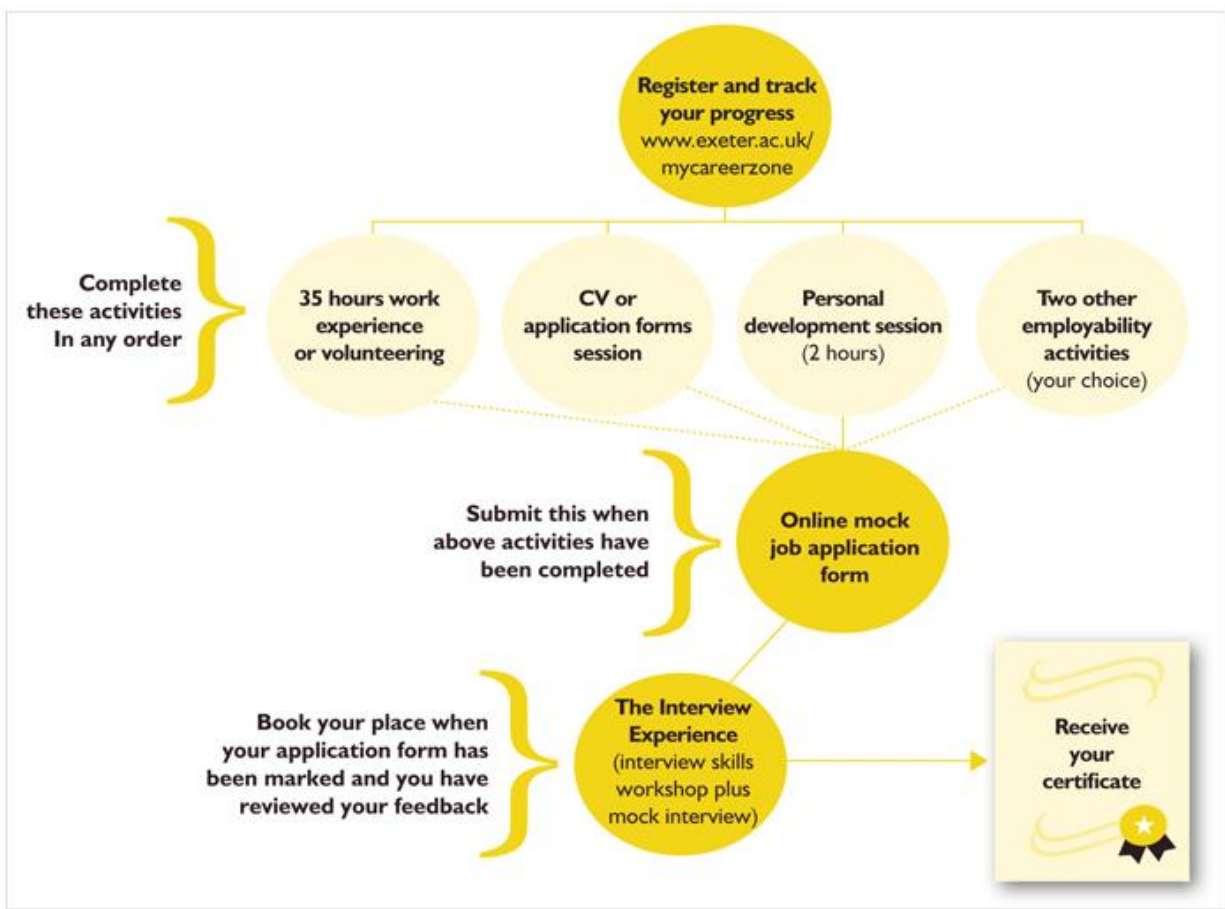
Figure 6.5 Exeter award activities (The University of Exeter's website, 2015a)

The importance of these kinds of awards and extra-curricular activities may not be

appreciated at first glance. However, these activities signal graduates' abilities and competencies

to employers (Ward, 2012). As it was mentioned in Chapter 1, there is a considerable number of

empirical works which have found this *signalling effect* (Cole et al., 2007; Ramesh et al. 2009).

For instance, the UK-based longitudinal study by Elias and Purcell (2013, p. XXIII) discovered that participation in extra-curricular activities is associated with positive labour market outcomes. That is, graduates who took part in extra-curricular activities were less likely to be unemployed, and more likely to be employed in a graduate job. Elias and Purcell (*ibid*) noted that this demonstrates the value employers place on such activities as a means to highlight desirable characteristics such as teamwork and leadership.

As a result of the activities like eXfactor and Exeter Award, the students are increasingly interested in employability related programmes and these schemes have substantially raised their awareness of employability. One of the interviewees pointed out this:

> To be fair, because of all the work we have done last few years with the first year students, I think, we are starting to see almost an acceptance from a lot of first years. They do understand, they need to think about it [about employability from day 1]. (Interviewee 6)

While the central University Career Services deliver these kinds of schemes to promote the employability agenda, they work in tandem with the other faculties and put employability in their curriculum. Hence, different faculties run subject-specific employability courses. For example, 'Learning from Work Experience in the Social Sciences', 'Data Analysis in the Workplace', 'Humanities in the Workplace', and 'Your Employability Skills' are some of the optional modules that are available for students. These modules do not only provide comprehensive information about the world of work and skillsets demanded in the labour market but also students are required to actually work for 40 hours in a job to pass the modules. Employers are also engaged in the process. For instance, the archaeology placement module titled 'Professional Placement' incorporates employers' feedback, which counts for 40% of the assessment. These

modules form part of the Education Strategy of University of Exeter, which states that "global competition for jobs increases, [hence] there is an increasing need to enable our students to enhance their employability" (University of Exeter, 2009. p. 2).

6.2.1 Q-Step

To maintain strong relationships with employers, the weaknesses of the students should be identified and necessary actions should be taken accordingly. For instance, numeracy is one of those weaknesses, not only at the Universities in particular but also in the country in general. "There is a massive [numeracy] skill shortage in this country" says one of the interviewees and the UK-wide CBI survey reports that numeracy is a challenging problem in the UK labour market (Sheldon, 2009). This problem is particularly noticeable for social science students. The problem of numeracy has been pointed out by several interviewees as well:

> It [numeracy] is one of the things that people [students] complain to me about the most. 'Why we don't do anything about numeracy'. We know that the numeracy training is an issue. We are doing something about it... I am working in collaboration with the Maths department. (Interviewee 1)

Another interviewee highlighted the same issue:

> The other issues that we need to address here, numeracy skills. I think particularly for non-numerate disciplines. We are trying to reinforce the numeracy skills. This year, for example, we put on numeracy skill workshop… Because there are very very few jobs these days, graduate jobs where the employers do not test your numeracy skills. (Interviewee 4)

To overcome this barrier and to increase students' numeracy skills, a programme called Q-Step was designed, which is a nationwide project and supported by the Nuffield Foundation,

ESRC (Economic and Social Research Council) and HEFCE (Higher Education Funding Council for England). The University of Exeter is one of the fifteen universities to deliver it and the students who join the programme secure a work placement at the end of the programme, where they can apply the quantitative analysis techniques in the real workplace.

Hence, it is possible to say that employees at EGD are aware of the skills required to get a graduate job and attempting to come up with different solutions to meet these demands. The Q-Step is one of them.

6.2.2 Barriers to student engagement

There are a number of barriers to engagement. The first one is apathy, some students are not engaged in the programmes offered by EGD. An interviewee said that apathy and money are the biggest barriers and another interviewee also stressed this issue:

> The other thing that is a challenge for us, although we are getting better in this, trying to show students even though they are here for three or four years, employability is important from day 1. I have been a student and three or four years is a long time when you are seventeen or eighteen. You think you have got lots of time. So, it is very difficult for us and very easy for the students to think 'I have only just decided to come here, why are they starting to talk to me about what I want to do when I leave'. That is a barrier, making that connection… But there will always be a sector of students who are switched off. (Interviewee 6)

This problem is not only peculiar to the University of Exeter students, but also it has a wider application in the UK in general. For example, the Higher Education Academy in the UK found that only a tiny proportion of university students 'very often' talk to teaching staff or an advisor about their career plans. Figure 6.6 shows that students are becoming gradually more interested

in talking about their career plan when they approach graduation. However, still almost 35% of final year students never talked to an advisor about their future career.
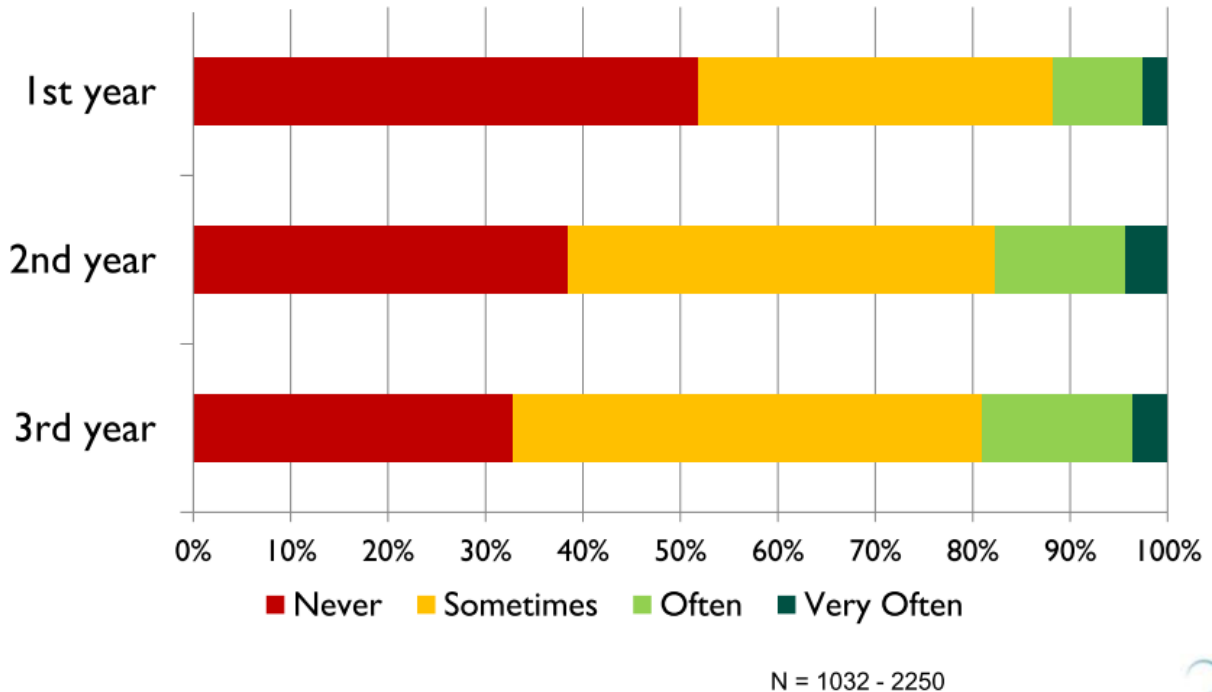
Figure 6.6 How often have you talked about your career plans with teaching staff or advisors? (Buckley, 2014, p. 22)

A similar picture seems to exist across the globe as well. Australia Survey of Student Engagement (AUSSE, 2010) found that 52% of postgraduate students never talked their career plan with an advisor. Quoting from the 2008 Community College Survey of Student Engagement (CCSSE), Luther (2009, para 2) noted that "35%-51% of students [in the US] rarely or never take advantage of academic advising and career counselling services despite recognizing the importance of doing so." Hence, it is possible to say that apathy seems to be a persistent problem in many countries in the world. However, as highlighted by some interviewees this attitude seems to have changed in recent years as students have become more aware of the importance of employability and of making a career plan before the final year. The programmes like Exeter Award Scheme and eXfactor have also raised this awareness.

216

For some students the initial contact with the Career Service is the main barrier. One of the participants noted that "we find if we manage them to get to do one thing, then they would do a lot of things. It is just getting them to do the first thing" (Interviewee 3).

A second barrier is an unclear vocational identity (Blustein et al., 1997). That is, students are not sure which career path to pursue. Two participants highlighted this point:

> A lot of the time, it is them deciding what they want to do because the graduate job market in the UK is very open. So, apart from few areas they can choose a vast array of things. So, a lot of the time, the barrier can be them deciding what it is that they want to do. (Interviewee 3)

> Our main barrier for some students is sifting through what they want to do. If you have not got those good role models, you can't see what the potential careers are. Then that is a further barrier. (Interviewee 4)

The participant from the Business School highlighted another barrier based on his analysis of the DLHE survey. He talked about how social background and ethnicity may be a barrier by showing the breakdown of the DLHE results:

> I have identified two particular obstacles. One, I think, is around students' background. So, I think, where students come from and their socio-economic background has an impact on their ability to both develop their employability skills and develop networking and develop their own self-belief. I think there is an issue here about self-belief and that is about socio-economic background. There is also an issue of nationality… I have got data here from our DLHE survey… We have found, there is a significance difference in the employability rates of people from low

social economic backgrounds, of 35 percentage points. It is quite significant.

(Interviewee 4)

The same interviewee also underlined the importance of social capital in the process of employment:

Students who are from those [low] social backgrounds lack a number of things. They

lack a network. So, the family and friend network is the key because those are the

people that they can introduce you or give you work experience opportunities. They

might be able to give you work-shadowing **days** [bold is vague sound]. They might be

able to give you one week work placement. They might even be able to give you a job.

So, networks are key… If you come from a low socio-economic background, you do

not have those networks. So, your barrier to entry into graduate employment is a lot

higher. We have to help students to overcome these barriers [by building networks]…

by encouraging students to come and meet employers when they come here.

(Interviewee 4)

However, the disadvantaged groups are thoroughly analysed and targeted to increase their employability rate:

Overall, [some ethnicities] are slightly lower than the school average and it is the

group I am targeting… My strategy is based around targeted support at the whole of

one peculiar group. Because we know, small numbers can make a big difference

[in the league table]. (Interviewee 4)

In conclusion, the interviewees highlighted three main barriers to student engagement and employability. They are apathy, unclear vocational identity, and lack of self-confidence due to

low-socio-economic background or low level of social capital. Next, the other side of the bridge, employer engagement, will be described.

6.3 Employer engagement

   To help students in the employment process, EGD builds, enhances and sustains relationships with global and regional employers. The University's high league table rankings and strong reputation facilitate the EGD's ability to build networks with business and industry. As an interviewee pointed out "they [employers] are tripping over themselves to come here [to the Law career fair in Exeter]." However, not only a strong reputation but also employers may have a variety of reasons to build relationships with the University of Exeter. One of the interviewees said that:

> they [employers] may have a very specific reason to work with us, rather than the
>
> other universities and vice versa. Sometimes it is really practical, it can be location.
>
> Some of the employers want to work relatively local universities. Sometimes, it is
>
> league table positions. It can be previous hires. (Interviewee 5)

   In order to find the factors that influence employers' decision to approach a university, an interviewee had conducted a survey with 12 big companies of which 7 are elite 'Times Top 100 Graduate Employers.' Figure 6.7 summarises the most important factors:
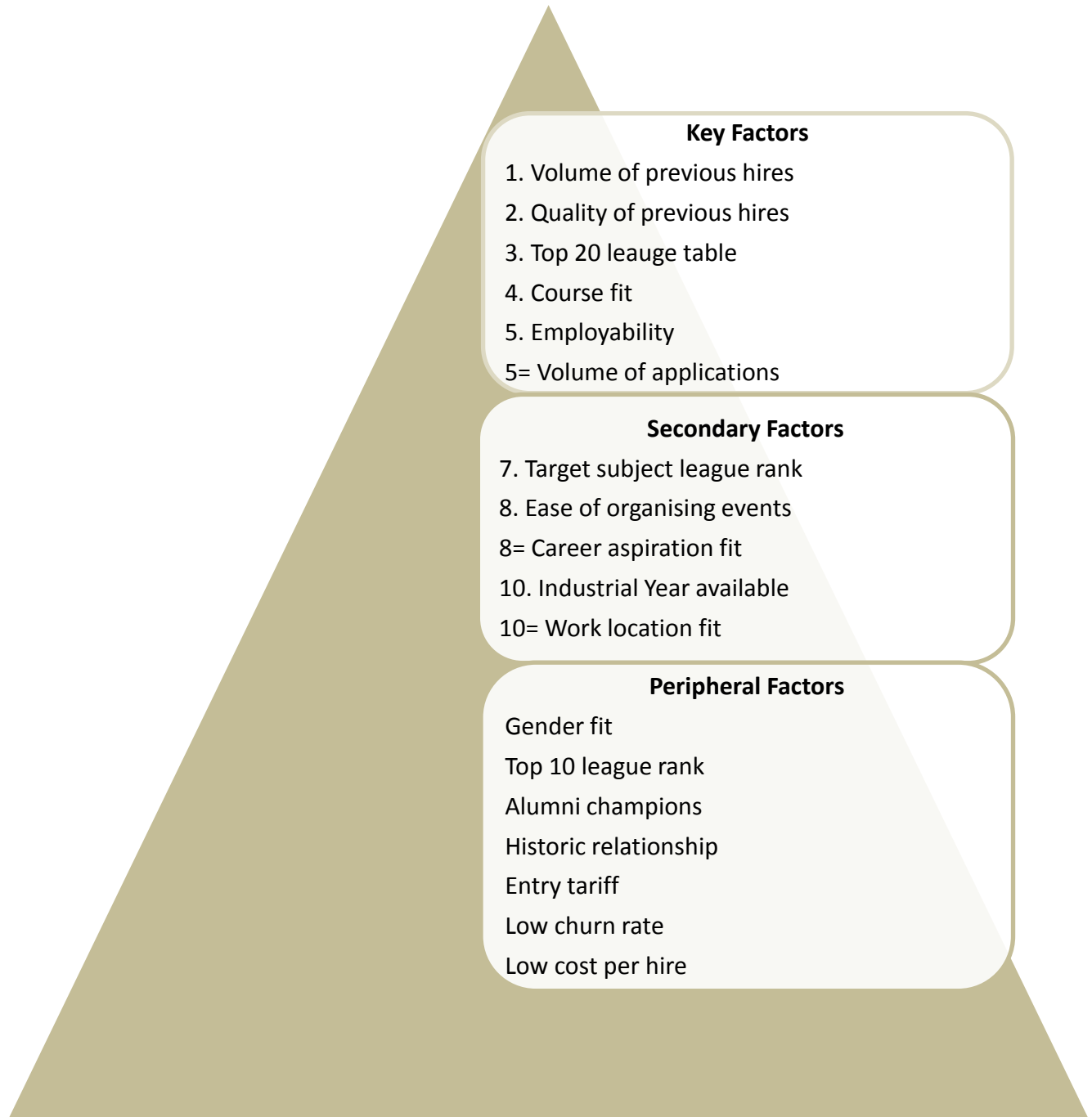
Figure 6.7 Model of factors influencing graduate employers in choosing which UK Universities to target (Source: the interviewee from the Business School)

The interviewee outlined the findings:

> Most important is previously successful recruitment from that university. They are
>
> looking for the volume of previous hires from the university and the quality of those

hires. How well they performed in a role in business. Another key factor [is] the

university's ranking. Top graduate employers want to recruit from top 20

universities and Exeter has been, for the last four years, top 10. That is massive

transition in the ranging quality of employers that target Exeter. The other thing is

course fit: the relevance of courses. This is where, you know, employers want to

recruit from the business school because we are offering relevant modules.

(Interviewee 4)

EGD stays regularly in touch with employers to get direct feedback from them regarding the

skills needed in the labour market. Therefore, different events are organised to boost employer

engagement. One of these events is called the Employer Forum in which employers can suggest

possible ways to enhance the relationship between the University and business:

The Employer Forum is something we run on a yearly basis and it is really an

opportunity whereby we invite some of our key contacts and those companies

perhaps we work closest with. …And also invite them for their feedback, for them a

kind of help to shape the direction that we are heading in. To give us a bit of steer, to

get their input on things. So, we've got perhaps a new initiative that we are looking

to launch, what are their thoughts on that. As an employer would you engage with it,

in what way, what would work for you, how would you get most out of it. That sort

of things. (Interviewee 5)

This kind of event offers an opportunity for employers to provide feedback and influence the

programmes delivered to students. The long term impact of these activities is assessed at the

next annual meeting with employers. Moreover, employers are used as a resource to deliver

workshops and they take part in the employability lectures to share their experiences with students (Matrix report, 2013, pp. 9, 15).

6.3.1 Career mentoring as a way to connect employers to students

Although the University of Exeter attracts top employers because of its position in the league table, EGD also designs tailored programmes such as the Career Mentoring Scheme through which a student is connected to a successful person in business. Mentors are professionals across different sectors and professions who volunteer to support students by providing insight and advice into their chosen career. The mentors are a mix of alumni and non-alumni, from all sectors and professions and can be based in the UK or overseas (The University of Exeter's website, 2015b). In this scheme, students will have the opportunity to work with major companies or corporations under the supervision of a senior figure:

> We also have a scheme… where if a student in business wants to be connected with, say, somebody who works insurance, they just contact the Scheme and the administrator would look at the alumni database trying to contact somebody for them and say 'look, you used to be Exeter [student], we've got a student who is really interested in working in insurance. Can you be a broker?' (Interviewee 6)

This partnership is not only useful for students to gain real experiences in the world of work but also to build a network with someone who can be a career role model for students. A participant highlighted that:

> The university is very very good now at running career mentoring opportunities. I see these opportunities as something that are critical for our students… That allows people to find somebody in a profession who may be come from similar background or maybe not, but who can help them establish those networks. And also the other thing that, I think, students lack and career mentors do is role models. Can

somebody like me establish a highly successful career and go on, for example, to

become a CEO. Is that possible? So, we want to position students so that they can

see those role models and they can see that career is available to them as well. So, it

is about raising students' aspirations… (Interviewee 4)

This career mentoring can also help students to specify their career path because as noted before, unclear job identity is a problem for some students. The Career Mentoring Scheme provides an opportunity to overcome this barrier. As highlighted by an interviewee:

Our main barrier for some students is sifting through what they want to do. If you

have not got those good role models, you can't see what the potential careers are.

Then that is a further barrier. (Interviewee 4)

This scheme is actively promoted by EGD, furthermore the mentors and mentees are invited for a talk and share their experience with other students. Some of these events are recorded and available on the University's website.

6.3.2 Widen your option

For global or national companies, it may not be hard to build networks with the University because they have a recruitment team to ensure that their presence is felt on major university campuses. However, engagement with SMEs is harder since they are unable to dedicate enough resources for recruitment purposes. Hence, EGD develops different strategies to reach out to local SMEs. A participant talked about the new initiative:

I have introduced a new programme called Widen Your Options and that programme

was designed to plug any gaps we had our employer engagement activity. There are

sectors, industries, which are not necessarily well-represented in the employment

engagement activity we provided. That is not, we are not trying to work those

223

companies but companies do not necessarily actively recruit because they work in a

very competitive environment. (Interviewee 5)

Not only in Exeter but across the UK, SMEs lack networks with universities. The Confederation

of Business Industry survey (Sheldon, 2009, p. 16) reports that SMEs do not have adequate

resources to have a campus presence. To overcome this, EGD provides some financial

incentives for SMEs as noted by a participant: "if you are a small organisation in Exeter with

only five members of staff, you will pay a small amount which covers our costs." However, as

another interviewee noted that SMEs almost have a fear to recruit graduates:

We try to give local business incentives and we try almost to take away their fear of

graduates. I think a lot of local SMEs, maybe because of resources, they don't feel

as if they want to commit themselves to taking graduates on full-time. GBP,

Graduate Business Placements, give employers incentives financially some

subsidisation to encourage them to take the students on a short period of time, three

to four months. After three to four months, the employer can walk away and the

student can walk away. There is no contract. As it happens, a fair number of

graduates do, then, go on to work for that employer for longer. It is almost

encouraging local employers to take… (Interviewee 6)

Global companies and local SMEs have different purposes in recruitment. For this reason, the

different marketing strategies have been developed to attract SMEs:

Graduate [global] recruiters do industrial placement scheme to identify the future

potential talents, SMEs are not looking for future potential talents. They are looking

for the impact to my business. So, our sell, what we are selling to SMEs is very

different what we are selling to graduate recruiters. To an SME, we are selling 'add

value to your business' by bringing a bright student who can do the project you have

been trying to do for ages. (Interviewee 4)

It is important to deliver good services to SMEs because once an SME has a successful

experience with the partnership, the other SMEs can follow suit:

Most of my internships are local. The way I build my network is… Firstly, by

trying to do as good a job as possible so it is done by word of mouth because in

Devon, there are a lot of SMEs, they have networks, they know each other and they

pass it on. The second one is, we are really lucky at the University of Exeter that we

have got a really strong reputation. Therefore, a lot of employers will come directly

to me. (Interviewee 2)

Hence, EGD does not have a one-size for all approach but rather it diversifies its

employer engagement policies to tap into the other largely intact employer groups such as

SMEs.

6.3.3 What employers demand?

In order to build strong networks with business/industry, university career services need to

know what kind of skills are demanded by employers. This is an integral component of building

networks with business. In this section, the skills and attributes demanded by employers will be

discussed.

6.3.3.1 A degree subject is not a priority

The common theme highlighted by all interviewees is that general skills are more important

than specific skills. For this reason, degree subjects are not seen as a crucial factor by

employers. Several interviewees pointed out that:

Subject is not among the top factors. In terms of prioritizing… subject is not that

much [important] (Interview 4)

225

Most employers I work with are recruiting from any discipline. (Interviewee 5)

I think subject specific skills are seen as a bonus and [employers may say that] we do not have to train them because they already have these. But I do not think they [subject-specific skills] are usually real deal-breakers... If the person has the right enthusiasm and the right attitude, they would be able to train that person in that area. It does not tend to be 'O dear! They have everything else but they have not got that specific [skill]. (Interviewee 6)

Employers very rarely look for specific skills. There are some discreet things you should have. But it is rare… UK employers, primarily, are interested in good graduates of any discipline. There is a minority of employers who are exclusively looking to recruit business school students, very very few in my experience. I think, chief amongst competencies that employers are now looking for is communication skills. So, they want people [students] to be effective communicators in-print, in digital and in person. They have got to be able to effectively represent the business vis-a-vis the client. Whatever business you are in you are gonna to do that. (Interviewee 4)

I think they are looking for passion and enthusiasm as well that something makes students stand out. (Interviewee 3)

I'd say, the biggest thing employers looking for is passion, motivation, commitment, and I think, teamwork, communication skills... the soft skills. I think a lot of students underestimate that… Because anyone can be taught that [specific skills] when you get there. They [employers] don't care about that. They say we can teach you what

226

we need you to know. But you cannot teach someone by the time they're 21, how to

work in a team. You either know it or not by then. (Interviewee 1)

Team-working and commercial awareness are also the kind of attributes employers are

looking for.

Whenever I visit employers and I ask what do you want, what is the most important

at the moment? And the one that seems to come up more and more is teamwork.

Teamwork and interpersonal skills: the ability to create relationship with people is by

far and away the most important aspect. (Interview 6)

The other issue for our students is commercial awareness. Employers often say, you

know, what we look for, we want you to express or demonstrate you know about our

organisation, but also know about wider industry. What are the business issues of

the day. If the student can't demonstrate that then they feel that they are not engaged

enough with that company. So, commercial awareness is another issue… I think it

has changed. When I first took this job on, students did not understand what

commercial awareness even meant. If you do not understand what that means, you

do not know you are missing all that you needed. Therefore, you wouldn't sign up

for sessions. Employers are very good at… They run sessions and mention some of

these terms and flag up some of these issues while talking to students, even if it is

something slightly different just to get it on their radar… Commercial awareness is

definitely a big one. (Interview 5)

However, although all interviewees unanimously said that academic disciplines are not

important, it is the soft skills that matter, there is a great discrepancy between some empirical

findings and what they say. As it was shown in Figure 2.1 (page 27), technical skills are

frequently demanded by British employers and 70% of employers consider degree subjects as

highly important in the employment process. Moreover, most of the British employers want to

hire applicants from STEM (50%) and Business subjects (17%) while only 2% of them are

interested in applicants from language studies and just 1% of them are interested in those from

art and design studies. Hence, it is not clear why all interviewees have prioritised employability

skills over technical skills. One of the possibilities is that they were instructed by their seniors as

such. For instance, in the meetings with the head of EGD, it took me quite some time to

convince him about the importance of technical skills. In one of the meetings, I argued with him

about it but he was not convinced as I did not have any empirical evidence at hand. Later on, I

came across several studies (CBI, 2012; Manpower Group, 2015) both in the UK and around the

world which show the importance of technical subjects and I showed these studies to him.

Hence, it is not unlikely that employees (the interviewees) are instructed by the senior figures

and told that most of the jobs are available to applicants from any academic disciplines, which I

kept hearing in the meetings although it contradicts some empirical findings. This does not mean

that soft skills are unimportant but they would be highly valued by employers along with

technical skills and just soft skills may not be sufficient on their own.

6.3.3.2 Degree classifications (Grades)

Signalling theory (Spence, 2002) suggests employers use certificates and educational

qualifications to screen out applicants. A grade itself is not a skill but it is considered to be the

proxy of some characteristics: conscientiousness and discipline (Cole et al., 2007). Hence,

graduate employers mostly want a 2:1 and above when they recruit. In the quantitative part, the

significance of degree classification is illustrated (see Figure 5.2 in Chapter 5). This finding is

also, confirmed by interviewees. All of the interviewees stressed the importance of grade:

This is where I feel most sorry for the students. Basically, now I hear time and time again from employers 'we expect 2:1'. A 2:1 is a given, what else you have got in your CV that counts. But of course, if you are a student that has got a 2:2 or a third even, you feel really marginalised and alienated by that. It is something that concerns me. For someone who is on course for a 2:2, we need to be doing more for them. Grade is a benchmark, it is a way of filtering applications but quite possibly to the detriment because there will be quite good candidates that are 2:2 but they will not get a job interview (Interviewee 1)

Some employers, especially the large recruitment schemes will be looking for a 2:1 or above. Sometimes employers can afford to be really fussy and will be looking for a First. But normally, it is a 2:1 and above. They are less concerned, normally, about the subject. So, the types of roles the Humanities students go into… So, it is about 60-70% of the UK [graduate] job market isn't discipline specific. A lot of roles Humanity students go into is less concerned about the actual discipline. (Interviewee 3)

In conclusion, the interviewees almost unanimously highlighted that soft skills such as team-working, communication and passion are the kinds of skills demanded by employers. Technical skills are not prioritised by employers. Moreover, degree classifications (2:1 and above) can send a positive signal to employers about a graduates' commitment and discipline.

6.4 Impact on employability

In this section the impact of EGD will be analysed. The section consists of two parts. The first part will be a brief explanation about the impact of EGD through internal reports as well as through national surveys, DLHE and Highfliers. In the second part, the graduates who *actually*

get a job through universities career services will be analysed in terms of gender, ethnicity, degree classification, academic discipline and academic qualification. In the second part of this section, Exeter University will be compared with other universities through the DLHE survey. This survey shows the number/ratio of graduates who actually get a job by using their own university career services. This survey will be examined whether there are some patterns that are common for most UCS and whether that common pattern is also seen in the University of Exeter's career services. This will also indicate whether some findings discovered in this case study can be generalisable to the UCS at other universities.

6.4.1 Internal reports

Table 6.1 shows the number of individual engagements with students from 2010 to 2013. The data is based on the number of student appointments in the Career Zone. As it is clearly seen, there is a gradual increase in the number of students engaged over four years. While in 2010, the number of engaged students was 14300 it has soared to 35000, which reflects almost a 145% increase.

Year	Individual engagements	Increase (%)	Accumulated increase
2010	14,300		
2011	19,500	36.4%	
2012	25.500	30.8%	
2013	35,000	37.3%	144.8% (2010 is base)

Table 6.1 The number of students EGD engaged by year (Source: PPT 3, Slide 14)

Table 6.2 displays the percentage of university students who used university career services in each year. In 2010, 81% of students used career services while in 2014 this percentage has increased to 97%, almost all students at the University. These positive outcomes are attributed to stimulating programmes like eXfactor and Exeter Award.

Year	2010	2011	2012	2013	2014
Users of UCS %)	81%	82%	94%	97%	97%

Table 6.2 The number of students EGD engaged each year (Source: PPT 3, Slide 14)

These achievements are also translated into tangible outcomes in university league table. For instance, Figure 6.8 compares the employment rate of the Exeter graduates to those of top ten universities in the UK after six months of graduation. In 2008, the University of Exeter was far below the top ten universities, it has gradually improved its position and in 2014 and has become slightly better than top ten universities in terms of employment rate.
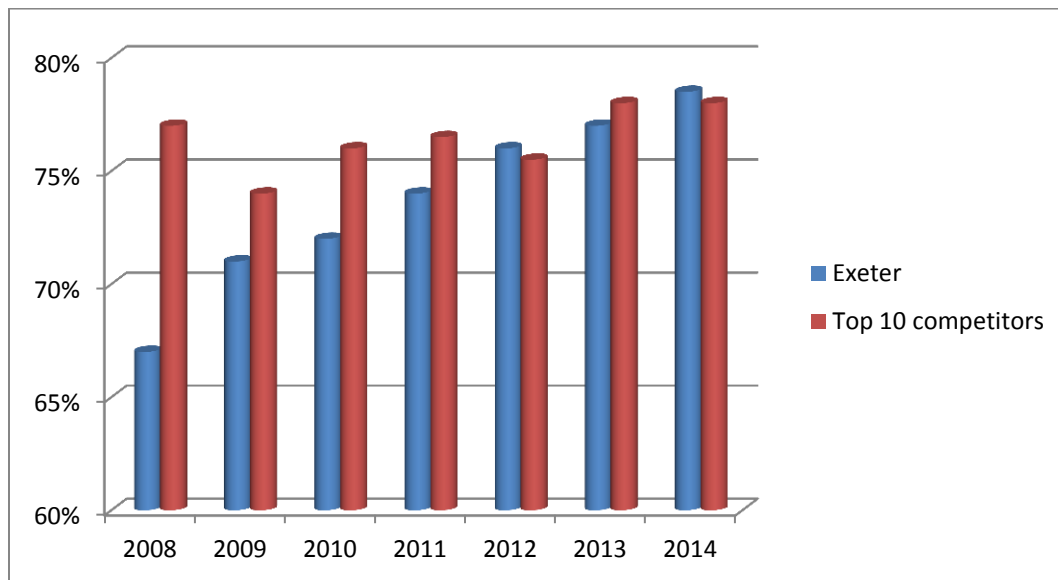
Figure 6.8 The comparison of Exeter and top 10 universities by graduate employment rate (Source: Times Good University Guide, PPT3, Slide 14)

The improvement of the University of Exeter is also noticeable in Highfliers' nation-wide surveys between 2009 and 2015. Table 6.3 shows the universities targeted by top employers in the UK and the University of Exeter does not appear in top 20 universities targeted by employers in 2009 and 2010. However, the university first appears among the top universities in 2011 and it makes some improvement in 2014 and 2015 by moving up the 18th position.

	2009	2010	2011	2012	2013	2014	2015
1	Manchester	Manchester	Cambridge	Manchester	Warwick	Nottingham	Manchester
2	London	London	Warwick	London	Nottingham	Manchester	Nottingham
3	Warwick	Warwick	Manchester	Cambridge	Manchester	Cambridge	Warwick
4	Cambridge	Cambridge	London	Nottingham	Cambridge	Oxford	Cambridge
5	Oxford	Oxford	Oxford	Oxford	Bristol	Bristol	Oxford
6	Bristol	Nottingham	Nottingham	Bristol	Durham	Bath	Durham
7	Durham	Bath	Bristol	Warwick	Oxford	Warwick	Bristol
8	Nottingham	Bristol	Bath	Durham	Birmingham	Leeds	London UC
9	Bath	Leeds	Durham	Birmingham	Bath	Imperial C.	Imperial C.
10	Leeds	Birmingham	Leeds	Bath	Leeds	London UC	Leeds
11	Birmingham	Durham	Edinburgh	Leeds	Sheffield	Birmingham	Bath
12	Edinburgh	Sheffield	Birmingham	Sheffield	Imperial C.	Durham	LSE
13	Sheffield	Loughborough	Loughborough	Edinburgh	Loughborough	Sheffield	Birmingham
14	Loughborough	Edinburgh	Sheffield	Loughborough	Edinburgh	Loughborough	Edinburgh
15	Southampton	Southampton	Southampton	Southampton	LSE	Edinburgh	Loughborough
16	Cardiff	Newcastle	Cardiff	Newcastle	London UC	LSE	Sheffield
17	Glasgow	Cardiff	Aston	Aston	Southampton	Newcastle	Southampton
18	Newcastle	York	Strathclyde	Liverpool	Newcastle	**Exeter**	**Exeter**
19	York	Liverpool	Newcastle	Cardiff	Strathclyde	Southampton	Newcastle
20	St. Andrews	Lancaster	**Exeter**	**Exeter**	**Exeter**	Strathclyde	London King' C

Table 6.3 Universities targeted by the largest number of top employers 2009-2015 (HighFliers, 2009, 2010, 2011, 2012, 2013, 2014, 2015)

Although, it seems that there is much room for improvement, given the fact that once the University was not even in the list of the top employers in 2009/10, after some time it has managed to join it and has been consistently there for five years in a row. This achievement is no coincidence as one interviewee told: "When I said more people [employers] come to me, they are looking at league tables, they are looking at the awards we are winning… We are suddenly becoming on their [employer's] radar." (Interviewee 5)

6.4.2 DLHE survey

In the previous section, the improvement of the University in terms of employment rate was discussed. In this section, the University's career services will be more closely analysed. The dataset comes from DLHE and it shows the graduates who actually get a job through university career services (UCS). The employment rate of a university may rise due to various factors. For instance, a graduate may find a brilliant job without having ever visited the university career services. Hence, an improvement in the employment rate cannot exactly be attributed to the success of UCS at a university. For this reason, DLHE report is more illuminating as it shows the percentage of the graduates who actually used university career services and found a job. It means that the graduates who found a job through their family, friends, online career services or direct application is excluded in this section. Only the graduates who found a job through UCS will be analysed.

It should also be noted that only 23 British Universities have been chosen to compare with the University of Exeter. There are three reasons why all universities are not included in the analysis. First of all, the average of the universities would not make much sense as there can be extreme values in the dataset. Therefore, it was felt that when the number is small, a more meaningful analysis can be conducted and it would be easier to see the performance of most prestigious universities one by one. Secondly, as will be seen later, these 23 universities are

mostly representative of the general trend in university careers services in the UK. Finally, originally the study would focus on top 20 plus the University of Exeter. However, some well-performing universities have some missing datasets. For this reason, two more universities were included to replace those universities with missing elements in their dataset. Thus, the number 23 is obtained.

Table 6.4 orders the universities from highest to lowest in term of the actual use of university career services. The most helpful career service is the University of Strathclyde with almost 24%. It means that out of all the Strathclyde graduates who found a job after six months of graduation in 2013, 24% of them found a job through university career services of the University of Strathclyde. The yellow highlighter shows the Russell Group universities. Most of these universities are at top 30 in respect to the success of their university career services. However, some Russell Group universities are below top thirty such as University of St. Andrews, University of Durham and Birmingham. The University of Exeter ranks 45th. The universities such as Ravensbourne, Cranfield and Herriot-Watt are at the top of the table, which suggests that some non-Russell Group universities may also have good university career services. As expected, the Open University is at the bottom of the table because of its mode of education.

However, this table should not be interpreted as the effectiveness of university career services. For example, some students may visit a career service and obtain useful tips about job interview techniques and then apply to a job through direct application and get the job. In this example, although the student might have got the job through direct application, still the advice the student obtained from the university career service may be very helpful in this process. However, the DLHE table may give some idea about the use of UCS across different universities since it is based on hard outcomes: the number of graduates who actually got a job through UCS

although it does not measure the soft outcomes: the behavioural and attitudinal changes the

career services have made with the students, which cannot be quantified easily (Dewson et al.,

2000).

HE provider	Percentage
1 The University of Strathclyde	23.7%
2 St Mary's University College	20.5%
3 The University of Cambridge	18.4%
4 Ravensbourne	18.1%
5 Cranfield University	17.7%
6 The University of Sussex	17.4%
7 Heriot-Watt University	16.5%
8 LSE	16.0%
9 The University of Bath	15.8%
10 The Queen's University of Belfast	15.6%
11	15.0%
12 Harper Adams University	14.6%
13 The University of Bristol	14.1%
14 Queen Mary University of London	14.1%
15 The University of Aberdeen	14.0%
16 The University of Oxford	13.9%
17 Cardiff University	13.9%
18 The University of Edinburgh	13.7%
19 University of Nottingham	13.5%
20 The University of Manchester	12.8%
21 SRUC	12.7%
22 The University of Leeds	12.5%
23 The University of Dundee	12.2%
24 University of Newcastle-upon-Tyne	12.1%
25 The University of Reading	12.1%
26 King's College London	12.0%
27 The University of Warwick	11.7%
28 The University of Sheffield	11.6%

29	Aston University	11.5%
30	University College London	11.5%
31	The University of Southampton	11.2%
32	Loughborough University	11.2%
33	The University of East Anglia	10.9%
34	The University of St. Andrews	10.8%
35	The University of Liverpool	10.8%
36	The University of Essex	10.1%
37	University of Durham	10.0%
38	The Robert Gordon University	10.0%
39	The University of Kent	10.0%
40	Falmouth University	9.9%
41	University of Ulster	9.7%
42	The University of Leicester	9.7%
43	The University of Birmingham	9.6%
44	The University of York	9.4%
45	**The University of Exeter**	**9.4%**
46	Southampton Solent University	9.1%
47	The University of the West of Scotland	9.0%
48	University of Hertfordshire	8.7%
49	De Montfort University	8.7%
50	The University of Bradford	8.6%
51	University of Northumbria at Newcastle	8.5%
52	The City University	8.5%
53	The School of Oriental and African Studies	8.5%
54	Writtle College	8.5%
55	The University of Surrey	8.4%
56	The University of Huddersfield	8.3%
57	University of the West of England, Bristol	8.1%

58	The University of Brighton	7.9%		88	Goldsmiths College	6.1%
59	The University of Sunderland	7.9%		89	University of Abertay Dundee	6.1%
60	The University of Keele	7.7%		90	Royal Holloway and Bedford New College	6.1%
61	Glasgow Caledonian University	7.7%		91	Birmingham City University	6.0%
62	The University of Lancaster	7.6%		92	Glyndŵr University	6.0%
63	University of Plymouth	7.6%		93	University of Cumbria	6.0%
64	University of Bedfordshire	7.5%		94	University of the Highlands and Islands	6.0%
65	The University of Lincoln	7.5%		95	Rose Bruford College	5.9%
66	Teesside University	7.5%		96	The University of Central Lancashire	5.8%
67	Brunel University London	7.3%		97	The Nottingham Trent University	5.8%
68	The University of Stirling	7.2%		98	The University of Salford	5.8%
69	University College Birmingham	7.1%		99	University of St Mark and St John	5.7%
70	University of London (Institutes and activities)	7.1%		100	The University of Portsmouth	5.6%
71	Swansea University	7.1%		101	Bournemouth University	5.6%
72	Stranmillis University College	7.1%		102	Bangor University	5.6%
73	Leeds Trinity University	7.0%		103	St Mary's University, Twickenham	5.6%
74	Edinburgh Napier University	7.0%		104	University of Gloucestershire	5.5%
75	York St John University	7.0%		105	Buckinghamshire New University	5.5%
76	The University of Wolverhampton	7.0%		106	Kingston University	5.4%
77	The University of Bolton	6.9%		107	University of Chester	5.4%
78	Liverpool Hope University	6.8%		108	Manchester Metropolitan University	5.4%
79	Middlesex University	6.7%		109	Anglia Ruskin University	5.3%
80	Roehampton University	6.6%		110	University of Chichester	5.3%
81	Liverpool John Moores University	6.6%		111	Edge Hill University	5.3%
82	Bath Spa University	6.4%		112	Institute of Education	5.2%
83	The University of Hull	6.4%		113	University of South Wales	5.2%
84	University of Wales Trinity Saint David	6.4%		114	Cardiff Metropolitan University	5.2%
85	Coventry University	6.3%		115	Aberystwyth University	5.2%
86	Oxford Brookes University	6.3%		116	The University of Wales, Newport	5.1%
87	London South Bank University	6.3%		117	Sheffield Hallam University	4.9%

118	University of Derby	4.9%
119	Staffordshire University	4.8%
120	University Campus Suffolk	4.6%
121	The University of Greenwich	4.6%
122	The University of Northampton	4.3%
123	Queen Margaret University, Edinburgh	4.3%
124	The University of West London	4.2%
125	The University of Winchester	4.3%
126	The University of East London	4.1%
127	London Metropolitan University	4.0%
128	Leeds Beckett University	3.9%
129	University of Worcester	3.8%
130	The University of Westminster	3.7%
131	The University of Buckingham	3.4%
132	Newman University	2.6%
133	Birkbeck College	2.2%
134	Bishop Grosseteste University	2.2%
135	The Open University	1.3%

Table 6.4 The percentage of the graduates who found a job through UCS by university (DLHE, 2013)

6.5 The characteristics of the people who use UCS

In this section, the DLHE dataset will be analysed by degree classification, education level, academic discipline, gender and ethnicity.

6.5.1 Degree classifications

In the quantitative part of the analyses in chapter 5, it is found that the university students who had high degree classifications are more likely to find a job through UCS. The results in Table 6.5 clearly show that the graduates who have highest degree classifications are more likely to use UCS (highest to lowest is shown from green to red). Graduates with a 2.1 are relatively less likely to have found a job through UCS compared to those who have the highest grade. As shown, the area covered with red increases when one goes from right to left. Accordingly, the graduates who had a third/pass were the least likely to take advantage of university career services with the exceptions of the University of Sussex and Aberdeen. The University of Exeter follows the general trend and those who had a First Class Honour are the ones who mostly took advantage of the University's career services with 13.4% while those who had a third/pass could not benefit from UCS at all with 0%. Hence, these results confirm both the quantitative part of this study and the qualitative part. As would be recalled, the importance of degree classifications is emphasised by all interviewees and they pointed out that employers do take degree classifications into account.

University/Degree classifications*	First class honours	Upper second class	Lower second class	Third class /Pass	Total**
University of Strathclyde	27.57%	20.90%	29.41%	23.08%	23.65%
St Mary's University College	28.57%	20.88%	30.00%	0.00%	20.50%
The University of Cambridge	23.60%	20.49%	12.61%	18.75%	18.45%
Ravensbourne	22.22%	18.87%	18.92%	0.00%	18.14%
Cranfield University	NA	NA	NA	NA	NA
The University of Sussex	18.39%	14.29%	14.47%	23.53%	17.41%
Heriot-Watt University	17.65%	16.22%	9.57%	5.26%	16.49%
LSE	23.75%	20.45%	12.73%	20.00%	16.01%
The University of Bath	25.15%	15.69%	12.00%	7.14%	15.76%
The Queen's University of Belfast	23.66%	15.32%	7.39%	11.43%	15.63%
The University of Glasgow	21.35%	14.88%	9.50%	11.76%	14.98%
Harper Adams University	9.52%	20.37%	22.67%	0.00%	14.64%
The University of Bristol	15.47%	11.33%	8.11%	8.33%	14.14%
Queen Mary University of London	12.69%	7.23%	8.02%	0.00%	14.06%
The University of Aberdeen	16.47%	11.50%	12.83%	22.22%	13.98%
The University of Oxford	18.45%	16.39%	5.48%	12.50%	13.93%
Cardiff University	16.03%	11.90%	10.76%	0.00%	13.90%
The University of Edinburgh	17.89%	11.18%	14.66%	15.79%	13.67%
University of Nottingham	16.06%	11.43%	6.32%	0.00%	13.50%
The University of Manchester	17.55%	11.85%	9.09%	6.02%	12.84%
The University of Leeds	16.83%	9.60%	6.77%	11.54%	12.53%
The University of Dundee	14.44%	8.89%	8.18%	0.00%	12.16%
The University of Exeter	13.43%	7.75%	3.26%	0.00%	9.36%
Average	**18.94%**	**14.43%**	**12.40%**	**8.97%**	**15.26%**

Table 6.5 The use of UCS by degree classification (DLHE, 2013)

* The table is highlighted horizontally for each university. Dark green refers to those who took advantage of UCS most at that university and dark red refers to those who took advantage of UCS least. The other colours between dark green and dark red, represent middle values. **Total indicates the percentage of students who found a job through UCS. For instance, 9.36% of Exeter graduates found a job through UCS out of all graduates who found a job.

6.5.2 Gender

Gender was one of the factors included in the quantitative part and it has been found that there is not much difference between genders in terms of the use of UCS. Table 6.6 illustrates that the average gender difference in the top 23 universities is around 1%; 14.9% male and 16% female. In other words, there is no sizable gap between two genders in the use of UCS. The University of Exeter reflects the average in that regard, because 2.5% is the average of all universities in the table. Hence the University of Exeter follows the general pattern.

University/Gender	Female	Male	Difference
University of Strathclyde	26.7%	19.9%	6.8%
St Mary's University College	18.6%	25.0%	6.4%
The University of Cambridge	16.1%	21.0%	4.9%
Ravensbourne	16.5%	19.5%	3.0%
Cranfield University	19.8%	16.9%	2.9%
The University of Sussex	16.6%	18.5%	1.9%
Heriot-Watt University	16.6%	16.4%	0.2%
London School of Economics	16.6%	15.3%	1.3%
The University of Bath	13.6%	17.6%	4.0%
The Queen's University of Belfast	14.4%	17.2%	2.8%
The University of Glasgow	14.5%	15.6%	1.2%
Harper Adams University	13.3%	15.9%	2.7%
The University of Bristol	12.4%	16.4%	4.0%
Queen Mary University of London	13.5%	14.6%	1.1%
The University of Aberdeen	14.5%	13.2%	1.3%
The University of Oxford	12.4%	15.2%	2.9%
Cardiff University	13.5%	14.5%	1.0%
The University of Edinburgh	14.0%	13.2%	0.9%
University of Nottingham	13.5%	13.5%	0.1%
The University of Manchester	12.9%	12.8%	0.0%
The University of Leeds	11.5%	14.1%	2.6%
The University of Dundee	13.4%	9.8%	3.7%
The University of Exeter	8.3%	10.8%	2.5%
Average	14.9%	16.0%	2.5%

Table 6.6 The use of UCS by gender (DLHE, 2013)

However, occasionally though, there are some big gaps between genders such as in the University of Strathclyde (6.8%) in favour of females, St. Mary's University College (6.4%) in favour of males and the university of Cambridge (4.9%) for males. However, a large number of universities do not have considerable gender differences as it is evident from the size of the green and orange areas as oppose to the red. This result confirms the outcome found in the quantitative part in chapter 5.

6.5.3 Education levels

The DLHE report is also analysed in relation to education level to see whether there is a noticeable pattern in the use of UCS across different academic levels. It is found that there is a visible pattern in the dataset (Table 6.7). That is, Doctorate graduates are more likely to use UCS than the other students in general while first degree students come after them. Those with a Master's and Foundation degree are the least likely to take advantage of UCS. As seen in the table, the general picture does not change in different academic degrees at the University of Exeter. Like most universities, the graduates with a PhD degree from the University of Exeter are the most likely (15.2%), the graduates with a first degree are the second most likely groups (10.5%) to take advantage of UCS and it is followed by the graduates with a Master's degree (7.2%). This is also quite similar to the general trend.

University/Academic level	Doctorate	Masters	First degree	Foundation	Total
University of Strathclyde	22.47%	12.83%	22.27%	NA	23.65%
St Mary's University College	NA	0.00%	23.57%	NA	0.00%
The University of Cambridge	20.49%	14.26%	20.92%	NA	18.45%
Ravensbourne	NA	0.00%	19.07%	0.00%	18.14%
Cranfield University	23.08%	17.20%	NA	NA	17.68%
The University of Sussex	24.19%	6.67%	21.02%	40.00%	17.41%
Heriot-Watt University	20.00%	15.47%	17.35%	NA	16.49%
London School of Economics & Political	18.42%	13.66%	20.05%	NA	16.01%
The University of Bath	15.85%	11.66%	18.07%	0.00%	15.76%
The Queen's University of Belfast	32.00%	6.79%	18.41%	23.08%	15.63%
The University of Glasgow	7.14%	0.00%	15.44%	NA	14.98%
Harper Adams University	0.00%	20.00%	19.20%	2.91%	14.64%
The University of Bristol	25.68%	6.85%	15.45%	0.00%	14.14%
Queen Mary University of London	19.05%	8.20%	15.79%	NA	14.06%
The University of Aberdeen	21.43%	12.78%	13.17%	NA	13.98%
The University of Oxford	16.07%	10.07%	16.65%	NA	13.93%
Cardiff University	21.38%	10.82%	14.56%	NA	13.90%
The University of Edinburgh	19.08%	10.25%	12.83%	NA	13.67%
University of Nottingham	15.43%	8.46%	13.88%	NA	13.50%
The University of Manchester	17.37%	10.16%	14.15%	NA	12.84%
The University of Leeds	21.56%	9.76%	13.26%	0.00%	12.53%
The University of Dundee	13.33%	7.66%	14.30%	0.00%	12.16%
The University of Exeter	15.12%	7.20%	10.50%	NA	9.36%
Average	18.53%	9.60%	16.81%	8.25%	

Table 6.7 The use of UCS by education level (DLHE, 2013)

6.5.4 Academic disciplines

The use of UCS by academic discipline presents an interesting picture (Table 6.8) because if the academic disciplines are divided by natural sciences (from medicine to architecture) and social sciences (social studies to education), it is seen that green areas are more frequent in natural sciences while red areas are more frequent in social sciences. Apparently, medicine has the highest number of green areas, which indicates that medical students are highly proactive in using UCS with the exception of the University of Bath, which interestingly has 0%. The University of Bristol (47%), Dundee (42%), Leeds (37%) and Queen's Belfast (37%) have the highest percentages medicine graduates who found a job through UCS while the University of Cambridge (15%) and Edinburgh (13%) have the lowest.

	Medic	Allied	Bio	Agric	Phys	Maths	Comp	Engineer	Archi	Social.	Law	Busi	Mass Com.	Lang	Hist	Arts	Educ
Strathclyde	21%	5%	9%	25%	23%	15%	16%	15%	15%	8%	21%	14%	NA	5%	4%	0%	23%
Cambridge	15%	23%	24%	38%	24%	28%	25%	27%	14%	20%	13%	20%	0%	15%	18%	23%	10%
Cranfield	NA	22%	17%	13%	23%	NA	0%	20%	14%	0%	NA	12%	NA	NA	NA	NA	NA
Sussex	NA	6%	12%	NA	10%	24%	17%	15%	NA	13%	4%	9%	16%	22%	13%	13%	13%
Heriot	NA	NA	11%	6%	7%	20%	16%	24%	11%	16%	14%	9%	NA	25%	NA	14%	33%
LSE	NA	NA	7%	NA	25%	21%	28%	NA	0%	14%	11%	19%	4%	NA	24%	NA	NA
Bath	0%[21]	29%	6%	NA	19%	20%	27%	21%	17%	13%	NA	19%	NA	14%	NA	NA	3%
Queen Belf	37%	19%	6%	12%	13%	15%	30%	23%	9%	6%	11%	20%	5%	8%	3%	3%	13%
Glasgow	23%	29%	7%	0%	18%	25%	26%	16%	0%	11%	19%	23%	NA	8%	4%	1%	12%
Bristol	47%	9%	9%	7%	18%	15%	29%	26%	NA	8%	7%	9%	NA	10%	8%	6%	3%
Queen Mary	33%	6%	3%	NA	5%	9%	18%	9%	NA	9%	9%	11%	12%	6%	8%	12%	NA
Aberdeen	21%	5%	9%	25%	23%	15%	16%	15%	15%	8%	21%	14%	NA	5%	4%	0%	23%
Oxford	18%	14%	13%	NA	17%	15%	12%	24%	NA	14%	13%	9%	6%	15%	14%	5%	4%
Cardiff	34%	15%	9%	NA	12%	22%	16%	18%	10%	7%	7%	9%	7%	10%	8%	5%	9%
Edinburgh	13%	6%	10%	10%	14%	23%	20%	22%	4%	11%	14%	11%	25%	13%	10%	8%	21%
Nottingham	28%	21%	8%	17%	10%	13%	6%	20%	11%	7%	4%	10%	0%	7%	7%	6%	11%
Manchester	28%	12%	13%	NA	14%	13%	15%	18%	14%	10%	7%	11%	14%	11%	9%	7%	7%
Leeds	37%	6%	8%	15%	17%	19%	21%	18%	31%	13%	9%	8%	8%	13%	8%	5%	6%
Dundee	42%	12%	7%	NA	15%	27%	10%	11%	5%	8%	17%	5%	0%	7%	4%	6%	12%
Exeter	32%	16%	9%	NA	10%	4%	18%	16%	NA	8%	6%	9%	NA	9%	9%	6%	6%
Average	26.8%	14.3%	9.8%	15.3%	16.0%	18.1%	18.3%	18.9%	11.3%	10.2%	11.6%	12.6%	8.1%	11.4%	9.0%	7.1%	12.1%

Table 6.8 The use of UCS by academic discipline (DLHE, 2013)

[21] In the raw data from DLHE (2013), none of the Medicine graduates at the University of Bath in 2013 seems to have used the University's career services to find a job. Although it appears to be counterintuitive, this is what is written in the original raw data.

It is also noticeable that computer sciences, maths and engineering are also among the top disciplines that frequently use UCS. In natural sciences, Biological sciences and the subjects allied to medicine seem to have the lowest rate of UCS use in many universities. In social sciences, however, there is a very different picture. Mass communication and documentation, Historical/philosophical sciences, Arts/Design and Languages studies have a quite considerable number of red areas, which suggest the infrequent use of UCS by the graduates of these disciplines. Business and Administrative studies are consistently in mediocre position with a number of orange areas.

The University of Exeter also has a similar pattern with general trend with the exception of mathematical sciences (4%), which is far below the average (18.1%). While medicine is at the top (32%), computer sciences (18%) and engineering (16) are among the second and third at among the graduates of University of Exeter. Following the general trend, Arts/Design, Social studies and Historical Studies have the lowest percentage of graduates who found a job through University of Exeter Career Services.

6.5.5 Ethnicity

An interesting pattern has emerged in the use of UCS by ethnicity (Table 6.9). It is apparent that South Asians are at the top in the majority of universities in taking advantage of UCS. Blacks seem to be the least likely ethnic group to take advantage of UCS with some exceptions such as the University of Dundee (33.3%) and the University of Glasgow (22.2%) and Bristol (22.7%). In most universities, Blacks are the least likely to use UCS to find a job, notably the University of Strathclyde (0%) and Queen's University of Belfast (0%).

University/Ethnicity	White	Black	Asian	Other (including mixed)	Not known	Non-UK
University of Strathclyde	25.27%	0.00%	16.0%	15.79%	6.06%	16.48%
St Mary's University College						
The University of Cambridge	17.8%	16.7%	22.6%	23.1%	18.2%	19.0%
Ravensbourne						
Cranfield University	11.1%	9.7%	15.7%	25.0%	0.0%	22.6%
The University of Sussex	17.5%	11.4%	30.4%	20.9%	15.4%	8.2%
Heriot-Watt University	17.4%	11.1%	16.7%	14.3%	0.0%	11.8%
LSE	15.0%	4.0%	21.2%	18.6%	6.3%	15.6%
The University of Bath	16.3%	6.3%	20.3%	6.3%	22.2%	12.8%
The Queen's University of Belfast	16.1%	0.0%	20.7%	9.5%	7.7%	9.1%
The University of Glasgow	14.4%	22.2%	23.8%	8.7%	14.3%	22.1%
Harper Adams University	14.4%	0.0%	0.0%	0.0%	0.0%	30.0%
The University of Bristol	13.3%	22.7%	25.9%	11.1%	12.0%	18.8%
Queen Mary University of London	14.5%	13.8%	16.6%	6.5%	7.4%	11.5%
The University of Aberdeen	13.8%	8.7%	20.5%	8.7%	0.0%	15.4%
The University of Oxford	14.5%	8.0%	14.6%	10.6%	17.6%	10.4%
Cardiff University	13.0%	7.7%	33.3%	8.9%	29.6%	14.7%
The University of Edinburgh	14.0%	7.7%	17.1%	8.6%	8.2%	12.7%
University of Nottingham	13.4%	8.2%	14.8%	11.1%	26.8%	12.9%
The University of Manchester	11.9%	9.5%	17.6%	12.2%	18.6%	17.9%
The University of Leeds	12.0%	12.3%	15.5%	12.9%	20.0%	14.1%
The University of Dundee	12.8%	33.3%	12.5%	8.3%	7.6%	8.9%
The University of Exeter	9.1%	11.8%	21.3%	9.7%	0.0%	9.2%
Average	14.1%	10.72%	18.90%	11.95%	11.33%	14.95%

Table 6.9 The use of UCS by ethnicity (DLHE, 2013)

Asians (21.3%) are the most likely to use UCS at the University of Exeter as like the most of the universities in the table. However, Blacks have the second highest proportion (11.8%), which is somewhat unusual compared to the most of the universities, yet it is not far above the average (10.72%).

It is also worth noting that the graduates with non-UK domicile have the second highest average rate (14.95%) after South Asians (18.9%). Moreover, in several universities, they are

at the top in taking advantage of UCS such as Harper Adams University (30%), Cranfield University (22.6%) and University of Glasgow (22.1%).

6.6 Summary

The case study has explored the career services of the University of Exeter. It has described various aspects of EGD from student engagement to employer engagements. Throughout the interviews with staff at EGD, they appeared to be passionate and committed. This passion has also been translated into tangible outcomes as shown by the national recognition awards received by EGD. Moreover, internal reports in the impact section show the high level of progress made by EGD within the last years. However, the tangible impact, according to the DLHE survey, is less glamorous since there are many universities (non-Russell Groups) that are above the University of Exeter in terms of actually putting more students in employment. In fact, the career service of the University of Exeter is at the bottom out of the 24 Russell Group universities. It is true that the University of Exeter scores well in terms of employment rate and competes with distinguished universities in the UK. However, to what extent this success can be attributable to EGD's performance is debatable. In that regard, the DLHE survey (2013) suggests that there is much room for improvement.

Finally, it is also worth noting that the both quantitative and qualitative results of this study are largely consistent. For instance, in the statistical analysis in Chapter 5 and in the interviews, as well as in the DLHE survey, it is found that there is a significant difference between those with a high degree classification (a First class honour and Second upper class honour) and those with a low degree classification (a Third and Pass) in terms of taking advantage of UCS. This has been confirmed by all three sources, statistical analysis, DLHE survey and interviews. With respect to gender, both genders are almost equally likely to use UCS and find a job. Moreover, both the survey and the DLHE results show that South Asians

very actively use UCS while Blacks are less likely to take advantage of UCS in finding a job.

Table 6.10 compares the results of the survey in the quantitative part and the results of the

DLHE and interviews in the qualitative part of this study.

Components	Survey	DLHE	Interview
Gender	No significant difference	No considerable difference	Interviewees did not report any difference
Ethnicity	S. Asians are at top Blacks are at the bottom	S. Asians are at the top Black at the bottom	Did not provide any evidence
Academic level	PhD at the top Masters is second BA is the third	PhD is at the top BA is the second Master is the third	------------
Academic discipline	No pattern found	No pattern found	No pattern reported
Degree classifications	Degree classifications are significant factors	Degree classifications are significant factors	All interviewees reported the importance of degree classifications
University reputation	Mostly, top universities provide better career services compared to mediocre universities	Mostly, top universities provide better career services while some mediocre universities are also good at career services	----------

Table 6.10 Triangulation of the variables in quantitative and qualitative parts of the research (Source: Author)
(Green represent consistency while yellow represents a difference)

7 Conclusion

The concluding chapter will discuss the implications of the results with reference to studies in the literature. Accordingly, the results of this study will be compared and contrasted with the other empirical research in the field. In so doing, the research objectives (RO) will be the guiding framework and the findings will be analysed against each corresponding research objective. This means that each research objective will be a section and accordingly there will be five sections dedicated to the five research objectives. Afterwards, the aim of the research will be revisited and several key conclusions will be drawn. The chapter will end with the limitations of this study and provide some suggestions for future research.

It would be useful to reiterate the research objectives/questions because the sections in this chapter will be numbered in the same way with research objectives (see Table 7.1). For instance, the section starts with the number 7.1 will mean that this section addresses RO1 and 7.2 will refer to RO2 and so on.

Research objectives	Research questions
1. To analyse what kind of methods (channels of information) university graduates use to find a job.	1. What are the most popular methods that graduates frequently use to find a job?
2. To understand the relationship between social capital and human capital in job searches.	2. Do the social ties that graduates use to obtain a job vary across different levels of academic qualifications, academic disciplines and degree classifications?
3. To examine the characteristics of graduates who use their social capital in labour market.	3. What are the characteristics of graduates in the UK labour market who receive significant help from their social ties to find a job: do they vary across gender, ethnicities and age?
4. To find out the importance of strong and weak ties in job searches.	4.1 Does the hypothesis of the strength of weak ties have empirical support in the UK labour market? If it does, to what extent? 4.2 What are the characteristics of graduates who receive help from their own family (strong tie) to find a job? Is there any non-random and generalisable pattern in any demographic and academic characteristics of these graduates?
5. To explore the role of university as an institution in the process of job search.	5.1 In what ways do university career services as an institution help their students to find a job? 5.2 What are the characteristics of the individuals who use university career services for job placements in terms of gender, ethnicity, academic level, academic discipline and degree classification?

Table 7.1 Research objectives and questions (Source: Author)

7.1 Most popular methods to find a job

The study found that the most widely-used channel of information in the UK graduate labour market to find a job is *direct application* by far, regardless of gender, age, ethnicity and academic disciplines (see Figure 5.1 in Chapter 5). In other words, contacting employers directly was the most effective way to obtain a job compared to the other search methods. Online career services and family are the second and third most useful sources of information respectively while close friends and newspaper/magazine advertisements are also important sources of information to find a job. Thus, it appears that impersonal channels such as direct application and online career services are more popular than formal and informal channels such as employment agencies and family. This finding is also consistent with the study of Green et al. (2011). As Figure 7.1 shows, degree holders in the UK mostly prefer one of the impersonal channels: 'reply to advertisement' with around 30% while only around 17% of graduates found a job through informal methods (hearing from someone who worked there).
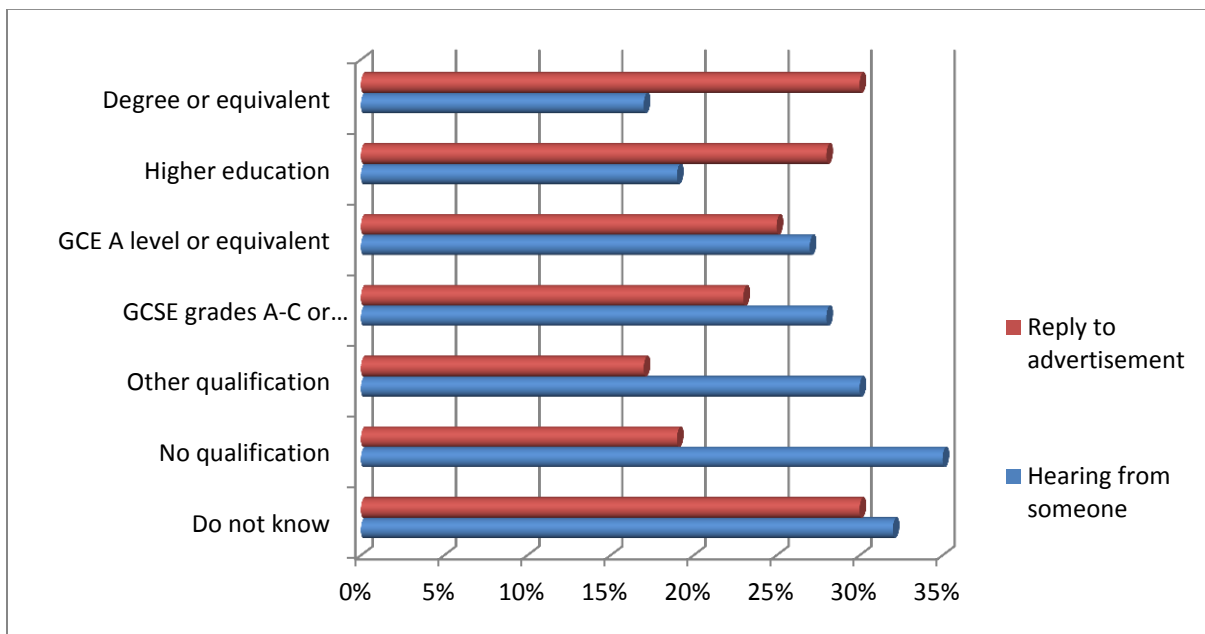
Figure 7.1 The channels of information to find a job by education level, (Green et al., 2011, p. 57, edited by the author, the figures are approximate)

Another noticeable conclusion in the figure is that when education level declines, the

dependency on informal networks increases. There is a pattern in the figure; the length of the

blue bar (hearing from someone) increases gradually when education level of the respondents

decreases. Those whose qualification levels are below higher education tend to more rely on

their informal networks in the UK. This also means that dependency on informal network is

comparatively less for those who have a higher education degree, which is consistent with the

finding of this study.

More will be said about the relationship between education and social capital in the next

section. However, to address research objective 1, it suffices now to say that according to the

finding of this study, the top five channels of information for UK graduates to find a job are

direct application, online career services, family, close friends and newspaper advertisements.

7.2 The relationship between human and social capital

In this section, research objective two (RO2) will be examined to assess whether the use of

social ties varies across education level and academic discipline.

7.2.1 Education level and social capital

The study found that among all graduates more educated individuals such as PhD holders

are less likely to use their family compared to the other groups, foundation, bachelor and

master degree holders. This is also the case for using close friends; although it was not

statistically significant, PhD degree holders were less likely to use their close friends to find a

job than foundation and bachelor degree holders. As noted in the literature review, a

considerable number of studies have shown that there is a negative correlation between years

of education and the use social capital. For instance, the relatively recent study by Giulietti et

al. (2013) illustrated that less educated individuals are more likely to use their personal

contacts as their main job search strategy in the UK while Böheim and Taylor (2002) focused

on job search strategies in 1996-1999 and found similar results, although job search techniques were rather different back at that time (when the internet was not widely available). Battu et al. (2011, p. 52) discovered that particularly the more educated, i.e. university graduates, are more likely to contact employers directly and respond to advertisements and less likely to make use of their personal networks.

Hence, based on the findings of this study as well as those of others given above, it can be argued that there is a notable negative relationship between human capital and social capital. That is, if graduates' human capital or education level increases, their dependency on social capital decreases. This is also consistent with many studies across the world. For instance, Márquez and Ruiz-Tagle (2004, pp. 4–5) found that "more educated workers tend to shy away from informal search methods" in Venezuela. Weber and Mahringer (2008, p. 168) discovered that in Australia, "higher educated workers are more likely to find jobs via media advertisements or other channels, but they are not especially likely to find jobs… [through] personal contacts." In Spain, Rieucau (2008, p. 475) found that "when all the other variables are controlled for, people with a tertiary education are more likely to have found their job thanks to a job advertisement [in the media] than people with a primary education." In Canada, Nanavati (2009, p. 24) noted that "factors like being young in age and having lower-level education could be the factors increasing the odds of executing a job search through family or friends." Thus, a considerable number of studies indicate that personal contacts are more important sources of information for finding a job for people with low education rather than those with high education. Although not always at statistically significant level, this study also confirms that a similar phenomenon exists in the UK graduate labour market to a noticeable degree.

One of the possible explanations for this phenomenon could be that graduate level positions usually require more structured and rigorous recruitment processes such as interviews and psychometric tests (Smith Institute, 2014). For this reason, social capital may be of limited value for graduate level jobs. Ponzo and Scoppa (2010, p. 90,94) also highlighted this point: "individuals attaining high levels of qualifications typically do not search through informal networks and firms do not use informal channels to fill high-skilled positions… The finding that informal networks are predominantly used to fill low-skilled positions…" This explanation may make sense from the economic perspective because firms may not want to invest excessive money and time in filling in low-level positions (cleaning staff and manual workers etc.) and instead use personal referrals to fill these positions since the risk of getting a wrong type of candidate is low. This will lower the recruitment and search cost for low level positions (Ponzo & Scoppa, 2010). However, when it comes to graduate or high level positions, firms may use more rigorous processes to reduce the risk of recruiting a wrong type of person and thus invest more time and money in the recruitment process instead of using informal referrals. On the other hand, Kugler (2003, p. 549) refers to heterogeneity in the behaviours of firms and thus "some firms and workers may prefer to use referrals, others are better off using formal methods." Nevertheless, Ponzo and Scoppa's explanation seems to provide a better explanation for the findings of this study.

7.2.2 Academic disciplines and social capital

In terms of the relationship between academic disciplines and social capital, no significant pattern emerged from the statistical analyses. This means that it is not possible to make a clear division and say, for example, that graduates of technical disciplines (i.e. medicine or engineering) are significantly more likely to get help than from graduates of non-technical disciplines (i.e. creative arts and design). However, it is possible to say that graduates from

historical and philosophical studies tend to get less help from their informal networks to some extent. Nevertheless, overall no significant difference is found across different academic disciplines in the use of social capital. Therefore, no further discussion will be made about it.

It can thus be concluded that dependency on personal contact or social capital increases as education level goes down and therefore educated people quite often use the other methods such as direct application and online career services to find a job. The originality of this finding is that the other studies in the literature made a comparison *between* graduates (degree holders) and non-graduates (people with low educated or non-degree holders) and found that "more highly educated (possessing a degree) are more likely to offer themselves directly to potential employers" (Battu et al., 2011, p. 52). However, this study confirms that this is also the case *within* different levels of degree holders, to a great extent. In other words, PhD graduates are less likely than foundation, bachelor and master degree holders to use their social capital and moreover bachelor degree holders are less likely to use their social capital than those with a foundation degree.

7.3 Demographic characteristics and social capital

This section will address research objective 3 and discuss the results in terms of gender, ethnicity and age.

7.3.1 Gender and social capital

The study found no differences between male and female graduates in the use of social capital neither in family nor close friends. In fact, the use of family and close friends among both sexes was almost identical with a very marginal difference in favour of males (see Figure 5.5 in chapter 5). There are plenty of empirical studies which highlight the disparity between men's and women's social capital and conclude that women lack of social capital in the labour market (Anucha et al., 2006; Kofman et al., 2009; McDonald, 2011; Parks-Yancy

et al., 2006). Therefore, it may call into question why there is a discrepancy between this study and those studies? There could be two explanations for this disparity. First, many studies cited above explored the social capital of poorly educated or migrant women while it is hardly possible to find a study which exclusively focused on women's social capital in the graduate labour market. Furthermore, some of those studies are written by feminists scholars or organisations and their primary goal is to promote women's rights rather than academically discuss the issue (Giusta & Kambhampati, 2006; Global Exchange Forum, 2005). Moreover, these studies were qualitative or non-generalisable whereas this study exclusively focuses on the graduate market and has a large sample. These are the possible reasons to account for the differences between the finding of this study and the ones in the literature.

Second, in competitive labour markets like in the UK, the impact of meritocracy could be more prevalent. For this reason, the effect of social can be limited in finding a job. This can be particularly the case in the graduate labour market where competition is high and job applicants go through very structured and formal assessment processes (Chua, 2011). For example, in a study in Singapore whose labour market is very competitive (World Economic Forum, 2013), Chua (2011, p. 1) found that "personal contacts are not always useful, especially in labour markets that rely heavily on the signalling role of academic credentials to match persons to jobs... In contrast, personal contacts are more useful among less qualified job searchers in the private sector." In the USA, Reskin and Bielby (2005, p. 76) also pointed out the importance of formal recruitment process in reducing gender discrimination and they noted that "publicly posted job opportunities inform those outside the 'old boys' network of opportunities. Bureaucratisation reduces job segregation by restricting discretion."

Similarly, in Britain, a report by the Smith Institute (2014, p. 17,22) found that" informal recruitment processes are recognised as one of the major areas where discrimination and prejudice can creep into an organisation... the old boys network on which much recruitment has up to now depended is weakening and the use of more formal recruitment practices, which are more favourable to women, is increasing." Hence, it could be argued that because of the structure of the job market in the UK, employers may pay more attention to academic credentials and employability skills in the selection process while social capital may lose its relative importance. As a result, both genders may have equally limited use of their social capital due to the meritocratic nature of the labour market. Furthermore, an examination of Figure 5.5 shows that impersonal methods such as direct application, online career services and newspapers are the most important channels of information to find a job and these information channels are used by both genders almost equally. This also indicates that both genders display similar behaviours in job searches in the UK graduate labour market to a great extent. This can be attributable to the dynamic and meritocratic structure of the UK labour market.

In conclusion, this study found that there is a negligible difference between male and female graduates in the use of their social capital in the labour market.

7.3.2 Ethnicity and social capital

The findings of the present research suggest that ethnicity is an important factor in receiving help from family and friends as previously clearly illustrated in the statistical analysis as well as in Figure 5.6. Regarding ethnicity, three points should be highlighted. Firstly, South Asian graduates actively take advantage of a range of social capital in the labour market including family, close friends and former employers. This finding is similar

to the that of Smith (1997, p. 174) who noted that "the South Asian would be more likely to seek out opportunities through relatives and friends." Moreover, the same pattern can also be observed in other countries. In his study in Canada, Nanavati (2009, p. 25) found that "social capital turns out to be a significant predictor of employment… for South Asians."

Secondly, the research discovered that Africans are by far the least likely to benefit from their social capital in the labour market including from family, close friends and former employers. Similarly, Battu et al. (2011) discovered that

> friends and family are used more heavily by Indians, Pakistanis, Bangladeshis and 'Others' compared to Whites and Blacks. 14.2% of the Pakistani/Bangladeshi group has friends and family as their primary job search method. Blacks (Black-Caribbean and Black-African) are the least likely to use personal networks [9.6%] and are the most likely to resort to the institutional method. (p. 50)

This finding is also confirmed by the study of Patacchini and Zenou (2012, p. 945) who noted that "interestingly, the effects are higher for the Chinese and the Bangladeshi groups than for the Black Caribbeans and Black Africans…" Giulietti et al. (2013, p. 663) found similar results: "the incidence of finding a job through social networks varies between 19% for Black Africans and 49% for Bangladeshis while the same proportion for White British-born is 29%." As DiTomaso (2013) documented the same phenomonon, black people's lack of social connections, also seems to exist in the USA.

Thirdly, the findings suggest that social capital should not be treated as a homogenous entity. For instance, English graduates are more likely to use their family than South Asians and Blacks while South Asian graduates take advantage of their close friends and former employers more than English and Blacks. This finding is novel because it points out a

259

distinction in different kinds of social capital (family, close friends, acquaintances and former employers) and highlights that family can be an important source of help for some ethnic groups while friends for some other ethnic groups. However, some nation-wide studies such as the DLHE survey (2015) do not make this distinction and use 'employment found through personal contacts' as an umberalla term that covers the whole variety of social capital including family, friends and other personal referrals. However, this study shows that a distinction needs to be made to show that which ethnic groups use what kind of informal networks to find a job.

As a result, it is possible to argue that different ethnic groups take advantage of their social capital to a different degree. Nevertheless, some ethnic groups such as South Asians are at the top of the list while Blacks are at the bottom in terms of taking advantage of their social capital. Futher exploration is required to establish why Black graduates in the UK do not exploit their social connections that much. One argument could be that Blacks do have social capital but it does not provide them notable advantages in the labour market. In other words, they may have low quality social capital that is not useful in finding a job (Flores-Yeffal & Zhang, 2012). In addition to that, Portes and Landolt (2000) mentioned four negative consequences of social capital:

> exclusion of outsiders, excess claims on group members, restrictions on
>
> individual freedoms, and downward levelling norms. For instance, the same
>
> strong ties that enable group members to obtain privileged access to resources,
>
> bar others from securing the same assets. (p. 532)

To what extent this kind of negative consequences, for example exclusion of outsiders, occur in the UK graduate labour market and whether Blacks are the victims of this sort of exclusion

is worthy of further analysis. However, the exclusion of outsiders may not be the only possible explanation to account for Black people's lack of social capital. For instance, Smith (2005) suggests that sometimes black people may not want to help another black:

> Overwhelmingly, [black] respondents were fearful of making bad referrals that might tarnish their own reputations... Roughly 70% (62% of women and 80% of men) feared that if they personally vouched for referrals, there was no way to assure that their referrals would show up to work, work beyond the first paycheck, be prompt and regular, be productive on the job, and/or not steal, curse, fight, or disrespect authority. At the very least, contacts would experience embarrassment for having provided a disreputable referral. (p. 27)

Finally, to summarise, three key points can be highlighted regarding social capital and ethnicity. First, the use of social capital varies across ethnicities in the UK graduate labour market. Second, overall, South Asians are the most likely and Blacks are the least likely to take advantage of their social capital in job searches. Third, social capital should not be understood as something homeogenous because some ethnicities may take advantage of their family ties whereas others may use their friends and relatives more effectively.

7.3.3 Social capital and age

When considering age, the most notable finding was that the youngest (22-24) and the second youngest age groups (25-29) are significantly more likely to use their family to get a job in comparison to the other age groups. This suggests that strong ties are particularly significant at young ages. This finding is consistent with the study of Kramarz and Skans (2014, p. 1) who found that "strong social ties (parents) are an important determinant of where young workers find their first job."

In terms of the use of close friends in the labour market, no meaningful pattern was found in this study. There were some slight variations but no major differences between different age groups. However, other studies have found differences in the use of social capital by age. For instance, Glaeser et al. (2002) noted that social capital has an inverted U-shape pattern. That is, social capital is low when people are young and it gradually increases up to mid-ages and then social capital tends to decline when people get older. However, this present study did not identify any patterns in that respect. Hence, the overall conclusion would be that family help is quite important in the early stages of graduates' career ladder, which seems to be an unsurprising finding because recent graduates may benefit from their parents until they have accumulated their own social capital. Apart from that, no noticeable pattern emerged regarding the relationship between age and social capital.

7.4 The importance of strong and weak ties

This section will address research objective four, which includes two associated research questions. For this reason, this section is divided into two parts: strength of weak ties and strength of strong ties (family).

7.4.1 Strength of weak ties

As noted before, Granovetter (1973, 1983 and 2005) argued that in a social network, weak rather than strong ties generate valuable pieces of information that are likely to produce new information and fresh ideas. Hence, family and close friends may provide emotional support in job searches but weak ties such as acquaintances are likely to bring useful information that would help to find a job. Contrary to this claim, this study did not find empirical support for the strength of weak ties theory. However, not only in the UK graduate labour market but also in many countries in the world this theory has limited support. In this context, it is useful to revisit Table 3.4 (page 89).

As seen in Table 3.4, the strength of weak ties theory enjoys empirical support only in few countries shown; Poland, Latvia, Czech Republic and Hungary. Apart from that, strong ties are more important in finding a job in the rest of 24 countries in the table. In Great Britain, too, strong ties are almost three times more likely to be useful than weak ties in the labour market (22.69% vs 8.37%). Hence, the finding of this study confirms the results in Table 3.4.

It was also found that strong ties are more useful in some far Eastern countries. For instance, Bian and Ang (1997) noted that

> we have looked to *guanxi* networks, common to Tianjin and Singapore, to account for the fact that jobs are channelled through strong ties more frequently than through weak ties… in Chinese culture they [weak ties] are also most unlikely to facilitate exchanges of favors that require a sense of trust and moral obligations between exchangers. Because… in the context of exchange of favors, weak ties are unlikely to be helpful in mobility processes. (p. 1001)

In Russia, however, some studies provided evidence for the effectiveness of weak ties rather than strong ties. For instance, Yakubovich (2005, p. 418) maintained that "which specific relationships deliver jobs? I find that in the Russian urban labor market a person's weak ties are more likely to do that, because they are better positioned to provide information and direct access to employers."

However, like many labour markets in other countries, this study also showed that strong ties (family) are much more important than weak ties (acquaintances) in the UK graduate labour market in providing valuable information that will actually lead to employment. Thus, Granovetter's theory, to a large extent, fails to capture the way the UK graduate labour market

operates and the way graduates take advantage of their social capital. In conclusion, the strength of weak ties theory seems to have little empirical supports in the UK.

7.4.2 Strength of strong ties: the importance of family

Research question 4.2 asks whether there is a non-random and generalisable pattern in demographic and academic characteristics of the graduates who take advantage of their families (strong ties). As noted in section 7.2, less educated people (those with foundation degree) are more likely to benefit from their family. Moreover, in terms of ethnicity, Blacks are less likely than other ethnicities to find a job through their family. These two findings were explained in the previous sections in detail. Hence, it was already noted that education level and ethnicity are important factors in the use of social capital.

In addition to these two variables, it was found that the education level of parents is also a significant factor in providing help for their children to find a job. This finding has empirical support in the literature. For example, Iannelli (2002, p. 45) examined twelve European countries and found that "in the analysis of the effect of parental education on young people's early occupational destinations it emerged that in all countries there is both a significant direct and indirect effect of parental education on young people's destinations." Labini (2004) noted that there is a positive correlation between parental education and the use of family ties in the labour market and thus educated parents tend to be more helpful to their children in job search. Borjas (1992) and Lee et al. (2015) also highlighted the significant impact of parents' human capital on children's employment outcomes. The finding of the current study also confirms that the same phenomenon, the impact of parental education in the labour market, exists in the graduate labour market in the UK.

To answer research question 4.2 directly, it is possible to say that education level, ethnicity and education of parents are the three important factors that make a significant difference in

receiving help from families while gender and academic disciplines make almost no difference.

7.5 University career services

This section discusses the role of university career services (UCS) in graduate employment and thus addresses research objective five. It consists of two parts and discusses research questions 5.1 and 5.2 in turn. The previous sections were based on survey results, this section, however, is based on both case study and survey.

7.5.1 The importance and roles of UCS

Firstly, it is appropriate to explain why career services have become so important. As Dey and Cruzvergara (2014, p. 5) noted, there is a paradigm shift in the delivery of career service in higher education, which has taken place as a response to the changes in economic, political, social, generational and cultural norms. For instance, the economic downturn of 2008 changed the landscape for higher education leading to questions about the value of a degree. As a result of social and technological pressures, many universities began to reinvent their career services and thus greater investments have been made in counselling services. Hence, career services have started to play significant roles and become an integral component of the student experience rather than a mere resource that they seek when they approach graduation (Dey & Cruzvergara, 2014, p. 8).

Moreover, it should also be noted that the nation-wide survey DLHE asks respondents (graduates) the title of the job they have got after graduation in order to monitor the percentage of the respondents who obtained a graduate level job. Hence, UK universities want to make sure that their graduates get a graduate level job to compete with other universities in the league table.

With respect to the roles of university career services, five points can be highlighted.

1. Promoting employability

2. Raising self-awareness

3. Making students aware of employment opportunities

4. Being aware of the demands of employers

5. Measuring the impact

First of all, Career Services make sure that students understand the importance of employability so that they can engage with the activities delivered at the early stage of their university career. As reported by interviewees as well as by Sodexo's nation-wide survey (2014), with the rise of tuition fees and other expenses, university students have become more concerned with the economic value of a university degree. That is why, current university students are more aware of the importance of employability, which facilitates the task of UCS. In that regard, the significance of extra-curricular activities in promoting employability should be noted because the programmes such as eXfactor and Exeter Award Schemes (Figure 6.5) are useful for both students and employers. On the one hand, these kinds of extra-curricular activities increase students' employability, on the other hand, they signal graduates' abilities and competencies to employers. There is a considerable number of empirical works which have found this *signalling effect* (Cole et al., 2007; Ramesh et al. 2009). For instance, the UK-based longitudinal study by Elias and Purcell (2013, p. XXIII) discovered that participation in extra-curricular activities is associated with positive labour market outcomes. Graduates who took part in extra-curricular activities were less likely to be unemployed, and more likely to be employed in a *graduate* job. Elias and Purcell (*ibid*) argued that this demonstrates the value employers place on such activities as a means to highlight desirable characteristics such as teamwork and leadership (Tan et al., 2015).

Secondly, the needs of students should be identified to provide a tailored action plan. Although the interviewees said that they adopted different strategies to attract students who are not engaged with employability programmes, it does not appear that there is a systematic approach to handle this issue. For instance, the need-based segmentation by Garver et al. (2009) and the identity theory by Marcia (1980) could be used to attract and classify students based on their needs. In this way, the needs as well as strengths and weaknesses of students could be analysed more systematically, which is an important part of self-awareness.

Thirdly, EGD uses every possible means to inform students of job opportunities including leaflets, emails, twitter, facebook and social events. Hence, it could be said that EGD is good at making students aware of job opportunities. Fourthly, however, it seems that EGD staff exaggerates the importance of employability skills to a great extent. So many times interviewees told that "it is all about employability skills rather than academic disciplines. Most jobs in the UK are open to applicants from any disciplines." However, this clearly contradicts the report by the Confederation of British Industry (2012). This does not mean that employability skills are not important but technical skills are also highly valued by employers (see Figure 2.1, page 27)

Finally, the impact of EGD's activities on employment should be discussed because this appears to be the most problematic. Table 6.2 (page 231) shows that 97% of the students at University of Exeter used the University's career services in 2013 for one reason or another (visited career consultants, attended the talks by employers and participated in other employability events). However, the DLHE survey in Table 6.4 (page 236) shows that only 9.4% of the students found a job through the University's career services in 2013. This means that almost 91% of the students found a job through other channel. Does that mean that

Exeter University Career Services work so hard but deliver so little? Apparently, this is the obvious conclusion to draw if one contrasts the two tables mentioned above. If this is the case, is there an explanation for it?

One possible explanation could be the distinction between hard outcomes and soft outcomes (Dewson et al., 2000) because the DLHE survey measures hard outcomes which are the numbers of graduates who actually got a job through UCS. However, DLHE survey does not measure soft outcomes: the behavioural and attitudinal changes the career services have made on the students. For instance, students may not obtain a job through UCS but they can be more aware of the importance of employability due to their engagements with EGD's employability programmes. They may learn effective job search strategies and find a job on their own (through direct applications etc.). They may attend the talks by employers and learn what kinds of skills are desired by employers. These attitudinal changes will not be recorded in nation-wide statistics since they are not measured in these surveys. However, these attitudinal changes can also positively affect the employability of students.

Moreover, it should be added that there are other increasingly popular concepts in recruitment such as *employer value proposition* or *employer branding*. These terms refer to the idea that how employers pitch themselves to candidates to attract the right talents or what are the unique selling points of a company to attract talents (Taylor, 2012). For instance, some companies emphasise high pay, some companies emphasise training and development opportunities, even some companies emphasise work and life balance in their organisations. When students attend talks by employers, students do not only learn what kinds of skills employers look for but they also learn how companies pitch themselves to potential candidates. This is also important because a job interview is a two-way process. In the

interview, the company wants to know more about the candidate but it is also an opportunity for the candidate to know more about the company and ask himself or herself whether this company is the right company for my future career (Trost, 2013a). However, it is not always possible, for a student, to talk to the recruitment officers of big companies but by attending their talks and mock interviews, students obtain first-hand information and feedback from the recruitment officers. This may change students' vision and help them in the future.

For this reason, it is possible to say that the talks and employability events may change students' behaviours and perceptions and they can be useful in the long run. However, these behavioural changes cannot be quantified and measured by a nation-wide survey since nationwide surveys focus on hard outcomes (finding a job) at a particular point in time rather than on soft outcomes in the long run. Hence, given the national awards and recognition EGD has received within last years, it could be argued that the EGD's employability activities brought soft outcomes but they did not translate into quantifiable hard outcomes.

7.5.2 Characteristics of students who use UCS

The study also analysed whether there is a pattern in the demographic and other characteristics of the students who frequently use university career services such as in terms of gender, ethnicity, degree classifications and academic disciplines.

With respect to gender, the DLHE survey (2013) shows that there was not any meaningful difference between the two sexes in the use of UCS neither in University of Exeter nor in the other universities in general. This is also consistent what was found in the quantitative part of this research. Moreover, there are several nation-wide surveys from the UK, Ireland, Australia and New Zealand and they also do not report any difference between genders in the use of career services (Buckley, 2014; Coates, 2008; ISSE, 2013; Radloff, 2011). Hence, the

conclusion is that the use of UCS does not vary by gender. This is also confirmed by the interviewees in the case study.

Regarding academic discipline, the study did not find a consistent pattern in the use of UCS by academic discipline, neither in quantitative nor in qualitative parts of the study. However, according to DLHE results (2013) as well as the statistical analysis of this study, it is clear that medical students by far take advantage of UCS most in many universities including the University of Exeter. On the other hand, the other technical subjects such as engineering and computer sciences do not display any consistent pattern across universities. There is also a tendency that students of some disciplines in Humanities such as creative arts and designs, historical and philopshical studies are less likely to use UCS. This problem is also pointed out by Bridgestock (2011):

> students can enter creative courses with only the vaguest of notions regarding
> what they will do afterwards, influenced by unrealistic or romantic ideas about the
> world of work in their fields… and unrealistic career identity… [For this reason]
> university careers services can play an important role in student career identity
> building. (p. 21)

Nevertheless, although students in some subjects in Humanities are less likely to take advantage of UCS, it is still not possible to draw a clear line and claim that the students of natural sciences are more likely to benefit from UCS compared to those of social sciences since no statistically significant difference was found.

With respect to degree classifications, both the qualitative and quantiative parts of this study as well as the DLHE survey (2013) confirm that a degree classification is an important factor in the use of UCS. Those who have high degree classifications are more likely to take

avantage of UCS. Several interviewees also highlighted it. This finding is not suprising

because many studies discovered that a degree classification is likely to affect employment

outcomes (Chalamwong et al., 2012; Cole et al., 2003; Mason et al., 2009). As signalling

theory proposes, when employers receive a large quantity of applications, they use grades as a

screening tool to minimise the uncertainty and to avoid the risk of hiring wrong types of

candidates (Wolfe, 2012). This is particularly the case in initial hiring since the graduates do

not have much experience in the early phases of their career, employers draw conclusions by

looking at some other predictors such as degree classifications, which may signal their

potential productivity (Fang, 2001). In this regard, Naylor and McKnight (2002) suggested

that the "award of a distinction can be regarded as a signal that the recipient is of higher

ability than the individual who graduates without a distinction" and AGR Survey 2010 found

that "applications have soared, with an average of 69 people chasing each graduate job. In

response, 78% of employers are now filtering out applicants who have not achieved a 2:1

degree" (cited in BBC, 2010, para. 2–3). (BBC, 2010)

However, it should be emphasised that although this study found that a degree

classification is a significant determinant in taking advantage of UCS, still it is not clear

whether or not those who have low grades do not use UCS or they use it but do not get a job

offer through UCS because of their poor degree classifications. This is worthy of further

exploration.

In terms of ethnicity, although there are not statistically significant differences between

different ethnicities, a notable finding emerged. South Asians are most and African are the

least likely to use UCS and this finding is also confirmed by the DLHE survey (2013) as

shown in the case study. Similarly, Falconer and Hays (2006, p. 219) noted that "African

American students are often less likely to use the services available to them…" However, overall, ethnicity is not a significant factor in taking advantage of UCS albeit some variations across different ethnicities.

In conclusion, degree classification is found to be an important predictor of using UCS while gender, academic discipline and ethnicity are not.

7.6 Key findings

Up to now, each specific research objective has been discussed individually. The main aim of this study, however, was to understand the factors that affect the job search methods of graduates and graduate employment. Figure 7.2 shows the importance of each factor studied in this research. At the core of the figure, there is human capital because social capital will be of little use without human capital. As noted, psychometric tests and interviews have become the integral parts of graduate recruitment processes. This indicates that graduates should have basic literacy, numeracy and communication skills. For this reason, human capital is the main building block on which the other factors are built. A university degree is a part of human capital but it should also be supported by other factors such as employability skills, high degree classifications (a 2.1 and above). The significance of degree classifications and employability skills is underlined by many interviewees. However, there is another factor that students and university career services should be aware of; extra-curricular activities. Employers are becoming more interested in these kinds of activities as they signal some of the desired characteristics such as leadership, management and organisation skills (Ward, 2012).
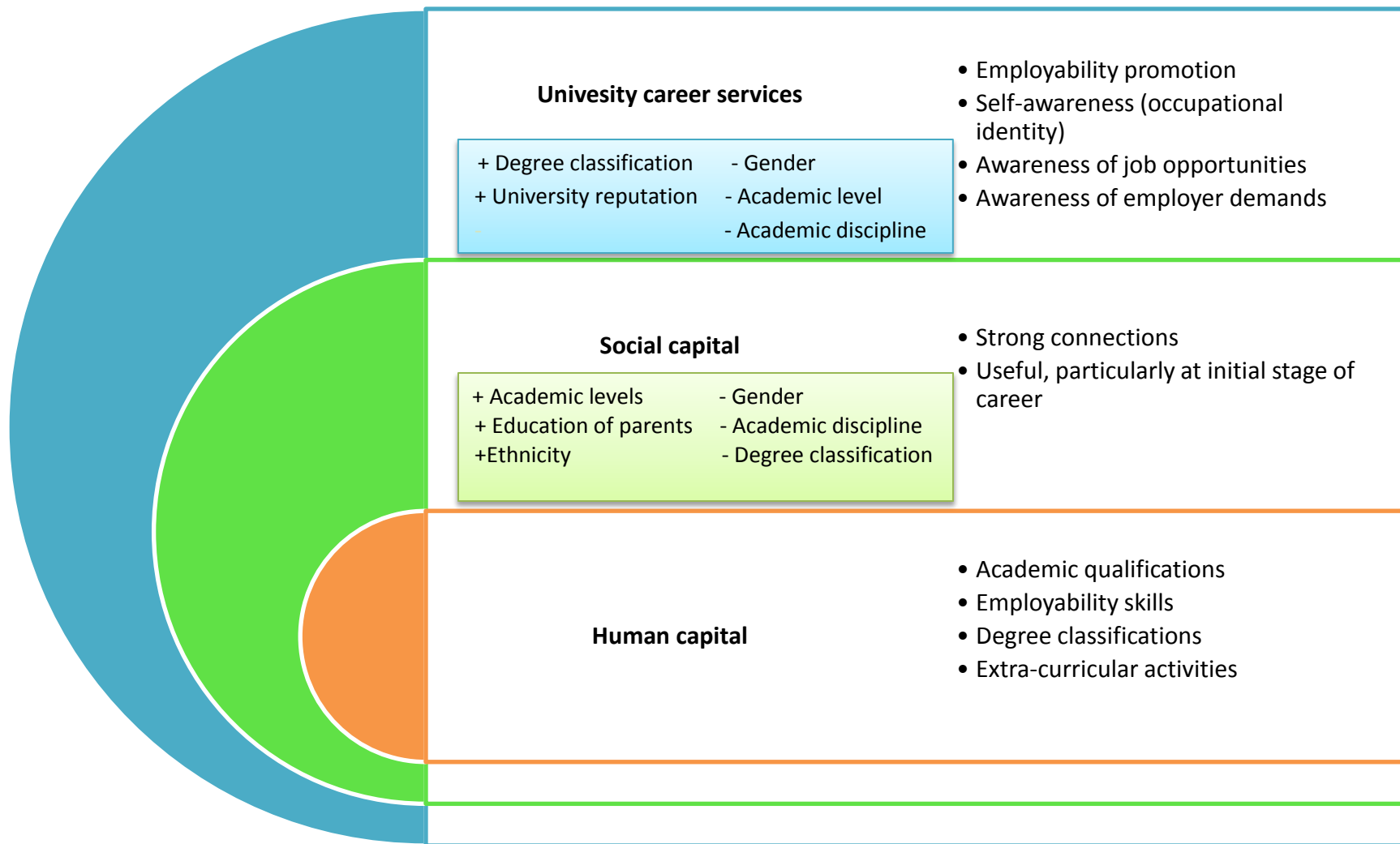
Univesity career services

+ Degree classification - Gender
+ University reputation - Academic level
-                        - Academic discipline

- Employability promotion
- Self-awareness (occupational identity)
- Awareness of job opportunities
- Awareness of employer demands

Social capital

+ Academic levels   - Gender
+ Education of parents - Academic discipline
+Ethnicity   - Degree classification

- Strong connections
- Useful, particularly at initial stage of career

Human capital

- Academic qualifications
- Employability skills
- Degree classifications
- Extra-curricular activities

Figure 7.2 Important factors influencing employment of university graduates (Source: Author)

273

For instance, Cole et al. (2007, p. 335) examined the role of extra-curricular activities in recruitment and found that "despite little work experience, résumés depicting exceptional academic qualifications and extensive extra-curricular activities received a nearly identical, positive employability rating." By the same token, Yorke and Knight (2006) also point out the significance of extra-curricular activities while Ramesh et al. (2009) discuss the ways extra-curricular activities can be integrated in the modules in Higher Education Institutions. In the United Kingdom, there is a growing recognition of the importance of extra-curricular activities and the Quality Assurance Agency (QAA) for Higher Education encourages to establish an award scheme for such activities (Ward, 2012).

The second layer is social capital. It is particularly useful at the initial stage after graduation. As Fang (2001) noted:

> If workers' productivities are in fact not perfectly observed (which is particularly true for newly hired workers), then the firms would have to infer the productivities from noisy signals such as… reference letters together with their education levels. (p. 3)

However, social capital is not only useful in finding a job but it can also feed human capital. As one of the interviewees pointed out, the students who come from low social background, particularly some ethnic minorities, have a low level of employment rate after they graduate because some of them did not have the opportunity to obtain a work placement or internship in good companies due to lack of social capital when they were at university. As a result, their CVs may not look impressive when they apply for a job. This puts them in a disadvantageous position. For this reason, it is possible to say that social capital also feeds human capital since informal contacts may provide a person with

high quality internship or work placement opportunities, which will ultimately help to

increase one's human capital: skills and knowledge. In this study, it was found that

academic level, education of parents and ethnicity affect the amount of help that a person

receives from his or her social capital (which are shown by + in Figure 7.2) while gender,

academic disciplines and degree classifications were not found to be significant factors in

taking advantage of one's social capital (which are shown by – in the figure).

The outer layer is university career services. It was found that those with high degree

classifications are more likely to take advantage UCS and to a great extent, prestigious

universities such as Russell Groups universities are more likely to help their students find a

job (shown by + in the figure). On the other hand, gender and academic disciplines (shown

by – in the figure) are not important predictors in taking advantage of UCS.

It should also be highlighted that the career services can play a crucial role in promoting

employability, helping students develop their professional identity by increasing their self-

awareness (Garver et al., 2009). Moreover, they can also build a bridge between students and

employers and make students aware of job opportunities in the labour market. The

importance of institutional approach should be highlighted here. In the literature review,

rational choice institutionalism was discussed. As rational choice institutionalism proposes,

institutions are rational structures that are designed to maximise the interests of various

groups through cooperation. In that regard, university career services have a form of

instititional social capital that connects various interest groups. In this cooperation, all

parties become better off. Firstly, university students benefit from this cooperation by

obtaining a job that would suit their aspirations. Secondly, employers do not only gain the

privilege to tap into potentially high quality of human resources (Mason, 2002) but also get

the opportunity to contribute to delivered employability activities by participating in social gathering events and mock interviews. Thirdly, as some scholars noted, employability is a significant component in university rankings (Clarke, 2004, 2007; Villar et al., 2000). Thus, this institutional approach helps a university to build a better reputation by increasing its employability rate. Namely, all parties involved (students, employers and universities) take advantage of an established structure (institution). In fact, the wider economy is also likely to benefit from it since the quality of graduate workforce in the labour market affects the whole economy.

7.7 Main contributions

The contributions of this research can be divided into three categories.

a) Contributions to the literature

1. Although human capital and social capital have been studied extensively, they are often studied individually. However, this research studied these two forms of capital in *relation to* each other in a clearly defined context (the graduate labour market). The context is important because the UK graduate labour market is very competitive and this study has shown how human capital and social capital interact with each other in a competitive labour market. This provides a comprehensive look into the graduate labour market and also enriches both human and social capital literature.

2. The study found that the use of social capital changes by ethnicity. Some minority groups (South Asians) actively benefit from different types of social connections to find a job including family and close friends while some other minorities (Blacks) are less likely to take advantage of their social capital in the labour market. This finding is in conformity with the other studies (Battu et al., 2011; Nanavati, 2009). Whereas these studies focus on the entire labour market, the present study illustrates that the same

276

phenomenon exists in the *graduate* labour market as well. In other words, being a member of a minority group may sometimes be advantageous and sometimes not, depending on the ethnicity.

3. Institutional social capital is explored in-depth in this research. It is analysed that how an institution (University of Exeter Career Services) builds networks with employers to increase its students' employability. In the literature, university career services have been examined from many perspectives up to now (Carroll & Tani, 2014; Garver et al., 2009; Hanover Research Institute, 2012). However, there are relatively few studies (Lee & Brinton, 1996), which examined institutional social capital from the standpoint of university career services. This research bridged this gap and showed that not only individual social capital but also institutional social capital can be rather helpful in job searches.

4. It is found that there is not necessarily a direct link between a university's position in the ranking tables and the performance of its career services. The career services of some universities such as Cranfield, Heriot-Watt and Sussex Universities performed better than some prestigious universities such as the University of Oxford, Warwick, LSE and many other Russell Group Universities. In that regard, the University of Exeter is another example which scores well in the league tables in terms of employability rate (see Table 6.3) but its career service is not among one of the best career services in the UK according to the DLHE survey. This distinction was largely ignored in the literature but this study highlighted this distinction between employability rate of a university and employment provided by the university career services of that university.

   b) *Contribution to the methodology*

1. This study used a web-based survey. A considerably lengthy discussion is dedicated to the strengths and weaknesses of this technique in the methodology chapter (section 4.2.2 in Chapter 4), and shown that how each of these weaknesses was carefully addressed in this study. Thus, it provided a very comprehensive analysis as well as careful practise of web-based survey. Those who wish to use this form of data collection method can benefit from the relevant section and obtain a detailed analysis of this technique, its advantages, pitfalls as well as its applicability for a particular target sample.

   c) *Contribution to the theories*

1. The study confirmed the importance of human capital in the graduate labour market. While social capital can be important in some circumstances, due to the extensive use of psychometric tests and assessment centres in formal applications, job application processes have become standardised for graduate positions to a certain degree (Chua, 2011). This standardisation, like the other forms of standardisation and automations, is designed to increase objectivity (Trost, 2013b) and decrease the influences of external factors (family, friends and relatives) in a job selection process. It does not mean that job application has become automated and social capital does not mean anything at all but it rather means that companies more and more tend to use sophisticated methods to decrease human bias. This, in turn, means that social capital will be less and less important compared to human capital and if a graduate does not have sufficient human capital (basic literacy, numeracy), he or she will be eliminated in the first stages of job application and will not be able to use his or her social capital.

   This note about social capital should not be misinterpreted because as shown, social capital can be very important particularly in the early career of graduates when graduates

are about to join the labour market. The findings show that particularly family help is more important in the early career of graduates. However, it is human capital that seems to have more importance in job applications.

2. The study found strong evidence against the claim of strength of weak ties theory which states that strong ties (i.e. family) can provide job seekers with emotional and psychological supports but it is not strong ties; it is weak ties (acquaintances) that can provide job seekers with valuable information that will lead to finding a job. Unlike strengths of weak ties predicted, it is found that family is one of the most useful sources of information to find a job. Hence, it can be concluded that the strength of weak ties theory has very limited applicability in the UK *graduate* labour market.

3. There is a great deal of empirical studies about social capital but they do not make a clear distinction between different kinds of social capital. These studies often use generic term 'personal networks/contact' to describe social capital and put family and friends in the same basket. However, in this study, family is distinguished from the other kinds of personal networks and studied comprehensively. As a result, the study explained what types of graduates receive more help from their family in job searches in terms of gender, age, ethnicity, education levels and education of parents. This study showed that different types of social capital (family, friends) should be examined separately rather than under a generic term social capital.

7.8 Limitations

There are two limitations to this study. First, in the recruitment process, apart from human capital and social capital, there are some other variables that may affect the outcome of a job application such as physical appearance, eloquence and even accent. The recent BBC story (2015) points out the importance of some of these variables such as accent and it reports that "elite firms are sidelining the UK's bright working-class applicants in favour of privileged, 'polished' candidates." However, when the sample size is large, it is hard to control these kinds of variables; appearance, eloquence and accent. As a result, these variables are not included in the research.

Second, graduate mobility has increased because of globalisation and technological advancements. With the advent of the internet, it has become easy for graduates to look for employment opportunities abroad. However, this study did not take into account the graduates who found a job overseas.

7.9 Future research

There are three potential areas for further exploration. The first area is related to the role of ethnicity in social capital, the second is the transparency level of the labour market and the last one is pertinent to the quality of job found through university career services (UCS).

Firstly, the use of social capital varies by ethnicity. Although, South Asian and Black people are ethnic minority groups, the former and the latter considerably differs in their use of social capital in the graduate labour market. Why this is the case can be analysed further.

Secondly, the impact of meritocracy/transparency in the labour market on the use of social capital can be analysed because if the labour market is very competitive, which is the case for the UK graduate labour market, social capital tends to be of limited use since firms use more

formal and structured recruitment procedure to select the best applicants. It would be interesting to see the impact of meritocracy or legal regulations on the use of social capital.

Finally, not only the quantity but also the quality of jobs that are obtained through UCS can be studied further. For instance, maybe the University of Oxford career services provided fewer jobs and may seem below some other universities in the DLHE table but most of the jobs it provided can be high quality jobs at big companies. The DLHE survey does not provide any detail about the quality of the jobs. Therefore, the quality of jobs that are acquired through UCS can also be studied more carefully.

Bibliography

Acemoglu, D., & Autor, D. (2014). *The basic theory of human capital [Lecture notes in labour economics]*. Massachusetts: MIT. Retrieved from http://economics.mit.edu/files/4689

Adler, P. S., & Kwon, S. (2002). Social capital: Prospects for a new concept. *The Academy of Management Review*, *27*(1), 17–40.

Alesina, A., & Giuliano, P. (2007). The power of the family. Bonn. Retrieved from http://ftp.iza.org/dp2750.pdf

Anastasia, T. T., Tremblay, K. R., & Makela, C. J. (1999). Student gender differences in perceived importance of college services. *College Student Journal*, *33*(2), 206–210.

Anaya, G., & Cole, D. G. (2001). Latina/o student achievement: Exploring the influence of student-faculty interaction on college grades. *Journal of College Student Development*, *42*(1), 3–14.

Anucha, U., Dlamini, N. S., Yan, M. C., & Smylie, L. (2006). *Social capital and the welfare of immigrant women: A Multi-level study of four ethnic communities in Windsor*. Canada: Status of Women Canada.

Ao, D. (2008). *Social capital and getting a job: A revisit and new direction*. Durham: Duke University.

Archer, W., & Davison, J. (2008). *Graduate employability: What do employers think and want?* London: CIHE. Retrieved from http://www.brunel.ac.uk/services/pcc/staff/employability/?a=92718

Association of Graduate Recruiters. (2010). Call to scrap 50% university student target. *BBC NEWS*. Retrieved from http://news.bbc.co.uk/1/hi/education/8556231.stm

AUSSE. (2010). *Respondent characteristics report*. Australia: Australian National University. Retrieved from http://unistats.anu.edu.au/surveys/posse/2010/AUSSE_2010_ANU_Report_Results[1].pdf

Autor, D. H. (2001). Why do temporary help firms provide free general skills training? *The Quarterly Journal of Economics*, *116*(4), 1409–1448.

Azar, B. (2000). A web of research: They're fun, they're fast, and they save money, but do Web experiments yield quality results? *Monitor on Psychology*, *31*, 42–47.

Bachmann, R., & Baumgarten, D. (2013). How do the unemployed search for a job? Evidence from the EU labour force survey. *Journal of European Labour Studies*, *22*(2), 1–25.

Baker, R., Blumberg, S., Brick, M., Couper, M., Courtright, M., Dennis, M., & Dillman, D. (2010). Research synthesis: AAPOR report on online panels. *Public Opinion Quarterly*, *74*(4), 711–81.

Ball, S. J. (2015). Subjectivity as a site of struggle: Refusing neoliberalism? *British Journal of Sociology of Education*, 1–18. doi:10.1080/01425692.2015.1044072

Barber, M., Donnelly, K., & Rizvi, S. (2013). *An avalanche is coming: Higher education and the revolution ahead*. London: Pearson. Retrieved from https://www.insidehighered.com/sites/default/server_files/files/FINAL Embargoed Avalanche Paper 130306 %281%29.pdf

Barnes, S. V. (1996). England's civic universities and the triumph of the Oxbridge ideal. *History of Education Quarterly*, *36*(3), 271–305.

Barrett, B. D. (2006). Accessing and activating social capital resources in Buffalo's public high schools. *Educate*, *6*(2), 6–31.

Battu, H., Seaman, P., & Zenou, Y. (2011). Job contact networks and the ethnic minorities. *Labour Economics*, *18*(1), 48–56.

BBC. (2010, July 6). Three quarters of employers "require 2:1 degree". Retrieved from http://www.bbc.co.uk/news/10506798

BBC. (2015, June 15). Elite firms "exclude bright working class". *BBC NEWS*. Retrieved from http://www.bbc.co.uk/news/education-33109052

Becker, G. S. (1964). *Human capital theory: A theoratical and empirical analysis*. Chicago: University of Chicago Press.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference* (3rd ed.). Chicago: University of Chicago Press.

Bell, S. (1998). Institutionalism: Old and new. In D Woodward (Ed.), *Government, politics, power and policy in Australia* (7th ed., pp. 1–16). Melbourne: Longman.

Bewley, T. F. (1999). *Why wages don't fall during a recession*. Cambridge: Harvard University Press.

Bian, Y., & Ang, S. (1997). Guanxi networks and job mobility in China and Singapore. *Social Forces*, *75*(3), 981–1005.

Birnbaum, M. H. (2004). Human research and data collection via the internet. *Annual Review of Psychology*, *55*(4), 803–832.

Bisman, J. (2010). Postpositivism and accounting research: A (personal) primer on critical realism. *Australasian Accounting, Business and Finance Journal*, *4*(4), 3–25.

Blair, T. (1999). Tony Blair's speech in full. *BBC NEWS*. Retrieved from http://news.bbc.co.uk/1/hi/uk_politics/460009.stm

Blasco, Z., Brennan, J., & Shah, T. (2002). *Access to what? Analysis of factors determining graduate employability*. London: HEFCE. Retrieved from http://dera.ioe.ac.uk/id/eprint/5366

Blaug, M. (1976). The empirical status of human capital theory : A slightly jaundiced survey. *Journal of Economic Literature*, *14*(3), 827–855.

Blaug, M. (1992). *The methodology of economics or, how economists explain*. New York: Cambridge University Press.

Blondal, S., Field, S., & Girouard, N. (2002). Investment in human capital through postcompulsory education and training: Selected efficiency and equity aspects. Paris: OECD.

Bluman, A. (2012). *Elemantary statistics* (8th ed.). New York: McGraw Hill.

Blundell, R., Dearden, L., Meghir, C., & Sianesi, B. (1999). Human capital investment: The returns from education and training to the individual, the firm and the economy. *Fiscal Studies*, *20*(1), 1–23.

Blustein, D. L., & Noumair, D. A. (1996). Articles self and identity in career development: Implications for theory and practice. *Journal of Counseling and Development*, *74*(5), 3–11.

Blustein, D. L., Phillips, S. D., Jobin-Davis, K., Finkelberg, S. L., & Roarke, A. E. (1997). A theory-building investigation of the school-to-work transition. *Counseling Psychologist*, *25*(3), 364–402.

Böheim, R., & Taylor, M. (2002). Job search methods, intensity and success in Britain in the 1990s. Linz: Johannes Kepler University. Retrieved from http://www.econ.jku.at/papers/2002/wp0206.pdf

Borgatti, S. P., & Halgin, D. S. (2010). *Network theorizing*. Kentucky: DTRA. Retrieved from http://steveborgatti.com/papers/nettheorizing.pdf

Borjas, G. J. (1992). Ethnic capital and intergenerational mobility. *Quarterly Journal of Economics*, *107*(1), 123–150.

Bourdieu, P., & Wacquant, L. J. (1992). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.

Boyd, P. C. (2006). *By the numbers: A sample size table*. Franklin: Mass. Retrieved from www.quirks.com/articles/2006/20061209.aspx

Bragg, D. D., Hamm, R. E., & Trinkle, K. A. (1995). Work-based learning in two-year colleges. California: National Center for Research in Vocational Education. Retrieved from http://www.nrccte.org/sites/default/files/publication-files/wbl_in_two-year_colleges.pdf

Branine, M. (2008). Graduate recruitment and selection in the UK: A study of the recent changes in methods and expectations. *Career Development International*, *13*(6), 497–513.

Bredl, S., Winker, P., & Kotschau, K. (2008). A statistical approach to detect cheating interviewers. Berlin: Center for International Development and Environmental Research. Retrieved from https://www.econstor.eu/dspace/bitstream/10419/39808/1/593464877.pdf

Brewer, L. (2013). *Enhancing youth employability: What? Why? and How? Guide to core work skills*. Geneva: ILO. Retrieved from http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_213452.pdf

Brick, M. (2011). The future of survey sampling. *Public Opinion Quarterly*, *75*(5), 872–888.

Bridgestock, R. (2011). Skills for creative industries graduate success. *Education + Training*, *53*(1), 9–26.

Brinton, M. C. (2000). Social capital in the Japanese youth labor market: Labor market policy, schools, and norms. *Policy Sciences*, *33*(4), 289–306.

Broadbridge, A. (2010). Social capital, gender and careers: Evidence from retail senior managers. *Equality, Diversity and Inclusion*, *29*(8), 815–834.

Brook, K. (2005). *Labour market participation: The influence of social capital*. London: ONS. Retrieved from http://www.social-capital.net/docs/lm_social_capital.pdf

Brown, P., & Hesketh, A. (2004). *The mismanagement of talent: Employability and jobs in the knowledge economy*. Oxford: Oxford University Press.

Brown, S., & Sessions, J. (1999). Education and employment status: a test of the screening hypothesis for Italy. *Economics of Education Review*, *18*(4), 397–404.

Brown, S., & Sessions, J. (2005). Signaling and screening. In G. Johnes & J. Johnes (Eds.), *International handbook on the economics of educationand* (pp. 58–100). Cheltenham: Edward Elgar.

Buchanan, E. A., & Hvizdak, E. E. (2009). Online survey tools: Ethical and methodological concerns of human research ethics committees. *Journal of Empirical Research on Human Research Ethics*, *4*(2), 37–48.

Buchanan, T. (2000). Potential of the Internet for personality research. In M. H. Birnbaum (Ed.), *Psychological experiments on the Internet* (pp. 121–140). San Diego: Academic Press.

Buckley, A. (2014). *Surveying student engagement in the UK*. London: HEA. Retrieved from https://www.heacademy.ac.uk/sites/default/files/resources/rp_seminar_alex_buckley_11 0214.pdf

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, *6*(1), 3–5.

Burke, C. (2016). *Culture, capitals and graduate futures: Degrees of class*. New York: Routledge.

Burns, R. P., & Burns, R. (2008). *Business research methods and statistics using SPSS*. London: SAGE.

Burt, R. S. (1992). *Structural Holes: The social structure of competition*. Cambridge: Harvard University Press.

Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behaviour*, *22*(1), 345–423.

Burt, R. S. (2001). *The social capital of structural holes*. New York: Russell Sage Foundation. Retrieved from http://www.arschile.cl/moodledata/2/Mod3/Propiedades/SocialCapitalStructureHole-Burt.pdf

Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology*, *110*(2), 349–399.

Calvert, R. L. (1995). Rational actors, equilibrium, and social institutions. In J. Knight & I. Sened (Eds.), *Explaining social institutions,* (pp. 57–95). Ann Arbor: University of Michigan Press.

Cambridge Online Dictionary. (2015). institution. University of Cambridge. Retrieved from http://dictionary.cambridge.org/dictionary/british/institution

Cappellari, L., & Tatsiramos, K. (2011). Friends' networks and job finding rates. London: ESRC. Retrieved from https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2011-21.pdf

Carroll, D., & Tani, M. (2014). *Job search as a determinant of graduate over-education: Evidence from Australia. Education Economics* (pp. 1–14). Bonn: IZA. doi:10.1080/09645292.2014.908164

CBI. (2012). *Learning to grow: What employers need from education and skills*. London: CBI. Retrieved from http://www.cbi.org.uk/media/1514978/cbi_education_and_skills_survey_2012.pdf

Chalamwong, Y., Hongprayoon, K., Suebnusorn, W., Doung, N. A., Chan, S., & Dyna, H. (2012). *Skills for employability: Southeast Asia*. Bangkok:TDRI. Retrieved from https://www.changemakers.com/sites/default/files/seasia_skills_16aug.pdf

Chan, S., & Chi-Hua, Y. (2015). The employment of the college graduate: Changing wages in mass higher education. *Knowledge Studies in Higher Education*, *2*(1), 289–306.

Chesney, T., & Penny, K. (2013). The impact of repeated lying on survey results. *Sage Open*, *3*(1), 1–9.

Chevalier, A., Harmon, C., Walker, I., & Zhu, Y. (2004). Does education raise productivity, or just reflect it? *The Economic Journal*, *114*(4), 499–517.

Chua, V. (2011). Social networks and labour market outcomes in a meritocracy. *Social Networks*, *33*(1), 1–11.

Churchland, P. M. (1988). Perceptual plasticity and theoretical neutrality: A reply to Jerry Fodor. *Philosophy of Science*, *55*(2), 167–187.

CIPD. (2009). *Recruitment, retention and turnover*. London: CIPD. Retrieved from http://www.cipd.co.uk/binaries/recruitment_retention_turnover_annual_survey_2009.pdf

Clark, A. (2000). Signalling and screening in a transition economy: Three empirical models applied to Russia. Edinburgh:CERT.

Clarke, M. (2004). Weighing things up: A closer look at U.S. news and world report's ranking formulas. *College and University*, *79*(3), 3–9.

Clarke, M. (2007). The impact of higher education rankings on student access, choice, and opportunity. *Higher Education in Europe*, *32*(1), 59–70.

Clough, P., & Nutbrown, C. (2012). *A student's guide to methodology*. California: SAGE.

Coates, H. (2008). *Attracting, engaging and retaining: New conversations about learning Australasian survey of student engagement*. Victoria:ACER. Retrieved from http://www.acer.edu.au/files/AUSSE_Australasian-Student-Engagement-Report-ASER-2007.pdf

Cobanoglu, C., Warde, B., & Moreo, P. J. (2000). A comparison of mail, fax, and web-based survey methods. *International Journal of Market Research*, *43*, 405–410.

Cole, M. S., Feild, H. S., & Giles, W. F. (2003). Using recruiter assessments of applicants' resume content to predict applicant mental ability and big five personality dimensions. *International Journal of Selection and Assessment*, *11*(1), 78–88.

Cole, M. S., Rubin, R. S., Feild, H. S., & Giles, W. F. (2007). Recruiters' perceptions and use of applicant resume information: Screening the recent graduate. *Applied Psychology*, *56*(2), 319–343.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*, 95–120.

Coleman, J. S. (1990). *Foundations of social theory*. Cambridge: Harvard University Press.

Conlon, G., & Patrignani, P. (2011). Returns to higher education qualifications. London: BIS. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32419/11-973-returns-to-higher-education-qualifications.pdf

Creswell, J. W., & Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). California: SAGE.

Creswell, J. W., Clark, V. L., Gutmann, M., & Hanson, W. E. (2003). An Expanded typology for classifying mixed methods research into designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 159–196). Thousand Oaks: SAGE. Retrieved from http://www.corwin.com/upm-data/19291_Chapter_7.pdf

Crossman, J. E., & Clarke, M. (2010). International experience and graduate employability: Stakeholder perceptions on the connection. *Higher Education*, *59*(5), 599–613.

Cumming, R. (1990). Is probability sampling always better? A comparison of results from a quota and a probability sample survey. *Community Health Studies*, *14*(2), 132–137.

Davidson, S., Martin, C., & Treanor, S. (2009). *Scottish environmental attitudes and behaviours survey 2008*. Edinburgh: Social Research. Retrieved from http://www.gov.scot/Resource/Doc/265441/0079493.pdf

De Leeuwu, E. (2005). To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*, *21*(2), 233–255.

De Schweinitz, D. (1932). *How workers find jobs: A study of four thousand hosiery workers in Philadelphia*. Philadelphia: University of Philadelphia Press.

Denicolo, P., Fuller, M., Berry, D., & Raven, C. (2010). *A review of graduate schools in the UK*. London: UK Council for Graduate Education. Retrieved from https://www2.le.ac.uk/departments/gradschool/about/external/publications/graduate-schools.pdf

Deslandes, P. (2005). *Oxbridge men: British masculinity and the undergraduate experience, 1850-1920*. London: Indiana University Press.

Dewson, S., Eccles, J., Tackey, N. D., & Jackson, A. (2000). Guide to measuring soft outcomes and distance travelled. Brighton: Institute for Employment Studies. Retrieved from http://www.proveandimprove.org/documents/Softoutcomesanddistancetravelled.pdf

Dey, F., & Cruzvergara, C. Y. (2014). Evolution of career services in higher education. *New Directions for Student Services*, *148*(1), 5–18.

Dillman, D. A. (2000). *Tailored design of mail and other self-administered surveys*. New York: Wiley-Interscience.

DiMaggio, P. J., & Powell, W. W. (1983). Iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48*(2), 147–160.

DiMaggio, P. J., & Powell, W. W. (1991). *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press.

DiTomaso, N. (2013, May 5). How social networks drive Black unemployment. *New York Times*. Retrieved from http://opinionator.blogs.nytimes.com/2013/05/05/how-social-networks-drive-black-unemployment/

DLHE. (2013). DLHE survey results 2013. London: HESA.

DLHE. (2015). *Destinations of leavers from higher education 2013/14*. London: HESA. Retrieved from http://www.strath.ac.uk/media/ps/sees/studentsurveyteam/January_2014_DLHE_Questionnaire.pdf

Eddy, S., & Burke, R. J. (2006). The next generation at work – business students' views, values and job search strategy. *Education + Training*, *48*(7), 478–492.

Ehrenberg, A. (2000). Data reduction. *Journal of Empirical Generalisations in Marketing Science*, *5*(1), 285–338.

Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, *14*(4), 532–550.

Elias, P., & Purcell, K. (2013). Classifying graduate occupations for the knowledge society. London: HECSU. Retrieved from http://www2.warwick.ac.uk/fac/soc/ier/futuretrack/findings/elias_purcell_soche_final.pdf

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, *12*(4), 1143–1168.

Emmerik, I. H. (2006). Gender differences in the creation of different types of social capital: A multilevel study. *Social Networks*, *28*(1), 24–37.

Ericksen, E., & Yancey, W. (1977). The locus of strong ties. Philadelphia: Department of Sociology, Temple University.

Etcheverry, E. (1996). *Social capital: A resource for the human capital development of university students*. Canada: University of Manitoba. Retrieved from http://www.collectionscanada.gc.ca/obj/s4/f2/dsk3/ftp05/nq23598.pdf

Etcheverry, E., Clifton, R. A., & Roberts, L. W. (2001). Social capital and educational attainment: A study of undergraduates in a faculty of education. *Alberta Journal of Educational Research*, *47*(1), 24–39.

Eurobarometer. (2010). *Employers' perception of graduate employability*. Hungary: European Commission. Retrieved from http://ec.europa.eu/public_opinion/flash/fl_304_en.pdf

Falcon, L. M. (1995). Social networks and employment for Latinos, Blacks, and Whites. *New England Journal of Public Policy*, *11*(1), 17–28.

Falconer, J. W., & Hays, K. A. (2006). Influential factors regarding the career development of African American college students. *Journal of Career Development*, *32*(3), 219–233.

Fang, H. (2001). *Disentangling the college wage premium: Estimating a model with endogenous education choices*. New Haven: Yale University.

Federkeil, G. (2009). Reputation indicators in rankings of higher education institutions. In B. M. Kehm & B. Stensaker (Eds.), *University rankings, diversity, and the new landscape of higher education* (pp. 19–34). Boston: Sense Publishers.

Feld, S. L. (1982). The focused organization of social ties. *American Journal of Sociology*, *86*(5), 1015–1035.

Feng, A., & Graetz, G. (2015). A question of degree: The effects of degree class on labor market outcomes. London:CEF. Retrieved from http://cep.lse.ac.uk/pubs/download/dp1221.pdf

Fenner, Y., Garland, S. M., Moore, E. E., Jayasinghe, Y., Fletcher, A., Tabrizi, S. N., & Gunasekaran, B. (2012). Web-based recruiting for health research using a social networking site: An exploratory study. *Journal of medical Internet research*, *14*(1), e20.

Fernandez, R. M., & Sosa, L. M. (2005). Gendering the job: Networks and recruitment at a call center. *American Journal of Sociology*, *111*(3), 859–904.

Field, A. (2013). *Discovering statistics*. California: SAGE.

Field, J. (2003). *Social capital*. London: Routledge.

Flap, H. D. (1991). Social capital in the reproduction of inequality. *Comparative Sociology of Family, Health and Education*, *20*(6), 6179–6202.

Flap, H. D., & Völker, B. (2004). *Creation and returns of social capital*. New York: Routledge.

Fleischhauer, K. (2007). *A review of human capital theory: Microeconomics*. Switzerland: University of St. Gallen. Retrieved from http://www1.vwa.unisg.ch/RePEc/usg/dp2007/DP01_Fl.pdf

Flores-Yeffal, N. Y., & Zhang, L. (2012). The role of social networks in determining earnings: A comparison analysis of four racial and ethnic groups. *Sociology Mind*, *2*(2), 235–246.

Fluid Survey. (2015). *Tips for avoiding respondent bias*. California: Survey Monkey. Retrieved from https://fluidsurveys.com/university/tips-for-avoiding-respondent-bias/

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, *12*(2), 219–245.

Forret, M. L., & Dougherty, T. W. (2004). Networking behaviors and career outcomes: Differences for men and women? *Journal of Organizational Behavior*, *25*(3), 419–437.

Fouad, N. A., Guillen, A., Hodge, E., Henry, C., Novakovic, A., Terry, S., & Kantamneni, N. (2006). Need, awareness, and use of career services for college students. *Journal of Career Assessment*, *14*(4), 407–420.

Fowler, F. J. J. (1984). *Survey research methods*. Thousand Oaks: SAGE.

Franzen, A., & Hangartner, D. (2006). Social networks and labour market outcomes: The non-monetary benefits of social capital. *European Sociological Review*, *22*(4), 353–368.

Frazer, E., & Lacey, N. (1993). *The politics of community: A feminist critique of the liberal communitarian debate*. Harvester Wheatsheaf: Hemel Hempstead.

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior*, *65*(1), 14–38.

Fukuyama, F. (1995). Social capital and the global economy. *Foreign Affairs*, *74*(5), 89–103.

Galeotti, A., & Merlino, I. P. (2014). Endogenous job contact networks. *International Economic Review*, *55*(4), 1201–1226.

García-Mainar, I., & Monteuenga-Gómez, V. M. (2005). Education returns of wage earners and self-employed workers: Portugal vs. Spain. *Economics of Education Review*, *24*(2), 161–170.

Garver, M. S., Spralls, Samuel, A., & Divine, R. L. (2009). Need-based segmentation analysis of university career services: Implications for increasing student participation. *Research In Higher Education Journal*, *3*, 1–27.

Gasevic, D., Zouak, A., & Janzen, R. (2014). Choose your classmates, your GPA is at stake! Canada: Athabasca University. Retrieved from http://www.sfu.ca/~dgasevic/papers_shared/abs2013.pdf

Gauntlett, D. (2011). *Making is connecting: The social meaning of creativity, from DIY and knitting to YouTube and Web 2.0*. Cambridge: Polity Press.

Gerring, J. (2004). What is a case study and what is it good for? *American political science review*, *98*(02), 341–354.

Gerschenkron, A. (1962). *Economic backwardness in historical perspective*. Massachusetts: Harvard University Press.

Gibson, S. K. (2005). Being mentored: The experience of women faculty. *Journal of Career Development*, *30*(3), 173–188.

Giulietti, C., Schluter, C., & Wahba, J. (2013). With a lot of help from my friends: Social networks and immigrants in the UK. *Population, Space and Place*, *19*, 657–670. doi:10.1002/psp

Giusta, M. Della, & Kambhampati, U. M. A. (2006). Women migrant workers in the UK: Social capital, well-being and integration. *Journal of International Development*, *18*(6), 819–833.

Glaeser, E. L., Laibson, D., & Sacerdote, B. (2002). An economic approach to social capital. *The Economic Journal*, *112*, 437–458.

Global Exchange Forum. (2005). *Understanding women's social capital*. London:WAITS. Retrieved from http://fpc.org.uk/fsblob/1017.pdf

Golde, C. M., & Dore, T. M. (2001). *At cross purposes: What the experiences of doctoral students reveal about doctoral education*. Philadelphia: The Pew Charitable Trust.

Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about internet questionnaires. *The American Psychologist*, *59*(2), 93–104.

Graddiary.com. (2015). UK university graduate salary rankings. *London: Graddiary*. Retrieved from http://www.graddiary.com/careers-advice/uk-university-graduate-salary-rankings/

Graham, I. C. (2015). *Black spaces at White institutions: How do Black students perceive and utilize Black student organizations at rural and urban predominately White campuses?* Cincinnati: University of Cincinnati. Retrieved from https://etd.ohiolink.edu/!etd.send_file?accession=ucin1439294513&disposition=inline

Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, *78*(6), 1360–1380.

Granovetter, M. S. (1983). The strength of weak ties: A network theory revisited. In R. Collins (Ed.), *Sociological Theory* (pp. 201–233). San Francisco: Jossey-Bass.

Granovetter, M. S. (2005). The impact of social structure on economic outcomes. *Journal of Economic Perspectives*, *19*(1), 33–50.

Green, A. E., Hoyos, M. De, Li, Y., & Owen, D. (2011). *Job search study: Literature review and analysis of the Labour Force Survey*. London: DWP. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/264917/rrep726.pdf

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *American Educational Research Association*, *11*(3), 255–274.

Greener, S. (2008). *Business research methods*. Denmark: Ventus Publishing.

Greenwood, R., & Hinings, C. N. (1996). Understanding radical organizational change: Bringing together the old and new institutionalism. *The Academy of Management Review*, *21*(4), 1022–1054.

Greif, A., & Kingston, C. (2011). Institutions: Rules or equilibria? In N. Schofield & G. Caballero (Eds.), *Political economy of institutions, democracy and voting* (pp. 13–44). Berlin: Springer.

Groves, R. (2004). *Survey methodology*. New York: Wiley.

Groves, R. (2006). Nonresponse rates and nonresponse bias in household surveys. *Public Opinion Quarterly*, *70*(5), 646–675.

Gschwend, T. (2005). Analyzing quota sample data and the peer-review process. *French Politics*, *3*(1), 88–91.

Guba, E. G. (1990). *The paradigm dialog*. California: SAGE.

Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (pp. 191–215). California: SAGE.

Gustavsson, I., Nilsson, K., Zackrisson, J., Garcia-Zubia, J., Ernandez-Jayo, U., Nafalski, A., & Nedic, Z. (2009). On objectives of instructional laboratories, individual assessment, and use of collaborative remote laboratories. *IEEE Transactions on Learning Technologies*, *2*(4), 263–274.

Hall, P. A., & Taylor, R. C. R. (1996). Political science and the three new institutionalisms. Koln: MPIFG. Retrieved from http://www.mpifg.de/pu/mpifg_dp/dp96-6.pdf

Hancock, J., Toma, C., & Ellison, N. (2007). The truth about lying in online dating profiles. California: CHI. Retrieved from http://collablab.northwestern.edu/CollabolabDistro/nucmc/p449-hancock.pdf

Hanover Research Institute. (2012). *Best practices in career services for graduating students*. Washington: HRI. Retrieved from http://www.hanoverresearch.com/wp-content/uploads/2012/04/Best-Practices-in-Career-Services-for-Graduating-Students-Membership.pdf

Hanson, S., & Pratt, G. (1991). Job search and the occupational segregation of women. *Annals of the Association of American Geographers*, *81*(2), 229–253.

Hansson, B., Johanson, U., & Leitner, K. (2004). *The impact of human capital and human capital investments on company performance*. Thessaloniki:Cedefop.

Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, *7*(2), 97–109.

Harvey, L. (2004). *Analytic quality glossary*. NA: Quality Research International. Retrieved from http://www.qualityresearchinternational.com/glossary

Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research*, *3*(3), 118–126.

HESA. (2009). *Destionations of leavers from higher education institutions: Longitudinal survey of the 2004/05 cohort*. Cheltenham: HESA. Retrieved from https://www.hesa.ac.uk/dlhe_long_report_02_03

HESA. (2013). *Destinations of leavers from higher education institutions longitudinal survey 2008/09*. Cheltenham: HESA. Retrieved from https://www.hesa.ac.uk/content/view/2939/

HESA. (2015). *Joint academic coding system*. Cheltenham: HESA. Retrieved from https://www.hesa.ac.uk/dox/jacs/JACS_complete.pdf

HighFliers. (2009). *The Graduate Market in 2009*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/GraduateMarket09.pdf

HighFliers. (2010). *The Graduate Market in 2010*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/GM10Report.pdf

HighFliers. (2011). *The Graduate Market in 2011*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/GMReport11.pdf

HighFliers. (2012). *The Graduate Market in 2012*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/GMReport12.pdf

HighFliers. (2013). *The Graduate Market in 2013*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/GMReport13.pdf

HighFliers. (2014). *The Graduate Market in 2014*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/GMReport14.pdf

HighFliers. (2015). *The Graduate Market in 2015*. London: HighFliers. Retrieved from http://www.highfliers.co.uk/download/2015/graduate_market/GMReport15.pdf

Hite, K. (2011). *Qualtrics security: White paper*. Utah: Qualtrics. Retrieved from http://www.utwente.nl/cw/qualtrics/data security policy/whitepaper.pdf

Hodgson, G. M. (2006). What are institutions? *Journal of Economic Issues*, *40*(1), 1–25.

Hofweber, T. (2014). *Logic and ontology*. Stanford: CSLI. Retrieved from http://plato.stanford.edu/entries/logic-ontology/

Hogarth, T., Winterbotham, M., Carter, K., Daniel, W. W., Green, A. E., & Morrison, J. (2007). *Employer and university engagement in the use and development of graduate*

level skills. Warwick: IFF. Retrieved from
http://webarchive.nationalarchives.gov.uk/20130401151715/http://www.education.gov.u
k/publications/eOrderingDownload/RR835A.pdf

Hoonakker, P., & Carayon, P. (2009). Questionnaire survey nonresponse: A comparison of
postal mail and internet surveys. *International Journal of Human-Computer Interaction*,
25(5), 348–373.

Howell, D. C. (2010). *Statistical methods for psychology*. Wadsworth: Cengage Learning.

Iannelli, C. (2002). Parental education and young people's educational and labour market
outcomes: A comparison across Europe. Mannheim: MZES. Retrieved from
http://www.mzes.uni-mannheim.de/publications/wp/wp-45.pdf

Imre, R., & Griffiths, T. (2013). *Mass education, global capital, and the world*. New York:
Palgrave Macmillan.

International Social Survey Programme. (2001). *Social networks*. Mannheim: GESIS.
Retrieved from
http://zacat.gesis.org/webview/index.jsp?object=http://zacat.gesis.org/obj/fStudy/ZA368
0

Internet World Stats. (2014). Internet stats and facebook usage in Europe 2014 mid-year
statistics. *Colombia: MMG*. Retrieved from
http://www.internetworldstats.com/stats4.htm

Ioannides, Y. M., & Loury, L. D. (2004). Job information networks, neighborhood effects,
and inequality. *Journal of Economic literature*, *42*(4), 1056–1093.

ISSE. (2013). *The Irish survey of student engagement*. NA: ISSE. Retrieved from
http://studentsurvey.ie/wordpress/wp-
content/uploads/2013/12/ISSE_Survey_final2013.pdf

Jaeger, D. A., & Page, M. E. (1996). Degrees matter: New evidence on sheepskin effects in
the returns to education. *The Review of Economics and Statistics*, *78*(4), 733–740.

Jayakody, J. A. S. K. (2012). *Mixed methods research: The end of qualitative and
quantitative divide [Powerpoint slides]*. Sri Lanka: University of Colombo.

Johnson, W. B., Rose, G., & Schlosser, L. Z. (2007). Student–faculty mentoring: Theoretical
and methodological issues. In T. D. Allen & L. T. Eby (Eds.), *The Blackwell handbook
of mentoring* (pp. 49–70). USA: Blackwell Publishing.

Jones, C. I. (1996). *Human capital, ideas, and economic growth*. Stanford: CEPR. Retrieved
from
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.70.3626&rep=rep1&type=pdf

Jones, R., & Sant, R. (2013). *The solent capital compass model of employability*. Southampton: Southampton Solent University. Retrieved from http://ssudl.solent.ac.uk/2567/1/Compass and Journey with references and Definitions.pdf

Kaas, L., & Manger, C. (2011). Ethnic discrimination in Germany's labour market: A field experiment. *German Economic Review*, *13*(1), 1–20.

Kalmijn, M. (2003). Shared friendship networks and the life course: An analysis of survey data on married and cohabiting couples. *Social Networks*, *25*(3), 231–249.

Kariya, T., & Brinton, M. C. (1998). Institutional embeddedness in Japanese labor markets. In M. C Brinton & V. Nee (Eds.), *The new institutionalism in sociology* (pp. 181–207). New York: Russell Sage Foundation.

Karlan, D., & Zinman, J. (2008). Lying about borrowing. *Journal of the European Economic Association*, *6*, 510–521.

Kedir, A., Kyrizi, A., & Martinez-Mora, F. (2012). *Signalling and productivity effects of overeducation: Is it really a waste of resources?* (No. 12/19). Leicester: University of Leicester. Retrieved from http://www.le.ac.uk/ec/research/RePEc/lec/leecon/dp12-19.pdf

Kessler, A. S., & Lulfesmann, C. (2006). The theory of human capital revisited: On the interaction of general and specific investments. *The Economic Journal*, *116*(1994), 903–923.

Kidd, M., Leary, N. O., & Sloane, P. (2014). *Should I stay or should I go? An investigation of graduate regional mobility in the UK and its impact upon early career earnings* (No. 8325). Bonn: IZA. Retrieved from http://ftp.iza.org/dp8325.pdf

Kiker, B. F. (1966). The Historical Roots of the Concept of Human Capital. *Journal of Political Economy*, *74*(5), 481–499.

Kim, Y. K., & Sax, L. J. (2007). *Different patterns of student-faculty interaction in reserch universities*. California: Center for Studies in Higher Education. Retrieved from http://www.cshe.berkeley.edu/sites/default/files/shared/publications/docs/ROPS[1].Kim.Sax.7.31.07.pdf

Kitagawa, F. (2003). *Universities and regional advantage in the knowledge economy: Markets, governance and networks as developing in english regions*. Birmingham: University of Birmingham.

Kitchen, S., Lloyd, C., Vignoles, A., & Finch, S. (2008). *Destination of leavers from higher education, comparative report*. Cheltenham: HESA. Retrieved from

https://www.hesa.ac.uk/dox/dlhe_longitudinal/Destination_of_Leavers_from_HE_Comparative_Report_Feb08.pdf

Kjelland, J. (2005). Economic returns to higher education: Signaling vs human capital theory an analysis of competing theories. *The Park Place Economist*, *16*(3), 68–87.

Klapper, R. (2008). *The role of social capital in french entrepreneurial networks at the pre-organisation stage [Doctoral thesis]*. Leeds: University of Leeds.

Knights, D., & Richards, W. (2003). Sex discrimination in UK academia. *Gender, Work and Organization*, *10*(2), 213–238.

Koelble, T. A. (1995). The new institutionalism in political science and sociology. *Comparative Politics*, *27*(2), 231–243.

Kofman, E., Lukes, S., Angelo, A. D., & Montagna, N. (2009). *The equality implications of being a migrant in Britain*. Middlesex: Social Policy Research Centre. Retrieved from http://www.equalityhumanrights.com/sites/default/files/documents/research/19_the-equality-implications-of-being-a-migrant-in-britain.pdf

Korpi, W. (2001). Contentious instituitions. *Rationality and Society*, *13*(2), 235–283.

Krackhardt, D. (1992). The strength of strong ties: The importance of philos in organizations. In N. Nohria & R. Eccles (Eds.), *Networks and 0rganizations* (pp. 216–239). Boston: Harvard Business School Press.

Kramarz, F., & Skans, O. N. (2014). When strong ties are strong: networks and youth labour market entry. *The Review of Economic Studies*, *81*(3), 1164–1200.

Krantz, J. H., & Dalal, R. (2000). Validity of web-based psychological research. In M. H Birnbaum (Ed.), *Psychological experiments on the Internet* (pp. 35–60). San Diego: Academic Press.

Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, *53*(9), 1017–1031.

Kroft, K., & Pope, D. G. (2014). Does online search crowd out traditional search and improve matching efficiency? *Journal of Labour Economics*, *32*(2), 259–303.

Kugler, A. D. (2003). Employee referrals and efficiency wages. *Labour Economics*, *10*(5), 531–556.

Kuh, G. D., & Hu, S. (2001). The effects of student-faculty interaction in the 1990s. *The Review of Higher Education*, *24*(3), 309–332.

Kuh, G. D., & Zhao, C. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education*, *45*(2), 115–139.

Labini, M. S. (2004). *Social networks and wages: It is all about connections !* Italy: S.Anna School of Advanced Studies. Retrieved from http://www2.dse.unibo.it/seminari/Social_Net_Wage.pdf

Labour Force Survey. (2013). *Graduates in the UK labour market 2013*. London: ONS. Retrieved from http://www.ons.gov.uk/ons/dcp171776_337841.pdf

Lakoff, G. (1987). *Women, fire and dangerous things*. Chicago: Unversityi of Chicago Press.

Lambert, T. A., Eby, L. T., & Reeves, M. P. (2006). Predictors of networking intensity and network quality among white-collar job seekers. *Journal of Career Development*, *32*(4), 351–365.

Lansky, D., Whitworth, E., & Meyers, K. (2002). Compare your care: A web-based strategy for consumer activation and physician performance rating. *Technology Health Care*, *10*(6), 520–521.

Laursen, K., Masciarelli, F., & Prencipe, A. (2012). Regions matter: How localized social capital affects innovation and external knowledge acquisition. *Organization Science*, *23*(1), 177–193.

Lebo, H. (2000). *The UCLA Internet report: Surveying the digital future*. Los Angeles: University of California, Center for Communication Policy. Retrieved from http://www.ub.edu/prometheus21/articulos/survey.pdf

Lecour, A. (2005). *New Institutionalism: Theory and analysis*. Toronto: University of Toronto Press.

Lee, S., & Brinton, M. C. (1996). Elite education and social capital: The case of South Korea. *Sociology of Education*, *69*(3), 177–192.

Lee, S. Y. T., Roys, N., & Seshadri, A. (2015). *The causal effect of parents' education on children's earnings*. Winconsin: IFS. Retrieved from http://lee.vwl.uni-mannheim.de/materials/spillover.pdf

Lethbridge, T. C., Sim, S. E., & Singer, J. (2005). Studying software engineers: Data collection techniques for software field studies. *Empirical Software Engineering*, *10*(3), 311–341.

Levy, P., & Lemeshow, S. (1999). *Sampling of populations: Methods and applications*. New York: Wiley & Sons.

Lin, N. (1999). Building network theory of social capital. *Connections*, *22*(1), 28–51.

Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge: Cambridge University Press.

Lin, N., Dayton, P. W., & Greenwall, P. (1978). Analyzing the instrumental use of relations in the context of social structure. *Sociological Methods Research*, *7*(2), 149–166.

Luther, N. (2009). Advising in the face of apathy: Collaboration, connection, and communication in higher education [Online Journal]. *Academic Advising Today*, *32*(4). Retrieved from https://www.nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Advising-in-the-Face-of-Apathy-Collaboration--Connection--and-Communication-in-Higher-Education.aspx

Magee, B. (2010). *The story of philosophy*. London: DK.

Makano, R. F. (2008). *Does institutional capacity matter?* USA: UMI.

Mankiw, N. G., Gans, J., King, S., & Stonecash, R. (2012). *Principles of economics*. Australia: Pty Ltd.

Manpower Group. (2015). *Talent shortage survey*. London: Manpower Group. Retrieved from http://www.manpowergroup.com/wps/wcm/connect/408f7067-ba9c-4c98-b0ec-dca74403a802/2015_Talent_Shortage_Survey-lo_res.pdf?MOD=AJPERES&ContentCache=NONE

Marcia, J. E. (1980). Identity in adolescence. In R. M. Learner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology* (pp. 159–187). New York: Wiley and Sons. Retrieved from http://www.researchgate.net/profile/James_Marcia/publication/233896997_Identity_in_adolescence/links/0deec52ea6ae66e0f8000000.pdf

Marginson, S. (1989). *Human capital theory and education policy*. Australia: Public Sector Research Centre.

Marginson, S. (1992). Education as a branch of economics: The universal claims of economic rationalism. *Melbourne Studies in Education*, *33*(1), 1–14.

Marginson, S., & Rhoades, G. (2002). Beyond national states , markets , and systems of higher education : A glonacal agency heuristic. *Higher Education*, *43*(3), 281–309.

Márquez, G. M., & Ruiz-Tagle, C. (2004). *Search methods and outcomes in developing countries: The case of Venezuela*. Washington: Inter-American Development Bank. Retrieved from http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=468472

Marsden, P. V, & Hurlbert, J. S. (1988). Social resources and mobility outcomes: A replication and extension. *Social Forces*, *66*(4), 1038–1059.

Marshall, A. (1890). *Principles of economics.* London: Macmillian and Co.

Mason, G. (2002). High skills utilisation under mass higher education: Graduate employment in service industries in Britain. *Journal of Education and Work*, *15*(4), 427–456.

Mason, G., Williams, G., & Cranmer, S. (2006). *Employability skills initiatives in higher education: What effects do they have on graduate labour market outcomes?* London: NIESR & IOE. Retrieved from http://www.niesr.ac.uk/pubs/DPS/dp280.pdf

Mason, G., Williams, G., & Cranmer, S. (2009). Employability skills initiatives in higher education: What effects do they have on graduate labour market outcomes? *Education Economics*, *17*(1), 1–30.

Matrix. (2013). *Assessment report for University of Exeter, employability and graduate development*. Nottingham: EMQC. Retrieved from https://www.exeter.ac.uk/media/universityofexeter/careersandemployability/matrix_Report_University_of_Exeter_Employability_and_Graduate_Development_Feb_2013.pdf

Mau, W., & Fernandes, A. (2001). Characteristics and satisfaction of students who used career counseling services. *Journal of College Student Development*, *42*(2), 581–588.

Maurer, R. (2015). *Online job searching has doubled since 2005*. Virginia: SHRM. Retrieved from http://www.shrm.org/hrdisciplines/staffingmanagement/articles/pages/online-job-searching-doubled.aspx

Maxwell, J. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks: SAGE.

Maxwell, J. (2007). *It's time to stop thinking statistically about qualitative research. Teacher College Record*. Manhattan: University of Columbia. Retrieved from http://www.tcrecord.org/discussion.asp?i=3&aid=2&rid=12612&dtid=0&vdpid=2761

Maxwell, J. (2010). *A realist approach for qualitative research* (pp. 3–13). Thousand Oaks: SAGE. Retrieved from http://www.sagepub.com/sites/default/files/upm-binaries/44131_1.pdf

McCorkle, D. E., Alexander, J. F., Reardon, J., & Kling, N. D. (2003). Developing self-marketing skills: Are marketing students prepared for the job search? *Journal of Marketing Education*, *25*(3), 196–207.

McDonald, S. (2011). What's in the "old boys" network? Accessing social capital in gendered and racialized networks. *Social Networks*, *33*(4), 317–330.

Mcdonald, S., Lin, N., & Ao, D. (2009). Networks of opportunity: Gender, race, and job leads. *Society for the Study of Social Problem*, *56*(3), 385–402.

McDonald, S., & Mair, C. A. (2010). Social capital across the life course: Age and gendered patterns of network resources. *Sociological Forum*, *25*(2), 335–359.

Mcgrath, G. L. (2002). The emergence of career services and their important role in working with employers. *New Directions for Student Services*, *100*(1), 69–84.

McNair, S. (2003). *Employability in higher education*. Guildford: University of Surrey.

Meijers, F. (1998). The development of a career identity. *International Journal for the Advancement of Counselling*, *20*(2), 191–207.

Mencken, F. C., & Winfield, I. (2000). Job search and sex segregation: Does sex of social contact matter? *Sex Roles*, *42*(9), 847–864.

Mendez, R., & Rona, A. (2010). The relationship between industrial placements and final degree results: A study of engineering placement students. *Learning and Teaching in Higher Education*, *4*(2), 46–61.

Miles, M., & Huberman, A. (1994). *Qualitative data analysis*. California: SAGE. Retrieved from http://linkinghub.elsevier.com/retrieve/pii/0149718996882322

Mill, J. S. (1872). *The logic of the moral sciences*. London: Open Court Classic.

Mill, J. S. (1909). *The principles of political economy*. London: Longman.

Miller, A. (2014). *Realism*. Stanford: University of Stanford. Retrieved from http://plato.stanford.edu/entries/realism/

Millican, P. (2006). *Hume, causal realism, and causal science*. Oxford: University of Oxford. Retrieved from http://www.davidhume.org/papers/millican/2009 Hume Causal Realism Science.pdf

Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of Political Economy*, *66*(4), 281–302.

Miyagi, E., Motoki, Y., Asai-Sato, M., Taguri, M., Morita, S., Hirahara, F., & Wark, J. D. (2014). Web-based recruiting for a survey on knowledge and awareness of cervical cancer prevention among young women living in Kanagawa prefecture, Japan. *International Gynecological Cancer Society*, *24*(7), 1347–1355.

Moerbeek, H., & Flap, H. (2008). Social resources and their effect on occupational attainment through the life course. In Nan Lin & B. H. Erickson (Eds.), *Social capital: An international research program* (pp. 133–156). Oxford: Oxford University Press.

Montgomery, J. D. (1991). Social networks and labor market outcomes: Towards an economic analysis. *American Economic Review*, *81*(5), 1408–1418.

Myant, K., & Hope, S. (2006). A comparison of quota and random samples for measuring sport participation. Edinburgh: The Scottish Executive.

NACE. (2014). *Professional standards for college and university career services*. New York: NACE. Retrieved from https://www.naceweb.org/.../professional-standards-for-college-and-university-career-services.pdf

Nanavati, A. (2009). *Social capital and labour market outcomes for South Asia-born immmigrants in Canada*. Columbia: CERID. Retrieved from http://mbc.metropolis.net/assets/uploads/files/wp/2009/WP09-10.pdf

Narasimhan, N. (1996). Quality management stystems in HEIs in the UK. In G. Kanji (Ed.), *Total quality management in action* (pp. 122–126). London: Chapman & Hall.

Naylor, R., & Mcknight, A. (2002). Sheer class? The impact of degree performance on graduate labour market outcomes. Coventry: University of Warwick. Retrieved from http://www2.warwick.ac.uk/fac/soc/economics/research/workingpapers/2002/twerp659a.pdf

Neuman, W. (2011). *Social research method*. London: Pearson.

Noel, R. C., & Smith, S. S. (1996). Self-disclosure of college students to faculty: The influence of ethnicity. *Journal of College Student Development*, *37*(1), 88–94.

O'Leary, N C, & Sloane, P. J. (2004). The return to a university education in Great Britain. London: IZA. Retrieved from http://www.swansea.ac.uk/welmerc/Returns to Degrees.pdf

O'Leary, Nigel C., & Sloane, P. J. (2008). Rates of return to degrees across British regions. *Regional Studies*, *42*(2), 199–213.

O'Regan, K., & Quigley, J. (1993). Family networks and youth access to jobs. *Journal of Urban Economic*, *34*(3), 230–248.

Obama, B. (2013). *Remarks by the president on college affordability*. Washington: White House. Retrieved from https://www.whitehouse.gov/photos-and-video/video/2013/08/22/president-obama-speaks-college-affordability-0#transcript

OECD. (2001). *Glossary of statistical terms*. Stockholm: OECD. Retrieved from https://stats.oecd.org/glossary/detail.asp?ID=1264

Ono, H. (2001). On the adjusted rate of return to women's university education: A preliminary study of OECD countries. Stockholm: Stockholm School of Economics. Retrieved from http://www2.hhs.se/eijswp/115.pdf

Orton, S. (1994). Evidence of efficiency of quota samples. *Survey Methods Newsletter*, *15*(1), 120–135.

Oxford Royal Academy. (2014). *Not just Oxbridge: A guide to Britain's other top universities*. Oxford: Oxford Royale Academy. Retrieved from https://www.oxford-royale.co.uk/articles/britains-other-top-universities.html

Palys, T. (2008). Purposive sampling. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 697–698). London: SAGE.

Parks-Yancy, R., DiTomaso, N., & Post, C. (2006). The social capital resources of gender and class groups. *Sociological Spectrum*, *26*(1), 85–113.

Parry, E., & Tyson, S. (2008). An analysis of the use and success of online recruitment methods in the UK. *Human Resource Management Journal*, *18*(3), 257–274.

Patacchini, E., & Zenou, Y. (2012). Ethnic networks and employment outcomes. *Regional Science and Urban Economics*, *42*(6), 938–949.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. *1990* (2nd ed.). California: SAGE.

Pealer, L. N., Weiler, R. M., Pigg, R. M., Miller, D., & Dorman, S. M. (2001). The feasibility of a web-based surveillance system to collect health risk behaviour data from college students. *Health Education Behaviour*, *28*(5), 547–559.

Phillips, D. S. (1987). *Philosophy, science and social inquiry: Contemporary methodological controversies in social science and related applied fields of research*. Oxford: Pergamon Press.

Pohar, M., Blas, M., & Turk, S. (2004). Comparison of logistic regression and linear discriminant analysis: A simulation study. *Metodološki Zvezki*, *1*(1), 143–161.

Pohler, D., & Willness, C. (2014). Balancing interests in the search for occupational ligitimacy: The HR profesionalization project in Canada. *Human Resource Management*, *53*(3), 467–488.

Ponzo, M., & Scoppa, V. (2010). The use of informal networks in Italy: Efficiency or favoritism? *The Journal of Socio-Economics*, *39*(1), 89–99.

Pool, D. L., & Sewell, P. (2007). The key to employability: Developing a practical model of graduate employability. *Education + Training*, *49*(4), 277–289.

Portes, A., & Landolt, P. (2000). Social Capital: Promise and pitfalls of its role in development. *Journal of Latin American Studies*, *32*, 529–547.

Ports, M. (1993). Trends in job search methods, 1970–92. *Monthly Labor Review*, *116*(10), 63–37.

Power, S. (2008). *Graduating and gradations within the middle class: The legacy of an elite higher education*. Cardiff: Cardif University. Retrieved from http://orca.cf.ac.uk/25005/1/wp118.pdf

Psacharopoulos, G. (1980). On the weak versus the strong version of the screening hypothesis. *Economic Letters*, *4*(2), 181–185.

Putnam, H. (1999). *The threefold chord: Mind, body, and world*. New York: Columbia University Press.

Putnam, R. (2001). Social capital: Measurement and consequences. In J. F. Helliwell (Ed.), *The contribution of human and social capital to sustained economic growth and well-being* (pp. 117–135). Ontario: Human Resources Development. Retrieved from http://www.oecd.org/innovation/research/1825848.pdf

Radloff, A. (2011). *Student engagement in New Zealand's universities*. Sydney: Australian Council for Educational Research. Retrieved from http://www.researchgate.net/profile/Ali_Radloff/publication/254581337_Student_engagement_in_New_Zealands_universities/links/53fddbdb0cf2dca800039c51.pdf

Ramesh, N., Mann, T., & Parrott, K. (2009). *Extracurricular activities to enhance the employment outcomes of Mathematics graduates*. London: HEA. Retrieved from https://www.heacademy.ac.uk/sites/default/files/resources/MSOR-142-P.pdf

Ramsey, A. (2008). Graduate earnings: An econometric analysis of returns, inequality and deprivation across the UK. Nothern Ireland: DELNI. Retrieved from http://www.delni.gov.uk/graduate_earnings__main_report.pdf

Reay, D. (2008). Tony Blair, the promotion of the "active" educational citizen, and middle class hegemony. *Oxford Review of Education*, *34*(6), 639–650.

Reddy, B. B., Gopi, M. M., & Sunethri, A. J. R. (2013). The importance of soft skills for modern day professions. *International Journal of Scientific Research*, *2*(5), 347–348.

Rees, A. (1966). Information networks in labour markets. *American Economic Review*, *56*(1), 559–566.

Reskin, B. F., & Bielby, D. D. (2005). A sociological perspective on gender and career outcomes. *American Economic Association*, *19*(1), 71–86.

Rieucau, G. (2008). Job advertisements and personal networks: two specific channels in the Spanish labour market. *Transfer: European Review of Labour and Research*, *14*(3), 469–480.

RIOIP. (2008). Institutionalism [PPT slides]. Newcastle: Research Institute of Organisational and Institutional Performance: Research Institute of Organisational and Institutional Performance. Retrieved from http://www.newcastle.edu.au/Resources/Faculties/Faculty of Business and Law/Seminars/Business Seminar Series 2008/Institutionalism_org_theory.ppt

Rochlen, A. B., & O'Brien, K. M. (2002). Men's reasons for and against seeking help for career-related concerns. *The Journal of Men's Studies*, *11*(1), 55–63.

Rumbles, S., & French, R. (2010). Recruitment and selection. In G. Rees & R. French (Eds.), *Leading, Managing and Developing People*. London: CIPD. Retrieved from http://www.cipd.co.uk/NR/rdonlyres/01F95685-76C9-4C96-B291-3D5CD4DE1BE5/0/9781843982579_sc.pdf

Runeson, P., & Host, M. (2009). Guidelines for conducting and reporting case study research in software engineering. *Empirical Software Engineering*, *14*(2), 131–164.

Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: Wiley and Sons.

Sappleton, N. (2013). *Advancing social and business research methods with new technology*. USA: IGI Global.

Sarndal, C. E., Swensson, B., & Wretman, J. (2003). *Model assisted survey sampling*. New York: Springer.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Essex: Pearson.

Schilling, N. (2013). *Sociolinguistic fieldwork*. Cambridge: Cambridge University Press.

Schneider, A. (2006). *Social capital and welfare reform: Organizations, congregations, and communities*. New York: Columbia University Press.

Schuller, T. (2001). The complementary roles of human and social capital. *Canadian Journal of Policy Research*, *2*, 18–24.

Schultz, T. W. (1959). Investment in man: An economist's view. *Social Service Review*, *33*(2), 109–117.

Schultz, T. W. (1961). Investment in human capital: Reply. *American Economic Review*, *51*(5), 1035–1039.

Schwandt, T. A. (1997). *Qualitative inquiry*. California: SAGE.

Schweikard, D. P., & Schmid, H. B. (2013). Collective intentionality. *Stanford Encyclopedia of Philosophy*. Stanford: Stanford University. Retrieved from http://plato.stanford.edu/entries/collective-intentionality/

Searle, J. R. (2005). What is an institution? *Journal of Institutional Economics*, *1*(1), 1–22.

Sekaran, U. (2003). *Reserach method for business*. USA: Wiley.

Shahila, M. D., & Vijayalakshmi, M. R. (2013). E-Recruitment challenges. *International Journal of Social Science and Interdisciplinary Research*, *2*(5), 118–123.

Sheldon, M. (2009). *Future fit: prepering graduates for the world of work*. London: CBI. Retrieved from http://www.cbi.org.uk/media/1121435/cbi_uuk_future_fit.pdf

Shivy, V. A., & Koehly, L. M. (2002). Client perceptions of and preferences for university-based career services. *Journal of Vocational Behavior*, *60*(1), 40–60.

Siebecker, M. R. (2008). Building a "new institutional" approach to corporate speech. *Alabama Law Review*, *59*(2), 247–304.

Skitka, L. J., & Sargis, E. G. (2005). Social psychological research and the Internet: The promise and the perils of a new methodological frontier. In Y. Amichai-Hamburger (Ed.), *The social net: The social psychology of the Internet* (pp. 1–25). Oxford: Oxford University Press.

Smith, D. J. (1997). Ethnic origins, crime, and criminal justice in England and Wales in ethnicity, crime and immigration: Comparative and cross-national perspectives: *Crime and Justice*, *21*(101-182).

Smith Institute. (2014). *Building the future: Women in construction*. London: Smith Institute. Retrieved from http://www.designengineerconstruct.com/pdfs/building-the-future-women-in-construction.pdf

Smith, K. (2014). *Strategic directions for career services: Within the university setting*. California: Wiley.

Smith, S. S. (2005). "Don't put my name on it": Social capital activation and job-finding assistance among the Black urban poor. *American Journal of Sociology*, *111*(1), 1–57.

Sodexo. (2014). *The Sodexo university lifestyle survey 2014*. London: Institute for Quality of Life. Retrieved from http://digitalpages.digitalissue.co.uk/00000082/00019241/00088093/

Soldatos, G. T. (1999). Economics of education and work incentives. *Labour*, *13*(2), 433–443.

Spalter-Roth, R., Vooren, N., Kisielewski, M., & Senter, M. (2013). *Strong ties, weak ties, or no ties: What helped sociology majors find career-level jobs?* (pp. 1–16). New York: ASA. Retrieved from http://www.asanet.org/documents/research/pdfs/Bach_Beyond5_Social_Capital.pdf

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, *87*(3), 355–374.

Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review*, *92*(3), 434–459.

Spermann, A. (2015). How to fight long-term unemployment: Lessons from Germany. *Journal of Labor Policy*, *4*(1), 15.

Stainback, K. (2008). Social contacts and race/ethnic job matching. *Social Forces*, *87*(2), 857–886.

Statistics Canada. (2010). *Survey methods and practices*. Ottawa: Ministry of Industry. Retrieved from http://www.statcan.gc.ca/pub/12-587-x/12-587-x2003001-eng.pdf

Steinmo, S. (2008). Historical institutionalism. In D. della Porta & M. Keating (Eds.), *Approaches and methodologies in the social sciences: A pluralist perspective* (pp. 118–138). Cambridge: Cambridge University Press.

Steup, M. (2014). *The Stanford encyclopedia of philosophy*. Stanford: Stanford University. Retrieved from http://plato.stanford.edu/entries/epistemology/

Sue, V. M., & Ritter, L. A. (2012). *Conducting online survey*. California: SAGE.

Sung, J., Ng, M. C. M., Loke, F., & Ramos, C. (2013). The nature of employability skills: empirical evidence from Singapore. *International Journal of Training and Development*, *17*(3), 176–193.

Survey Analytics. (2015). Heatmap analysis. *California: SA*. Retrieved from https://www.surveyanalytics.com/heatmap/

Survey Gizmo. (2015). Clean your online survey data. *USA: Survey Gizmo*. Retrieved from https://www.surveygizmo.com/survey-blog/clean-your-online-survey-data/

Survey System. (2015). Sample size formulas for our sample size calculator. *Canada: Creative Research System*. Retrieved from http://www.surveysystem.com/sample-size-formula.htm

Tan, E. (2014). Human capital theory: A holistic criticism. *Review of Educational Research*, *84*(3), 411–445.

Tan, E., Blackmore, P., Bulaitis, Z. H., & Jackman, A. H. (2015). *Employability in higher education: A review of practice and strategies around the world*. London: Pearson. Retrieved from http://www.slideshare.net/PaulBlackmore2/employabililty-models-literature-review-2015

Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social & behavioral research* (2nd ed.). Thousand Oaks: SAGE.

Taylor, A. R., & Hooley, T. (2014). Evaluating the impact of career management skills module and internship programme within a university business school. *British Journal of Guidance & Counselling*, *42*(5), 487–499.

Taylor, S. (2012). *Studying human resource management*. London: CIPD. Retrieved from http://www.cipd.co.uk/NR/rdonlyres/0F71EC66-BFEE-437E-B8F0-D53E3588898A/0/IntermediateSPFINALnocrop.pdf

The Complete University Guide. (2015). What do graduates earn? *London: CUG*. Retrieved from http://www.thecompleteuniversityguide.co.uk/careers/what-do-graduates-do/what-do-graduates-earn/

The University of Exeter's website. (2009). *Education Strategy 2010-2015*. Retrieved from https://www.exeter.ac.uk/media/universityofexeter/webteam/shared/pdfs/secure/Education_Strategy.pdf

The University of Exeter's website. (2013). The eXfactor scheme. *The University of Exeter*. Retrieved from https://www.exeter.ac.uk/media/universityofexeter/careersandemployability/pdfs/resources/Career_Timeline_2012_13.pdf

The University of Exeter's website. (2015a). The exeter award. *The University of Exeter*. Retrieved from https://www.exeter.ac.uk/exeteraward/structure/

The University of Exeter's website. (2015b). Career mentoring scheme. *The University of Exeter*. Retrieved from http://www.exeter.ac.uk/careers/employment-services/develop/mentor/

Thelen, K., & Steinmo, S. (1992). Historical institutionalism in comparative politics. In S. Steinmo, K. Thelen, & F. Longstreth (Eds.), *Structuring politics in comparative analysis* (pp. 1–32). Cambridge: Cambridge University Press.

Tourangeau, R., & Yan, T. (2007). Sensitive questions in surveys. *Psychological Bulletin*, *133*(5), 859–883.

Trochim, M. K. (2006). *Research methods knowledge base*. Ohio: Atomic Dog.

Trost, A. (2013a). Talent acquisition. *Hochschule Furtwangen University*. Retrieved from https://www.youtube.com/watch?v=awuJ2O2SLUs

Trost, A. (2013b). Candidate selection. *Hochschule Furtwangen University*. Retrieved from https://www.youtube.com/watch?v=to0b5yZtchc

Tsang, M. C. (1986). The impact of underutilization of education on productivity: A case study of the US bell companies. *Economics of Education Review*, *6*(3), 239–254.

Turner, A. G. (2003). *Sampling frames and master samples*. New York: UN Statistics Division. Retrieved from http://unstats.un.org/unsd/demographic/meetings/egm/Sampling_1203/docs/no_3.pdf

Turunen, O. (2009). Idea of social capital in an early German historical economics. *Essays in Economic & Business History*, *27*, 47–60.

UKCES. (2009). The employability challenge. London: UK Commission for Emloyment Skills. Retrieved from http://webarchive.nationalarchives.gov.uk/+/http:/www.ukces.org.uk/upload/pdf/EmployabilityChallengeFullReport.pdf

Van den Berg, M. H., Overbeek, A., Van der Pal, H. J., Versluys, A. B., Bresters, D., Van Leeuwen, F. E., & Lambalk, C. B. (2011). Using web-based and paper-based questionnaires for collecting data on fertility issues among female childhood cancer survivors: Differences in response characteristics. *Journal of Medical Internet Research*, *13*(3), e76.

Van der Sluis, J., & Van Praag, C. M. (2004). Economic returns to education for entrepreneurs: The development of a neglected child in the family of economics of education? *Swedish Economic Policy Review*, *11*(2), 183–226.

Villar, E., Juan, J., Corominas, E., & Capell, D. (2000). What kind of networking strategy advice should career counsellors offer university graduates searching for a job? *British Journal of Guidance & Counselling*, *28*(3), 389–409.

Vondracek, F. W. (1985). Human work behavior from the perspective of developmental psychology. Chicago: EDRS. Retrieved from http://files.eric.ed.gov/fulltext/ED257952.pdf

Wakeling, P., & Savage, M. (2015). Entry to elite positions and the stratification of higher education in Britain. *The Sociological Review*, *63*(2), 290–320.

Walker, I., & Zhu, Y. (2010). Differences by degree: Evidence of the net financial rates of return to undergraduate study for England and Wales. Bonn: IZA. Retrieved from http://ftp.iza.org/dp5254.pdf

Walker, I., & Zhu, Y. (2013). The impact of university degrees on the lifecycle of earnings: Some further analysis. London: Department for Business, Innovation and Skills. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229498/bis-13-899-the-impact-of-university-degrees-on-the-lifecycle-of-earnings-further-analysis.pdf

Ward, R. (2012). *Extra-curricular awards stimulus papers: Centre for Recording Achievement (CRA) perspective*. London: QAA. Retrieved from http://www.qaa.ac.uk/en/Publications/Documents/extra-curricular-awards-CRA.pdf

Weber, A., & Mahringer, H. (2008). Choice and success of job search methods. *Empirical Economics*, *35*(1), 153–178.

Weiss, A. (1995). Human capital vs. signaling explanations of wages. *Journal of Economic Perspectives*, *9*(4), 133–154.

Weitzel, T., Knig, W., Stetten, A., Eckhardt, A., & Laumer, S. (2010). *Recruiting trends 2010*. Frankfurt: Centre of Human Resources Information Systems.

Wellman, B., Wong, R., Tindall, D., & Nazer, N. (1997). A decade of network change: Turnover, persistence and stability in personal communities. *Social Networks*, *19*, 27–50.

Wellman, B., & Wortley, S. (1990). Different strokes from different folks: Community ties and social support. *American Journal of Sociology*, *96*(3), 558–588.

Wen, H., & Madera, J. M. (2013). Leisure, sport & tourism education perceptions of hospitality careers among ethnic minority students. *Journal of Hospitality, Leisure, Sport & Tourism Education*, *13*(2), 161–167.

Which. (2014). *A degree of value: Value for money from the student perspective*. London: Which. Retrieved from https://press.which.co.uk/wp-content/uploads/2015/09/A-degree-of-value-November-2014.pdf

Wilson, T. (2012). HE careers service wins AGR blue ribbon award. *London: AGCAS*. Retrieved from http://www.agcas.org.uk/articles/599-HE-careers-service-wins-AGR-Blue-Ribbon-Award

Winterbotham, M., Vivian, D., Shury, J., Davies, B., & Kik, G. (2014). *UK Commission's employer skills survey 2013: UK Results*. London: UKCES. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/327492/evidence-report-81-ukces-employer-skills-survey-13-full-report-final.pdf

Wolfe, T. (2012). *Out of uniform: Your guide to a successful military-to-civilian career transition*. Washington: Potamac Books.

Woodward, Diana, Denicolo, P., Hayward, S., & Long, E. (2004). *A review of graduate schools in the UK*. London: UK Council for Graduation Education. Retrieved from http://userpage.fu-berlin.de/jmoes/pide/Material/UK Studie zu Graduateschools.pdf

World Bank. (2015). *Social capital*. Washington: World Bank Social Development Department. Retrieved from http://go.worldbank.org/K4LUMW43B0

World Economic Forum. (2013). *The Global Competitiveness Index 2012–2013*. Cologny: WEF. Retrieved from http://www3.weforum.org/docs/CSI/2012-13/GCR_Rankings_2012-13.pdf

Wright, J., & Sissons, P. (2012). *The Skills dilemma: Skills under-utilisation and low-wage work*. London: The Work Foundation. Retrieved from http://www.theworkfoundation.com/DownloadPublication/Report/307_Skills Dilemma.pdf

Yakubovich, V. (2005). How workers find jobs in a local Russian labor market. *American Sociological review*, *70*(3), 408–421.

Yang, K., & Banamah, B. (2014). Quota sampling as an alternative to probability sampling? An experimental study. *Sociological Research Online*, *29*, 1–20.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks: SAGE.

Yorke, M., & Knight, P. T. (2006). *Employability embedding employability into the curriculum*. London: ESECT. Retrieved from http://www.employability.ed.ac.uk/documents/Staff/HEABriefings/ESECT-3-Embedding_employability_into_curriculum.pdf

Zelanka, A. (2007). Weak Ties for social problem solving in enterprise 2.0. *Bokardo*. Retrieved from http://bokardo.com/archives/weak-ties-and-diversity-in-social-networks/

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Ohio: Cengage Learning.

Appendixes

Appendix 1

Thank you very much for your participation!

About the research:

Title of the research: Human capital and social network in job search activities

Aim: To understand the effects of academic qualifications and social ties in UK labour market

Target groups: College and university graduates

Expected number of respondents: 500

The person in charge of the project: Emrullah TAN

Project timeline: May/2014- June/2014

Research supervisors: Dr. Olga Kalinowska- Beszczynska and Prof. Gordon Murray

In respect to data protection, **I wish to confirm that:**

Your answers will be kept confidential and anonymous.

The data will be used for academic research purposes.

There are no right or wrong answers. The survey just wants to learn your experience in the labour market

All files will be stored securely in accordance with the UK Data Protection Act.

Participation in this research is entirely voluntary. Participants are free to leave survey at any point in the process.

In any kind of dispute arises please get in touch with University of Exeter Business School at PGRAdmin@exeter.ac.uk If you have concerns or queries about any aspect of this project please email Emrullah TAN at et286@exeter.ac.uk

Very kind regards,

Emrullah TAN

1. What is the highest level of education you have completed?
(If you are currently doing a PhD for example, you need to click "Masters" because you do not hold a PhD degree yet.)

○ Foundation degree/Higher national diploma

○ Bachelor's degree

○ Masters

○ PhD

○ None of the above

2. What is your age?

○ 18-21

○ 22-24

○ 25-29

○ 30-39

○ 40-49

○ 50+

3. What is your gender?

○ Female

○ Male

4. In which region of the UK do you currently live?

○ London

○ North East

○ North West

○ Yorkshire and The Humber

○ East Midlands,

○ West Midlands

○ East of England

○ South East

○ South West

○ Wales

○ Scotland

○ Northern Ireland

○ Guernsey Jersey and the Isle of Man

5. Do you have any disabilities?

○ No, I do not

○ Yes, I do

6. Regarding to educational status of your parents, which option applies to you?

○ One of my parents has a university degree

○ Both of my parents have a university degree

○ None of my parents has a university degree

7. Your citizenship? It means that which passport do you hold, NOT your country of origin. In the case of dual citizenship please choose the first passport you held. (Choose from the dropdown menu)

8. What is your ethnic group? Choose one option that best describes your ethnic group or background?

○ English

○ Scottish

○ Welsh

○ Irish

○ Indian

○ Pakistani

○ Bangladeshi

○ Chinese

○ Other Asian background

○ African

○ Caribbean

○ Polish

○ EU and USA citizens

○ Arab

○ Mixed

○ Prefer not to say   Other (please specify)

9. From which university did you most recently graduate?

10. What was your latest course of study? (Choose from the dropdown menu)

11. When did you obtain your latest university degree?

12. What was the mode of study in your latest degree?

○ Full time

○ Part time

13. Regarding to your undergraduate degree grades, what is your classification?

(If your undergraduate degree is from non-UK universities, please choose one of the following answers, which is the closest.)

○ First class honour (70%+)

○ Upper second (60-69%)

○ Lower second (50-59%)

○ Third (40% - 49%)

○ Pass (35 and 39)

14. How would you describe your current employment status?

○ Full-time work (including self-employment)

○ Part-time work

○ Work and further study

○ Further study

○ Unemployed

○ Not seeking a job

○ Got an offer and due to start a job later

Other (please specify)

15. Why are you not currently seeking employment?

○ permanently unable to work (due to disability etc)

○ temporarily sick

○ looking after the home and family

○ taking time out to travel

○ there is no need to work

○ Other (please specify)

16. When you were a student at university, did you ask your university for help in your job search activity?

○ Yes, I did

○ No, I did not

17. Did you receive a major help from your university in your job search process?

○ No help at all

○ Very little help

○ Moderate help

○ Important help

○ Extremely important help

18. Did the help of your university lead to employment?
In the context of this question, "help" means you actually get a job because of the help you received from your university rather than other kinds of help e.g CV writing and interview skills or emotional help etc.

○ Yes, it did

○ It partially helped

○ No, it did not

19. What kind of help your university provided to you? Tick all options apply to you

☐ The university connected me to a company and I got a position there

☐ My university organised/hosted a job fair and I found a job in the fair

☐ There were clubs and societies for students business entrepreneurship and self-employment. Through these societies I got a job.

☐ I saw an advertisement on the webpage or noticeboard of the university and I applied and got the job

☐ University alumni or alumni associations provided me with a job.

☐ I was subsidised by the university to set up my own business.

☐ I participated in a projects at the university and then get a job through that project.

☐ I was recommended/introduced to a company by my supervisor/faculty member and I got a job there.

☐ Other (please specify)

20. What is the degree of help that you received from the following institution or persons in your entire job search activities? (Please be aware, NOT emotional, NOT psychological support, but specific support that actually led to finding a job)

	no help	little help	moderate help	a lot of help	NA
University career services	○	○	○	○	○
Online job career services (e.g. reed.co.uk or milkround etc.)	○	○	○	○	○
Family	○	○	○	○	○
Close friends	○	○	○	○	○
Acquaintances	○	○	○	○	○
Employment agency	○	○	○	○	○
Former employer	○	○	○	○	○
Faculty member (academic staff)	○	○	○	○	○
Social Media (e.g. facebook, twitter and linkedIn etc)	○	○	○	○	○
Newspaper/magazine advertisements	○	○	○	○	○
Direct application	○	○	○	○	○

Other (please specify)

21. Regarding your social network, which group provided you with useful information in your ENTIRE job search activities? (Useful means you obtained a job with that information, not emotional help)

	Not useful at all	Somewhat useful	Moderately useful	Quite useful	Extremely useful	NA
Family	○	○	○	○	○	○
Close friends	○	○	○	○	○	○
Acquaintances	○	○	○	○	○	○

Appendix 2 Joint Academic Coding System (JACS), (Source: HESA, 2015)

A Medicine and Dentistry	G Mathematical Sciences
A100 Pre-clinical Medicine A200 Pre-clinical Dentistry A300 Clinical Medicine A400 Clinical Dentistry A900 Others in Medicine and Dentistry	G100 Mathematics G200 Operational Research G300 Statistics G600 Software Engineering G700 Artificial Intelligence
B Subjects allied to Medicine	**H Engineering**
B100 Anatomy, Physiology and Pathology B200 Pharmacology, Toxicology and Pharmacy B300 Complementary Medicine B400 Nutrition B500 Ophthalmics B600 Aural and Oral Sciences B700 Nursing B800 Medical Technology B900 Others in Subjects allied to Medicine	H100 General Engineering H200 Civil Engineering H300 Mechanical Engineering H400 Aerospace Engineering H500 Naval Architecture H600 Electronic and Electrical Engineering H700 Production and Manufacturing Engineering H800 Chemical, Process and Energy Engineering H900 Others in Engineering
C Biological Sciences	**I Computer Sciences**
C100 Biology C200 Botany C300 Zoology C400 Genetics C500 Microbiology C600 Sport & Exercise Science C700 Molecular Biology, Biophysics and Biochemistry C800 Psychology C900 Others in Biological Sciences	I100 Computer Science I200 Information Systems I900 Others in Mathematical and Computing Sciences
D Veterinary Sciences, Agriculture and related subjects	**J Technologies**
D100 Pre-clinical Veterinary Medicine D200 Clinical Veterinary Medicine and Dentistry D300 Animal Science D400 Agriculture D500 Forestry D600 Food and Beverage studies D700 Agricultural Sciences D900 Others in Veterinary Sciences, Agriculture and related subjects	J100 Minerals Technology J200 Metallurgy J300 Ceramics and Glasses J400 Polymers and Textiles J500 Materials Technology not otherwise specified J600 Maritime Technology J700 Industrial Biotechnology J900 Others in Technology
F Physical Sciences	**K Architecture, Building and Planning**
F100 Chemistry F200 Materials Science F300 Physics F400 Forensic and Archaeological Science F500 Astronomy F600 Geology F700 Ocean Sciences F800 Physical Geographical Sciences F900 Others in Physical Sciences	K100 Architecture K200 Building K300 Landscape Design K400 Planning (Urban, Rural and Regional) K900 Others in Architecture, Building and Planning
L Social studies	**R European Languages, Literature and related subjects**
L100 Economics L200 Politics L300 Sociology	R100 French studies R200 German studies

L400 Social Policy L500 Social Work L600 Anthropology L700 Human and Social Geography L900 Others in Social studies	R300 Italian studies R400 Spanish studies R500 Portuguese studies R600 Scandinavian studies R700 Russian and East European studies R900 Others in European Languages, Literature and related subjects
M Law M100 Law by area M200 Law by Topic M900 Other in Law	**T Eastern, Asiatic, African, American and Australasian Lang, Literature and related subjects** T100 Chinese studies T200 Japanese studies T300 South Asian studies T400 Other Asian studies T500 African studies T600 Modern Middle Eastern studies T700 American studies T800 Australasian studies T900 Others in Eastern, Asiatic, African, American & Australasian Lang., Lit., & related subjects
N Business and Administrative studies N100 Business studies N200 Management studies N300 Finance N400 Accounting N500 Marketing N600 Human Resource Management N700 Office skills N800 Hospitality, Leisure, Sport, Tourism & Transport N900 Others in Business and Administrative studies	**V Historical and Philosophical studies** V100 History by period V200 History by area V300 History by topic V400 Archaeology V500 Philosophy V600 Theology and Religious studies V900 Others in Historical and Philosophical studies
P Mass Communications and Documentation P100 Information Services P200 Publicity studies P300 Media studies P400 Publishing P500 Journalism P900 Others in Mass Communications and Documentation	**W Creative Arts and Design** W100 Fine Art W200 Design studies W300 Music W400 Drama W500 Dance W600 Cinematics and Photography W700 Crafts W800 Imaginative Writing W900 Others in Creative Arts and Design
Q Linguistics, Classics and related subjects Q100 Linguistics Q200 Comparative Literary studies Q300 English studies Q400 Ancient Language studies Q500 Celtic studies Q600 Latin studies Q700 Classical Greek studies Q800 Classical studies Q900 Others in Linguistics, Classics and related subjects	**X Education** X100 Training Teachers X200 Research and Study Skills in Education X300 Academic studies in Education X900 Others in Education

Appendix 3 (Runeson & Host, 2009, pp. 160-161)

Case study design

1. What is the case and its units of analysis?
2. Are clear objectives, preliminary research questions, hypotheses (if any) defined in advance?
3. Is the theoretical basis—relation to existing literature or other cases—defined?
4. Are the authors' intentions with the research made clear?
5. Is the case adequately defined (size, domain, process, subjects…)?
6. Is a cause–effect relation under study. If yes, is it possible to distinguish the cause from other factors using the proposed design?
7. Does the design involve data from multiple sources (data triangulation), using multiple methods (method triangulation) ?
8. Is there a rationale behind the selection of subjects, roles, artifacts, viewpoints, etc. ?
9. Is the specified case relevant to validly address the research questions (construct validity)?
10. Is the integrity of individuals/organisations taken into account?

Preparation for data collection

11. Is a case study protocol for data collection and analysis derived (what, why, how, when)? Are procedures for its update defined?
12. Are multiple data sources and collection methods planned (triangulation)?
13. Are measurement instruments and procedures well defined (measurement definitions, interview questions)?
14. Are the planned methods and measurements sufficient to fulfill the objective of the study?
15. Is the study design approved by a review board, and has informed consent obtained from individuals and organisations?

Collecting Evidence

16. Is data collected according to the case study protocol?
17. Is the observed phenomenon correctly implemented (e.g. to what extent is a design method under study actually used)?
18. Is data recorded to enable further analysis?
19. Are sensitive results identified (for individuals, the organisation or the project)?
20. Are the data collection procedures well traceable?
21. Does the collected data provide ability to address the research question?

Analysis of collected data

22. Is the analysis methodology defined, including roles and review procedures?

23. Is a chain of evidence shown with traceable inferences from data to research questions and existing theory?
24. Are alternative perspectives and explanations used in the analysis?
25. Is a cause–effect relation under study? If yes, is it possible to distinguish the cause from other factors in the analysis?
26. Are there clear conclusions from the analysis, including recommendations for practice/further research?
27. Are threats to the validity analyzed in a systematic way and countermeasures taken? (Construct, internal, external, reliability)?

Reporting
28. Are the case and its units of analysis adequately presented?
29. Are the objective, the research questions and corresponding answers reported?
30. Are related theory and hypotheses clearly reported?
31. Are the data collection procedures presented, with relevant motivation?
32. Is sufficient raw data presented (e.g. real life examples, quotations)?
33. Are the analysis procedures clearly reported?
34. Are threats to validity analyses reported along with countermeasures taken to reduce threats?
35. Are ethical issues reported openly (personal intentions, integrity issues, confidentiality)?
36. Does the report contain conclusions, implications for practice and future research?
37. Does the report give a realistic and credible impression?
38. Is the report suitable for its audience, easy to read and well structured?

Appendix 4

<div align="center">

Interview Questions

</div>

A.   Introduction

The flow of the interview

- The interviewee → The organisation → Students → Employers→ Impact

Glossary

- Employability skills: transferable skills i.e. communication skills, team working, problem solving, and ability to learn and adapt, self-awareness, customer awareness.
- DLHE: Destinations of Leavers in Higher Education

B.   Structure of the organisation

1. Could you describe the structure of your organisation?
    - The exact name of the department you work for
    - How many people work there
    - Primary duties

C.   Student engagement

2. How do you engage in students? Firstly, how do you make them aware of your services? Any publicity materials?
3. Do you deliver any specific employability-enhancing programmes/courses to increase students' employability and make them aware of the available opportunities in the school?
4. How do you get feedback from them about the services you have provided?
5. Do you develop different strategies for different kind of students to attract their attention?
    - First, second and third years
    - Postgraduates
    - Domestic and international students
6. What kinds of obstacles are there to employment of the Humanities (numeracy, literacy, IT, language skills, lack of experience, no knowledge of the world of work)?
7. What do employers look for when they recruit (employability skills, grade, subject, gender)?

8. What kind of students are in demand and which subjects?

9. What kind of help do you receive from the alumni in the process of engagement with students?

10. Are there any barriers that make it harder to engage with students?

D.   Employer engagement

11. How do you reach out employers and build networks with them? Firstly, how do you make them aware of your services?

  - Employers can be unaware or unsure how to engage with you. So, how do you make publicity?
  - Do they visit you?

  - How do you reach out to regional, national and global companies

12. What kinds of benefits or incentives are available for employers to collaborate with the university?

13. In terms of your relations with organisations, what is the diversity of industry and companies in terms of size and sector?

  - global,
  - Size and sector, SMEs.

14. Are there any companies with which you have had a long term relationship? Please give some examples?

15. What are the characteristics of the relationships?

  - Internship, joint projects with university, donors to the university
  - Employer representatives can be on the boards of University and may affect the decision-making process.

16. Do you consider employers' needs when you design your curriculum? If so, how do you learn of employers' demands?

  - Any employers who want to be involved in the design of the curriculum.

17. Could you provide an example that you made in your curriculum to meet employers' demands?

18. What kind of students are companies looking for? What kind of skill set do companies require from humanities students?

19. When students are sent for an internship, are they aware of what they are expected to learn?

20. What kind of help you get from alumni in the process of engagement with employers?

21. How do you get feedback from employers both of internship students in particular and of the cooperation in general? What kind of feedback you get from them?

22. Any barriers that make it harder to engage with employers/companies.

E.   Impacts on employability

23. What are your criteria for success? Your target (e.g.30% of the applicants)

24. How do you measure the impact of your department's efforts? Do you have key performance indicators (KIP)? How do you measure whether or not what you have done has created a tangible impact?

25. Do you have any statistical data to measure the impacts? Could you provide me some internal assessment and evaluation reports?

26. What are the obstacles to a further success, if any?

27. Do you have any questions?

Appendix 5

INTERVIEW CONSENT FORM

About the research

The title of the research: *The impact of university career services on employment.*

The project is run between March-2015- May-2015, by Emrullah TAN, a PhD student at University of Exeter Business School. It is academically supervised by Prof. Gareth Shaw and Dr. Ian Hipkin and has been approved by University of Exeter Business School Ethical Committee.

 The research aims to find the important factors that affect the employment of university graduates. As part of this work, we are seeking the views of the relevant departments at university to find the role of university career services in job search. All information is confidential and no one will be identified, respondents will remain anonymous.

Why we are asking you to sign this form

The information we collect from you may be in the form of an audio (which may be transcribed later i.e. your words recorded as text). We may also take notes during our conversation. We require your permission to record this information and save it to a computer. The section below gives your permission to do this and to use the information we collect for the purposes of research.

- The interview will possibly take 30 minutes. The questions will be related to employability practices at universities.
- Participation in this research is entirely voluntary. Participants are free to refuse to answer any question or terminate the interview at any point.
- Interviews are confidential and non-attributable.
- Where interviews are recorded and/or transcribed they will be coded in order to protect the identity of respondents. All files will be stored securely in accordance with the UK Data Protection Act.
- If the interviewee wishes, he or she can comment on the transcript. It will be sent to them if it is requested by the respondent.
- This is purely an academic research project which aims to find the important factors in the employment of university graduates. The results will not be used for commercial purpose.

I confirm that I have read and understood the information about the project and have had the opportunity to ask questions. I agree to my voice being recorded and to a transcription or notes being made. I agree that the transcription or notes may be used for research by the project, including anonymous quotation.[22]

Participant's name & signature: …………………………………….   The interviewer:
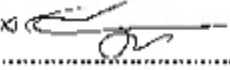
 Date:

---

[22] *If you have any questions please contact* **Emrullah TAN** *et286@exeter.ac.uk .* In any kind of dispute arises please get in touch with
University of Exeter Business School: PGRAdmin@exeter.ac.uk

Appendix 6

NON DISCLOSURE AGREEMENT

DISCLOSING PARTY	The University of Exeter of Northcote House, The Queen's Drive, Exeter, EX4 4QJ acting through Mr . . . . of University of Exeter Business School, Streatham Court, Rennes Drive, Exeter, EX4 4PU ("the University")
RECIPIENT PARTY	EMRULLAH JAN ("the Student") 7 Cowley Bridge Road Exeter EX4 5AD
DATE OF AGREEMENT	7th May 2015
EFFECTIVE DATE	29 April 2015
PERMITTED PURPOSE	Provision of commercial in confidence data to the Student in relation to a business case study in the management of careers services, undertaken by Mr Dominic Prosser of the University. The use of such data by the Student to inform his research that he is undertaking for his PhD, and to submit his PhD thesis for assessment in accordance with University regulations.

The University has agreed to furnish the Recipient Party with Confidential Information for the Permitted Purpose only in accordance with the terms of this Agreement.

We have read and accept the terms and conditions attached:

Duly Authorised and Signed on behalf of The University of Exeter	Duly Authorised and Signed on behalf of Emrullah Jan
Position: Graduate Career Manager	xi Position: PhD candidate