

**THE VALUE OF HIGHER EDUCATION CREDENTIALS IN THE LABOUR
MARKET: FACTORS INFLUENCING FIRST-TIME EMPLOYMENT
FOR GRADUATES IN GREECE**

**A thesis submitted to the University of Manchester for the degree of
Doctor of Philosophy in the Faculty of Education**

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EFTHIMIA DAFOU

**MANAGEMENT AND INSTITUTIONAL DEVELOPMENT
FACULTY OF EDUCATION**

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GLOSSARY

AEI:	'Highest' Educational Institute (University)
AGR:	Association of Graduate Recruiters
ANEM:	Development Organisation of Magnesia
CDGU:	Congress of Deans of Greek Universities
CIHE:	Council for Industry and Higher Education
EC:	European Commission
EKKE:	National Centre for Social Research
ESYE:	National Statistical Service of Greece
IKY:	State Scholarships Foundation
INE:	Institute of Employment
KEPE:	Centre for Economic Planning and Research
NLI:	National Labour Institute
NTUA:	National Technical University of Athens
PU:	Panteion University
SEV:	Federation of Greek Industries
SMEs	Small and Medium-sized Enterprises
TEI:	Technical Educational Institute
UTH:	University of Thessaly
YPEPTH:	Ministry of Education and Religious Affairs

ABSTRACT

It has frequently been argued that, within the Greek labour market, great significance is attached to paper qualifications. The inference is that the employers of graduates new to the market, in particular, assume that substantive qualities are indicated by academic achievements. However, this assumption has never been adequately explored, since studies of labour market behaviour in Greece have largely been conducted at theoretical levels.

This study set out to examine the skills needed for a range of first-time employment opportunities (and hence identify the substantive qualities sought in potential employees), and the extent to which employers see the paper qualifications of new graduates as signposting these qualities.

The study showed that employers assess candidates for employment in terms of technical expertise, compatibility with company's stakeholders, capacity, and individual motivation. As evidence of the above qualities, employers consider aspects of the educational experience of candidates, as recorded on degrees. This explains the emphasis of employers on particular features of paper qualifications. Relevance in the type of technical expertise is seen as the greatest quality in recruitment. Consequently, the subject of study is of most importance in selection and becomes the requirement for inclusion in the candidates' pool. Other features of degrees, such as the type and the status of the awarding institution, the degree class and level do attract the attention of employers though only once the notion of 'relevance' has been matched. The study also

identified some polarisation in the types of graduates that employers seek to recruit. For most posts in the organisation they tend to recruit those candidates whose assets are close to the minimum requirements of the job, but for a small number of high responsibility posts, they try to seek out candidates of 'high calibre'. The distinguishing factor between the two types is not academic achievement but their capacity, as it is demonstrated by performance on aptitude tests.

The study is based on semi-structured interviews with employment managers in 37 industrial and service organisations, and representatives of the careers offices in eight higher education institutions. Building from inductive data processing and analysis, a theoretical model of current selection criteria and strategies is developed. This model is then used as a framework to interrogate the findings, and to portray the inferences that employers in Greece draw from particular aspects of undergraduate programmes. It is also used to identify some determinants of successful transition from higher education to workplace.

Finally, the concluding chapter highlights some implications arising from the study. These relate to employers and government as well as those in higher education institutions able to influence the undergraduate curriculum and processes that determine employability.

DECLARATION

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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INTRODUCTION

First degrees are major determinants of individuals' 'life chances' since they allocate individuals in the labour market, influence their financial rewards and working conditions, and affect their chances of consequent advancement (Wright, 2001). From the establishment of the first universities, higher education has been the traditional avenue for social mobility through access to high status occupations (Willis, 1977). With the expansion of higher education, however, in some countries the supply of highly qualified workers outpaced the growth in the demand for skilled workers. As a result, there has been a decrease in the market value of degrees and increasing differentiation among them based on their "use value", i.e. their value as preparation for particular roles in the job market (OECD, 1993, p.28).

Few young people can afford to study for its own sake. For most people a degree is linked with access to occupations offering greater social rewards. When this is not attained, they feel demoralised. Some argue that higher education should be aware of the changes taking place in the world of work and redefine its role in preparing the qualified workforce of the future. This does not mean that higher education has to gear its activities to the immediate expectations of the employment system, but perhaps it should take a broader view of the needs of society and, if needed, take proactive action (Teichler, 1999).

The Greek context

Graduate unemployment in Greece is high and a great proportion of new graduates cannot find jobs appropriate to their educational level (OECD, 1997). The vast majority of graduates are employed in the public sector. The private sector, which constitutes the three quarters of the economy, employs only about 10 per cent of graduates (*ibid.*). Except for a few large firms, the Greek economy is characterised by small enterprises that are unable or unwilling to hire managerial and technical personnel with higher education background (Samaras, 1991a; OECD, 1997; Kantas, 1998).

There are many reasons that contribute to this attitude of employers. One reason is that the Greek economy is divided into tiny units (Samaras, 1991b). Another reason is that entrepreneurial activity is not orientated to sectors requiring high technology (Papatheodosiou, 1991). A third reason is that the Greek education system remains to a great extent attached to general education and to the needs of the public sector employment, while it is rather indifferent to the needs of the private sector economy (*ibid.*).

Yet, the public sector has been saturated and it is decreasing in size over time, because there is a trend, as in most western societies, towards privatising a large part of the public sector, including banks, transportation, and communications. Increasingly, graduates have to seek after other paths to employment, mainly in the private sector, or to find self-employment.

It has been argued that, in Greece, a major part of graduate unemployment is due to a non-correspondence between the educational system and the needs of the economy (Katsanevas, 1998; Karantinos, 1998). The expansion of higher education requires particular attention to be paid to the needs of the employment system so that credentials keep their value in the labour market. To this end, the OECD Examiners' Report (1997)

had recommended that “external groups, particularly employers, should be brought into institutional governance at least in an advisory capacity” (p.188).

The research problem

From the postmodern perspective, the creation of ‘categories’ into which people are fitted, and the construction of a discourse around these categories, represents one way of shaping individual identities. By identifying themselves (and others) with particular categories, people begin to define what they are and to formulate ideas as regards the way that they should be treated by others (Watson, 1995). This perspective has some relevance for employers and employees (i.e. ‘graduate employer’, ‘graduate’). In this way, definitions, and discourses referring to those definitions, shape individually constructed realities in personal and work contexts, and generate expectations by both sides.

By definition, a graduate is an individual who has acquired a higher education degree. This definition, however, simplifies the variability that exists among graduates. Perhaps a clearer indication of quality is needed to distinguish those who qualify for the title of ‘graduate’. Looking at the various types of advertisements for graduate recruitment and coding the selection criteria underlying them, a list of desired qualities does emerge (Sofoulis, 1991). A general conclusion is that these qualities can be divided into two categories. The first category refers to the paper qualifications that the candidates for a job should possess, and the second refers to the substantive qualities that people possess as a result of their education, training or work experience. Sofoulis expressed the belief that the Greek labour market relies heavily on paper qualifications, taking for granted the co-existence of the desired substantive qualities. However, studies on whether the market appreciates the paper qualifications or the substantive qualities of

graduates have been set only at the theoretical level, and this issue has never been fully explored (ibid.).

Educational qualifications are used in selection because they are simple proxy for predicting job performance for persons without work experience (Oxenham, 1984). From this perspective, the reliance of employers on paper qualifications can be interpreted as evidence of the unavailability of better selection tools, or as a belief in the existence of strong associations between paper qualifications and particular substantive qualities associated with those qualifications.

In the context of the above considerations, this study was addressed to employers, asking them to describe the selection criteria they apply in graduate recruitment, and the outcomes they expect to achieve by using these criteria. That is, the qualities they manage to identify through the use of these criteria. In other words, the study seeks to explore the skill needs of the business sector and the way that the educational qualifications signpost substantive qualities sought after in employment.

The focus of the study

Higher education, as with all forms of post-secondary education, has some occupational significance (CDGU, 1992). Studying in higher education establishments constitutes a long-term investment in time, money and commitment and, thus, it is important for one to see the 'interest' on that investment; that is, the exchange value of higher education credentials.

Research on graduate employment in Greece has recently been started, but it has been relatively indifferent to the internal stratification within the graduate labour market and, especially, those between graduates of the same or similar specialities. Further,

research has never tried to discover the rationale underlying the decisions of employers about who to hire and who not. This study draws attention to those factors that differentiate the value of degrees in the labour market, and tries to understand the rationale underlying the preferences of employers in selection for employment. Basic dimensions of this research are the role of degrees in signifying the potential of graduates, and the aspects of the educational experience that are seen by employers as proxies for the particular knowledge, skills and attributes of particular graduates.

The use of degrees as proxies in selection for employment is a universal practice. At the theoretical level, the education to work relationship has been 'explained' by several labour market theories. Human capital theory supports the view that education creates assets (in the form of knowledge and skills), which increase the productive capacity of individuals. The 'screening hypothesis', another labour market theory, supports the view that the greatest contribution of education is not the provision of knowledge or the development of skills, but identification of the 'raw' intelligence and talents of individuals. A variation of the screening hypothesis, the 'job competition' model underlines the positional character of education, and its 'relative' as opposed to 'absolute' value. Finally, social reproduction theory supports the view that education performs a social reproduction function, by developing different sets of productivity related personal traits among different groups in society.

Degrees can be viewed in the light of the above theories and, consequently, they can operate as signifiers of different aspects of the potential of individuals. According to the human capital theory, degrees can be seen as signifiers of knowledge and skills acquired through education, and training. According to the screening hypothesis, degrees can be seen as signifiers of 'raw' potential or the cultural capital (social class) of individuals, identified rather than developed by education. According to the 'job competition' model the value of educational credentials will always depend on their

relative scarcity. According to social reproduction theory, degrees can be seen as signifiers of attitudes and values, which are associated with particular social and occupational groups. Societal institutions intervene in and complicate that relationship. Weber's (1947) theory of social closure gives an interpretation of the way that occupational groups try to monopolise certain occupational fields. Social networks, also, have been identified as playing an important role, as do the culture and the tradition of society; but that education plays an important role cannot be disputed.

It is beyond any doubt that different degrees signify different sets of knowledge, skills and qualities. This way, a degree becomes a useful selection tool. Degree discipline, institutional reputation or status, and degree class have been identified in the international literature as some of the factors that differentiate degrees in the labour market (Roizen and Jepson, 1985; Brown and Scase, 1994; Harvey *et al.*, 1997). Of course, these factors may hold different value for different firms, and for different jobs within the same firm.

Particular preferences of employers as regards the degree discipline or the type of institution from which they prefer to recruit, the attention paid to institutional reputation, or to degree class, can all provide useful information as regards the type of knowledge, skills and qualities sought after in the private sector of economy. Similarly, the rationale behind their choices can inform debates about the prominence of the human capital theory, the screening theory, or the social reproduction theory in considerations about the relationship between education and employment.

If employers prefer graduates from particular courses or types of institutions because of their higher standards of knowledge, this will constitute evidence of prominence of the human capital theory. If, instead, they prefer graduates from particular institutions due to their higher enrolment standards, then the screening

hypothesis comes into play. If employers recruit particular groups of graduates due to their attitudes to work, there is evidence of beliefs in the social reproduction theory. Finally, the 'job competition' model implies that even having all the assets required in employment, chances for a career (with the old or the new notion of a career) will depend on the laws of supply and demand in the labour market. Then, it is up to the individual whether he will pursue an individual struggle for competitive advantage in education, or will decide to 'opt out' to avoid demoralisation from the realisation of the potential poor exchange value of degrees in a market inflated by degrees.

The findings from research into this area have, beyond theoretical considerations, important implications for practice. Such research can contribute to the understanding of mechanisms that determine the transition of graduates to employment and to the consideration of factors in the control of educational institutions that can facilitate that transition. If, for example, degree discipline is a major determinant of one's occupational destination, then there is a need for higher education provision to reflect the market. If, instead, there are many employment opportunities for graduates from any discipline, then, there may not be a need for manpower planning. There might be only a need for transfer of information from business to higher education as regards the types of knowledge and skills that could complement the disciplines to make graduates more attractive in the labour market.

The nature of this investigation brings the researcher unavoidably into a series of current debates in the field of higher education, such as the generalist-specialist debate, the theory-practice debate, dilemmas about skills the development of which has place in higher education, and so on. The viewpoints of employers on all these issues are important, as part of the two-way communication between higher education and the employment system and have important implications for practice, but have been largely neglected.

The aim of the study

The aim of the study was to identify the knowledge, skills and other qualities sought after by employers of graduates in Greece, and the role imputed to degrees in signifying these types of knowledge, skills and qualities. Furthermore, the study attempted to understand which features of degrees employers pay attention to, and the inferences they make from these features about the skills and qualities of the individuals who possess them.

My personal interest

My own first degree is in mathematics. I studied mathematics because of my interest in the subject, and also the lack of information at the time of enrolment about job opportunities associated with the various disciplines. Teachers and other educated people who were consulted about study options expressed comments such as “Mathematics, the science of sciences”, or “the basis of sciences”, and the like.

However, as I realised later, ‘the science of sciences’ didn’t mean anything for employers in Greece. Employers demanded graduates in applied fields, like economics, or engineering. Even the public sector demanded graduates in economics, law, public administration and political studies.

Education is the main (if not the only) route for pure disciplines. Thus, I noticed with much interest the fact that 60 per cent of graduate jobs in England are open to graduates in any discipline. This policy is based on the perception that higher education

not only provides knowledge in a scientific or arts discipline, but also develops a range of abilities that can be transferred to a wide range of fields.

I was attracted to the concept of general skills, and the notion that their development in higher education might enhance the employability of graduates. However, a first contact with employers in Greece indicated that there was little interest in general skills. Such skills were seen as part of the personality of the individual, and, typically, are considered only at a late stage of the selection process. In Greece, the subject of the degree is the most important determinant of one's occupational destination, with work experience coming afterwards, while all additional assets are at best secondary considerations.

Thus, my topic has been expanded to try to capture all the considerations of employers when they recruit graduates. What reinforced my decision to broaden the scope of my study was that, even in the UK, there is some evidence that the number of jobs open to graduates of any discipline will decrease over time (AGR, 1993). More and more professional bodies are emerging which preserve their occupational areas for their members, requiring specific undergraduate qualifications. Moreover, the expansion of the higher education system gives employers increased opportunity to choose those graduates with knowledge more directly related to the type of jobs to be filled (Williams, 1985; Tsoulos, 1994). The focus, thus, has been shifted to the role of degrees as signifiers for the types of knowledge, skills, and qualities that employers are looking for.

Assumptions of the study

The study is based on the assumptions that:

- It is among the objectives of higher education to prepare students for the working life.
- Higher education and its stakeholders are interested in being informed about the factors that are in the realm of higher education and which can enhance the employability of students.
- Claims for the intrinsic value of higher education cannot compensate young people left with poor employment prospects.

Working terms

In conducting and reporting this study, definitions are important. Working definitions of concepts derived from the literature, as well as definitions of terms that refer to the Greek context are displayed below:

Employer: The term employer, in the context of this study, is used to represent an employing organisation rather than the person that owns the firm. Although, in some cases, the person that rules the firm is the owner, in most cases – and indeed in most large organisations – the persons that coordinate policy on recruitment and selection are managers in salaried employment. For ease of writing, the terms ‘manager’ and ‘employer’ are used interchangeably in the present study to denote employing organisations.

Degree: The term degree is used to mean a certificate that denotes the completion of an undergraduate course in higher education, which provides its owner with academic and professional rights.

Recruitment: This is the first step in selection for employment, where employing organisations delimit the pool of potential employees within the total labour force by setting requirements on the basis of education, age, sex, experience, and so on.

Selection: This is the process of choosing employees within the delimited pool.

Graduate: Graduate is the holder of a degree from a university. A holder of a degree from a Technical Education Institution is called a TEI graduate.

Technical knowledge: Technical knowledge is knowledge which permits clear identification with an occupation or an occupational field.

AEI ('Highest' Educational Institution): An institution that belongs in the university sector in Greece.

TEI (Technological Educational Institution): An institution that belongs in the non-university sector. In Greece, a TEI is considered as a 'Higher' Educational institution, while a university is considered as 'Highest'.

College or Centre for Liberal Studies: A private educational institution in Greece at the post-secondary level, which is not recognised by the state as a higher education institution, but it can award degrees from a university abroad with which it is affiliated. In Greece, these degrees are not recognised, either.

Technologist: The term is added after the name of the speciality to indicate a TEI graduate. For example, a mechanical technologist is a mechanical engineer who studied at a TEI instead of a university.

The structure of the study

Chapter One describes the role of higher education as a supplier of highly qualified personnel, and the theories that attempt to interpret the relationship between education and employment. Then, changes in the curricula that have attempted to respond to the needs of the employment system are considered, as well as attempts at cooperation between higher education and industry. Chapter Two considers work organisations, and their needs for skilled recruits. In parallel, it describes the employment prospects of graduates and the selection processes and criteria. Relevant research findings at the international level are also presented. Chapter Three outlines the higher education and employment systems in Greece and presents research on graduate employment in Greece.

Chapter Four presents the research methodology and describes the way that the study was conducted, justifying the use of the particular techniques used to gather data. Chapter Five reports the findings of the empirical study carried out in Greece, which generates answers to the research questions. Chapter Six discusses the findings of the study, and tries to identify trends in graduate recruitment in Greece. Further, the findings are compared with those of other research studies, and attempts are made to interpret similarities and discrepancies.

The last chapter examines the implications of the research study for theory, policy and practice, sets the scene for further research, and makes recommendations for the various actors involved.

CHAPTER ONE

HIGHER EDUCATION AS PREPARATION FOR EMPLOYMENT

1 Introduction

In this chapter, the function of higher education as a supplier of highly qualified personnel is considered, as well as the expectations that society holds of higher education. The education to work relationship is then considered, and the prevalent labour market theories are presented. Then, developments in higher education curricula in response to changes in society and economy are described and major debates about the preparation of students for employment are also presented.

1.1 An historical review

Education has many purposes and ideals associated with its development. These are concerned with the development of the individuals' full range of abilities and attitudes, the cultivation of spiritual and moral values, the transmission and reinterpretation of culture (Watts, 1985). The relative weight of these purposes changes over time but, in general, emphasis on the economic dimension has grown. Education is increasingly seen as an aid to the achievement of national, economic, and social objectives and the individuals' economic and social mobility (Hinchliffe, 1987).

Ever since its origins, in the twelfth century, the university has always responded to the exigencies of the time and defended certain social interests (Barnett, 1990). The education of Greek guardians, the formation of a clerkly stratum in medieval Europe, or the response of the university to industrial society represent ideas of the university which reflect the age in which they were formed (ibid.).

The 'liberal' idea of the university was developed in a context associated with the education of 'gentleman' and was for a class freed from the preoccupation of practical matters occupying workmen (Silver and Brennan, 1988). Modern changes in society, however, such as the rise of natural sciences and the domination of the democratic ideal made it increasingly difficult to maintain the distinction between liberal education as an end in itself, and professional training as a means for practical ends (ibid.).

Until the end of the eighteenth century, in Britain, crafts and professions were learnt through apprenticeships, where entry depended greatly on family connections (Dore, 1976). The standards of competence required by the various crafts and professions were firstly set by practitioners and later by the state, beginning with the professions of most direct public concern. At the same time, general qualifications granted by schools, colleges and universities were increasingly enhancing their control over access to occupations (ibid.).

Technical skills were learnt on the job, and only towards the end of the eighteenth century did technical institutions appear to provide training in mechanical subjects. One by one, categories of skilled workers founded 'societies', and emerged to self-consciousness as professions partly to exchange knowledge and partly to define and protect their status by controlling entry into their newly established profession (Dore, 1976). The professional groups increasingly entrusted the training and selection of their

recruits to educational institutions and universities. The importance and prestige of educational credentials was enhanced with the domination of bureaucracy (Weber, 1947). Bureaucracy needed people properly educated, and the educational systems provided education and training, as well as certificates for that training after specialised examinations. Thus, educational certificates made for the formation of privileged strata who claimed to monopolise socially and economically advantageous positions (ibid.).

Professional training courses faced much resistance to their admission into the university system in the late nineteenth century in Britain (Silver and Brennan, 1988). In an inaugural address at St Andrews University, Mill (1867, quoted in Silver and Brennan, 1988) declared that the university was not a place of professional training and suggested that schools of professional education should exist separately from universities. Newman (1852, quoted in Silver and Brennan, 1988) supported the view that professional education and scientific knowledge could be taught in the university, provided that students were given an overview of all existing knowledge, and not only the 'know how' of the profession.

By the second half of the twentieth century, in the UK, the debate was no longer about whether professional and technological subjects should be admitted into the university curriculum, but about the values that should determine the conditions on which they could be admitted; it was about the modalities, and about the control of learning (Silver and Brennan, 1988). The United States accepted much earlier than Europe the inclusion of professional subjects in the higher education system. From the mid-nineteenth century, and particularly, from the turn of the twentieth century debates on issues of breadth and specialisation, the virtues and dangers of vocationalism, and the role of the liberal arts as 'tool' subjects for professional curricula were common. Eventually, this resulted in uneasy reconciliation between liberal and professional education (ibid.).

1.2 European educational policies

In recent years, a perception that there is a need to raise the quality of the workforce in European countries has resulted in increasing attention on the economic role of higher education and its function as preparation for employment (OECD, 1993). This was the main justification for the expansion of higher education which, in turn, with its growing expenditure, has created pressure on higher education to justify the financial burden it places on society and to provide a response to presumed socio-economic demands for an increasingly skilled workforce.

The European Round Table of Industrialists criticised the educational systems in Europe, accusing them of lagging behind the radical changes that were taking place in society and the economy, and suggested that higher education should be better informed about the expectations from the outside world, and especially from business and industry, in order to contribute to the revitalisation of the economy by developing skills relevant to employment (EC, 1994a). Since the Bologna Declaration in 1999, market relevance has become an important dimension of university programmes, and sometimes a condition for accreditation (Van Der Wende, 2001).

The European Union, through its legislation, encourages national policies for linking higher education with business and industry (Van Der Wende, 2001). The driving force behind this developing partnership is the need for mutual influence. Industrialists have suggested that education and industry can work together to improve each others' performance (Marsden, 1991). Specifically, they believe that business and industry need to influence education on issues concerning the preparation of students to take up roles in a high skills workforce, while education needs to improve the quality of learning by exposing students to the real world. On the other hand, education needs to

influence business on issues concerning the contribution by the business sector to the quality of life (ibid.).

Many writers and researchers have predicted that work will become increasingly information-intense, requiring a highly educated workforce (Noon and Blyton, 1997). “The society of the future will...be a learning society” (EC, 1995, p. 2). The White Paper ‘Growth, Competitiveness and Employment’ stressed the link between competitiveness, employment, education and training (EC, 1994b). The White Paper on Education and Training, ‘Towards the Learning Society’, suggested that work in the new environment requires the acquisition of a “body of fundamental and technical knowledge, allied to social skills (EC, 1995, p.13). In this Paper, technical knowledge is defined as “knowledge which permits clear identification with an occupation (ibid., p.13).

The Paper further suggested that this knowledge has substantially changed with the spread of information technology, and that the boundaries between occupations are being blurred. Within this framework of knowledge, certain ‘key skills’ are central to a number of different occupations and are, therefore, essential in enabling the individual to be able to change between jobs (EC, 1995). The employability of a person depends on his ability to “combine these different types of knowledge and build on them” (ibid., p.14).

1.3 The labour market theories

Several theories have been put forward about how the labour market accommodates the education-to-work relationship. Two are the principal approaches: the human capital theory and the screening hypothesis (and its variations).

The simplest explanation of the relation between education and work is the theory of human capital. This theory is based on the view that education creates assets - in the form of knowledge and skills - which increase the productive capacity of the workforce (Woodhall, 1987). Higher productive capacity is, in turn, rewarded in the labour markets in the form of higher earnings (Levin, 1987). Thus, although the human capital theory does not address directly the issue of correspondence between education and work, it does address this relationship through the connection between levels of education and earnings. However, the human capital theory cannot explain the failure of education to raise the incomes of the poorest groups, the different distribution of individuals from different social groups within jobs, and the continuing upgrading of the qualifications required for jobs (Hinchliffe, 1987).

Since the early 70's, alternative theories have emerged in response to the weaknesses of the capital theory. According to these models, the labour market consists of a number of segments, each of which has different conditions of employment and recruits from among separate sections of the labour force (Hinchliffe, 1987). The lack of uniformity in labour market conditions has led to its characterisation as a dual labour market. There are far more than two labour markets, but what is emphasised by the term 'dual labour market' is the existence of different types of labour market - a 'primary' and a 'secondary' with barriers between them which neither workers, nor employers can penetrate (Fevre, 1992). 'Primary' employers offer better working conditions than those of 'secondary' employers, but they place skill requirements in turn on prospective employees. The barriers between the primary and the secondary labour markets can be associated with race, ethnicity, gender, social class, and so on, or with social or legal arrangements, mainly resulting from the actions of labour unions, which limit labour market competition between workers (ibid.).

To some theorists, educational credentials act as signals that enable employers to identify those who possess non-subject related characteristics, such as 'raw' intelligence and motivation, which affect future productivity or 'trainability' (Hinchliffe, 1987, p.143). This is the so-called 'screening hypothesis', and there are several variations of this model. One of the most discussed variations is the 'job competition' model. In this model, two sets of factors determine an individual's distribution in the labour market. One set of factors, which is related to the characteristics of the jobs, determines the job structure in the economy. Productivity is perceived as an attribute of jobs, rather than people. The other set of factors, which is related to the characteristics of the individuals, the most important of which is education, determines an individual's relative position in the queue for jobs. The amount of education that an individual possesses is considered as affecting the cost of training, which is usually acquired, formally or informally, on the job (ibid.). Workers are distributed across jobs according to their position in the queue.

The job competition model can explain the increase in educational credentials required for jobs. As high productivity jobs are scarce, there is a strong competition for these jobs. "[T]o get to the head of the labour queue", individuals try to acquire higher-level qualifications and to demonstrate the qualities mostly appreciated in the labour market (Hinchliffe, 1987, p.143). One criticism of the screening hypothesis is that this model can only interpret the education-related differentials in starting salaries. It is the addition of the concept of internal labour markets to the screening hypothesis that can explain the differentials in earnings throughout working life. Specifically, as a worker raises his productivity to the level required by the job, the time required for further training for a higher productivity job within the organisation is possibly less for him than the time of training required for a new recruit (ibid.). This realisation results in the development of highly structured internal labour markets.

Some theorists suggest that the division between high productivity jobs (primary labour market) and low productivity jobs (secondary labour market) is not determined by technological requirements, but it occurs as a result of conscious actions of capitalists to divide the working class and reduce class consciousness (Hinchliffe, 1987). This approach is related to the view that education has a social reproduction function, which legitimates the stability of intergenerational occupational status and reproduces the existing class relations. It does so by developing different sets of productivity-related personality traits among different groups in society. Punctuality, obedience, and respect for authority are characteristics to be developed in those individuals destined to fill low productivity (low status) jobs, while self-reliance and a capacity for decision-making are among the qualities to be developed in those individuals destined to fill high productivity (high status) jobs. Thus, education both legitimates the distribution of jobs and increases the productivity of all classes by developing the appropriate traits (ibid.).

1.4 Considering the education to work relationship

Although none of the above mentioned theories seem to explain fully the correspondence between educational attainment and occupational attainment, they are not incompatible, and each seems to carry some weight (Dore and Oxenham, 1984). The relationship between education and employment is not simple or straightforward. The starting point is job requirements, which determine to an extent the minimum level of education that a person should possess in order to be able to perform adequately. So, the human capital model is the touchstone in selection for employment. However, as there is a surplus supply of potential workers with the appropriate level and type of education, the screening hypothesis comes in play (ibid.).

The co-existence of these considerations is endorsed by the fact that the social aspects of human capital are not easy to separate from the educational ones (Oxenham, 1984). It is increasingly recognised that education not only provides knowledge and skills, but affects attitudes, motivation and personal characteristics too (Woodhall, 1987). Yet, sometimes the considerations of employers in determining the qualification requirements of jobs can only be explained by "a theory composed of unexamined assumptions, rules of thumb, inertia and narrowly considered responses to changing circumstances" (Oxenham, 1984, p.81-2).

In theory, the debate is concerned with economic and sociological theories; in practice, however, the adoption of one or another theory has implications for educational and social policies (Williams, 1973). If a degree is seen as a form of human capital, "what matters in the labour market is the effective demand for that kind of human capital and the efficiency of the labour market in adjusting to its demand" (ibid., p.43). On the other hand, if a degree is seen as a prime indicator of potential performance in employment "the relative gap in life chances between those with degrees and those without may widen or it may narrow as larger proportions of the population acquire higher education" (ibid., p.44). The exchange value of education signifies positional benefit; what matters is the relative attainment of the individual, what he has achieved in comparison with others (Jonathan, 1997). "If everyone stands on tiptoe, no one sees better" (Hirsch, 1997, p.5).

1.5 Preparation for employment

One way of responding to the needs of economy is to develop a higher education system shaped quantitatively according to the needs of the employment sector (Teichler and Sanyal, 1987). The quantitative approach, which dominated during the 70's, focuses

on manpower requirement forecasts. However, experience has shown that there are considerable difficulties in identifying future demands, due to unpredictable changes in economy and technology. Moreover, manpower planning can be seen as limiting the rights of individuals to education and culture.

The system has proved not to be self-regulating. As the advantages of possessing a degree declines, one could expect that this will depress the demand by students for higher education and hence slow down the supply of graduates (Williams, 1973). However, since non-possession of a degree puts the individual at an even greater disadvantage in the labour market, paradoxically, an 'over-qualified' workforce tends to increase the demand for higher education. When the proportion of graduates is relatively low, a degree is a selection *for* certain occupations requiring a high level of ability or knowledge. When the proportion increases, the absence of a degree is a selection *out* of the possibility of performing such occupations (ibid.).

In all models, preparation for employment is among the priorities of higher education. Education is perceived as a means of access to status-bearing occupations. This exchange value of education is widely shared across centuries and continents. Competition for a place in the labour market reinforces instrumentalist views of higher education. "Courses of study that leave graduates with excellent minds but with few job prospects are unlikely to carry much conviction with students" (Williams, 1985, p. 189). The growth of professional courses has perhaps been the most significant feature of the post-war expansion of UK higher education (Barnett, 1992).

Preparing students for their prospective roles in the workplace is difficult due to the diversity of possible career paths (Martin *et al.*, 2000). In the case of regulation and control by a professional body or statutory agency, the employment relation of a field of study is specific. In the absence of such regulations, the relation between subject and

type of work is pluralistic and, hence, curriculum planners may assume a relationship that does not exist or ignore one that does (Squires, 1990). Moreover, it is difficult for universities to prepare students in a way that meets all employers' needs because the university and the workplace hold different priorities, goals and values (Martin *et al.*, 2000).

Currently, there is a shift to qualitative approaches, which focus on the nature of work requirements, competencies, curricula and learning processes and aim to make programmes of study more flexible and adaptable to the changing needs of the labour market. Changes in the curricula refer to the incorporation of a range of activities that enable students to rehearse aspects of their future roles within employment while still studying.

1.6 Aspects of vocationalism in higher education

Concern about the employability of graduates and recommendations from business and industry have resulted in changes in the higher education curricula in America, the UK, Australia, European Union and elsewhere in the world. A study undertaken by Brunel University investigated curriculum change in the 80s at eight institutions of higher education in England (Boys *et al.*, 1988). This study examined changes in six subject areas (history, English, economics, business, engineering and physics) and the relation of these changes to concerns about the employability of students. The study found evidence of concern about graduate employment in all departments, but not equally strong everywhere, however. Differences in the extent of vocationalism in the curriculum reflected differences in institutional mission and tradition, as well as the degree of vulnerability of the department (*ibid.*).

The study found explicitly work-oriented processes incorporated in the curricula to facilitate the transition of students to employment. First, there was a growth in multi-disciplinary, combined, and modular courses. Second, all courses were concerned with the development of personal transferable skills. Third, there was an increase in sandwich courses as well as in efforts for finding work placements for students (Boys *et al.*, 1988).

Since then, several examples of curricular change in higher education have been introduced with the explicit purpose of permitting students to rehearse aspects of job roles that they are likely to enter. These activities included links with employers and opportunities for 'live' projects in the workplace, work placements, promoting entrepreneurialism, developing transferable skills, moving towards group project work and giving oral presentations of the work completed, and other curricular developments designed to link the higher education experience of students to the world of work (Saunders and Machell, 2000). Such processes that were introduced in the curricula because they are considered as facilitating the transition of students to employment are considered more extensively below.

1.6.1 The development of practical skills among students

Student placements in work organisations can be seen as the inherent linkage between the world of education and that of work, which can facilitate the transition of graduates into employment. The lack of interaction between employers and institutions of higher education is considered as one reason for graduate unemployment, because students lack the information about skills needed in employment (Sanyal, 1987).

The practical exercise of students in enterprises benefits both the students and the enterprises themselves. It benefits students because they have the opportunity to

develop their knowledge and skills. This connection of theory to practice improves the quality of their learning and provides them with work-related skills and understanding of the work culture. Moreover, employers place high value on new recruits having work experience (CIHE, 1987).

The employers are also benefited by placement programs. In addition to grants that many receive in the cases where placements are funded, they may get help with solving a practical work-based problem. Students bring into the organisation fresh thinking and new ways of solving old problems. Additionally, employers have the opportunity to influence curricula, and to test potential recruits in real work settings.

1.6.2 General skills

These are the core skills first mentioned in the Robbins Report in 1963. Since then, attention to these skills has been drawn by many organisations. The Standing Conference of Employers of Graduates (SCOEG), (currently AGR), underlined the significance of general transferable skills and general education (SCOEG, 1985). The Council for Industry and Higher Education (CIHE), while proposing that a more economic emphasis within higher education would boost the UK's prosperity, vitality, and international standing, also suggested avoidance of a narrow vocationalism, and proposed the development of general skills in higher education (CIHE, 1987). A survey of 4026 companies in 1992, funded by the Confederation of British Industry, also suggested that a competent graduate should demonstrate a whole repertoire of skills, namely the core skills (CBI, 1994).

Many educators and researchers have tried to classify skills that are to be developed through the higher education curriculum. All classifications, however, have the problem of semantic confusion; skills are labelled as key, transferable, general,

generic, core and so on. They also have a conceptual confusion, since they are a mixture of technical skills (such as IT skills), interpersonal skills (such as communication skills) and cognitive skills (such as problem solving) (Bennet *et al.*, 2000). Another problem is that employers and academics may mean different things when they are talking about particular personal or interpersonal skills.

Associations between personal qualities and specific subjects have been identified by Gordon (1983). Gordon found that arts students were valued by employers for their critical thinking and originality, social science graduates for their communication skills, critical thinking, and confidence, and scientists for their technical knowledge, their numeracy, and critical thinking (*ibid.*).

Betcher (1989), also, found that disciplines had recognisable identities and particular cultural attributes. Any person entering a group and aspiring to become a competent member of this group had to learn to comply with its cultural norms. Graduates of a particular discipline that had been initiated to these norms and values, shared a common language and had the knowledge and command of the repertoire of professional discourse (*ibid.*). These common values and attributes, as well as the common language they shared, may help communication among the members of a work group and facilitate co-operation between them.

In Australia there has been increasing emphasis on relating university studies to the world of work (Martin *et al.*, 2000). The Higher Education Council of Australia, after consultation with employers, professional bodies, students, and academics, concluded that the range of skills requested by employers of new graduates were discipline-specific skills, job-related skills, general knowledge, ability to apply knowledge to practical work situations, communication skills and social skills (*ibid.*). All these, potentially, should be addressed within undergraduate programmes.

There are several reasons for the growing emphasis on general skills. First are the diversity in graduate career paths and the consequent changes in the knowledge and skills expected from graduates. Changes, also, in the economy, technology and management structures elicit dynamic changes in the skill requirements of the workplace. Additionally, there is the speed at which professional knowledge becomes obsolete and the fact that most professional knowledge draws on knowledge derived from a range of disciplines. Thus, instead of an endless list of types of knowledge and skills expected from graduates, there is a turn to general skills and competencies (Teichler, 1999).

The proliferation of degrees has inevitably lowered their value in differentiating between individuals. Without underestimating the changes in skill needs resulting from structural changes in organisations, when employers have to choose among a large pool of candidates who all have the intellectual ability and the technical knowledge and skills required, they are forced to look for additional criteria, which are mainly personality traits (Vincens, 1995).

Of course, the emphasis on transferable skills was based on the premise that they are indeed transferable. However, Tate and Tompson (1994) commented that the assumption of transferability of skills is not yet established and suggested a more active learning experience, where students are informed about the goals of skill training. Research on transfer has drawn a broad distinction between near and far transfer and has shown that near transfer is more likely to occur rather than far transfer; the closer (in similarity) the learning context to the desired application context, the greater is the likelihood of transfer (Bennet *et al.*, 2000). There is also evidence that skills tend to be context-bound (Stenberg, 1987), and that the transfer is facilitated when there are similarities between the context where the skill has been learned and that where the skill

has to be applied, which indicates the need for skills to be practised in a carefully chosen range of contexts (FEU, 1990).

1.6.3 Interdisciplinarity

Interdisciplinarity is a concept with wide appeal. Its genesis is rooted in the wish for a “unification of science” (Gibbons *et al.*, 1994, p.28; Klein, 1990). The accumulation of knowledge and the attempt to organise a huge sum of information resulted in the fragmentation of knowledge into separate boundaries, named disciplines. Real-world problems do not come in simple “disciplinary containers” (Barnett, 1990, p.176). Interdisciplinarity is a challenge to the boundaries of disciplines, a way to overcome the artificial constraints of compartmentalized knowledge (Squires, 1990) and call for a genuine communication between experts in different areas of knowledge. This is difficult to achieve, because each discipline has its own central concepts and theories, its tacit rules of reasoning, its governing paradigms, its own identity (Becher, 1989).

Bernstein (1975) suggested that the choice of disciplines in a interdisciplinary curriculum should be dictated by the epistemological logic of the disciplines, by professional considerations or by matters concerning the application of knowledge into chosen social ends. Philosophical and sociological perspectives, in particular, enhance critical insight about the character of knowledge and its implicit values and understanding of the underlying interests and the social implications associated with a discipline or professional field. The concept of interdisciplinarity is also informed by discourses about knowledge. It is especially associated with overspecialisation and the dangers arising from it.

Interdisciplinarity is often confused with multidisciplinary, but there are differences between the concepts. Multidisciplinary allows the autonomy of the

disciplines involved and the use of different disciplinary perspectives (Gibbons *et al.*, 1994). By contrast, interdisciplinarity requires a common theoretical understanding, a common terminology or a common methodology, and the creation of theories or model pools that transcend the boundaries of the disciplines involved. Multidisciplinarity is associated with vocationalism and the emphasis on “knowledge for what it does” (Symes, 2000, p.36). In this case, curriculum is drawing on most parts of the knowledge spectrum but emphasising areas with more economic potential such as information and communication technology and modern languages. Such degrees are often seen as multiplying the employment options of graduates. However, breadth is very often against depth. The ascendancy of instrumentalist knowledge has led to the emergence of faculties formerly outside the ambit of higher education such as tourism and leisure studies and other occupationally specific studies, especially in the business area (*ibid.*). Whether it is generated from a need for instrumentality or a reconceptualisation of epistemology, interdisciplinarity is seen as an attempt against fragmentation, and towards the creation of new subjects adequate to handle problems emerging in scientific, social or working environments that are beyond the scope of any one discipline (Klein, 1990).

1.6.4 Internationalisation of the curriculum

Economic globalisation has resulted in markets for particular knowledge and expertise that go beyond the local and the national boundaries, and the interdependence of national economies has seen a corresponding increase in mobility across jobs and across countries. Consequently, in this new global environment, higher education is expected to prepare graduates for the local and the national, as well as the international labour market. Responding to this need, curricula are changing over time to incorporate thematically international courses (i.e. area studies), international sub-disciplines (i.e.

international law, international trade), courses in foreign languages, courses requiring temporary study periods abroad, etc. (Teichler, 1999; Van Der Wende, 2001).

In the past, student mobility was a necessity for students when study programmes in the home country were limited. In recent years, however, student mobility has been seen as fostering international competencies among students by engaging them in coping with a foreign academic and social environment. Graduates are expected to be able to communicate and understand the culture of other countries. The European Community supports personal mobility by establishing and funding mobility schemes. The Erasmus scheme, part of the Socrates programme, is addressed at higher education students. From 1995, this programme allows people to undertake a period of study abroad in another European country (EC, 2001). Living abroad, students may learn how to integrate into a different cultural environment (EC, 1995). They may gain personal benefits from this experience, for example, increased tolerance of difference. They may also gain a considerable degree of independence (EC, 2001).

There are barriers, however, to mobility, the most important of which is the linguistic problem. The European Languages Council of the European Community suggested that even in schools some subjects should be studied in a foreign language (EC, 2001). This need is more pertinent in higher education and, indeed, it constitutes practice in several countries. The newly industrialised nations of the Pacific Rim, for example, use the English language in the transmission of knowledge and research, which gives them access to English-speaking journals and to international networks of scientific centres, which constitute the biggest reservoir of scientific knowledge at the international level (Singh, 1994).

In addition to personal mobility, the advance of technology gives the opportunity for communication with people who live in other countries, and in different

cultures, through the Internet. Such communications offer an invaluable learning environment. But, knowledge of other languages, especially English, and appropriate ICT skills are as necessary for virtual mobility as they are for physical mobility.

1.7 The generalist- specialist debate

A review of current undergraduate programmes on offer internationally would imply that graduates need some degree of specialisation. There are considerable differences, however, on the degree of specialisation available. Some researchers have noted that general degrees seem to be more popular today among employers (Harvey and Green, 1994). It has also been argued that “the more demanding the occupational task the less directly can it be trained for” (Teichler, 1996, p. 96).

Countries differ in the way they treat issues of general education and specialisation. Two are the dominant models of university education; the American and the European. The American system is divided in two paths, one of general education and the other of specialisation. The European system is specialised from the beginning, while general education is completed by the end of secondary education. There is of course, some divergence from those general models. For example, in France and Belgium programmes consist of two parts, a general and a vocational, and in America there is a preference for short-term, whole-vocational programmes (Tsaousis, 1990).

In Australia there is a similar concern about the employability of graduates and whether it is graduates from general or specialised courses that face less difficulties in their transition from higher education to employment. Martin *et al.* (2000) surveyed 248 alumni in an Australian university four years after graduation on their perceived employment preparation, with the purpose of identifying the factors within the control

of the university that can contribute to the preparation of students for employment. The study found that graduates from generalist faculties felt that they had been less well prepared for employment. It might reflect their difficulty in finding employment due to the fact that there are fewer jobs available for generalists and they often end up in fields not directly related to their studies (ibid.).

1.8 Corporate culture and higher education

The demand for personal and interpersonal skills in industry has led to a debate in higher education about the kinds of skills that higher education has to develop in students. There is much criticism that behavioural characteristics and attitudes to work are regarded as key skills (Jamieson, 1985; Bennett *et al.*, 1997). Whereas the inculcation of knowledge and skills in education is regarded as legitimate, attitude change lies in the land of propaganda (Jamieson, 1985).

Tribe (1996) called for critical awareness and the risk of accepting the values of the corporate culture in education, and suggested that “the curriculum demands full cultural analysis and not just vocational analysis” (p.26). It is certainly a controversial issue whether higher education has to provide only disciplinary skills, which are tools for the understanding of the discipline, for argumentation and critical reflection, or to develop employment skills, which are useful ‘extras’ that may enhance the employment prospects of graduates (Barnett, 1992).

Having briefly explored the role of higher education in preparing the workforce for the future, in the next chapter the focus shifts to the employment system and to the value of credentials in the labour market itself.

CHAPTER TWO

ORGANISATIONAL CHANGE AND SKILL REQUIREMENTS

2 Introduction

This chapter considers employing organisations in the light of what organisational theorists call contingency theory, and identifies the factors in the social and economic environment that influence organisational structures and the organisation of work. Frequently, these result in changes in the skill requirements of jobs and, consequently, in the selection criteria for employment. Subsequently, selection procedures and selection criteria in relation to skill needs of organisations are considered and relevant research is presented.

2.1 Organisational analysis

Human resources - together with financial, informational, and material resources - are inputs, which energize the organisation (Morgan, 1997). The quality of inputs determines organisational outputs and influences future resource availability (ibid.). Therefore, recruitment – and indeed recruitment of highly qualified personnel – is of vital importance to organisations.

Despite the importance of the human input, recruitment is often seen as a mechanistic process. Vacancies are seen as gaps to be filled (Morgan, 1997). Much of the training and education then provided to employees is geared to making them ‘fit in’

their appointed positions. And, indeed, many organisations seem to be based on the mechanistic model (which is often called bureaucracy). Bureaucracy promotes a 'rationalist' analysis of operations (Weber, 1947). Of course, most organisations are bureaucratised to some degree. However, the mechanistic approach has proved to be inefficient in a number of respects, and many researchers have suggested that the environment in which an organisation operates should be taken into consideration when determining structures and roles. Newer approaches see organisations as open systems and emphasise the impact of the environment on the organisation.

The socio-technical approach sees organisations as consisting of two interrelated subsystems, the technical and the social sub-systems (McKenna, 2000). The technical sub-system receives the inputs and transforms them into outputs. The social sub-system embraces interpersonal relationships both within the organisation and with the external environment. The socio-technical approach emphasises the importance of a 'good fit' between the organisation and the environment (Watson, 1995).

The environment is, itself, a series of sub-contexts embedded within one another: the international context, the national and the local contexts (Noon and Blyton, 1997). Aspects of the economic environment that affect organisations are competition, monopoly, demography, and so on. Aspects of the political environment, which affect the workplace, include employment legislation (employment protection, employment rights, type of contracts, wage determination), and the relative powers of management and employees (Child, 1984). The relative power of employees in relation to employers depends on general labour market conditions and, more specifically, on their position (key or peripheral) in the production process, their scarcity in the labour market, and whether they are collectively organised (Fordham, 1983; Child, 1984). Organisations are also affected by decisions at local, national and European levels. The establishment

of the European Commission transferred a series of decisions beyond the borders of the member states, but the national and the local political contexts remain still important.

2.2 The transformation of work

The socio-technical approach can provide a basis for understanding recruitment policies and practices. The basic strength of this approach is the focus on the environment in which the organisation is situated. The White Paper 'Towards the Learning Society' identified "[t]hree major, profound and wide-ranging factors of upheaval [which] have emerged ... [and] transformed the context of economic activity and the way our societies function in a radical and lasting manner, namely: the onset of the information society; the impact of the scientific and technological world; and the internationalisation of the economy" (EC, 1995, p.5).

The onset of an information society has had a great impact on the nature of work and, in many sectors, on the employment levels (EC, 1995). The introduction of new technologies in the workplace reduces employment levels although, to a lesser extent, it generates jobs related to new technologies. Decline in full-time paid employment, increased use of subcontracting, and emphasis on flexibility are some of the consequences of the use of new technologies in the workplace (EC, 1995). Meanwhile, new technologies have transformed production and distribution processes. Since machines can follow routines more persistently than people, they displace people in the production line (Coldstream, 1997). Thus, the greater impact of information technologies is on the employment levels of unskilled and semi-skilled workers (Harvey *et al.*, 1997; Holmes, 1998). In the future, workers will be needed only for dealing with the irregularities, hence the need for advanced skills in the part of employees (Coldstream, 1997). The service sector, however, continues to be a growing area despite

the invasion of technology into it, due to changes in the consumption patterns and lifestyles (Harvey *et al.*, 1997).

Changes happening at the international level have also led to changes in the management structures of organisations. The globalisation of economies allows for free movement of ideas, capital, goods and services and the emergence of a global labour market (EC, 1995; Byrkjeflot, 2001). Economic recession and the need for organisations to achieve greater competitiveness resulted in a series of changes in organisations, downsizing and layering being the most important. Downsizing in an organization is the reduction in the number of its employees without necessarily a reduction in output (Harvey *et al.*, 1997). Layering is a change in the management structure of an organisation, where layers of supervisory grades are removed and the rest are given greater autonomy (AGR, 1995). There is a series of changes related to layering: outsourcing, home working, contracted employees and consultants; changes with significant consequences on employment levels and skill requirements. Changes in the management structures of organisations, associated with downsizing and layering, and an evident shift towards more ownership of the work process, can benefit from, or even require, a more educated workforce (Harvey *et al.*, 1997).

The third factor of upheaval is the impact of scientific and technological knowledge and the new mode of knowledge production (EC, 1995, Byrkjeflot, 2001). Traditionally, universities and associated research institutions were the place of knowledge creation. Today, useful knowledge is increasingly created in corporate organisations (Gibbons *et al.*, 1994). The new mode of production and know-how combines extreme specialisation and cross-disciplinary creativeness (EC, 1995). There is also a shift, from theory-oriented to policy-orientated research, and from disciplinary to interdisciplinary knowledge (Gibbons *et al.*, 1994).

These changes in the social and economic environment have transformed the context of economic activity and have caused a series of structural changes in the way that the world of work is organised. Work itself is seen to be in a process of restructuring (Watson, 1995). Restructuring has involved a move away from traditional heavy industry activities towards service industries. Another aspect of this restructuring is the pursuit of flexibility. The concept of flexibility has been widely used to describe a range of different employer practices. Two types of flexibility that can be identified are flexibility for cost reduction and flexibility for adaptability and innovation (Harvey *et al.*, 1997).

The cost-flexible organisation treats labour as the major fixed cost. Cost-flexibility can be achieved through contractual arrangements. Other organisations respond to economic pressures by targeting growth. It is achieved by responding to challenges in various ways, one of which is by selecting high potential individuals who can involve stakeholders, customers, and clients towards the growth of the organisation. The response-flexible organisation, as it is called by Harvey *et al.* (1997), does not preclude cost-flexible tactics.

Both types of flexibility can be found within an organisation, although the emphasis on the one type or the other depends on the policies of the organisation as well as the circumstances. Such circumstances can be the organisational size, the technology used, and the role of the state (Watson, 1995). The model of the flexible firm provides a structure which allows for a balance between the two types of flexibility. The organisation divides its workforce into core elements which are given security and high rewards in return for their willingness to retrain themselves and shift their careers within the organisation, and peripheral elements which are given specific tasks, less security and fewer opportunities for skill enhancement (*ibid.*).

Reich (1991) identified three broad types of work emerging in the new working environment; namely, "routine production services, in-person services and symbolic-analytic services" (ibid., p.174). Routine production services include work on the production line, and supervisory jobs performed by foremen and line managers. Qualities appreciated in this sector of employment are reliability, loyalty, and the capacity to take instruction. Employment levels in routine production service have been reduced, and they are going to be reduced further. However, it has never been a major employment area for graduates.

In-person services are routine jobs in the service sector provided on a person-to-person basis, and entail simple and repetitive tasks (Reich, 1991). This area of employment does not require much education; the same qualities are required from in-person servers as from routine production workers, plus "a pleasant demeanour" (Reich, 1991, p. 176). Although outside the notion of the traditional graduate job, in-person services increasingly attract graduates who fail in finding a traditional graduate job.

Symbolic-analytic services include research scientists, design engineers, public relations executives, system analysts, investment bankers, lawyers and other jobs which require graduate calibre employees with high intellectual skills, such as problem identifying, and problem solving, and brokering new problems. The formal education of a symbolic analyst should develop four basic skills: "abstraction, system thinking, experimentation, and collaboration" (Reich, 1991, p. 229).

The changes in work organisation have resulted in changes in the skill requirements of the workplace (EC, 1995). Theorists and researchers have been occupied with the question of whether there is a general trend towards either the upskilling or the deskilling of work (Watson, 1995). The Social Change and Economic Life Initiative (SCELI) research project, part of which addressed the question of whether there had been a general trend towards upskilling or deskilling during the

1980s, concluded that neither the upskilling thesis nor the deskilling antithesis can be supported, but there has been a polarisation of skill associated with three factors: existing skill differentials, technology and gender (Noon and Blyton, 1997).

Based on the work of many researchers, Noon and Blyton (1997) developed a framework to describe trends in skill change. They described work as varying in terms of its specificity and diffuseness, across two dimensions: the range of work performed and the control over work content” (ibid, p.119). By combining these two dimensions, four ideal types can be considered (Noon and Blyton, 1997):

- a. Specialist work: high discretion over a narrow range of work
- b. Specialised work: a narrow range of prescribed tasks.
- c. Generalised work: a wide range of prescribed tasks.
- d. Generalist work: high discretion over a wide range of work.

According to this model, the deskilling thesis identifies a simplification of work along the ‘range’ dimension, and/ or a degradation of work across the ‘control’ dimension, while the upskilling thesis identifies an enrichment of work across either of the dimensions (Noon and Blyton, 1997). Empirical research suggested a mixed pattern of skill change, which varied greatly between and within countries, sectors, industries, workplaces and workgroups (Noon and Blyton, 1997). Technological change generates both deskilling and upskilling, although the impact of technology on skill change differs across occupational groups, industries, and national contexts (Watson, 1995; Noon and Blyton, 1997).

2.3 Jobs for graduates

Employers try to allocate the right people to the right jobs. People are evaluated according to their capacities or abilities, both innate and derived from education, training, or work experience. Fevre (1992) suggested that employers use signs that are interpreted to establish market capacity for particular types of work. Such signs are qualifications, completed apprenticeships, or work experience. In the same way workers use the same signs to orientate themselves to work.

Traditionally, graduates seek employment in the 'primary' labour market. During the past decades, however, there have been significant changes in the labour markets, both in supply and demand. On the demand side of the labour market, the most significant changes have been a shift from blue-collar to white-collar jobs and from manufacturing industry to services (Fevre, 1992). On the supply side, the most significant change has been the increase in the proportion of people with educational credentials (*ibid.*). There have also been rapid changes in technology and in the organisation of work. All these changes have affected the job market for graduates, the types of work they are entering as well as the skill requirements of the new working environment.

In the 70's, Pearson (1976) identified three graduate labour market streams as follows:

- high fliers, graduates with exceptional skills and qualities who are recruited to follow a fast moving career ladder.
- specialists, graduates with specific qualifications.
- a general intake, graduates of any discipline who were recruited as potential junior and middle management.

Some 30 years later, in a replication of the above research, Pearson *et al.* (2000) identified two additional categories of jobs where graduates were found:

- lower level jobs where graduates can 'add value', upgrading the content and quality of the job.
- the wider labour market where there might be little advantage in being a graduate.

What this indicates is an increase in the diversity of the roles that graduates are going to play after entering the labour market. Although graduate jobs are expanding, the supply of graduates is expanding at a faster pace. Scott (1997) noticed that in a mass higher education system the traditional links between participation in higher education and access to elite occupations have been eroded. He commented that the 32 per cent of an age cohort studying cannot all expect to attain the top 10 per cent of jobs.

Concern about the employability of graduates rose with the expansion of higher education. Reports on the first destinations of UK graduates were first published in 1963, prior to the Robbins Report, and have been reported each year since (Woodley and Brennan, 2000). The main questions that these studies addressed were the types of jobs that graduates entered and the unemployment rates for various types and cohorts of graduates. The majority of these studies, however, made the assumption that the potential of a graduate is the direct result of the higher education experience, ignoring the knowledge, skills, and attributes that the individual brings to higher education as innate abilities or as a result of background and prior education (*ibid.*).

The Roizen and Jepson's (1985) study, a sub-project of the 'Expectations of Higher Education Project', based on 201 interviews in 139 organisations, showed a segmented labour market where graduates were competing in a different labour market from non-graduates, and some graduates were competing for elite jobs in a market

separate from other graduates. The barriers, however, between the segments of the labour market were blurred. Graduate status might be important at selection but it lost its importance soon after entry into the organisation (ibid.).

A qualitative research project conducted by the Association of Graduate Recruiters (AGR) in 1992, based on questionnaires completed by 52 employers, and interviews from 18 employers and 17 representatives of higher education, described the changing job market for graduates, and the factors underlying organisational strategies for graduate recruitment (AGR, 1993). The study concluded that traditional graduate jobs represented at that time only a shrinking share of the new openings, and graduates should expect to be employed in every sector of the economy, and, sometimes, to be unemployed.

Another qualitative study, based on in-depth interviews and discussions with focus groups – large employers, SMEs, self-employed individuals, unemployed graduates, and careers advisors in higher education - found that only a proportion of graduates were destined for traditional graduate jobs and there were fewer opportunities for ascending a career ladder (AGR, 1995). The study predicted that, in the future, more graduates would fill non-graduate jobs in large organisations, and that more graduates would search for employment in SMEs, would become self-employed, stay unemployed, or underemployed. Similarly, the study of Harvey *et al.* (1997), based on 258 face-to-face interviews with employers, graduates, and non-graduates employees in 91 organisations, showed that the increased supply of graduates in the labour market meant that graduates should expect to enter organisations at all levels.

2.4 The recruitment process

Selection research and practice in the UK have been largely influenced by the psychometric model that emerged in the nineteenth and early twentieth century, and is essentially based on individual differences (Iles and Salaman, 1995). In this model, knowledge, skills, and personal attributes are chosen as predictors of job performance. The attributes selected are, then, measured during the selection process, which consists of a number of stages and includes a variety of procedures (biodata, interviews, tests).

In general terms, the process includes a pre-selection process, first-stage interviews, second-stage interviews and, finally, job offers. The length and complexity of the recruitment procedure depends upon the types of jobs to be filled. It is more extended for 'fast-track' recruitment, while for some positions the process is simplified (Jenner and Taylor, 2000). Roizen and Jepson (1985) noticed that for the recruitment of generalists, personnel departments had a central role, while for scientific, specialist or technical jobs, departments were allowed to specify their requirements.

The most popular selection method is the interview, which is informed by the application form and the CV of the applicant (Thomason, 1988). Interviews can be formal or informal, with one or more individuals within the organisations, from the general manager to the immediate boss of the potential recruit (Harvey *et al.*, 1997). Iles and Salaman (1995) noticed that the reliance on interviews by European organisations might be explained by the fact that the interview opens up opportunities for a bilateral exchange of views, mutual decision-making and negotiation, while it permits the demonstration of a range of interpersonal skills, and other skills which are considered as essential to effective job performance. The interview helps the selector to obtain from the applicant more information that is considered to be relevant to the needs of the job. Rodger's seven-point plan listed the following areas as points of focus during the

interview: physical make-up, attainments, general intelligence, special attitudes, interests, dispositions, and circumstances (Thomason, 1988). In this model, educational credentials belong to the sphere of attainments. Fraser's five-point plan is similar to this. It identified five factors: qualifications, intelligence, abilities, motivation, and adjustment (*ibid.*).

In addition to interviews, certain large organisations make use of assessment centres. The term 'assessment centre' does not indicate a place, but a series of tests aiming to measure aspects of the potential of candidates. Some tests assess what people actually do, while other tests assess what they could do or might do. When job requirements are well defined and relatively stable, the competency approach is often used, that is, sets of job-related skills and behaviour are observed and assessed. Depending on the circumstances, sometimes it is more important for an organisation to know a person's potential to perform rather than his current performance. In this case, cognitive ability and personality tests are used, where assessment is based on "signs" rather than "samples" of likely performance (Robertson *et al.*, 2002, p.114).

The use of cognitive ability and personality tests in selection is supported by research findings which associate job performance with characteristics such as intelligence, motivation and certain personal and interpersonal skills (Gardner *et al.*, 1996). Values, attitudes, motivational forces, and experiential bases have been found as having an impact when people try to adapt to their environment (Landy *et al.*, 1995). Most work environments are moving in the direction of team-based structures, which entails that communication and interpersonal skills are equally important to knowledge and technical skills (Brown and Scase, 1994; Landy *et al.*, 1995). Motivation has also been found as related to an individual's knowledge and skills. An employee is motivated, when his level of knowledge and skills are in balance with the skill requirements of his job role (Csikszentmihalyi, 1990).

Studies, also, have shown a positive correlation between performance in cognitive ability tests and job performance for those jobs requiring high abilities, while there is a negative correlation between performance in tests and job performance in repetitive occupations (Gardner *et al.*, 1996; Deary, 2001). Scores are also the best predictor of who will benefit most from training programmes (Deary, 2001). Intelligence, unlike other abilities, is not expected to develop significantly over time. Studies have shown that for most people, practising on verbal and numerical tests will only slightly increase performance. This improvement is usually noticed between the first and the second time of undertaking the test, due to familiarity gained with the testing process (From notes on the Aglas Test Battery Profile Chart; Source: Manchester University Career Services). This stability through life in individual cognitive abilities is what makes cognitive tests important in selection.

Yet, despite the association between scores on cognitive ability tests and job success, there have been expressed a series of reservations about the suitability of these tests for selecting for employment. First, it has been argued that cognitive ability tests are more correlated with occupational status than performance (Gardner *et al.*, 1996). Further, there are certain types of intelligence, which are seen as important factors in job success, like 'emotional intelligence' (mental abilities underlying accuracy in the perception, and understanding and management of emotion), and 'practical intelligence' or 'tacit knowledge', which cannot be measured by traditional cognitive tests (Robertson *et al.*, 2002). Furthermore, there is the issue of culture-biases of tests; some ethnic groups tend to underachieve in tests. Another problem is that most tests assess individual potential, whereas performance is affected by situational factors such as the physical and the social environment, the nature of the task, as well as effects from the co-ordination of the team in which one is placed (*ibid.*). Finally, there is the problem termed "bunching of scores" (Robertson *et al.*, 2002, p. 131). All tests are subject to

measurement error, and small differences in individual abilities may not be identifiable by these tests. It may be due to these weaknesses of tests that few organisations employ such tests. Indeed, employers seem to trust more their personal judgement and intuition rather than the tests of assessment centres (Harvey *et al.*, 1997).

2.5 Recruitment criteria

Job requirements constitute the cornerstone in selection and determine the selection criteria set by employers (Dore and Oxenham, 1984; Roizen and Jepson, 1985). Other factors influencing selection criteria for a job include the job's appeal, the company's reputation, and pay packages' competitiveness (Fordham, 1983). Factors that determine the attitudes of employers with regard to hiring policies include ethics, prejudices, and habits of particular societies and their subgroups, the ways in which particular occupations are organised, and the importance of a post to an employer, (*ibid.*) as well as the level of control of the occupational field by professional bodies, which can regulate entry, operating like 'gatekeepers' for their professions (Williams, 1985).

The above factors determine where power in selection lies, because selection is a mutual process at which both employers and applicants make employment decisions (Herriot, 1989). The expansion of higher education created a surplus of potential workers and switched the selection power to employers. In the case of having applicants in abundance, selection strategies are introduced to reduce the size of the pool, and higher standards are sought after in almost any human attribute or ability which is considered to be relevant to the job tasks (Iles and Salaman, 1995). "The survival competencies required by those who experience the rough side of the graduate labour

market seem to correlate closely – or to be identical with – the competencies required in high-flying career assignments” (Teichler, 1996, p.77-8).

Jenkins identified two aspects of the selection process: ‘suitability’ and ‘acceptability’ (Fevre, 1992). Criteria of suitability concern the knowledge, skills, and ‘know how’ to get the job done. Criteria of acceptability concern the degree of ‘social fit’ of the individual to the organization. Brown and Scace (1994) noticed that while in bureaucratic organizations criteria of suitability were functionally specific, the shift from a bureaucratic to an adaptive paradigm of organization necessitated that criteria of suitability incorporate communication, problem solving and personal skills. They also identified another aspect of the selection process; screening for ‘capability’. Criteria of capability, as defined by Brown and Scace (1997), refer to the intellectual capacities of individuals and their motivation to make an impact to the organization.

2.5.1 Academic criteria

Employers have few means of identifying those candidates who have competency to deal with the job requirements and ‘fit in’ the organisation. They base much of their judgements on the educational background of individuals, since education is the best information available about a young applicant without work experience. Hence, education becomes a legitimate means of job distribution, “a reasonable instrument of discrimination” (Oxenham, 1984, p. 84). The process of schooling gives young people the opportunity, if not to develop, then at least to display their abilities (Jarvis, 1983). Thus, employers use educational credentials as a convenient starting point in locating suitable personnel. The essence of looking at credentials in selection lies in their comparability (Collins, 1979). Furthermore, educational credentials have been coupled with the ranking order of occupations (ibid.).

Dore and Oxenham (1984), after a review of studies in 17 countries conducted between 1974 and 1981, concluded that the vast majority of employers believed that education did help fit people into work in the modern economy, and a significant proportion of employers believed that there was a strong positive association between the abilities that were appreciated at school and those abilities needed within jobs in organisations. Especially for science-based professions, for which employers were found to believe that only a relatively small proportion of the population are able to learn to do them well, educational courses and the difficulties in mastering the curriculum provided them a selection function by weeding out those lacking the "right pool of ability" (ibid., p. 23).

Roizen and Jepson (1985) found that the importance of a degree for a job depended on the nature of the job. In certain jobs a degree was necessary and highly valued, while for other jobs employers preferred a non-graduate with good A-levels. For employers, A-levels signified potential ability. They preferred to recruit non-graduates with good A-levels instead of graduates because they were most preoccupied with finding the best qualified individuals at the least cost to the organization. However, since the majority of those with good A-levels went on to higher education, employers were forced to recruit graduates, provided that their expectations had not been raised too much (ibid.).

The study of Harvey *et al.* (1997) also found that the majority of employers regarded investing in graduates as definitely a cost-effective activity, although some expressed the reservation that cost-effectiveness depended on the types of jobs where they were employed. In another study, graduates were seen to be very successful in adding value to their job role, and learning new skills, effective in terms of innovation, originality and productivity, but less effective in terms of efficiency and reliability (Hesketh, 2000).

Employers perceptions of 'goodness of fit' between the job and the graduate have been found to vary in terms of the mix of qualities they expected, as well as the weighting given to individual qualities. Degree discipline, type of institution attended, degree class, non-academic attainments and personality characteristics were found by several studies as among the elements that contributed to employers' decisions in personnel selection (AGR, 1993; AGR, 1995; Jenner and Taylor, 2000).

The Roizen and Jepson (1985) study found that, for the majority of jobs, the degree discipline was not important to employers, while within key vocational areas the discipline was critical. Thus, the study suggested that there was not a need for higher education planning for the full range of subjects, but there was a need for maintaining adequate numbers of graduates in key vocational areas, such as electronics, and computing. Graduates from leading institutions were more likely to be selected for 'top jobs' than others. Employers generally preferred university graduates, rather than graduates of other public sector institutions, while the great majority of employers did not consider college graduates at all for their graduate jobs (ibid.).

The study of Brown and Scase (1994) underlined a preference of employers for the established universities when they were looking to fill professional, managerial and executive positions, because those universities attracted higher calibre students compared with 'new' universities. Differences in student 'intake' were not compensated by the fact that new universities were more in tune with the needs of industry. This indicates that the demonstration of ability rather than the acquisition of skills was held in higher esteem by employers, perhaps because in the context of rapid technological innovation and market uncertainty much of what is learnt is soon out of date (ibid.).

The study of Harvey *et al.* (1997) found that a first or upper-second degree class was seen by some organisations as the minimum requirement. Some of the larger organisations targeted what they considered to be the top institutions, while for others

the institution attended by the graduate was less of an issue. A particular degree subject was essential for some job roles, especially for those undertaking technical roles (ibid.).

A study based on 372 graduate recruiters in 1997 found evidence of a clear hierarchy of institutions among employers and a preference for institutions commanding high A-level entry scores (Hesketh, 2000). A quarter of the sample admitted that they always targeted particular universities when recruiting graduates, while two-fifths of the sample admitted that they targeted particular institutions when recruiting for certain posts. Only one third of the sample stated that they did not target particular universities.

The interest of employers in postgraduate and, especially, PhD degrees has been less often researched, perhaps because PhDs are seen as destined to occupy posts in universities and public research institutions. With the expansion of that level of education and the difficulties that they will increasingly face in finding appropriate jobs, the impact of a PhD degree on a career may attract more research interest in the near future. A large-scale study, conducted in Germany in 1999, analysed the impact of a PhD degree on a professional career (Enders, 2002). The study, based on questionnaire survey among 2,244 doctoral holders in six disciplines and covering all major fields of study, and in three different cohorts (79/80, 84/85, 89/90) found advantages as regards the positions achieved by doctoral holders compared with university graduates. The findings also suggested that performance during the doctoral training, the choice of the discipline, the labour market conditions, the career structures of the employment system, and motivation carried stronger weight than ascribed personal attributes (ibid.).

Though research has identified a tendency among employers to target particular universities, Jenner and Taylor (2000) suggested that there is a strong case against such targeting of institutions. Institutions select on the basis of academic ability, while

employers place emphasis on criteria that are often unrelated to academic ability, like the ability to work in teams, assertiveness, or potential for leadership (ibid.).

2.5.2 Personal criteria

In addition to a degree, employers are looking for graduates with a range of attributes, both personal and interactive. The 'Quality in Higher Education' Project, funded by a consortium of education, government and industry, showed that employers believed that too much emphasis had been placed on the provision of subject-specific knowledge in higher education, and too little on the development of transferable skills (Harvey *et al.*, 1992). The clear priorities of employers were found to be 'effective communication' and 'teamwork' (Harvey *et al.*, 1992). Overall, employers showed a clear priority for business skills, as opposed to traditional academic skills like subject-specific knowledge, independent judgement, imagination and creativity. The research also showed clear differences between academics and employers in the importance attached to certain skills. Independent judgement was rated highly by academics but low by employers, while teamworking skills produced the opposite ranking (Harvey *et al.*, 1992).

Several studies since, have focused on the personal/ interpersonal skills sought after by employers, and attempted to map a hierarchy of these skills. AGR (1993) found that the personal and interpersonal skills sought after by employers were communication skills in the first place, teamwork, analytical skills, negotiation, brokering, dealing with uncertainty, innovation, motivation, and learning new roles. In certain studies it has been found that employers expected graduates to demonstrate confidence – described in terms of self-esteem and the ability to control one's own destiny - (AGR, 1993), and self-reliance (AGR, 1995).

The list of skills described in the AGR (1995) study as looked for by employers was extensive, and included knowledge of the changing context of work, self-awareness, networking, negotiation, political awareness, coping with uncertainty, transferable skills, and self-confidence. In this study self-confidence has been defined as emerging from past successes, but also as a personal sense of self-worth, not dependent on performance. However, there was a problem with the classification of skills in that study, since each item in the 'wish list' of employers required a wide range and types of skills and attributes.

Brown and Scase (1994), based on a relatively small number of in-depth interviews with students in three universities, graduates in employment, and graduate recruiters, found that employers believed that the advantages of graduates were their confidence and their ability in dealing with colleagues and clients, although several employers talked about 'overconfidence' and inflated expectations, especially for those with post-graduate degrees.

Harvey *et al.*, (1997) found that the personal attributes sought after by employers included intellect (analysis, critique, synthesis and problem-solving ability), knowledge (especially understanding basic principles), willingness to learn, flexibility and adaptability to respond to change, self-regulatory skills (such as self-discipline, and planning), self-motivation and self-assurance, while interactive attributes included interpersonal skills, teamwork and communication. All the above qualities were seen as essential in enabling graduates to fit into the work culture and to perform effectively, taking the initiative and responsibility and dealing with change (*ibid.*).

Harvey *et al.* (1997) described employers' concerns in identifying and selecting an array of 'adaptive' and 'transformative' individuals, using a series of criteria. The 'adaptive' employee, located at one end of the 'enhancement continuum', as described

in the study, possesses the knowledge and skills required to do his job competently, and he is able to adapt to the organisation's established procedures and culture. The 'transformative' employee, located at the other end of the 'enhancement continuum' in this model, is able to use his high level skills (analysis, critique, synthesis, and multilayered communication) to help the organisation evolve. Most individuals lie between the ends of the 'enhancement continuum'; in the study they are called 'adaptable'. They can use their knowledge and skills, are willing to learn, and can show initiative in a pre-set framework (ibid.).

Hesketh (2000) found uniformity in terms of the demand for skills across the seven economic sectors that were included in his research project; public services, science and engineering, manufacturing, legal and finance, ICT, business services and consumer services. The study found that the skills that employers valued most were, in descending order, verbal communication skills, learning skills, written communication skills, problem solving, teamwork, self-management, numeracy, IT skills, and technical skills. In that study, there was a discrepancy with contemporary government researches, which indicated that employers ascribed prime importance to numeracy (ibid.).

Arkes (1999) examined whether there is any significant association between the abilities of an individual before enrolling in higher education and the attainment level of the degree later. He examined also whether employers valued educational credentials and what credentials signalled to employers. He considered a sample of 1064 respondents to the National Survey of Youth who had completed the Armed Forces Qualification Test (a test that measures a wide range of abilities) and had not attended college at the time they took the ability test. The results showed statistically significant partial association between pre-existing abilities and a high school diploma, college attendance, a bachelor's degree and an advanced degree, but not an 'associate' degree (non-advanced Further Education qualification). Employing a sorting model of wage

determination, Arkes also found that employers valued a bachelors' degree, in part, because it signals pre-existing abilities, but for the other credentials, results were inconclusive. Thus, the study concluded that cognitive abilities were part of the information conveyed by credentials (ibid.).

Interest in the intelligence levels of recruits can be found behind the A-level scores that employers look at during recruitment, and the targeting of particular universities. The AGR (1993) study verified the employers' search for 'raw' intelligence. The study found that, although employers appreciated the 'employment-friendly' cultures of the 'new' universities, and the model that polytechnic education was based on, they nevertheless preferred graduates from the Oxbridge and the civic universities because these institutions attracted students with high potential.

2.5.3 Overqualification

Overqualification or overeducation can be defined as having more education than that required for one's job (Rubb, 2003). The existence of overeducation is well documented. However, its extent depends on the definition of 'overeducation' (Groot and Van den Brink, 2000). Recent approaches to learning consider education as an incomplete measure of a person's human capital, since successful job performance depends on a wide range of skills and abilities (Hartog, 2000).

Dore and Oxenham (1984), after a review of international studies concluded that although many employers set maximum as well as minimum requirements, they favoured applicants whose level of qualifications clustered fairly closely to the minimum qualifications that they have set. They also noticed that although the minimum and maximum qualifications required for jobs were admittedly arbitrary and unstable and, theoretically, there would be room for both the overqualified and the

underqualified to be accepted, allowances for the overqualified were found to be more elastic than for the underqualified. The justification for setting the maximum requirements was that while an underqualified might not perform adequately, an overqualified might become frustrated too easily (Oxenham, 1984; Roizen and Jepson, 1985).

Whether overqualification was regarded as a disqualification depended on the following three factors (Dore and Oxenham, 1984):

- i. the incidence of unemployment and underemployment in a country;
- ii. whether the employer is public or private; and
- iii. the attitudes of a society, that is, the degree to which a society considers education as a means for securing well-paid jobs .

Groot and Van den Brink (2000), after doing a meta-analysis of studies on employment, suggested that overeducation might be used to compensate for disadvantages in the individual's level of human capital in other areas, i.e. the quality of the educational institution attended, or the lack of work experience. They also noticed that overeducation as a temporary phenomenon, was more frequent among young people before finding their way in the labour market, while as a long run or permanent phenomenon it coincided with individual weaknesses in other forms of human capital. Similarly, Rubb (2003), using data from various annual demographic supplements from 1992 to 2000, found that overeducation was often limited to temporary employment for certain individuals, either while continuing their job search, or until they gained experience. Both the above studies, unlike most studies on overeducation, assumed that workers' skills are not acquired only through education, but they can exist as endowments or be obtained through work experience.

Having described the factors underlying recruitment at the international level, in the next chapter the focus turns to the Greek context and to the relationship between higher education and the employment system.

CHAPTER THREE

THE GREEK CONTEXT

3 Introduction

The aim of this chapter is to provide general information about both the higher education system and the employment system in Greece. First, there will be an overview of the higher education system, including the historical background and higher education policies. Secondly, the labour market conditions in Greece and, especially, the graduate labour market conditions in Greece are described. The final part outlines attempts to bring about co-operation between the two systems, and considers contextual factors which hinder communication between the two worlds.

3.1 Higher education in Greece

Tertiary education in Greece is provided in two types of institutions; the universities (AEIs), and the Technological Educational Institutions (TEIs) which belong to the non-university sector. Study programmes in AEIs are of four to six years of duration, whereas study programmes in TEIs are of three years of duration.

The first university founded in Greece was the University of Athens in 1837, soon after the constitution of the independent state of Greece. At the same period the School of Fine Arts and the National Technical University were founded, also in Athens, but they were granted university status in 1914 and 1930 respectively. The University of Thessaloniki was founded in 1925. From 1964 to 1984, eight new

universities were founded to accommodate the need for the expansion of the higher education system. At present (2004), there are nineteen universities in Greece.

The non-university sector consists of the technical educational institutions (TEIs), which are similar to the pre-1992 polytechnics in England, and the Fachschulen in Germany. Until 1970, there were only three public technical schools in Greece, and all others were private. From 1970, tertiary education has been taken over the state. KATEs and TEIs (which substituted KATEs) were established to provide the labour market with personnel able to apply knowledge to practical problems (Council of the State, all members, 576/1981, 1354/1992, and 1260/1995). At present (2004), there are 11 TEIs in Greece with 127 departments and 50 specialities (Saitis, 1993), and the establishment of eight new TEIs by 2010 has been announced.

The position of KATEs or TEIs (which substituted KATEs) in the education and the occupational structure has been determined by Presidential Decree as being at a level between the higher and the secondary level. Yet, certain specialities in these institutions are similar to specialities in universities, resulting in TEI graduates competing with university graduates for a range of jobs (Kanellopoulos, 1994).

From the summer 2001 the non-university sector has been in a process of being 'upgraded' to an equivalent of university level, but many issues surrounding this upgrading have not been resolved as yet. Some differences between the two types of institutions will remain; TEIs will continue to deal more with the application of knowledge rather than the generation of knowledge (research). This issue is still under discussion. Problems have also arisen from the fact that the upgrading of TEIs cannot have retroactive impact and arrangements should be made for those who have graduated from TEIs before 2001, enabling them to upgrade their academic standing and professional rights (Papatheodosiou, 2000).

Besides these two types of institution, there are a number of institutions of peculiar types (in terms of legal framework and control), the so-called 'Colleges' or 'Centres for Liberal Studies'. Most of these are private organisations, while some have been founded by the education departments of Embassies or professional bodies. Since private higher education is prohibited by the Greek Constitution, these institutions are prohibited from awarding degrees and, thus, they co-operate with universities and colleges abroad so that they have the possibility to award degrees from the institutions with which they are affiliated. As a consequence, these institutions reflect the authority and the validity of the institutions with which they co-operate (Vossinaki, undated). The Greek state does not recognise, up to the present, degrees from foreign universities which have been awarded for studies that have taken place (partially or as a whole) in Greece. Yet, graduates from these institutions find their way into the private sector of economy.

The clientele of these centres originate probably from working class families, since their economic background reduces their capacity to study abroad if they fail to enrol in a public university or a TEI (Patrinos, 1991). Most of the private 'colleges' in Greece offer non-accredited degrees in subjects such as computer sciences, business administration, economics, and the like. The Athens Laboratory for Business Administration (ALBA) has been founded by the Federation of Greek Industries (SEV) to provide only post-graduate studies (Vossinaki, undated). Other institutions prepare students for studying abroad, where some are affiliated and/ or accredited. A well-known example of a private college in Greece is the 'Deere' College in Athens. It is an American-sponsored school, accredited by the New England Association of Schools and Colleges in the United States of America.

In parallel, there is an atypical branch of institutions at the post-secondary level of education, namely, the 'third sector'. The third sector has been developed through the

1980s to accommodate the needs of economy resulting from technological developments and the application of technology in the production and the services sectors (Tsaousis, 1993). Public institutions, like the Organisation of Employment (OAED) and the Greek Centre for Productivity (ELKEPA), provide educational programmes as a tool of social policy in the area of employment. These programmes are used mainly for tackling structural unemployment and eliminating long-term unemployment within the workforce. Without updating, the workforce becomes unskilled, due to the speed at which knowledge and skills become obsolete (ibid.).

The main characteristic of all types of post-secondary education is its occupational character (Tsaousis, 1993). This character is the driving force behind the third and the non-university sector, but it is dominant in the university sector too. The third sector is the most flexible and rapidly responds to the needs of the labour market and economy in general (ibid.). There is a plethora of training programmes provided by independent organisations like the ELKEPA, which, according to the view of the Chamber of Commerce and Industry, really emerge from the needs of the market (CDGU, 1992).

The least flexible sector is the university sector, because its central pivot is not the transmission of applied knowledge but of analytical knowledge, not how does a system function, but why does it function that way (Tsaousis, 1993). It is so because it is analytical knowledge that is directly connected to the production of new knowledge, which constitutes the main function of the university sector. The emphasis of university education on analytical thought and knowledge does not contradict with its vocational character. First, because such a type of knowledge often constitutes the basic element of professions of high status and expertise, for which education and training has been assigned as a monopoly to universities and, second, because this form of thought and

knowledge constitutes the basic requirement for rapid adaptation to new forms of employment and action (ibid.).

3.2 Access to higher education

Access to higher education in Greece was until the turn of the century highly competitive, especially for subjects in high demand. It is worth noting that in the early 90s only 19% of the candidates entered a university and 18% entered a TEI (Psacharopoulos and Tassoulas, 2004). The situation has changed since 2000, when there was another phase of the expansion of the higher education system. The numbers of entrants in each department of higher education are determined yearly by Ministerial Decree following recommendations by the National Council of Higher Education and the Council of Technological Education (OECD, 1997).

Lyceum graduates wishing to enter higher education institutions compete in nation-wide general examinations, administered yearly by the Central Service of the Ministry of Education, and complete an application form where the candidate's preferences are declared according to priority. The distribution of places in higher education institutions is made by combining the candidate's score on the Entrance Examinations with the institution preferences and number of places available in each institution. The candidate's score is the highest criterion, followed by the other two in the sequence given (OECD, 1997).

Due to strong competition for entry into higher education institutions, especially for 'elite' schools, students spend the final years of their lyceum studies being prepared for their core subjects (the subjects that they have selected for their general examinations). This is a period when ignoring the rest of the subjects and the

pedagogical goals of education as a process is common (OECD, 1997). It has been suggested that these examinations could be substituted by a 60-minute standardised test, if the purpose was the selection of the 'better potential' students (Psacharopoulos and Tassoulas, 2004). Probably, the use of examinations instead of ability tests may be interpreted as indicating that what is measured is both ability and effort.

The introduction of free provision of education at all levels has created a great demand for higher education in Greece, which is reinforced by the higher social status and better career prospects for university graduates (OECD, 1997). The great demand for higher education in Greece reflects, to some extent, a reasonable decision since the possession of a degree from a university means, in general, higher rewards and recognition. It mainly happens by gaining employment in the public sector (Kanellopoulos, 1994).

The growing demand for higher education was not met, due to a series of reasons. Most importantly, it was the system of selection operated by the Greek Ministry of Education (YPEPTH). In the past, there was a preference of the state for a model of manpower planning in the development of higher education, because of the inability of the economy of the country to absorb a large number of qualified workers in jobs appropriate to their educational level (OECD, 1997). Secondly, it was due to limited educational efficiency of the existing institutions (limitations in classrooms, staff, laboratories, etc.).

The system of selection to higher education, however, combining with the limited number of students gaining entry into university before 2000, resulted in a large number of Greek students studying abroad, and a large number of students studying a subject, which was not among their first choices. It is worth mentioning that in 1984 more than 41,000 students (equivalent to 50 per cent of the total student population in

Greek universities at that year) were studying abroad (Saitis, 1993). The Greek Constitution states that higher education is provided free of charge as a responsibility of the state, and that private higher education is prohibited. However, many politicians favour the establishment of private universities in Greece arguing that it will reduce the mass enrolment of Greek students in universities abroad.

Enrolment rates have increased steadily since the beginning of the 1980's. 58 per cent of the 18-21 age cohorts are registered in a higher education institution (ESYE, 2001). The reasons that led to decisions for the expansion of higher education were both the vast number of students studying abroad, and political declarations before elections that higher education was going to be universal. However, the needs of the economy have not been taken into consideration. Increases in places have mainly been in subjects that do not require laboratories, because this costs less, and where professional bodies do not restrict entry. Thus, the higher education system is restricted in its effort to become more effective, because it is not orientated towards generating individuals with adequate up-to-date knowledge and key qualifications in accordance with the requirements of the labour market (OECD, 1997).

3.3 The Greek labour market

Greek economy is based on the primary and the tertiary sectors of economy with the existence of only a limited-scale secondary sector. It is characterised by traditional economic activities, utilising traditional technology and management methods (Papatheodosiou, 1991; Liagouras *et al.*, 2003). Even the increase that happened in the tertiary sector of the economy during the last decades was not altogether a 'healthy' development; it has been based on the phenomenon of 'hyper-commerce', resulting in a price increase which is misinterpreted as product increase (Saiti, 2000). This model of

development and that state of economy need neither a highly educated nor a highly specialised work force (Papatheodosiou, 1991; Liagouras, *et al.*, 2003).

The vast majority of graduates in paid employment are employed in the public sector. The private sector, although it constitutes three quarters of the economy, employs only about 10 per cent of graduates (OECD, 1997). With the exception of a few large firms, the Greek economy is characterised by small enterprises that are unable or unwilling to hire managerial and technical personnel with higher education backgrounds (Samaras, 1991a; OECD, 1997; Liagouras *et al.*, 2003).

In addition to the inability of the private sector to absorb a greater proportion of graduates, graduates themselves prefer the public sector for the long-term security and for the large pay differentials offered (although sometimes lower than those in the private sector) (OECD, 1997). Yet, the public sector has been saturated and it is decreasing over time, because there is a trend, as in most western societies, towards privatising a large part of the public sector, including banks, transportation, communications, etc. Graduates have to seek after other paths to employment, mainly in the private sector or to generate self-employment. Large firms will continue to attract the interest of graduates but, since the competition is strong, small and medium-sized enterprises represent a possible solution.

3.3.1 Graduate unemployment

The current high level of unemployment (just below 10 per cent) (ESYE, 2001) has been attributed to the international recession, and to the increasing participation rate of women in the economy. However, the absorption of immigrants into the labour market indicates that there were created many vacancies for unskilled and cheap labour in the informal economy. It is an indication that unemployment in Greece is to an extent

the consequence of the inability of economy to create new vacancies for skilled workers (Lynardos-Rulmond, 2000).

Unemployment is concentrated among the younger age groups. The unemployment rate decreases steadily as the age increases (31.1 per cent for the age group 20-24 years, while 6.5 per cent for people over 25) (OECD, 1997). It means that “unemployment is mainly attributed to hiring deficiencies rather than increases in the release of workers” (ibid., p. 115). However, this is due to the Greek legislation, which favours job stability in almost all occupational areas, rather than the suitability of workers for the jobs. In the public sector, workers have a job guarantee for life. But even in the private sector of economy, “massive lay-offs ... are difficult because of the law forbidding dismissals of more than two per cent of the labour force per month, so dismissals are rare” (ibid., p. 172).

Unemployment is also concentrated among secondary education graduates (13.1 per cent) and tertiary education graduates (12.3 per cent for TEI and 7.0 per cent for AEI graduates) (ESYE, 2001). The unemployment of primary school graduates is low (7.2 per cent) because there is a great agricultural sector, which occupies a high proportion of them (ibid.). The unemployment of higher education graduates raises questions regarding the benefit of studying in higher education. However, the demand for higher education remains great, although not all graduates can find jobs appropriate to their educational level, because secondary education graduates have higher rates of unemployment than those of higher education graduates. The social demand for higher education is reinforced by the free provision of education in Greece at all levels. And there is always excessive demand for whatever is provided free of charge.

3.4 The employment of graduates

A study based on statistical data given by ESYE (National Statistical Service of Greece) attempted to identify the relationship between education and employment of those who completed their education (at any level) during 1996-8 (Kanellopoulos *et al.*, 2003). The study found that although the vast majority of graduates worked in white collar jobs, there was a considerable number of university graduates, especially in social sciences, who worked at almost all the spectrum of occupational groups, even as unskilled workers. TEI graduates entering labour market at the time of the research, were distributed mainly as assistant-technicians and, to a lesser extent, in secretarial posts. Graduates from lower levels of education (public and private educational institutions at the post-secondary level, and high school leavers) were found across the spectrum of educational groups with a greater concentration in service occupations (*ibid.*).

Studies have been carried out from time to time by educational institutions to investigate the employment conditions of their graduates. Such studies, however, are rarely published and are very often not accessible to non-members of the institution. One study conducted during 1985 in 144 Greek industries in the Greater Athens area showed that only 36 per cent of industries employed TEI graduates (Glambedakis, 1992). About two-thirds of the enterprises employing TEI graduates stated that the level of knowledge and skills of TEI graduates was that needed by the job. From the companies which stated that they didn't employ TEI graduates, one-third stated that didn't need that level of knowledge. The study found evidence that the main reason for recruiting (or not) KATE / TEI graduates referred to curriculum issues, that is, the level and type of knowledge and skills provided by those institutions (*ibid.*).

Another study was conducted by the TEI of Athens during 1994 in 101 enterprises in two neighbouring municipalities in the Greater Athens area to investigate

the reasons for the above average unemployment rate of graduates of that institution compared with the mean unemployment rate of Greek population (Klimopoulos, 1996). The study found that the 51 per cent of the enterprises surveyed employed graduates as opposed to 36 per cent found in the research conducted in 1985. It was an indication that the new type of institution was becoming increasingly well established.

Research into employment is also conducted by the Federation of Greek Industries (SEV). A research in 123 enterprises/ members of SEV focused on predictions about the specialities in demand in future years for all levels of education (SEV, 2000a). Responses were first written as given by respondents, but then were classified in groups. The specialities at the higher education level needed were in descending order the following 14 groups: web developers, mechanical engineering, finance, chemical engineering, electronic engineering, marketing, electrical engineering, engineers with specialisation in CAD/ CAM, automation specialists, specialists in advanced toolkits, management, veterinary, environmentalists, and quality assurance (ibid.). However, while they reported opportunities in 14 groups of specialities with higher education background, what may not be evident at first sight is that the majority of specialities refer to graduates from engineering departments.

Currently, the career services in several universities have begun to conduct research into the employment patterns of their graduates. Again, the focus is on the employment rates of their graduates, the way that employed graduates found their jobs, whether they are thinking of doing postgraduate studies, and so on. Such a study, conducted by a Social Science University, and based on data from 1987 to 1993, concluded that there were not particular occupational destinations for graduates in social sciences (PU, 1995). 40 per cent of them were found by that study as working in clerical posts, less than 30 per cent were professionals and only 6 per cent had a managerial job.

The Career Information Services of the University of Thessaly, tried to give a more complete picture of the graduate labour market and the prospects of graduates by conducting a research in 196 university departments (UTH and NLI, 2002). Only 17 per cent of the departments (34 departments) of those that participated in the research had conducted research on the employment of their graduates, 71 per cent of which had done this the previous year and 19 per cent two years previously (ibid.). This seems to indicate that research on graduate employment was just starting at that time, or had not yet started in many cases.

Even the departments that had conducted research on employment rates were not able to reply questions about the relation between the field of study and the field of employment (UTH and NLI, 2002). From the 26 departments that replied to that question, it was found that graduates in Medicine, Sciences, Fine Arts, Music and Theatre worked in an associated field, with graduates in Informatics, Engineering and Economics following them. The departments where less than 50 per cent of graduates worked in an associated field were those of Social Sciences, Law, Agricultural Studies, and Physical Education (ibid.).

The study also found that only a small number of occupations which require higher education backgrounds had a positive equilibrium of demand in the labour market. The subject areas which corresponded to these occupations were those of Economics, Business Administration, Engineering, Informatics, Telecommunications, Environment and Ecology (UTH and NLI, 2002).

A study was conducted from 1998 to 2000 to investigate the absorption of NTUA engineers into the labour market (NTUA and NLI, 2001). Two cohorts of graduates were studied, those who had acquired an employment licence between 1991 and 1995, and those who acquired one between 1976 and 1990. The unemployment rate for the first group was found to be 2.2 per cent, for the latter it was effectively non-

existent and the average period between graduation and first employment was found to be less than two months.

An interesting finding of that research was the diffusion of the role of engineers into a wide range of technical and non-technical fields. Especially new graduates, tended to occupy posts with managerial, economic and commercial tasks and responsibilities (NTUA and NLI, 2001). This trend is related to the fact that 40 per cent of those opting for postgraduate studies chose economics or management studies as a main or subsidiary subject. This diversification of the role of engineers emerges from the invasion of technology into all sectors and levels of economic and social activity, and constitutes a standard parameter of career development of engineers. It is not considered as underemployment or irrelevant employment, because knowledge and skills are utilised on the job, and because the new roles seem to be associated with higher pay packages (*ibid.*).

There was also evidence that the borders between the various specialities in engineering are becoming blurred over time, due to the invasion of technology into all sectors of economy and the emergence of new interdisciplinary specialities (NTUA and NLI, 2001). Indeed, advertisements very often ask for engineers without specifying speciality.

Graduates were also asked to evaluate their programmes of study. The National Technical University of Athens was found to be very effective in traditional sectors, something that characterises the 'continental' system of higher education for engineering; a combination of technical knowledge with sound theoretical background (NTUA and NLI, 2001). However, it fell short in knowledge areas which have become important more recently; IT applications, economics and management, and transferable skills. The ability to co-operate and communicate with others, negotiation skills and

writing reports proved to be the Achilles' heel of new engineers. This is why in certain selection procedures, it has been reported that graduates were asked to demonstrate not only their knowledge but also their grades on 'written expression' in the high school diploma and higher education entry examinations (ibid.).

Most studies conducted in Greece have investigated the demand for particular specialities or the employment conditions of groups of particular levels or types of education. A piece of research conducted in 47 large enterprises in Greece from March 2001 to April 2002 by interns under the supervision of members of the Pedagogical Institute - a public institution which conducts educational research and makes recommendations on educational issues - examined the profiles of candidates that are sought after by enterprises. Focusing on the employment of graduates in economics, the study found that the majority of employers (57.8 per cent) considered a university first degree as adequate qualification, while 36.8 per cent asked for a masters and 6.3 per cent of employers were interested in a PhD (Magoula *et al.*, 2003). Only 5.3 per cent of employers appreciated a degree of a college (non-accredited private university) and 5.1 per cent appreciated a degree from a technical institution of higher education while the high school certificate was considered as adequate by only 2.8 per cent of employers (ibid.).

According to the same research, academic criteria were the first priority for 36 per cent of employers, 27 per cent emphasised personality, foreign languages and IT skills were important to 23.4 and 21.3 per cent respectively, 21.3 per cent of employers asked for work experience and 6.4 per cent were interested in the specialisation of candidates. The desired qualities/elements of the personality of candidates were, in descending order of importance, as follows: ability for co-operation, efficiency, confidence, consistency, decisiveness, leadership, inventiveness, and adaptability (Magoula *et al.*, 2003).

The relatively high proportion of employers that are reported as asking for masters degree (36.8 per cent) (Magoula, *et al.*, 2002) does not seem to be in accordance with the study conducted by the Panteion University (PU, 1995), which showed that postgraduate degrees did not seem to enhance the employment opportunities of social sciences graduates. The difference may be attributable to the difference between subject areas in the two studies. Another reason may be that the sample of study of Magoula *et al.* (2002) included only large organisations (listed in the stock market), and this might have distorted the results.

The study of the Panteion University (PU, 1995) also found that the degree class had not made any difference in the employment opportunities of their graduates, while 36 per cent of employers in the study conducted by Magoula *et al.* (2002) had academic criteria as their first priority. However, the fact that the sample of the study conducted by the Panteion University (PU, 1995) included only social science graduates does not permit direct comparisons, though the differences are thought provoking.

Research that refers to the absorption or the demand for certain specialities in the labour market has resulted in findings that are often contradictory, perhaps because there is not a common indicator of the measurement of shortages (Karantinos, 2001). Problems in measurement arise from the nature of Greek economy. In certain professions, self-employment occupies the major part of total employment. For this type of employment, thus, there is no 'demand' in the sense of paid employment. Therefore, it is not possible for shortages or surpluses to be estimated. Another great proportion of employees is employed in the public sector or in very small family enterprises, where even the recognition of shortages or of training needs is very difficult. At best, these researches can indicate a list of occupations and professions that demonstrate an ascending trend. Moreover, even when there is evidence of certain trends in the demand for skilled labour, the findings of labour market studies are not made use of in the

planning of education and training, with an exception in the area of life-long learning (ibid.).

After a review of labour market studies in Greece, and focusing on common findings, Karantinos (2001) arrived at a series of general remarks and conclusions about the demand for skilled labour. First, there were found rather serious shortages amongst scientists and, to a lesser extent technicians and engineers in ICT. Second, there was an increasing demand for mechanical engineers, electrical engineers, and chemical engineers, for managers in the business sector, specialists in marketing, and economic analysts. Third, while supply seemed to meet the demand at the period of the research, but there might be shortages in the future if the demand continued to increase. Fourth, there was clearly an oversupply of graduates in pure sciences, humanities and certain social sciences, and at the same time there was a decreasing demand for graduates in these subjects due to the decrease in the size of the public sector. Finally, there were severe shortages in middle-level skilled workers, which might be due either to the underdevelopment of technical education at middle level, or due to the low social prestige of middle-level technical specialities in Greece (ibid.).

3.4.1 The value of a degree

In Greece, the widespread demand for higher education combines with the weak demand of economy for highly qualified workers to produce a serious mismatch between higher education and the labour market (Liagouras *et al.*, 2003). Attempts to achieve educational equality have flourished and children of all social classes now are able to enrol in higher education. However, the oversupply of graduates in certain fields has created an imbalance in the relationship between higher education and employment, which still operates at the expense of the lower social strata (Pyrgiotakis and Kanakis,

1991). This can be interpreted as evidence that the lower social strata lack social networks within the circle of employers that would help them get jobs. It should be seen in accordance with the fact that Greek economy is characterised by small-sized enterprises. In family enterprises, which constitute the 90 per cent of enterprises in Greece, positions are assigned mainly through personal connections (Kantas, 1998). Thus, although individuals from the lower social strata have gained access to higher education, the saturation of the labour market, together with the lack of the proper social networks, does not allow them to overcome the social barriers and to undertake jobs appropriate to their educational level (Pyrgiotakis and Kanakis, 1991).

Research into the employment of social science graduates showed that personal connections played the major role in finding employment (PU, 1995). Only in enterprises with more than 100 employees, was there a decrease in the importance of social connections. Specifically, it was found that over 60 per cent of graduates working in enterprises with less than 100 persons found their job through acquaintances, while only 42 per cent of those working in large enterprises found their job through personal connections. However, the inclusion of public organisations in the sample (classified as large organisations) may have distorted the results (*ibid.*).

In Greece, most people accept that the value of a degree, especially in disciplines whose supply and demand are not in balance, depends on the socio-economic influence of its possessor (Katsikas, 1999). With the same degree, some people are destined to unemployment, others to a job not related to what they have studied and others to a high status job which has been ensured as a 'social heritage' and is merely 'legitimated' by the particular degree (*ibid.*).

In the current period of high graduate unemployment, the connection between the degree and a professional career has been loosened, and it is expected that it will loosen further and that the degree will become merely an indication of the abilities and

knowledge of its holders (Persides, 1998). Education may indicate suitability for a certain sector of employment, but it will not guarantee employment in the sector.

3.5 Higher education – Industry collaboration

The collaboration between the universities and patterns of economic activity is a field of vital importance for the European Community (EC, 1991). Where there is lack of correspondence between the education and the employment systems, as is currently the situation in Greece, employers are impeded in the modernisation of their infrastructure and in the optimal utilisation of the human resources of their organisation, while employees are compromised to being employed in jobs that require lower skill levels than they have achieved (Pepelasis, 2000).

To plan an educational system that is receptive and responsive to the new demands of the economy, one needs to know about the development opportunities of the economy. These are closely related to the technological basis of economy and, consequently, have important implications for the educational requirements of the work force (Samaras, 1991b; Papatheodosiou, 1991).

In Greece, the collaboration between universities, the economic system and the wider society is, in theory, institutionalised. It is regulated by the Law 1268/82 and from the Constitution of the Council of Higher Education (CDGU, 1992). But, in practice, this collaboration has not determined yet its objectives. Greek universities were, until recently, to a great extent closed systems, which hardly communicated between themselves and even less with their social and economic environments (Tsaousis, 1990).

The need for collaboration between the University, economic life and society is identified at three levels: (a) the transmission of existing knowledge, (b) the production of new knowledge, and (c) the development of young people capable of confronting and solving problems (CDGU, 1992). These three levels broadly correspond to the three

functions of the University: teaching, research, and scholarship. But collaboration requires a mutual relationship. Otherwise, it is condemned to failure in the long run. The type of collaboration required depends on local needs and economic activities, and on the possibilities of the university. The latter, in turn, depend on the schools and the departments of a university, and the specialities of its personnel (ibid.).

The most obvious form of collaboration between the university and the economic system is without any doubt the 'educational', that is, the transmission of knowledge and skills. It includes institutionalised undergraduate and postgraduate education and the educational services offered in various forms to the public. However, there is a dilemma concerning the educational function of the university. There are two different perspectives here (CDGU, 1992). According to the first perspective, the university offers its educational services on its own terms. It teaches what it judges as worthwhile, and in the way that it prefers. The alternative perspective is that the university is called on to offer what the society demands. The traditional university followed the first approach. The 'ivory tower' was an expression that described the situation in Greece, until recently. The educational needs of the public and the formulation of special programmes to fulfil the needs of a special public were undertaken by public and private providers of the non-university sector.

More recently, in the light of the debate on the employability of graduates, initiated by the European Community in the early 90s, academics in Greece began a dialogue with government bodies in industry and business about the areas in which universities could co-operate with the economic system. A committee undertook the responsibility to contact associations of the relative groups, with the purpose of acquiring their opinion on the issues mentioned in the 'Memorandum of Higher Education in the European Community' (EC, 1991), and on issues of co-operation between the university, the economic system and society (CDGU, 1992). These groups

were called collectively to commend, among other things, upon ways of connecting initial education with the needs of the production sector, with special reference to the general orientation of degrees and to the level at which occupational training should be provided (undergraduate or postgraduate).

As the committee reported, there was unwillingness among the collective units of Greek employers to respond to the questions set by the committee. The more comprehensive reply came from the Chamber of Commerce and Industry. It identified, among others, the following five objectives for higher education:

- i. Proficiency in foreign languages should constitute a basic requirement for entry into higher education. Due to the limited Greek bibliography, access to foreign bibliographies is necessary from the first year of studies.
- ii. Postgraduate education should be an extension and further specialisation in the subject studied at the undergraduate level.
- iii. Specialisation should take place primarily at the postgraduate level. Specialisation at the undergraduate level is possible provided that it is not pursued at the expense of the general, foundation knowledge of the field.
- iv. Research into the needs of the various economic units of the country is necessary for a detailed determination of needs in particular specialisations (CDGU, 1992).

The Technical Chamber of Greece, in its reply to the research committee, referred to continuing education. It is worth noting, however, the fields which (accordingly to the Technical Chamber) were of interest to employers and entrepreneurs. They included training in economic and legal issues, in contemporary

methods of organisation and management, in technology and in foreign languages (CDGU, 1992).

In recent years, industry has become more interested in co-operating with universities. In a speech at the Aegean University, a representative of the Association of Greek Industries stated that the competitiveness of enterprises would increasingly depend upon the knowledge of their employees, their ability to adapt to changing circumstances, and to use new technologies (Antonakopoulos, 1999). The new model of employment requires, on the part of employees, broad knowledge, higher skills, mobility, and flexibility.

The Federation of Greek Industries (SEV) recommended the addition of courses in entrepreneurship across the whole spectrum of education, and suggested that education should develop the skills needed in employment. It gave a brief description of the types of skills needed. These include subject knowledge, which constitutes the basis for further development and adaptation to future job role, and initiation in three types of skills, namely, basic skills (problem solving, IT skills, and business-like culture), social skills (communication skills, cooperation, foreign languages), and personal skills (responsibility, entrepreneurship, learning skills, adaptability to change, and initiative) (SEV, 2000b).

The Federation of Greek Industries also, through its president, suggested knowledge and experience exchange between educational institutions and economic enterprises (Kyriakopoulos, 2001). For the modernisation of the labour market a series of measures were proposed, such as opening up of the 'closed' professions, encouragement of mobility among specialities and occupations, and support of training in multi-specialities. SEV suggested that the educational system should create the conditions which would permit the continuous adaptation of the knowledge content of educational services to the changing context, the cultivation of positive attitudes

towards work, and the recognition of the needs of the economy as a prime determinant in the formation of educational services (ibid.).

The Federation of Greek Industries has criticised the system of professional rights based on credentials and networks of control by certain categories of graduates (Antonakopoulos, 1999). Industrialists criticised the Greek educational system because it has undertaken education as a monopoly-like enterprise and, indeed, ensured the educational career of certain categories of graduates by institutionalising professional rights with only criterion the possession of an appropriate degree (ibid.). This system is believed to be hindering competition, both between institutions and between graduates and, thus, resulting in lowering quality standards. SEV repeatedly recommended the removal of the factors that deter competition in the labour market and proposed a shift from professional rights and assessments based on credentials towards an assessment based on the real qualities of employees (Antonakopoulos, 1999; Kyriakopoulos, 2001).

The issue of professional rights has occupied educational and employment policy in Greece. Greece has been sued in the European Community Court for not conforming with the Community Advice 89/48 (referring to the recognition of professional rights). The case referred to graduates from TEIs (3-year study programmes), to whom the state denies membership of the Greek Association of Engineers (TEE), where the right of registration is limited to graduates from 5-year study programmes carried out in universities. The case refers also to graduates from private colleges which are affiliated with universities abroad. College graduates are not recognised as higher education graduates, since the constitution does not permit the recognition of private higher education in Greece. In response to these categories, the Ministry of Education has declared that national legislation is above the European Community legislation with regard to educational issues (Mastoras, 2003).

The other dimension of collaboration between the university and the economic system is on research. There is a legal framework for the development of such collaboration and a special research account. However, there is little incentive for collaboration on either side. The current legislation impedes the formation of such collaboration and, thus, there is only informal and occasional participation of university staff in industry (CDGU, 1992). As it is expected, collaboration on research between the university and industry concerns applied research. Applied research is only one of the research functions of the university. But universities must continue to do basic research, the funding of which should be provided by the state. Moreover, the university must keep the right to accept or refuse the contribution of industry and business to its research activity, if it is in conflict with ethical standards (ibid.).

3.6 The undergraduate curriculum

Although the major cause for graduate unemployment may be found outside the education system (Liagouras *et al.*, 2003), another cause of graduate unemployment is due to a non-correspondence between the educational system and the needs of the economy (Karantinos, 2001). The Greek education system remains attached to general education and to the needs of the public sector, despite the fact that employment opportunities in the public sector have decreased (ibid.). The OECD Examiners' Report (1997) commented: "In one sense, Greek higher education is too strongly connected to the world of work. Its graduates are mainly destined to enter the public service and it is this which largely explains why it is dominated by general studies and is weak in technical vocational education" (OECD, 1997, p. 183).

One criticism that has been made is that the lack of correspondence between the knowledge and skills provided by higher education and the needs of the economy is due

to the personal interests of the staff: "The structure of courses is adapted to the specific aptitudes, ideologies and ongoing interests of the teaching staff, irrespective of internationally accepted epistemological criteria and of social, economic and cultural needs ... Obligatory core courses are adapted to the senior professors' interests and optional courses are left to junior teaching staff" (Pesmazoglou, 1994, p. 294; CDGU, 1992). Recent articles, also, referring to curricula and studies in higher education, argue that the composition of academic staff in universities perpetuates the mismatch between higher education output and labour market needs. The curricula reflect the expertise of lecturers instead of preparing students for employment (Lianos, 2002).

The curricula cannot be easily reformed, because this would require change in the composition of faculties in the universities. Further, any attempts at reform face strong resistance from lecturers. Even the appointment of staff and the introduction of new courses in universities are heavily influenced by micro-politics. Protopapas (1999), who made an analysis of data on higher education in Greece by scientific area, found that due to the limited number of academic positions available, positions are practically personalised to favour specific candidates. He also found a high degree of 'in-breeding', that is teaching staff who have received all their degrees from the same department (where they have finally been appointed). This is an additional cause of difficulties in the renewal of courses. The above criticisms may not apply to all universities. There are differences in quality among universities, as well as between faculties and departments within universities. In dealing with that issue, the OECD (1997) Examiners' Report suggested that "external groups, particularly employers, should be brought into institutional governance at least in an advisory capacity" (ibid., p.188).

Some reforms in curricula were also necessitated by the expansion of higher education. In certain cases, changes have been made in existing courses as a response to the change into the student profile of these institutions. The greatest problems have been

reported in departments where the enrolment standards have fallen dramatically due to the poor labour market conditions of their graduates (e.g. pure sciences) and the subsequent fall in the preferences of prospective students. For example, the Mathematics Department of the University of Athens decided to decrease the number of courses required for graduation and the extent of its curriculum, to accommodate students with weaker academic background and lower motivation. (UC *et al.*, 2000).

The expansion of higher education has brought limited changes in the map of courses, too. New undergraduate courses were created, most of which are more specialised than traditional programmes of study or point out to new specialities, while new postgraduate courses are more often seen as an opportunity for the departments to integrate their scientific profile (UTH and NLI 2002). However, many academics have reservations in terms of the extent of specialisation of certain new undergraduate courses, whose title looks more like the name of a module rather than a broad and distinctive scientific area. Specialisation is desirable and necessary but over narrow forms of specialisation, instead, generate risks for both the individual and the economy. Due to the rapid development of technology and the consequent rapid disqualification of certain current specialities, specialisation can generate structural problems in the labour market (*ibid.*). Furthermore, the question about the optimum degree of specialisation is not determined definitely, but needs redefinition over time, and it should take into consideration changes in the working environment.

Another problem refers to postgraduate education. There is a legislative requirement that postgraduate studies must build on the subject studied at undergraduate level (Psacharopoulos and Kazamias, 1985). This viewpoint about the desired relationship between undergraduate and postgraduate studies, which has resulted partly for the interest of graduates of certain faculties, is against any progress towards interdisciplinarity. It has been proposed that graduates of a wide range of disciplines

could be admitted into a postgraduate programme, provided that they are able to support their choice and are willing to attend certain courses at undergraduate level to supplement any existing gaps of knowledge (ibid.). The new legislation framework introduced in 2001, has not eliminated that problem.

There is also a problem that emerges from the fact that the Greek language is not widespread in the world. Due to the limited bibliography written in Greek, students and graduates speaking only their native language cannot keep pace with the developments that occur in their fields, because they have not access to international literature (CDGU, 1992) to ensure a level of expertise similar to their peers in other countries (Tsaousis, 1990). It had been proposed by policy makers that some courses in higher education could be taught in English, so those students develop foreign language skills (ibid.). However, such proposals face great resistance every time that they are discussed, because many influential members of Greek society believe that such a practice undermines a language with a long cultural tradition.

Having given the Greek context of selection for employment, next chapter presents the research methodology and describes the way that the study was conducted.

CHAPTER FOUR

RESEARCH METHODOLOGY

4 Introduction

This chapter presents the methodological procedures used to generate answers to the research questions. First, an overview of the research literature is presented and, then, the research aims and objectives of the study. Next, the theoretical orientation of the researcher and the particular choices of research strategies are presented and justified. The next section describes the processes of data collection and analysis. The final part of the chapter deals with the issue of quality of the study.

4.1 Overview of the Research Literature

Research on graduate employment at the international level indicated that 'graduate' status has to a large extent lost its advantage in the labour market and that graduates are expected to enter organisations at all levels. Further, a common finding of research on employment is that in the new competitive environment it is the 'whole' person that is assessed in graduate selection.

The studies showed that employers assess candidates on the basis of a range of academic and non-academic criteria. Certain research investigated the typical criteria looked for in employment, like degree class, A-levels, and institutional reputation (Roizen and Jepson, 1985). Others (AGR, 1995; Harvey *et al.*, 1997) attempted to

identify the personal/ interpersonal skills required in employment. Several research studies (Harvey *et al.*, 1992; AGR, 1995) tried to rank skills in terms of their importance to employers. Dore and Oxenham (1984) attempted to connect certain employer preferences with adherence to particular labour market theories. Brown and Scase (1994) and Harvey *et al.* (1997) tried to create profiles of graduate employees that employers tended to select.

Studies that have taken place in Greece refer mainly to the unemployment rates and employment conditions of graduates of various levels of education (Kanellopoulos *et al.*, 2003), and to the employment prospects of graduates of particular institutions (Glambedakis, 1992; Klimopoulos, 1996), or of the various specialities (UTH, 2002). Other studies are based on employers' predictions of demand for particular specialities (Katsanevas, 1998; SEV, 2000a). The Magoula *et al.*, (2003) study imposed a hierarchy upon academic and non-academic skills required by employers.

There is, then, a gap in understanding particular employer preferences in the selection for employment and the way that paper qualifications may be used as proxies for substantive qualities (particular types of knowledge, intelligence, and personal/ interpersonal skills). The present study was developed as a qualitative analysis of employer preferences with the purpose of identifying the skills looked for in highly qualified personnel, as well as to establish associations between paper qualifications and substantive qualities required in employment.

4.2 Research questions

The study addressed the questions:

1. When recruiting graduates, what types of knowledge, skills, and personal qualities are employers looking for?
2. What do degrees signify to employers, in terms of the types of knowledge, skills and qualities required in employment?

4.3 Research design

After formulating the research questions, the next step for the researcher is to explore ways in which the study could be carried out, that is, to design a methodology for the study. Different research approaches offer different ways of realising knowledge about social phenomena. The paradigms that guide disciplined inquiry are based on different ontological and epistemological assumptions, and adopt different methodological approaches (Guba, 1990).

The researcher accepts the view that there is a social reality that exists independently of the knowledge that individuals have about it. She endorses Hammersley's (1992) viewpoint that reality cannot be fully captured, and that research resorts to representations of that reality. Individuals approach that reality with stocks of knowledge and experience that reflect their own position in the political, economic, and social context (Denzin, 1983). Knowledge and experience inevitably influence the lenses through which individuals see and interpret that reality (Bryman, 2001). Thus, the researcher's stance is close to a constructivist ontological approach, that is, social entities and their meanings are produced through social interaction and are in constant state of revision (ibid.).

The epistemological dimension deals with the issue of what constitutes knowledge. It involves questions about what counts as evidence of things in the social

world and how it can be demonstrated. The focus of the study is the meanings attached by employers to degrees and to aspects of the educational experience of candidates for employment. The study and imputation of meaning, as experienced by the interacting individuals, is among the central concerns of the interpretive paradigm (Denzin, 1983). In the interpretive paradigm, social research attempts to understand the way social actors construct their lives and the meanings they attach to them, as well as to comprehend the context of social action (Sarantakos, 1998).

There is no single objective perspective from which the merits of different research approaches can be judged; however, different research designs are sensitive to different aspects of the social world (Morgan, 1983). A descriptive, interpretive design from the naturalistic paradigm seemed to fit more to the purpose and the ontological and epistemological assumptions of the study. The paradigm chosen for a research study has implications for the operation of the research; indeed, naturalistic inquiry has a series of characteristics which are logically dependent upon the axioms of the paradigm (Lincoln and Guba, 1985). These axioms constitute a "synergistic set" for implementing a naturalistic inquiry; methods used must be consistent with them (ibid., p. 251).

The design specifications of the conventional paradigm do not fit with naturalistic inquiry because the design of a naturalistic inquiry cannot be given in advance; it must emerge (Lincoln and Guba, 1985). "Design in the naturalistic sense ... means planning for certain broad contingencies without ... indicating exactly what will be done in relation to each" (ibid., p. 26). Certain elements of the design can be pre-specified, however. Determining the focus of the inquiry serves in defining the terrain and establishing the boundaries for the study, and determining the criteria by which information is judged as relevant or not (Lincoln and Guba, 1985). The flexible nature of naturalistic inquiry, however, implies that these criteria are tentative and can be altered during the research process.

The statement of the problem serves as a major criterion for the quality and utility of the research design (Lincoln and Guba, 1985). The aim of the present study is to explore the role of degrees in signifying the types of knowledge, skills and attributes that are in demand in the labour market. Thus, the study first describes the assets required in the private sector of economy (paper qualifications and substantive qualities) and, then, by understanding the rationale underlying employers' preferences in selection, attempts to map the associations between paper qualifications and substantive qualities.

Such research can have implications for all the higher education stakeholders. Employers are given the opportunity to express their viewpoints as regards the skill requirements of the new working environment. Higher education could introduce changes that move it closer to the needs of industry and business. Prospective students of higher education could be informed about employers' expectations in order to make optimal study and career choices.

Bearing in mind the above considerations, the study pursued particular objectives. It aimed to:

1. Identify the types of knowledge, skills and attributes that employers are looking for when selecting highly qualified personnel;
2. Understand what individual academic records signify to employers;
3. Describe the aspects of the educational experience, as recorded through degrees, that differentiate the value of degrees in the labour market;
4. Establish associations between paper qualifications and substantive qualities;
5. Identify areas of knowledge or skills requiring further attention by higher education.

4.3.1 Research settings

The naturalistic ontology suggests that realities cannot be understood in isolation from their contexts; therefore, naturalistic enquiry elects to carry out research in the natural setting. Consequently, the study's early attention was on identifying the research sites, negotiating access and participation, and building and maintaining trust (Lincoln and Guba, 1985).

The study involved research based on a specific population, the graduate employers in Greece, where 'employers' mean the managers within organisations involved in recruitment and selection. The term 'graduate employer' is used to mean employers that employ graduates on a permanent basis. In Greece, there is neither any kind of association of graduate recruiters, nor any list of enterprises that employ graduates. The population of the study was identified by using guides to enterprises published by public and private agents for promoting entrepreneurship or for advertisement reasons. These guides also provided information about enterprises and their economic activities.

As explained in the introductory chapter, two towns were selected; Volos and Athens. Volos was selected because it is the hometown of the researcher, and big centre of economic activity in Greece. Athens was selected because it is the capital town and the centre of economic activity in Greece. The identification of the research population in Volos was made using a business guide, published by the Development Organisation of the Municipality of Magnesia (ANEM, 2001). This guide also outlined the economic profile of the prefecture and provided data for the enterprises operating in this prefecture. The identification of the research population in Attica was made using

enterprise guides published by the Organisation of Telecommunications of Greece, as well as using recruitment guides found in university libraries in Greece.

4.3.2 Access to organisations

The work experience of the researcher lies outside the groups of social actors under study. The researcher is an educator. However, it is reasonable for an educator to explore the perspectives of people in business and industry, since education searches for ways of connecting itself to the 'real world'.

Nevertheless, not being a member of the social group under study involves problems of access to that group. The researcher did not understand the extent of closure of organisations in Greece. The literature suggests that the researcher can apply for access demonstrating a summary of the research objectives and a certificate from an authority, be he a supervisor or a well-known member of the group under study, explaining his/her status. The researcher was prepared for that, but the situation was somewhat different, as it is explained below.

In the beginning of her fieldwork, the researcher faced the dilemma whether to make the first contact with employers by telephone, or to attempt a face-to-face meeting. Finally, the approach chosen was to make first an attempt to meet face-to-face with the person responsible for personnel selection. If it failed, the next attempts were made by telephone. Certain enterprises proved to be open to meet any person in them, while others had a series of gatekeepers. The closeness or openness of an enterprise seems not to have any relationship to the type of its activities. For instance, even the central offices of certain banks proved to be more open than a manufacture of chocolate. The closeness or openness of an enterprise, also, seems not to have any relationship with the willingness of managers to participate in the research.

In each organisation, the researcher asked to talk to the personnel or human resources manager. In many cases, the researcher had to explain her project to many persons until someone was persuaded to allow her proceed to the human resource manager. This procedure was made either by phone or face-to-face.

More than 100 enterprises were contacted and asked to participate in the research. At least two thirds of them denied participation. There were different forms of denying access. Many managers asserted that their selection criteria were confidential and they could not reveal them. A number of managers claimed that they had to gain permission for participating in the research from the council of shareholders of the organisation, something that never happened. In certain companies, the general directors were always in meetings. In one company an appointment was fixed, but not kept by the manager. In another case, when the researcher said that she would try again, one person of the staff called the general director, who authorised another person to speak instead. However, the interview was not held since the proposed person admitted that she had not any involvement in recruitment.

Many companies have not been included in the sample - although there was some discussion with their manager - because during the introductory discussion it was proved that they did not employ graduates on a permanent basis. These companies outsourced their economic and other services, or they were undertaking contract work for other companies. Some others were not included in the sample since their managers stated that there had been many years since recruiting any graduates.

4.4 Sampling

The sampling technique used in the study was what Glaser and Strauss (1967) have termed theoretical sampling. In theoretical sampling data collection is directed by the gaps in the emerging theory rather than by the principles of statistical sampling (Glaser and Strauss, 1967). The choice of groups surveyed was based on judgements about which groups would help generate 'rich' data that could answer the research questions (ibid.). In considering the characteristics of the organisations that could be related to the research problem, the study turned to previous studies and the classifications used in them.

Quantitative approaches classify organisations in terms of sales turnover, the size of premises, and the value of exports or profits, while qualitative approaches classify organisations in terms of their market share, nature of their activity, impact, managerial and control structures (Harvey *et al.*, 1997). Data on the market share, impact, and turnover are beyond the scope of this research. Moreover, they are rarely revealed by organisations. As regards classification by size, there is no international consensus on the borderlines between small, medium sized and large organisations (Harvey *et al.*, 1997). There are different limits among businesses of different countries and also different limits among businesses of different sectors. Certain surveys on graduate recruitment classify organisations as 'large' or 'small' by the scale of recruitment in the year of the survey.

The classification used in this report is the size and the type of activity of the enterprises as well as the geographical position of the company. In terms of size, companies were small, medium and large companies, local, national and international ones. In the present study, an organisation with up to 100 employees is characterised as SME, and large if it employs more than 100 employees. Recruitment policy in

multinational companies is influenced to a great extent from the central offices, usually abroad. Thus, it is recorded whether a company is multinational, national or local.

In terms of activity, the sample comprises companies from many different sectors, both manufacturing and service companies. In some cases, the allocation of an organisation to the manufacturing or the service sector is not clear, because large organisations undertake a variety of manufacturing and service activities. In these cases, the organisation was classified according to its main activity, as described by the manager-respondent.

In terms of geographical position, the sample comprises companies in the capital town of Greece and a provincial town. The provincial town, Volos, is an industrial town in Central Greece, with a population of 200,000 people. Athens, with a population of 4,000,000 people, is the capital town and the centre of economic activity of Greece.

The study tried to include the diversity of enterprises in Greece. However, certain factors inhibited this. First, the public sector had to be excluded. This is because, in the public sector appointments are 'approved' by ministers, councils and top governmental officials, and are based on a mix of academic criteria, social criteria and, indeed, political considerations. Moreover, these criteria change very often.

The sample is biased towards large companies, since small companies typically did not have fixed criteria for recruitment. Recession, also, for many small companies, meant no recruitment for the last decade or so. A representative combination of size and activity was also difficult to establish. For example, small food manufactures are not included in the sample, since at least twenty such companies contacted stated that they did not employ graduates. Small service companies also contacted for interview (banks, and construction services) stated that they had employed largely the same personnel for as long as they had been established as a company and they all were from the very

beginning known to each other, while many others said that they had not recruited new staff for as long as 10 years.

The willingness of managers to participate in the study determined to some extent which companies participated in the study. However, it did not determine the composition of the sample of organisations in terms of size and activity, because care had been taken so that a variety of companies in terms of size and type of activities were included in those approached.

Indeed, it could be claimed that the sampling procedure of this study was a version of a non-random stratified sampling. This version - usually referred as 'dimensional sampling' - guarantees that at least one case from each dimension of the population is included in the sample (Sarantakos, 1998). This procedure was used in the present study to ensure differentiation of companies in terms of type of activity.

Sampling normally ceases when data saturation is achieved, that is, when no new categories, properties or dimensions of the categories emerge (Strauss and Corbin, 1998). However, in this case, there were time considerations too. Especially, there were restrictions set by the sponsoring organisation in terms of the time that the sponsored student was allowed to collect data away from the university campus.

Finally, the sample of the study consisted of 37 graduate employers in the greater areas of Volos and Athens (35 organisations and 2 human resource companies), and 8 career services offices. Comparison with similar studies suggests that this is a quite large sample for a qualitative research enquiry.

Data were collected in two phases. The preliminary fieldwork took place in June 2002 in Volos. It familiarised the researcher with the problem area, and identified the

basic concepts of the phenomenon under study. The main fieldwork, then, took place from November to December 2002 in Athens.

4.5 Data collection techniques

The primary data-collection instrument in naturalistic inquiry is the researcher himself, since this is the most flexible and adaptable instrument to the variety of realities that the researcher may encounter in the fieldwork (Lincoln and Guba, 1985). The human instrument builds upon both his/her tacit and propositional knowledge using methods commensurate with the nature of the inquiry, such as interviews, observations and documentary analysis. Naturalistic inquiry legitimates tacit knowledge because much of the interaction between investigator and respondent occurs at this level, and propositional knowledge is built on the tacit knowledge (ibid.).

The study was concerned to identify the factors that determine the value of a degree in the labour market. Consequently, one of the first steps during the research process was to investigate what has already been done in relation to the object of study, in Greece and other countries. Study of the available literature was a practical necessity at the initial stage.

However, not much research on selection for employment has been conducted in Greece. Thus, the study was mainly grounded in research conducted in England. As the review of recent research into graduate employment identifies, research on employment patterns in Greece is a recently emergent phenomenon. Indeed, the few pieces of research reported in this study were conducted concurrently with the present study, so, it was not possible for the present study to be informed by the findings of these studies before the fieldwork, but only to compare findings with them afterwards.

The study also used as background information documentary materials from the Department of Employment and the Government Newspaper, which refer to laws and regulations concerning the legal status of institutions and the professional rights of the various categories of graduates. Newspaper articles related to graduate employment in Greece and policy debates about the occupational rights of TEIs and college graduates served as a useful secondary source of information. Company profile publications were also a complementary source of information about the companies themselves and about the general economic context of Greece during the period of the research. There have been also discussions with employers which were not included in the sample, because they did not satisfy the criteria for inclusion (i.e. they did not employ graduates, they had not recruited any graduate for many years, and so on). Data derived from documentary materials, discussions and interviews that were not included in the sample have formed the background information for the interpretation of the evidence.

Inevitably, an issue faced early in the research process was to determine the methods that could provide the data needed to produce answers to the research questions. The phenomenon under study was personnel selection. It could be studied by observing selection processes. However, most of the recruitment literature had been characterised by a reliance on managerial accounts of selection, because gaining permission for observing recruitment and selection processes is difficult (Collinson, 1988). Moreover, recruitment may not happen for a year or more, may happen unexpectedly, or may not follow the official procedure, especially in SMEs (*ibid.*). This could be a weakness of the methodology of the study, because a discrepancy may exist between accounts given by managers and actual selection practices. However, the objectives of the study were to understand influences on trends in selection criteria for graduates that employers could identify, and not to check the adherence of managers to

their expressed selection policies. Consequently, this limitation has been accepted by the researcher.

Interviews can yield rich insights into people's opinions and attitudes. Especially, interviews of the unstructured type are most often used in naturalistic inquiry, because the flexible nature allows the interviewer to follow up points of interest as they arise (Lincoln and Guba, 1985). Zelditch (1962, quoted in Seale, 1999) suggested the use of interviews when the target is to describe norms of conduct. Trow (1957, quoted in Seale, 1999) also preferred the use of interviews because the privacy of the interview situation was seen as allowing people to reveal things that they might not express in their usual social environment because of the fear of disapproval by significant others.

The underlying philosophy of naturalistic inquiry, with its emerging design, argues for interviews instead of questionnaires. Furthermore, it is in the nature of this research problem that points to an interview schedule instead of a questionnaire. There were also practical difficulties in designing a questionnaire due to the diversity of jobs within an organisation (Roizen and Jepson, 1985), the differences in qualities looked for in the various job roles and the differences in the attention paid to educational qualifications for different types of jobs. The researcher concluded that the issues that the present study tried to investigate could not be adequately described by simple, pre-made responses. Moreover, the history of quantitative surveys of employing organisations reveals low participation rates, perhaps because managers do not want to be tied to stereotypical response categories within a questionnaire and prefer to give interviews, which give them the feeling of general control over the content of their responses (Roizen and Jepson, 1985).

In light of the above considerations, in-depth, semi-structured interviews were arranged with managers of the human resource or the personnel departments in participating organisations and also with the general directors or careers officers in higher education institutions. The semi-structured type of interview combines the advantages of both the structured and the unstructured interview. It provides a structure for comparability between the interviews but also permits the interviewer to probe beyond the answers and enter into a dialogue with the interviewee (May, 1997). This form, unlike the structured interview is more applicable where the interviewer does not belong to the target group and does not share a common culture with them (ibid.).

The interview guide for employers was developed by the researcher in light of the review of the literature and was initially based on the interview guide used in the 'Expectations of Higher Education Project' (Roizen and Jepson, 1985). It has been largely transformed, however, during the preliminary fieldwork in Volos. The interview guide for staff in university careers offices followed an analogous repertoire of questions to compare, wherever possible, the viewpoints of employers with those people that are at the interface between employers, university staff and students. Appendices III and IV present the key themes around which the interview guides for employers and careers officers were structured.

Preparation for the interviews included some "homework in relation to the respondent" (Lincoln and Guba, 1985, p. 270). A necessary step of the fieldwork was collecting information about the organisations. It was necessary step for deciding on the composition of the sample, but it also facilitated the process of interviewing since it helped indicate whether certain types of questions applied or not in a particular case. An interviewer aware of the history, the activities or the products of the company made respondents feel at ease during the interview. The fact that the researcher possessed information about the company was appreciated by the respondents became evident

when respondents mentioned that they appreciated candidates for employment who, during the selection interview, were found to be informed about the history, activities and the economic prosperity of the company.

The interviews lasted from half an hour to one and a half hours. Length depended on the disposition of the respondent. In two cases, (A5) and (A15), the personnel manager and the person responsible for education and training within the company - gave a joint interview. During the interviews, the researcher tried to verify the meaning of expressions used by the interviewees by asking 'control questions' (Lincoln and Guba, 1985; Kvale, 1996). However, some interviewees reacted with anxiety to this repetition, probably because it was perceived as lack of understanding on the part of the interviewer, or because of the loss of time that this repetition involved. At the end of each interview, the most important or unexpected points were reformulated and were fed back to the interviewees for verification or modification.

Respondents were asked whether they would consent to be recorded. Only a small proportion of employers (8 out of 37 employers) and 5 out of 8 careers officers accepted tape-recording. The researcher trusted her memory and her notes very much, and this was the reason that she did not try to overcome any hesitations of the respondents for recording the interviews. Moreover, she was trying to reconstruct the interviews from the notes just after leaving the company. However, where notes are taken, there is always a risk of substituting the interviewer's words for those of the respondents (May, 1997).

Lincoln and Guba (1985) recommended hand-written note-taking during the interviews because it gives the interviewer some advantages compared with tape-recording, like being in a position to compose the summary at the end of the interview for verification by the respondent relying on notes rather than memory, and being able

to sweep the notes for important items for further discussion. Having the experience of both types of note-taking, the writer of the present study found the benefit of using tape-recording paramount and she regrets not trying a little harder to persuade hesitant interviewees to consent in recording. Tape recording allowed the researcher to concentrate on the conversation and identify emerging issues. Additionally, it provided the opportunity to look out for non-verbal cues; for example, the anxiety level of the interviewees to 'control' questions became more evident during the transcription of the interviews rather than during interviewing.

At the beginning of the interview, the researcher explained her role in this project as well as the aims and objectives of the project. Then, she asked respondents what their job role entailed in order to establish rapport, first, and to check whether they had access to the information required by the study. In many cases, the discussion with the respondents developed to a mutual trust, judging from the fact that they revealed their personal stories of education and induction in their occupational field, asking the same from the researcher.

In certain interviews, there have been examples of what is mentioned in management research as 'the critical incident technique' (Gummesson, 2000). Among the respondents, there have been cases (V16, A19) that described specific cases to support their arguments. Such an 'incident', as described by A19, is quoted in section 5.13.

4.6 The research paradigm

Most studies on the relationship between higher education and employment are quantitative; therefore, they record only those factors that can be readily counted like

first destinations of graduates, length of the waiting period for employment, or the level of unemployment six months after graduation by sector of employment or by subject of study (Roizen and Jepson, 1985). Other quantitative studies end up in a list of skills that employers think as significant in the new working environment. Although these studies give some understanding of the work requirements, they have the limitation of imprecise clarification of terms (Harvey *et al.*, 1997).

Quantitative research depends upon some prior agreement about the appropriateness of concepts, while qualitative research is more often formed around with the development or revision of concepts (Roizen and Jepson, 1985). Quantitative research requires that the topic has been investigated to a great extent and that what has to be done is a measurement of the already-known trends. Qualitative research, by contrast, offers the prospect of flexibility; that is why it is used in exploratory studies. The researcher can start collecting data without any specific theory in mind and with only sensitising concepts as a guide (Blaikie, 2000). The design and research tools can be revised even after the data collection has started. Moreover, qualitative research does not delimit the area of inquiry too much and, thus, it allows aspects of the social world (as viewed by the people being studied) to be revealed (Bryman, 2001).

Beyond all these considerations, the choice of the naturalistic paradigm requires one to follow its axioms because certain methods of data selection are more congenial with the naturalistic paradigm than others (Lincoln and Guba, 1985). Qualitative methods are usually used within naturalistic inquiry because they give the opportunity to the investigator to gather information and insights about the context, so as to extend the transferability of the research.

A criticism against qualitative research is that it is giving the reader little guidance as to the prevalence of a phenomenon (Bryman, 2001). There is a risk that a

particular statement of a respondent may be just an outlier in terms of its frequency. In response to such problems, certain qualitative researchers suggest a limited amount of quantification of the data, to enhance the degree of confidence that the data support the points made (Riley, 1990; Bryman, 2001). In this case, attention has to be paid to what counts as an instance of a category, that is, whether a similar point counts as another instance, or whether what is of interest is the number of informants mentioning it, or the number of times a category came up in conversation with each informant (Riley, 1990). Seale (1999), while admitting that a combination of qualitative anecdotes and counts of the frequency of phenomena can give a more complete picture of the phenomenon, warned that such quantification involves considerations of the impact of individual variability and context on meaning. Superficial counting can mislead readers (*ibid.*).

In the present study, there are occasions where actual counts or proportions of informants with a particular attitude are presented (i.e. the respondents that viewed a positive attitude to mobility as an important quality of candidates for employment). In attempting such quantification, however, the following problems were encountered. First, due to the semi-structured type of interview used, not all employers commented on each issue. Some questions were not addressed or, even, did not apply to all of them. Second, responses are not easily classified because some informants volunteered a particular characteristic or requirement themselves, others after having being pressed, and several gave different justifications for the importance of this requirement. Furthermore, certain skill requirements appeared to be more important under particular conditions –related to the types of activities of the company or the importance of the post- as well as depending on the budget available, the pool of candidates, and so on. All these require a sophisticated quantification, to avoid oversimplification of the situation. Due to limitations of time, the idea of quantification was abandoned, although some preliminary work had been done.

4.7 Data analysis

The grounded theory methodology relies on conceptualising, that is, labelling phenomena, events, happenings and objects. "Concepts are crucial to inquiry and the meanings they stand for are the *stuff* of science. Through concepts, reality is given sense, order and coherence" (Hughes, 1976, p.32). They are vital constituents of both quantitative and qualitative research, although in qualitative research concepts are used in a sensitising mode to provide initial direction for the study (Blumer, 1984). This means that the 'definition' of a concept that is given in the beginning of the research is not definite, but it is described in such a way in order to give an initial and general sense of what one should look for (Bryman, 2001).

Concepts are identified in the relevant literature, the research questions and the data themselves (Coffey and Atkinson, 1996). The concepts derived from the literature were useful guidelines in the initial stage of data analysis. Several terms found in the relevant literature are strong concepts with established analytic meanings (Strauss and Corbin, 1998). When they emerge from the data too, the use of these concepts can extend the development of concepts already established in the discipline, provided that their meaning in the research has become precise (ibid.). In the present research, concepts used in the management literature were often mentioned by managers during the interviews. It was expected, however, that practicing managers would think in terms of the basic concepts of their field. Such concepts included 'high potential people', 'capability', 'suitability', and other outlined in the study.

Concepts can also be 'in vivo codes', labels that have been given by respondents to an object which can stand as a first order concept or a category (Strauss and Corbin, 1998). '*Passpartout*' was such a concept in the present study. The term referred to

degrees whose curricula contain useful practical knowledge from many disciplines and which is applicable to a range of jobs.

The method used for the analysis of data was the constant comparative method. Lincoln and Guba (1985) have proposed the 'constant comparative method' (as described by Glaser and Strauss (1967)), as the most appropriate method of data processing in the naturalistic paradigm, although they do not see the grounded theory methodology as a method of developing theory, but rather as a method of data processing. This is an inductive data analysis process during which concepts and theory are expected to emerge from the inquiry, rather than being imposed on it; no *a priori* theory could encompass the multiple realities found in the data (Lincoln and Guba, 1985).

This method comprises three steps; open coding, axial coding, and selective coding. The first step involves labelling and categorising phenomena; the second involves relating categories and exploring conditions, contexts, action/ interactional strategies and consequences; and the third involves identifying the core category and connecting it to all other categories (Strauss and Corbin, 1998).

The theoretical model that was produced by using the grounded theory methodology is cited in the Discussion Chapter. The model presents the factors underlying organisational strategies for selection of graduates for employment.

4.8 The report of findings

One of the main characteristics of qualitative research is that it produces "thick descriptions" of the social phenomena that it investigates that can, in turn, make possible "thick interpretations" (Vidich and Lyman, 2000, p.59-60). This is achieved

through the careful use of extracts from interviews to support the arguments developed (ibid.). In reporting the findings, for the purpose of simplicity, the personal pronoun 'he' is used throughout the text though, of course, it can represent either gender.

To keep the anonymity of the respondents, the organisations and the institutions, their names have been omitted from the report. Quotes in the text have been referenced using a coding system, which consists of a letter indicating the site of the research (V stands for Volos and A stands for Athens; HR indicates a Human Resource organisation and C a careers office), and a number corresponding to the organisation or the institution within a site. Outline details of the organisations that participated in the study, using the same referencing system, are given in Appendix I for the employing organisations and in Appendix II for the careers offices of higher education institutions. In Appendix I, the details of the organisations refer to their type of activity, and whether it is a one-site company, a branch or the central office of a national or a multinational company. In Appendix II, the details of the institutions refer to the type of institution.

4.9 Establishing trustworthiness

Research aims to respond to questions about the truth value of the findings, their applicability in other contexts, their consistency (replicability) and their neutrality (avoidance of the various types of biases). Within the conventional paradigm, the criteria that are used to respond to those questions are termed respectively 'internal validity', 'external validity', 'reliability' and 'objectivity'. However, these criteria may not be altogether appropriate for the naturalistic paradigm, since "criteria inevitably favour research strategies consistent with the assumptions that generate such criteria as meaningful guidelines for the evaluation of research" (Morgan, 1983, p. 15).

In the naturalistic paradigm, the methodological process criteria that attempt to establish the trustworthiness of the research, and parallel the standard criteria of internal and external validity, reliability and objectivity are, respectively, the criteria of credibility, transferability, dependability, and confirmability (Lincoln and Guba, 1985). These criteria are framed in a more appropriate way for a naturalistic inquiry, so that they are consistent with the ontological and epistemological assumptions of the paradigm. These criteria are examined, in turn, and the techniques that have been used to increase criteria of trustworthiness of the research are presented.

4.9.1 Credibility

The criterion of internal validity does not apply, since it is based on the assumption of realism. "When ... realism is replaced by the assumption of multiple constructed realities, there is no ultimate benchmark to which one can turn for justification" (Lincoln and Guba, 1985, p. 295). The criterion suggested instead, is that of credibility. Lincoln and Guba (1985) suggested several techniques for enhancing credibility, including prolonged engagement, persistent observation, triangulation, and negative case analysis. In the present study, prolonged engagement was not possible since the target group were managing directors. They are busy professionals and a one-hour interview was already a big sacrifice on their part. As a counterbalance for the lack of prolonged engagement with each case, the study enhanced the number of cases. Indeed, the sample is a small survey of cases. The same technique (a survey of cases) was used by Roizen and Jepson (1985). Prolonged engagement is seen as prerequisite to trust and rapport (Lincoln and Guba, 1985). In the present study, there was not any particularly sensitive information sought after, so the lack of prolonged engagement with each case separately might not be very important.

A technique proposed by Denzin (1978) for increasing the credibility of a study is that known as triangulation. Triangulation is used to name the combination of different sources of data, methods, settings, investigators, and theoretical perspectives dealing with the same phenomenon. The first one is the most common, while the last one is not commensurate with the naturalistic paradigm (Lincoln and Guba, 1985). Triangulation can provide validation of one account, or present different aspects of an issue (Cain and Finch, 1981).

The present study used data derived from interviews with employers and university careers officers. It also used data from laws and regulations concerning higher education and employment, contributions from relevant congresses and conferences, books, magazines, newspapers, and so on. The use of the different types of sources - documents and interviews - implies also the use of different methods: documentary analysis and interview content analysis (triangulation of methods) were used in the present study.

Member validation is another technique for increasing credibility of a study, but, at the same time, it can also be seen as commitment to democratic research practice (Seale, 1999). The most common type of member validation is asking members to comment on the adequacy of the researcher's account. The account can be the final research report (strong version) or an interim document, such as an interview transcript (weak version). The study followed a limited version of member validation: showing to those that asked for it (8 respondents – 5 from those whose interviews were tape-recorded and 3 from those who did not accept tape-recording) the interview transcripts together with certain observations from the researcher, inviting comment on whether it accurately represented their viewpoints. Any personal information revealed during the interview, perhaps influenced by the friendly tone of the discussion, as well as information that was outside the theme of the interview has already been omitted from

the transcripts presented to them. This information that was not presented to them has not been used in the study, too. The informants commented positively on the transcripts. However, it did not become a way of “testing researchers’ claims by gathering new evidence”, as is implied in the research literature (Seale, 1999, p. 71). That may be because it was not a thorough experience in member checking. A friendly context or a lack of concern with accuracy have been identified in the research literature as problems of the method of member validation, which can result in an apparent agreement of interviewees with the accounts that are given back to comment on (Seale, 1999). Thus, an uncritical application of the technique may generate authority for the researcher’s account, but does not deepen understanding (ibid.). However, in cases where there is substantial distance between their viewpoints and the researcher’s account, informants would probably object.

Another technique that is regarded as enhancing the credibility of a naturalistic study is negative case analysis. The target here is looking for disconfirming data and refining a hypothesis “until it accounts for all known cases without exception”, although Lincoln and Guba (1985) argued that the target of zero exceptions is too rigid and a hypothesis could be accepted with a number of exceptions (p. 312). In the present study, negative cases can be seen the notions of ‘underqualified’ and the ‘overqualified’ recruits. The analysis of the negative cases was made by using a technique named ‘analytic induction’. Analytic induction has been criticised as describing the necessary conditions for a phenomenon to occur, but failing to specify the sufficient ones (Robinson, 1951, quoted in Seale, 1999). Nevertheless, its use, along with the grounded theory methodology and the search for negative cases and modification of one’s theories in the light of new evidence is seen as a worthwhile measure to ensure ‘trustworthiness’.

Seale (1999) classified negative or deviant cases as cases that can provide additional support for the researcher’s conclusions, by showing participants

acknowledging that the case is exceptional, cases that remain exceptions by explaining the reasons that the case is exceptional, and cases that require modification of the conclusions of the study. The deviant case 'underqualified', found in the present study, arises under particular contextual conditions, which are described in the discussion chapter. The case 'overqualified', however, caused a modification of the initial model emerging from the application of grounded theory methodology, since it is less deviant (more common) than the case 'underqualified', it happens under a series of conditions, and the characterisation of a candidate as 'overqualified' is much more problematic than his characterisation as 'underqualified'.

4.9.2 Transferability

In a naturalistic inquiry the criterion of external validity has been replaced by the criterion of transferability; generalisation from one context to another depends on the degree of similarity between sending and receiving contexts (Lincoln and Guba, 1985). This entails that sufficient descriptive data are provided to make judgements about similarities and possibilities for transfer (*ibid.*). Qualitative data are more appropriate to provide 'thick' descriptions. Purposeful sampling also offers a way of 'designing' the variation of the conditions under which the phenomenon is studied (Kleining, 1982, quoted in Flick, 1998) and is able to provide the widest range of variability for inclusion in the thick description.

4.9.3 Dependability

Lincoln and Guba (1985) suggested that in naturalistic inquiry, the criterion of reliability should be substituted by the criterion of dependability. They also suggested that since there is no validity without reliability, and consequently no credibility without

dependability, the demonstration of credibility is sufficient to establish dependability. However, for addressing dependability directly, one technique suggested was triangulation which, again, is associated with establishing credibility rather than dependability.

4.9.4 Confirmability

Finally, the criterion of objectivity is substituted by the criterion of confirmability (Lincoln and Guba, 1985). Confirmability is pursued by triangulation, as well as by keeping a reflexible journal (Lincoln and Guba, 1985; Seale, 1999). Indeed, the latter technique provides a base for a number of judgements about all four areas – credibility, transferability, dependability, and confirmability. This technique can also indicate the extent to which the researcher's biases influenced the outcomes (Lincoln and Guba, 1985). Seale (1999), although he does not deny the usefulness of keeping a research diary, argued that field notes are "authored" and "their form is often influenced by the writers' knowledge of how they might look when included in a final text" (Seale, 1999, p.150).

The writer of the present study kept a diary on the processes and progress of the research; from the interview schedules to the development process of the report. Sometimes, the notes were extremely brief, like an idea to examine the relation of two concepts. Other times the diary entry was much longer. The truth is that long entries were written in the hope that they will fit in the report. However, there are gaps in the diary. During the period in which a diary would be more productive – the fieldwork - there was often no time for writing in the diary, since the time was spent on transcribing or reviewing the last interviews and preparing the next ones. At the writing up period, the emergence of a new idea or 'turn' in the thinking about the research was a

motivation for 'keeping on developing' the draft of the thesis, thus, the diary was often out of mind. Extracts of the research diary are, nevertheless, presented in Appendix V.

4.9.5 Additional criteria

The above criteria, although useful to qualitative researchers who want to establish trustworthiness for their work, as Lincoln (1990) acknowledged, are not consistent with the belief in relativism. Thus, they added an additional criterion: authenticity (ibid.). Authenticity refers to considerations about political conceptions of the role of research (Seale, 1999). Authenticity includes the representation of different realities – viewpoints of different groups (fairness), a deeper understanding of the phenomenon under study (ontological authenticity), a mutual understanding between members of a particular context (educative authenticity), a stimulation of action (catalytic authenticity) and an empowerment of members for action (tactical authenticity) (ibid.).

Authenticity can be judged mainly in terms of the purpose of the research, the findings, and the implications that the findings have for certain groups of the society. The main issue here seems to be the focus of the study. "Far better an approximate answer to the *right* question, which is often vague, than an *exact* answer to the wrong question..." (Tuckey, quoted in Lincoln and Guba, 1985, p. 338). Although Tuckey made this statement in justifying approximate results in quantitative data analysis, it may well be equally true in qualitative research. Maxwell (1998), also, warned about the risk of trivializing a study by restricting the questions to what can be directly answered. If the topic is trivial, even a well conducted research study cannot serve social purposes, neither contribute to social development. The writer of the present study believed in the

need for utility of such a study for all the higher education stakeholders, as explained in 'the justification of the study' section.

Flick (1998) suggested that the quality of data depends on how far the interpretation of data is grounded in the data and how far this grounding is transparent to readers. One way of making the results and the interpretations of the qualitative research transparent is by the interweaving of illustrative quotations from interviews (ibid.). This was the main tool of the present research study; the reader is enabled to judge the quality of argument by looking at the supporting quotes.

Hammersley (1992) was not especially concerned with political conceptions of the role of research and suggested plausibility and relevance as criteria of quality in qualitative research. Plausibility refers to the degree that the findings are commensurate with existing knowledge about a topic. Findings that vary from existing knowledge need stronger evidence in support of claims, core elements need stronger evidence than peripheral ones, and theories need stronger evidence than descriptions (ibid.). Relevance refers to values; he suggests research that is value-relevant but not value laden is the answer here. Nevertheless, Hammersley considered value- relevance as a less important criterion of quality, since it cannot be easily assessed (ibid.). In the present study, findings that vary from existing knowledge (i.e. absence of concern for numeracy) are better supported than findings commensurate with existing research literature. Furthermore, basic concepts (i.e. the types of successful recruits) are dealt in more detail than peripheral findings (i.e. the role of social networks).

4.10 Avoiding bias

May (1997) argues that the values of the researcher affect all aspects of research; from the choice of topic and the target groups, to the choice of research methods –where the researcher uses methods with which he or she is more familiar instead of choosing the methods that would serve his purpose more adequately. Social research is criticised for its concentration on less powerful groups, with the result that some groups are over-researched while little are known for ‘elite’ groups (ibid.). Indeed, most research has been done with students, teachers and nurses while academics, medical doctors, and policy makers are underrepresented in social research. The initial design of the present study was to have a sample of academics, to compare their views with those of employers and careers officers. Yet, academics were not interested in the topic which they considered as a matter of second importance for them.

However, even with this change of the initial design, it could be claimed that the participants of the present study belong to ‘elite’ groups. The sample includes academics; the managing directors of the careers offices are at the same time academics. It includes ex-academics; some of the human resource managers in organisations were academics. The sample also includes senior executives in organisations; there are cases where they are also members of governmental bodies in colleges of higher education. Finally, the sample includes enterprise owners. It is evident that this study did not target easily accessible groups. From this perspective, the values of the researcher have not been compromised to avoid difficulties of access.

Sponsorships also can be a source of bias (May, 1997). In many cases, sponsored research is biased towards findings that are acceptable by sponsors or by the ‘society at large’ (ibid.). This is why it is suggested that the identity of the researcher should be stated in the report, as well as the source of sponsorship. The writer of the present study is working in Greek public education and was sponsored by the State

Scholarships Foundation (I.K.Y.). This sponsoring organisation sets no restrictions in terms of the topic, provided that it is located in the particular field in which the sponsored student competed with others for a pre-specified number of sponsorships. There is no restriction as regards whether the research will be conducted in Greece or elsewhere in the world, neither any associated with the conduct of the research, except for the time allowed for a student to be away from the host university. This does affect the conduct of the study in cases where the study is conducted in Greece while the university is overseas, but the researcher sought to accommodate this constraint within the research plan.

4.11 Ethical issues

“Ethics are a central part of maintaining the integrity, honesty and legitimacy of the research practice” (May, 1997, p. 42). Codes of ethics in social research emphasise informed consent, privacy and confidentiality, and accuracy as basic guidelines for directing social research (Christians, 2000). The present study dealt with the above issues as follows:

All respondents were given adequate information about the objectives of the project, either in a written form or through a discussion before the interview, or before scheduling the interview. They were ensured of confidentiality and that their identities would not be traceable by anyone else except for the researcher.

Respondents were also asked whether they would consent to having the interview recorded. No pressure was exerted on them to accept recording, and, thus, only a small proportion of employers accepted it (8 out of 37). Among careers officers, the proportion of those who accepted recording was 5 out of 8. Respondents were ensured that their participation was valued and they were asked whether they wished a

summary of the findings to be sent to them by the end of the study. Some respondents were interested to receive a report on the outcomes of the research.

4.12 Delimitations of the study

Delimitations are the purposive limitations of a study. Narrowing down the scope of a study encompasses a series of delimitations as regards sample groups, related issues and intervening factors.

This study is delimited to organisations in the private sector of the economy. This was because there is an enormous body of legislation that regulates employment in the public sector, which, indeed, changes very often. Recruitment in the public sector is made through public examinations or selection by top-level governmental committees. Managers in the public sector have little responsibility or influence on recruitment and selection issues.

The present study is delimited to encompass only full-time paid employment. As such, it did not encompass data for self-employment (the main route for lawyers, doctors, dentists and other professionals in Greece), and external consulting (usual practice for economists and lawyers, too).

4.13 Limitations of the study

The scope of the study was limited to 37 organisations from the private sector of economy, located in Volos and Athens. Volos is a regional industrial and commercial centre and Athens is the centre of industrial and business activities in Greece.

The study is limited to the perceptions of employers and careers officers in universities and technological educational institutions. It does not encompass the viewpoint of academics, which is very important too, except for those careers officers who happened to be lecturers. Yet, their stance to the employment preparation of students may not be representative of the lecturer population. In spite of the limitations of the study, the results do add something to the existing knowledge and understanding of employers' behaviour, and offer the possibility to identify ways in which higher education could become more responsive to the needs of the employment system.

Next chapter reports the findings of the empirical study carried out in Greece, which generates answers to the research questions.

CHAPTER FIVE

THE FINDINGS OF THE RESEARCH

5 Introduction

This research project examined the qualities, knowledge and skills that employers are looking for in graduate recruits, and the information about those qualities that they infer from a particular degree. Further, the study examined the role of specific aspects of a degree, such as the subject of study, the type and status of the institution that awarded the degree, the degree class and so on, in determining its value in the labour market. This chapter reports the findings of the research project. The structure of the chapter follows, in general terms, the structure of the interview guide.

First, the sample of employing organisations and the sample of careers offices are described. Then the involvement of the respondents in the personnel selection process and the methods of selection are presented. The greater part of the chapter refers to the selection criteria and the reasons behind the use of particular criteria that emerged. Additionally, the careers officers' experience of the criteria employers use is contrasted to the viewpoints expressed by managers in the interview programme.

The final part of the chapter presents the viewpoints of employers on a number of issues related to higher education policies, curricula, and their own relationships with higher education institutions. The viewpoints of careers officers on the same issues are also presented.

5.1 Company details

Having recruited graduates for full-time employment in the past three years was set as a requirement for a company to be included in the sample. This requirement was imposed because many companies of those initially contacted for participation were not included in the sample, since they had not recruited during the past five or so years. The low rate of recruitment in past years may be attributable – partially at least – to a tendency for flexible work arrangements, like outsourcing and contractual work. This study found many enterprises outsourcing their financial services and, thus, reducing, the number of graduate employees that were in full-time paid employment.

An attempt was made to ensure that as wide a range of companies (in terms of size and type of activity) are included. However, certain combinations of size and activity are underrepresented in the sample, for a series of reasons. Many small companies, especially food manufacturing companies, stated that they do not employ graduates for their production sector and they have outsourced their financial sector. Recession, also, for many small companies, meant no recruitment for the past decade or so. Some small service companies (banks and construction services) stated that they have employed the same personnel since the establishment of the company! The study also discovered that due to the low proportion of graduates in SMEs and their low rate of recruitment, employers in SMEs had neither recruitment and selection policies nor standard selection criteria.

Some researchers have suggested that the viewpoints of employers in SMEs should be taken into consideration since they employ collectively more people than employers in large organisations (Roizen and Jepson, 1987). Although they may not have much experience of recruiting graduate talent, they do have valid views about the

skill needs of the workplace. However, the interviews with employers in SMEs often did not yield 'rich' data. Consequently, SMEs are less represented in this chapter. However, given that the purpose of the study was to understand the ways that employers value degrees and the basis of such judgements, the views of employers in large organisations can be considered more interesting, because they tend to justify their selection decisions with reference to educational experience.

In total, 37 companies participated in the research project. There are 9 local enterprises, 10 nation-wide enterprises and 18 multinationals. Some of the multinationals were Greek enterprises until recently, but they were bought out by international companies. 16 of the enterprises are located in the area of greater Volos and 21 in the area of greater Athens. Two of the enterprises are multinational human resource organisations. The sample of organisations is listed in Appendix I. The following table describes the composition of the sample in terms of size and sector of activity.

Table 1. The composition of the sample of organisations by size and sector of activity

size activity	SMEs	large	total
manufacturing	3	17	20
services	6	11	17
total	9	28	37

5.2 Managers' involvement in recruitment

Although the focus of the study is on selection criteria, the process of selection is of interest because process is associated with the criteria used by the organisation, and identifies those criteria on which particular emphasis is placed. The study showed that skill requirements are usually determined at two levels. First, it is the technical skills, that enable the recruit to perform satisfactorily. The type and level of technical skills are determined by the immediate supervisor of the vacant post. Second, it is the portfolio of personal and interpersonal skills that help the individual to fit into his job role and the organisation. This portfolio is determined by the human resource department (if any) or the general director:

"The potential recruit is assessed by the supervisor of the post and by the specialist of the human resource department. The first determines the knowledge and technical skills requirements, and the latter is responsible for the personal qualities and values of the candidate and the extent to which they are compatible with the mission of the company." (A6)

In small companies, the persons involved in recruitment are typically the manager of the sector and the financial manager or the owner of the enterprise. Consequently, the persons assigned to talk to the researcher about graduate recruitment in organisations do not hold the same positions across companies. In SMEs, it was the financial manager, the general director, or the owner who gave the interview. In large companies, it was the human resource manager or the person who had the responsibility for the education and training of the personnel.

5.3 Careers officers' involvement in graduate recruitment

The study examined employers' attitudes towards graduates, but it also attempted to benefit from the experience of people that work at the interface between

employers and graduates. The viewpoints of careers officers were sought after as a means of verifying the data provided by employers, wherever possible. Generally, their viewpoints supported the evidence gathered in organisations. Yet, limitations in co-operation between employers and careers officers moderated the amount of data provided by the latter.

Information about the careers officers' involvement in recruitment, and their relationships to enterprises in general, was necessary to define the issues on which they were able to comment. The findings showed that the extent of their involvement in supporting the transition of graduates to employment varied. As a result, careers officers' experiences of the business world varied accordingly. Consequently, their contribution to this study varied, too.

Certain careers officers reported problems in the function of their offices due to financial problems:

"In the past, when the office had not financial problems, it was operating in full. It has been three years now that we have not organised career days. Employers still contact us, although to a lesser extent, since career days were our main opportunity for contact with enterprises." (C3)

Problems of finance arise because although careers offices are included in the organisational map of the higher education institutions, their funding is not included. Additionally, there is no motive for academic staff to support the careers offices, while there are motives for supporting the activities of what might be seen as a rival to careers offices; the liaison offices:

"We managed to include the careers offices in the organisational map of the institutions but we did not manage to include their funding. As a result, the funding of these offices is not ensured. ... Moreover, the teaching staff of certain big universities objects to the existence of careers offices. They, instead, support liaison offices through which they are assigned projects from industry." (C8)

Nevertheless, certain careers offices do play an active role in supporting the transition of their graduates to employment:

"It is us that contact employers, not the other way round. We are marketing our university. Employers did not know much about us in the past. We pass on them information about the profile of our graduates and their potential to contribute to their enterprise." (C5)

However, most careers offices, be they active or not, are not informed about the outcomes of the selection processes in which they had been to some extent involved:

"We are at the interface between the graduate and the employer. Yet, both forget us after the selection. Less than 10 per cent of graduates and 20 per cent of employers give us follow up about the selection." (C2)

"Only few companies, one or two months after the selection, inform us in writing about the outcome of selection, including general evaluation comments, i.e. the extent to which they are happy with their recruits or for any skills shortages in our graduates. But it is not a common practice." (C5)

Although the involvement of careers officers in graduate recruitment is not direct, nevertheless, they can provide valuable information about recruitment, and their statements can be usefully contrasted with employers' statements.

5.4 The respondents' profile

Personal details of the respondents refer to their positions in the organisation and their educational backgrounds. Since the study is about the role of educational qualifications in selection for employment, the educational experience of managers may play a major role in determining criteria and, possibly, in the recruitment and selection policies of their companies.

Most of the managers were themselves university graduates. So, a preference for university graduates rather than TEI or college graduates might be expected. From the 39 managers interviewed (in 37 organisations), 26 were asked about their education. 21 were university graduates, six of which held a postgraduate degree. There was one TEI graduate, two college graduates, and two non-graduates. One of the non-graduates was the owner and general director of the enterprise. The other one was an experienced accountant. As regards the subject of the degree, nine out of 16 university graduates had

studied economics, five had studied engineering, and two had studied psychology. The TEI graduate had studied information technology and the college graduates had studied business administration.

Respondents who were careers offices were either the managing director of the office, who also belonged to the teaching staff of the institution, or the person responsible for contacts with employers, usually a graduate of the institution with a postgraduate degree. Eight out of ten careers offices in higher education institutions that are situated in the areas of Greater Athens and Greater Volos participated in this research.

Before detailing the findings of the research study referring to the employment of graduates, it should be noted that the first finding that emerged referred to the availability of relevant data. Managers in organisations had little incentive to give the researcher some of their time. The indifference of managers to contribute to the present study may be due to a lack of standard recruitment or selection policies in their organisations (because of the infrequency with which they need to recruit new personnel) or due to the fact that there may be too many Greeks trying to conduct research in employing organisations, so that managers have become irritated by the disruptions this causes. Another reason may be a kind of insecurity among managers in organisations to be found by outsiders as less 'professional' than expected. It may even be suspicion of the aims of the research, the potential use of the findings, or the capacity of the researcher. Some of the problems that the researcher encountered in the fieldwork are described in the research diary that appears in Appendix V.

Another thing the researcher noticed was that employers talked about paper qualifications, personal qualities, and motivation, all legitimate factors in selection. In contrast, they did not mention factors like physical appearance or beauty. If asked

directly, they sometimes accepted it as an intervening factor, especially for particular posts. For example, one manager said:

"In the same way that you will select a gentle person for the telephone center, you will select a beautiful girl for the reception point of the company." (A14)

Another reason that most employers did not mentioned issues of physical appearance might have been the fact that they were informed that the aim of the study was to explore the value of degrees in selection, and not to construct a full inventory of factors intervening in recruitment. Nevertheless, it seems likely that there are some factors, such as attractiveness, that do play a part in selection decisions, but are difficult to investigate because of managers' reluctance to discuss these.

5.5 Jobs for graduates

The fieldwork showed that graduates are employed in all sectors of the companies; production, maintenance, sales, financial services, marketing, research and development, and human resource departments. Stock-keeping and shop-floor customer services were reported as the only sectors not employing graduates.

The proportion of graduates (including AEI, TEI, and private colleges) was found ranging from 0 to 12,5 per cent in the manufacturing sector, with the metal manufacturing sector being the sector with the highest proportion of graduates. In the services sector, the proportion of graduates was found ranging from 0 to 40 per cent, except for companies of professionals, like auditing and business consultancy companies, where the proportion of graduates rises up to 80 per cent.

The manufacturing sector employs electrical, mechanical, and chemical engineers, electrical, mechanical, and chemical technologists, chemists, food technologists, and accountants. (The term 'technologist' distinguishes a TEI graduate.)

Other specialities, less mentioned, were those of the veterinarian, the agriculturist, and the information technologist. The service sector employs accountants, engineers, graduates in business administration, and a limited number of other specialities such as information technologists and lawyers.

Company recruitment strategies with regard to graduates seem focused at entry-level positions. For senior posts employers select from the internal labour market, or recruit people with work experience:

"We recruit graduates for entry-level posts in the company. For senior posts we select among our staff. If we were often in need to recruit people from the external labour market for higher positions in the company, it would be an indication that we might be somewhat wrong." (A4)

"In this company, you will not meet the phenomenon of recruiting established professionals for medium or high status posts. Our policy is to recruit young people with advanced skills, who with appropriate training will become the future managers." (A8)

As they stated, selecting among their staff for medium and high status posts is a policy which aims at keeping staff motivated:

"One must have a motive to keep tightening a screw." (V4)

Only four out of thirty seven companies, all four multinationals, stated that they select high potential people for fast-track recruitment. Another two multinational companies stated that though they do not have fast-track recruitment schemes, sometimes they break this rule. Recruitment and selection processes for management trainee schemes are more carefully designed and may be based on merit. The characteristics of the people that are considered for fast-track recruitment can provide information about the types of skills that are in high esteem. But, it seems that they are greater, rather than different. A human resources manager in a large energy production company stated:

"The characteristics of the high potential people are the same with those of the other recruits. Simply, they have the desirable qualities developed to a greater extent." (A7)

Employers were asked if they face shortages in certain specialties or for certain posts. They were asked about shortages in specialties mainly as a way of evaluating their screening power for various sectors and posts. Difficulties mentioned were referred to only when recruiting graduates for out-of-Athens branches of the company, and for certain types of experienced personnel. The manager of a multinational energy company stated:

"We receive thousand of applications each year through the Internet. However, when we are interested in filling positions in the provincial Greece, we face difficulties in finding certain specialities. The labour market is different there; people are mobile, they are not stable in a job" (A7)

And a manager in a telecommunications company stated:

"We face difficulties in finding engineers for the maintenance sector, experienced engineers, experienced accountants, and personnel for our out-of-Athens branches." (A16)

Therefore, except for a few posts, employers have the screening power to select among those individuals who come close to their expressed requirements, without compromising their expectations in terms of the knowledge, skills, and attributes of their recruits.

5.6 The role of social networks

A question addressed to many employers was about the role of social networks in the selection process. Employers, especially those in the provincial town, accepted that they feel pressed to select certain individuals. Due to these pressures, they do not announce openly their vacancies:

"We have a database of prospective employees, compiled by applications made by graduates who apply without any prior notice of existing vacancies. Thus, we do not a need to advertise our vacancies; this way, we may lose ten more candidates but we avoid twenty phone calls which press us to select specific persons." (V7)

Pressures are even more intense for jobs in the Mass Media, that is, radio, TV channels and newspapers.

"We do not announce our vacancies. All are made within the circle of our acquaintances. ... There are countless candidates and we are pressed by politicians to select specific persons." (V2)

Work placements for students could be one way of gaining the opportunity to overcome barriers of 'controlled' occupations without support from any social network. However, the 'system' is well - guarded:

"A student is admitted for internship only if he or she has political or other support. There is particular interest for internship in the newspaper because of the chances that the intern has to be employed in the newspaper later". (V2)

Large companies, especially multinationals, which have structured selection procedures and criteria, are less vulnerable to such pressures:

"Social connections do not play any role in selection. This is not only in words, it is in practice too." (A8)

"There is no issue of social pressures in selection. Sometimes, people call us to say that they will send a candidate. These candidates are assessed in equal terms with other candidates. If they manage to go through the selection process successfully, they are selected. Otherwise, they are rejected." (A7)

Appointing persons without competition because they belong to the social network of members that are established in the hierarchy of the company is common. Employers who were asked why they were succumbing to these pressures explained that they do so for positions that do not require high skills. The issue is, however, that these posts constitute the majority of graduate posts:

"Few posts require advanced skills. For senior management positions, of course, being suggested by somebody is not enough; the candidate has to satisfy certain criteria." (V2)

"Members that are high in the hierarchy of the company can initiate persons in the company and have the responsibility for their career. However, it is for routine jobs, rather than significant posts." (A9)

A manager in an Internet provider company viewed as logical the fact that members of the company can recruit relatives and friends into the company without competition:

"Of course it happens, but it is logical. When a manager wishes to recruit an acquaintance into the company, he is free to do so but, in this case, we don't see any other candidates. This has not to do with selection." (A14)

It has not to do with selection, but it does have to do with filling a vacant post.

5.7 The selection process

Employers use the profile of a job as a starting point in the selection process, and contrast it to the profile of the candidates. Employers are searching for a 'match' between the two:

"Every time we have to fill a post, we have to select among a number of individuals with certain characteristics. These characteristics carry different weighting for different posts. Every time we look at a CV, we make a decision. This goes on, or this does not go on. This goes on for those posts, or it might go on later. This has no chances of going on. Criteria are so many and different every time. A candidate may be rejected for a post but approved for another." (A7)

This quotation indicates that there is not an ideal profile for every post. There is a sense that employers search for the 'fit for purpose' recruit. As a manager-owner of a foundation education centre posed it:

"Every post requires its own 'man'." (V9)

The selection process may include interviews, work samples, timed tests of logical and numerical reasoning, attitude tests, business games, and other testing procedures. Depending on the nature of the job, the importance of the post for the employer, the type of the company and other factors, the procedure can be extended or shortened, and the emphasis may shift from one to another aspect of the selection process and, consequently, from one to another criterion. In general, large employers apply more sophisticated selection methods to assess many dimensions of the candidate's profile. The recruiter of a multinational company explained:

"It is a full assessment in three sectors: capacity, achievements and relationships. It is a long procedure, judged by many assessors, so that the

potential of candidates, as outlined by these scores, be very close to reality.” (A7)

The term potential, as used by employers, includes achievements (including educational attainment), abilities (capacity), and aspects of personality. The same respondent explained:

“Capacity refers to problem solving, initiative, analytical thought and all that. Achievements refer to targets and priorities that the individual has realised up to present. Degrees and work experience belong here. Relationships refer to interpersonal skills, i.e. communication and teamworking skills.” (A7)

In large companies, employers talk about potential, in SMEs they talk in more practical terms. Employers are looking for a series of assets, whose relative importance depends on the job role:

“First of all, the relevance of the subject of study to the subject of the job role, then, work experience, fluency in a foreign language, technology literacy, age, and personality. Depending on the job role, each asset takes a coefficient of importance.” (V3)

Although using a different language to describe the profile of graduates, employers in both large companies and SMEs look at the same aspects of the ‘whole person’; basically these are education and personality. Large companies look additionally for ‘capacity’, something that is not evident in SMEs, at least at first sight.

In multinational companies, personality is assessed by submitting candidates to business games where players are required to undertake certain roles and exhibit certain qualities and values. Different posts and responsibilities require different types of personality. The manager of a multinational company stated:

“We have abandoned the classic style of selection which consists only of personal interviews. Interview limits you in asking classic questions and taking classic responses. We call candidates to be subjected to a type of group work with a theme; a business game. A business game puts candidates in a position where they have to attain a specific goal within a limited time frame. They have to cooperate or to contest with others in the team so that we are able to see aspects of their personality.” (A8)

The majority of companies, however, do not employ such tests because – as they have admitted - the cost of these tests is too high. In these cases, employers rely more

on information from CVs, interviews, and their 'gut feelings'. In SMEs and in many large companies, the selection procedure includes only the interviewing of candidates from a 'technical' and a 'human' perspective:

"We have not developed selection mechanisms, and we do have high rate of failure in selection. In Greece, it is not common practice to submit candidates in a wide range of testing procedures. We think that we might make them feel embarrassed. ... The manager of the sector that has the vacancy makes a first screening of the candidates from a 'technical' perspective and, then, I see them from a 'human' perspective. I pass quickly from their academic achievements, to their interests and values." (A19)

Careers officers reported that large companies have policies and practices that are globally uniform, while SMEs have not the resources to implement standardised selection procedures. Careers officers made these statements without being asked directly, but as part of their attempt to define their role.

"Situation is so much standardised...I see that most enterprises, especially the large ones, follow a uniform policy in personnel selection, as regards the way they recruit, and the requirements they set..." (C4)

"Large enterprises are, generally, informed about changes in the graduate labour market, because they always have a human resource manager or a person who is responsible to select information about the labour markets. Small and medium-sized companies, instead, have neither the know-how nor the resources to do selection. There, the boss or the owner plays also the role of manager of human resources. In these cases, there are often certain shortcomings in information about the graduate labour market and we try to provide them some help." (C5)

The selection procedure gives an indication about where the emphasis lies. Procedures that include logical and numerical tests emphasise capacity, those which include business games emphasise personality, while procedures which include work activities emphasise technical knowledge. Whether employers pay more attention to technical skills, capacity, or personal qualities depends mainly on job requirements:

"It is impossible to ask the same set of qualities for recruits in the technical sector with those in the financial sector. For our engineers, the emphasis is clearly on their technical knowledge and skills." (A18)

Predictably, high technology industries are interested in the technical skills of candidates, first of all. This can be seen in their selection procedures. The manager of a high technology manufacturing company described the selection process as follows:

"First we read his CV and discuss with the candidate about half an hour. Then, he has to undergo a test. We give him an object to make its technological design. This takes one to two hours. Then, we discuss about the way he coped with the problem. We ask him what machines he would use to construct it, which methods, and so on. If we see that he has the abilities required by the job, we make one-week trial recruitment." (V4)

In the services sector, personality is seen as more important. A manager in a commercial, pharmaceutical company explained:

"It is our belief that knowledge can be gained, but personality cannot change. The character of a person cannot change, while knowledge can be supplemented." (A17)

"All posts in a ships management company require advanced knowledge and skills but, above all, they require advanced behavioural skills." (A19)

The emphasis on personality in recent years may be attributable to the expansion of the service sector. The careers officer of a technical university stated:

"Most vacancies refer to the sales sector. Vacancies for the production or the quality control sectors are rare. Due to the nature of these posts, employers ask for communication skills, presentation skills, good physical appearance..." (C6)

The managing director of a careers office verified the similarities across companies as regards the selection criteria, as well as the variation in emphasis across sectors:

"Every sector has its own criteria. There is a set of criteria for the potential recruit in the sales sector, another set for an accountant ... or, to say it better, there may be the same criteria but they are assigned a different-value coefficient, depending on the sector that one is going to be employed." (C5)

"The number one criterion is the fit between the candidate and the culture of the company. The person that asks to join the company must fit the mission, the working conditions in the company, ... and much more, we try to understand the type of person he is, and the opinion he holds for the company." (A14)

Another careers officer in a technical university noticed an increasing emphasis on personal skills, even for engineers, but she gave another interpretation:

"During the selection process, companies look mainly at the personal profile of candidates because they take for granted the very high theoretical and practical scientific knowledge background of our graduates." (C4)

5.7.1 Personality

There are certain personal qualities that are expected from all potential recruits and other attributes that are expected only from those destined to undertake particular responsibilities:

"Criteria are not the same for all posts. There is a general set of criteria that apply to all posts, from cleaners to the general director. These criteria include the personal fit of the potential recruit with the culture of the company, to the extent that it affects job performance." (A17)

"Every member of the company must be able to communicate and co-operate with others, to be flexible, to work within deadlines, to avoid obsession with perfection... Further, there are additional sets of criteria for the various posts in the company." (A18)

Employers believe that personal skills can be developed with appropriate training:

"It is rare for someone, especially a young person without work experience, to have all desired qualities developed up to the appropriate level, but we see whether he has these qualities to a certain level and a positive attitude to cultivate and develop them further. And, of course, you always assess a person according to the requirements of the post at which you are going to allocate him." (A18)

"Innate attributes exist only as tendencies. ... What is examined during the selection process is where one stands in terms of the skill requirements of the job and what his skill shortages entail for consequent training." (A8)

Yet, most employers prefer those individuals who have already developed the skills required, since there is an oversupply of skilled workers:

" Nowadays, the skill requirements of jobs in the company are high. Thus, we test candidates to ensure that they have developed the necessary skills, because there is no time to wait them develop these skills. Recruits have to 'built' on so many areas." (A8)

Among the attitudes of candidates that are taken into consideration by many organisations is their attitude to mobility. Indeed, 10 out of the 28 large companies in

the sample mentioned mobility. Sometimes, it is the nature of the job that requires mobility, other times mobility is a requirement only for career advancement:

"The group has workstations in three continents. A workstation may exist for six months, one or two years. The company cannot recruit graduates for the duration of a workstation. A certain degree of mobility is necessary... There is also the issue of exposure to experiences. A person that is going to undertake a high status post is required to be mobile so that to be exposed to experiences, which result in skill development." (A6)

The manager of a business consulting company stated:

"Willingness for mobility is very important for the company. 70 per cent of our staff is mobile. Only once per month they are present in the company." (HR1)

5.7.2 Capacity

Some large companies apply aptitude tests to measure the capacity of their candidates. Employers expect an above average level of the 'general graduate data' (scores obtained by applying this test on graduate population):

"In selection we use tests to measure the intellectual abilities of candidates. These abilities include problem solving, initiative, analytical thought ..." (A7)

"We shortlist three or four individuals and we ask them to be subjected in timed tests of logical and numerical reasoning, tests designed to measure the ability of candidates to perform effectively under time pressure ... We select candidates who score above the 50 per cent of scores of the 'general graduate data'." (A8)

Psychological tests are always employed in selection of candidates for management trainee schemes. In these selection processes, the list of criteria expected from prospective management trainees is more extended:

"Those selected as management trainees must be able to communicate with others, have the ability to organise and set objectives as regards their job, they must be not only receptive of change but also change catalysts and, generally, they must be individuals with high potential, with passion for growth, and a positive attitude to mobility. They must also have confidence and ability to influence others. This profile applies more or less to all partners of the company." (A18)

5.8 Qualifications as proxies in selection

Discussion of the academic records of candidates constitutes a significant part of the selection interview. Moreover, academic records constitute a requirement for inclusion in the pool of candidates interviewed. The main elements of the academic record of a candidate considered are the type and level of his education. According to legislation, different levels of education are paid differentially. Thus, economic considerations intervene in selection. The manager of a human resource company explained:

"Who will be selected depends on the wage offered, and on the sector of employment. When you have the opportunity to employ a graduate, you will take advantage of this possibility." (HR2)

Many employers recruit people with the minimum level of education required to do the job because of such economic considerations. Others prefer to recruit graduates because they believe that graduates upgrade the job role:

"Non-graduates may have fewer demands from the company as regards material rewards, but recruiting graduates the quality level of the company rises." (A4)

Indeed, many employers seem to believe that graduates are more productive than non-graduates:

"Graduates adapt easily to the culture of the working environment. They are more productive than non-graduates. Education changes their style and their productive capacity." (V11)

Some employers explained the reasons for which they employ graduates and entrust posts of high responsibility to them. Many stressed the knowledge content of the higher education curriculum:

"The economic environment is highly competitive. You cannot select a non-graduate. Non-graduates lack knowledge. They are substantially unskilled." (A18)

"A graduate is aware of the basic concepts of his field. Thus, when he begins to practise, the one comes to tie up with the other, the theory ties with practice." (A15)

For certain companies, however, it is not only graduates that possess that knowledge. Employers argued that knowledge and capacity can be found among many non-graduates too:

"A degree is not a 'must' for this company. If a candidate has general knowledge and a good level of thinking skills, it is okay." (A17)

When talking about non-graduates, employers meant people with vocational qualifications and not just school leavers:

"When I say that we select non-graduates too, I mean persons without a higher education degree, I don't mean high school graduates. Anyone needs to have a speciality. Otherwise, he cannot do his job." (A17)

Knowledge can be acquired on the job too, although it is preferred that this knowledge has been acquired in a previous(!) job:

"It is not difficult to get a job, provided that one knows what he knows and what he is looking for and he is able to prove to his potential employer that he can manage to do the job. How can he prove it? One can prove it with his qualifications, another with his experience, a third with a combination of a relative degree and work experience." (A14)

A similar view was expressed by one careers officer:

"[Employers pay attention] ... basically to candidate's knowledge and, secondly, to information from others. Or, to put it better, not to his knowledge, but his way of responding to the demands of the job role. That is, even if he had no knowledge at all but he could perform his job role satisfactorily, it would be no problem. Performance is what an employer focuses on." (C8)

Sometimes employers select graduates unintentionally since, nowadays, the majority of young people enrol in higher education:

"We increasingly employ graduates because the skills requirements of the jobs have been raised. In addition to this, it is also the fact that 50 out of 55 CVs refer to graduates." (HR2)

"Graduates constitute a great proportion of our staff because there are so many graduates in the labour market. We do not target degrees... It simply happens almost anyone knocking our door to have a degree, be it from a university, from a technical education institution, or from a private college" (A14).

The ever-increasing proportion of young people enrolling in higher education has resulted in an oversupply of graduates. They may have an advantage compared with non-graduates, but they still have to compete among themselves, too. There is some talk about a 'segmented' graduate labour market. It is of interest to identify the factors which differentiate graduates in the labour market or, to put it another way, the basis of that segmentation of the graduate labour market. Thus, several aspects of the educational experience of graduates are considered below.

5.8.1 The subject of study

The subject of study is obviously the most important feature of a degree. When employers were asked to identify their main selection criteria, they indicated the relevance of the course of study to the requirements of the job role as their first criterion. Possessing an 'appropriate degree', that is, a degree in a relevant subject, is a requirement for being included in the candidate's pool.

"When we announce a vacancy, we ask for a particular degree." (A18)

"The specialities of the people that will fill vacancies are determined prior to recruitment." (A2)

When asked what are the specialities of people in the company, employers typically mentioned specialities lying in the areas of engineering, economics, business administration, and certain other specialities only on limited occasions. There were certain exceptions, of course. A graduate from a non-relevant discipline may be selected not for his degree, but for a vocational qualification from the post-secondary education sector he may possess, or for work experience relevant to the vacancy. For example, a philosophy graduate had been recruited into a high technology company (A16) to be responsible for the travelling of the staff, because she had a certificate from a course in tourism and work experience in a travel agency.

Recruitment of graduates from non-relevant subject backgrounds can be due to exceptional treatment. Certain employers admitted that employees with non-relevant degrees were close friends or relatives of the company's partners. For example, a physics graduate had been recruited as an accountant in a food manufacturing company (V13), because the managing director of the factory was his school friend and he also had work experience as an accountant in the enterprise of his father-in-law.

Certain employers commented on the performance of graduates with non-relevant degree subjects. The fact that they were content with performance of those graduates did not decrease their belief in the importance of relevant previous studies.

"In one occasion we selected a person with a non-relevant degree - a graduate in mathematics for the marketing of the company - it proved to be a good choice. But this selection was an exception to the rule." (A13)

"In the past, in our chartering department, one of our best brokers was a history graduate." (A19)

Indeed, employers, in general, avoid recruiting graduates in subjects not relevant to the subject of the job:

"It is not of benefit to the company to select a graduate with a non-relevant degree. He lacks subject knowledge. When there are persons who have studied the subject for a number of years, it is logical that they will take the job. The company must select a person that will be able to pay-off soon". (A14)

Certain large companies are, however, open to graduates in a variety of disciplines, especially for job roles not requiring specific knowledge:

"This company approves differentiation. A graduate in social sciences has developed a different way of looking at the world from a graduate in sciences. Both are useful to the company and we like seeing them working together." (A7)

Commercial companies are more elastic as regards the subjects of study of their recruits. And, indeed, this is apparent when they recruit for the sales sector of the company. It may be because, in that sector, subject knowledge is not of prime importance:

"For certain specific posts we are focused on the proper educational background, for other posts we are more elastic. In the company there are graduates in subjects that you cannot imagine, i.e. history or physical education. Some of them, but not all, have studied for a postgraduate degree, which gets them closer to the needs of the company. The company provides opportunities for continuing learning, thus, it has the flexibility to employ graduates in any subject." (A7)

Certain companies target only graduates in particular disciplines, because there is a suspicion of graduates from non-relevant subjects. Some felt that they look for employment in sectors non-relevant to their studies simply due to problems of unemployment in sectors relevant to their studies; not because of strong interest or motivation:

"We have no reason to encourage people with non-relevant specialities. We simply are open to applicants with non-relevant specialities if they are interested in working in sales. But this interest is investigated further. We do not need people that accept a job in our company because they have not other employment options." (A8)

However, even in the sales sector, there was some evidence that employers prefer to employ graduates in relevant subjects if they can find them:

"Even in the sales sector we prefer engineers because it has been proved that one who knows a product well, its qualities and the way to treat it, may be at a better position to sell it rather than another who does not. (A8)

"This is a commercial company. It has not plant in Greece. Graduates in chemistry, biology or pharmacy are not employed as scientists in a laboratory, but in the sales sector. Simply, their degree helps them to understand better the pharmaceutical terminology". (A17)

A personnel manager gave a 'humanistic' justification for not selecting a graduate with a non-relevant degree:

"It depends on whether one wants a job because he is interested in it, or he is just in need of a job. In the latter case, you will harm him if you select him. You will steal time from his search of something that fits him more." (A13)

Another human resource manager gave a new dimension to the issue. He referred to difficulties in transferring knowledge between different contexts:

"I believe that they are all [people with various specialities] needed in the company. But the issue is how a social sciences graduate, for example, can find the way to apply his knowledge in a different context. Unfortunately, most

graduates do not reach a level of maturity that would enable them to see the relevance of their knowledge to their working environment... especially when the two contexts are quite different." (A19)

When asked to indicate the causes of the missing link between the knowledge and its application to the working environment, he attributed this to the lack of adequate stimuli in the social and learning environment, and a lack of creativity and interest. The first refers to environmental factors, and especially the quality of teaching and learning during the course of study, the latter refers to the capacity of the individual student:

"It presumes a high level of intelligence, but it also depends on the environment in which you have been found, and on the chance of being found besides a good teacher and having received certain influences that can get you far." (A19)

Careers officers verified employers' statements about the main criteria used by employers in graduate recruitment. The subject of study is the most important factor that determines the pool of candidates. Careers officers suggested that employers also pay attention to the so-called 'direction of studies', that is, the section of the discipline to which most of the optional courses belong. The careers officer of an economics university stated:

"The subject of study and the 'direction of studies' are what employers pay attention." (C2)

And the careers officer of a social sciences university, when asked what jobs are most often offered to their graduates, stated:

"The market demands mainly graduates in economics. Graduates from other departments are offered only jobs in sales, insurance and secretarial support." (C3)

Most employers approve the 'direction of studies' as a form of specialisation:

"This does not limit the employment options of a graduate, even in the case that the 'direction' chosen is not relevant to the job for which he applies. Since the 'direction' is taken at the two final years of study, the student has taken the foundation knowledge of the subject. Then, having discovered his interests and inclinations, he can choose a direction of study, that is, the area in which he is interested in acquiring deeper knowledge. ... This can even decrease the need for postgraduate studies." (A7).

The manager of a telecommunications company, although a supporter of general degrees, did not favour this form of specialisation:

"I don't see favourably this scheme. I would prefer the 'direction of studies' to be transformed into a speciality." (A14)

5.8.2 The type of the institution

Most employers were using loosely the term 'graduate', to include university graduates, TEI graduates, and college graduates. This became obvious when employers reported the aggregate number of all the above categories of graduates employed in their organisation. Few had easily accessible, separate proportions of each category. Nevertheless, employers did hold different perceptions of the three types of graduates. The majority of employers considered only university graduates for 'graduate' jobs:

"We don't think that degrees from TEIs are equivalent to university degrees. Although there are good departments in TEIs, like the department of mechanical engineering, we have a hesitation in employing graduates from TEIs in graduate jobs." (A11)

"We have definite opinion about it. We do not consider TEI graduates for graduate jobs. ... We discriminate to a lesser extent for graduates of private colleges, the so-called private universities." (A18)

Job requirements are the starting point of the recruitment process because they determine both the level and type of education needed:

"The profile of the job determines the qualification requirements for the potential recruit; this is the basis on which we decide whether the recruit will be a university graduate, a TEI graduate, or a person with a lower level of education." (A6)

For certain positions, it is legislation that restricts employer choices. Legislation determines mainly the qualification requirements in the technical sector. It may due to the nature of the skills needed in that sector, as well as the lobbies to which these professions belong. Certain employers expressed dissatisfaction with the restrictions imposed by legislation:

"At present, there is a legislative restriction regarding the assignment of supervision of the technical sector to TEI graduates. It is a long debate, where we cannot be involved more. We do not label people: 'graduates AEI', 'graduates TEI'. They are persons with knowledge and this is what we see. ... The right to undertake a job should be given to anyone who satisfies the minimum skill requirements". (A8)

Indeed, as the previous extract indicates, employers prefer to employ individuals who satisfy the minimum requirements in terms of education, because of financial considerations. Legislation determines the minimum wages according to the level of education. Employers see legislation as a point of reference, both for the qualification requirements for posts in the company, and for their payment policy:

"We are far above the limits set by the legislation." (A3)

"Our employees are paid more than what the legislation entails. We take care both to cover our needs and keep our people happy". (A17)

According to legislation, university graduates are paid more than TEI graduates, and TEI graduates are paid more than college graduates, because colleges are not recognised as higher education institutions, since they are private. Although most companies pay more than the minimum wages set by the legislation, they do so for employees at all levels of education, so that wage differentials between graduates of different levels of education remain. Employers do not object to the aspect of the legislation that refers to payment differentials between graduates of different levels of education and, when the conditions allow, employers prefer to select individuals with the minimum level of education required for the job, because of the financial savings this brings:

"The budget of the company and the directives regarding personnel selection are specific and do not justify the selection of a person whose assets are more than necessary for the post. Except for a case that there is an intention that the recruit will be soon switched to a position appropriate to his education, he is rejected as being overqualified." (A16)

Financial considerations also led certain employers to complain about legislative restrictions, which oblige them to select candidates with higher level qualifications than

those that they would select otherwise. It happens mainly in companies or for posts with low knowledge and skill requirements:

"In the production sector we prefer to employ TEI graduates because they represent a cheaper option." (A11)

"We employ TEI graduates because our infrastructure consists of analog machines; these are not of advanced technology." (A15)

The difference in status between AEIs and TEIs may generate differences in employers' attitudes towards the graduates of these institutions:

"We consider them so equals as the state considers them." (A13)

TEI graduates managed to seize high status positions only in sectors or posts not pursued by AEI graduates; that is, in the production sector and in accountancy:

"We need graduates with an economic background who have the knowledge and interest in accountancy, but few graduates are interested in and are enthusiastic about that. ... We have not yet been orientated to TEI graduates -this might be wrong, of course - because we have a mania in recruiting people with a university background. ... We recruit university graduates who soon become frustrated and leave, and lose their time, and we lose our time too." (A19)

There were a variety of attitudes among employers to the private colleges, the so-called private universities:

"We do not restrict our choices in graduates from the established universities because, in this company, we believe in knowledge rather than in paper qualifications and official recognition. When we realise from our experience that graduates from an institution are worthwhile, we have not any reason to see them as inferior or less progressive in their career than university graduates." (A8)

"The so-called private universities may constitute a solution for certain people, and some of them may have some good teachers. ... Unfortunately, these institutions are profit organisations, they are intensively commercial. Every applicant is accepted, and every student graduates. These institutions, except for a few ones, steal years from young people and feed them with false expectations." (A19)

A manager in an energy company justified the preference of the company for graduates from the university sector by reference to the higher quality teaching staff in universities compared with those in the non-university or the third sector:

"There had been candidates for employment who had worked in the third sector as lecturers and whose score on the capacity test to which they were subjected was within the bottom 10 per cent of the population. If this is the intellectual level of lecturers in these institutions, what can we expect from their students? (A7)

Other employers justified their different attitudes to university and TEI graduates by identifying differences between those graduates in their flexibility to deal with change, due to differences between the curricula of degrees in these institutions:

"The difference [between AEI and TEI graduates] is not in their productivity. They may do the same job, equally well. The difference is that a university graduate can easily absorb something new, he can transfer easily to a similar job, he can think and contribute to something that it is not exactly what he has studied. This is where the more theoretical knowledge provided by AEIs is exploited, compared with the more applied knowledge of TEIs." (A14)

Careers officers were asked to comment on the competition between their graduates and graduates from other institutions, but in similar specialities. The following quotes are from careers officers of an AEI and a TEI respectively. They seem to agree that TEI graduates are preferable, except for high responsibility posts:

"Employers prefer TEI graduates because they have more applied knowledge and their contracts are cheaper. However, it depends on the job requirements. If it is for a high responsibility post, employers rely on the quality assurance of university education." (C6)

"Employers prefer TEI graduates because they want cheap labour." (C8)

AEI and TEI graduates often compete for the same jobs in the technical sector. AEI, TEI, and college graduates compete for administrative posts or posts in the financial sector. Colleges have not a wide range of specialities. The reason is explained by the managing director of a TEI careers office:

"Our technologists do not face competition with college graduates because private colleges have only departments that need light infrastructure, like computer sciences or accountancy. You can buy 10 computers to provide training to 100 people. Yet, it is very costly to have an up-to-date laboratory to train mechanical or electrical technologists." (C8)

5.8.3 The status of the institution

The importance attached to the status of the institution that awarded the degree varies among employers, with most of them viewing it as a criterion of second importance:

"We don't assess the quality of institutions or departments. We assess the quality of people." (A3)

"Definitely, I can say that I do not compare Harvard graduates with those of an unknown higher education institution. But if the university is up to a standard, the quality of a graduate depends on his personality. If the individual has motivation to develop, he will develop to the extent he can develop." (A6)

There were some employers who admitted that they do not pay attention to the name of the institution that awarded the degree, because they do not know much about the quality of institutions, especially that of overseas universities:

"I don't mind it [the name of the institution]. Perhaps, it is so because I don't know the differences between them. How can I know whether the Metsovio University is better than the University of Patras or a university in Bulgaria, for example?" (V6)

Some companies have begun to pay more attention to the reputation of the institution as a way of dealing with the enormous number of applications that they receive:

"When you receive 1300 CVs for a vacancy, when there is so much supply, the first screening you do is by the university attended and, then, all other assessments..." (A18)

The manager of one company, which undertakes personnel selection for other companies, stated:

"We have begun to pay attention to the university from which one has graduated. It is a matter of experience. You see the quality of graduates from different institutions and you can make comparisons." (HR2)

In Greece, there is not a quality assessment system for universities. Employers have their own ways of assessing the quality of institutions. Some classify them in terms of their enrolment standards. From this point of view, the quality of graduates of a particular institution depends on its student intake:

"Knowing how difficult is for a student to enrol in X or Y University, you conclude that graduates from those universities are very good candidates." (A18)

Most managers use certain 'rules of thumb' to assess institutions. In judging the quality of institutions they may rely on their own or their peers' experience of employing graduates of particular institutions, or are influenced by their contacts with teaching staff or careers offices staff of the institution:

"Our judgements about the quality of institutions are based on our experiences of graduates from these institutions, the reputation of institutions in the market, information given by other companies in the same field, and our co-operation with the careers offices of institutions." (A18)

"First of all, from the quality of graduates themselves, and from information about the professional activity of the teaching staff of the institutions, and from the extent to which they are interested in and try to maintain contacts with enterprises. Some lecturers are 'invisible'. Some others, in many ways, create a good reputation around their name in the market. We conclude, then, that X University may produce good graduates, since it has some very good lecturers." (A8)

Careers officers believe that employers do pay attention to the status of the institution from which a candidate has graduated. Indeed, like employers, they emphasised that the co-operation of an institution with employers is a determinant of the popularity of an institution or a particular department in the labour market:

"Our graduates are competitive in the market because we are attuned to the labour market needs." (C5)

5.8.4 Degree class

Employers' attention to the grading of a degree varies between companies.

Some employers pay much attention to grades:

"Grades are of great importance. The company requires an upper second degree for its candidates." (HR1)

"Degree grades are definitely significant. They depict the abilities of the candidate. They show whether the individual is a common mind or a genius." (V7)

The last quotation indicates that some employers look at the degree grades of candidates to assess their intellectual ability rather than their knowledge. For the majority of employers, however, grades are not of great importance:

"Grades are taken into consideration but are not a determinant factor in recruitment. You cannot assess a person's development from the assessment of a four- or five-year study period which, indeed, coincides with an immature period of life." (A6)

There is some evidence that employers can elicit information about an individual's potential and personality by considering the grades of a degree or the length of time for the completion of studies:

"We look at the grades of a degree as well as at the duration of studies. If the candidate can provide a reasonable justification for his low grades or for prolonged studies, we have no reason to reject him, otherwise we assume that there might be a lack of organisation, lack of objectives, and possibly immaturity. Yet, although we can justify low grades, we are very positive towards high ones." (A11)

For the same purpose, some employers look also at high school grades:

"In the past we were paying much attention to degree grades and high school grades, too...Because, being a good student at school shows many things, like the general intellectual level, interest in learning, willingness to work, labour..." (A19)

He continued, explaining that grades are currently of less importance to his company:

"[We have changed as a result of]...our hard experiences. I can say that our best engineers, in terms of academic achievements, were the most difficult persons in their adaptation to the company. The more academic their thinking, the more sophisticated their language is, and the more difficult is for them to be understood by the users of their work and their colleagues." (A19)

Some employers held a critical approach to the assessment methods used in universities and, especially, they criticised the 'generosity' of lecturers who give 'pass' marks to exams and assignments, the quality of which lies at the borderline between success and failure:

"Degree grades do indicate something. The whole assessment system may be indulgent as regards the lower levels of achievement, that is, students that should fail, pass their examinations with a mark 5 out of 10. However, at higher

levels of achievement, assessment is more objective. Good grades represent good 'material'. ... Thus, in this company, we believe that good grades do indicate something, but mediocre grades do not necessarily indicate mediocrity". (A8)

Certain employers expressed doubts about the efficiency of the assessment system of higher education. They stated that they use their own assessment tests in selection as a way of testing out both the candidate, and the assessment system of higher education:

"Degree grades are another indicator that you can have for a candidate, but we don't rely on them. Grades are attributed according to the criteria of the lecturer, which may not coincide with the criteria of our company." (A7)

"I continue to be among those who do trust the knowledge provided by universities, be they Greek or not. Yet, if a candidate's knowledge is superficial or out of date, it will become evident during the selection process in combination with other filters of selection. ... During this test [a business simulation game, which is used to measure the ability of an individual to work under pressure] we see whether a degree and its grades mean something." (A8)

Careers officers verified that grades play a role in selection, but of second importance:

"Employers look at the grades when they have to select among two or three candidates with the same assets, and who have been evaluated as equals during the interviews." (C2)

"Only certain big companies, especially public organisations, require grades to be quoted on the application forms." (C1)

A careers officer in a TEI had a different opinion about the importance of good grades in selection, and justified his opinion thus:

"We see that employers select graduates with high grades among the list of graduates we send to them. Sometimes, they ask us to make a short list of five candidates. We ask them to indicate the criterion for making this shortlist. They say: 'By the grades'. So, we realised that grades constitute a factor in selection." (C8)

5.8.5 The level of the degree

The discussion is most often about first degrees. Yet, there are young people with higher degrees, who increasingly compete in the labour market. The value placed on postgraduate degrees varies between employers and between jobs.

In Athens, companies see an advanced degree as an additional asset, although it may not be of special interest to them:

"The company offers opportunities for postgraduate studies to its personnel, thus, we are not interested in candidates with a postgraduate degree. It does not mean, of course, that a postgraduate degree is not viewed as an asset". (HR1)

"A postgraduate degree is another indicator that you can have for a person. It shows that his owner has tried and achieved something more in his life. Thus, a postgraduate degree is classified in the area of achievements, like good grades, or the reputation of the institution that awarded the degree." (A7)

There were employers who appreciated very educated people, and even people with academic experience. Indeed, 2 out of the 39 respondents in organisations had been academics in the past. The manager of a shipping management company stated:

"Members of the company are graduates from Greek or internationally famous universities, holders of Masters, PhDs or Professorships. Some of them were previously academics but they became frustrated by the academic life and felt the need to be occupied in something real." (A19)

A postgraduate degree could be an essential asset in the Research and Development sectors of companies, as the international literature indicates. However, in Greece, very few companies have such a sector. Multinationals have their Research and Development sectors at their central establishments, abroad. Branches of the companies in Greece import technological development and 'know-how':

"The company belongs to a multinational group. Research is conducted there, and we have the luck of being offered the 'know-how'." (A15)

Usually, companies do not differentiate between graduates and holders of a postgraduate degree when assigning job roles to them. However, for certain roles, i.e. management trainee schemes, a postgraduate degree is a requirement:

"Graduates and non-graduates are selected for entry-level posts. Postgraduates are considered for executive trainees. A person with postgraduate education is overqualified for entry-level posts." (A3)

A postgraduate degree is often a requirement for posts in marketing. This is among the few posts in companies that require a postgraduate degree:

"For marketing, we prefer someone with a postgraduate degree in marketing. For the posts in the medical sector, also, we prefer candidates with postgraduate degrees. For the rest sectors of the company, postgraduate degrees don't play any important role." (A17)

The viewpoints of careers officers seem not to be in accordance with the employers' viewpoints, in terms of the importance attributed to postgraduate degrees. Careers officers suggested that employers favour holders of postgraduate degrees, especially in financial fields:

"Employers consider that postgraduate studies give the graduate greater flexibility to develop his job role." (C5)

"Postgraduate degrees are in high esteem by employers. Among those, MScs in Decision Sciences and MBAs are higher in the preferences of employers. The new postgraduate courses that are organised in the university have all emerged from the needs of the labour market." (C2)

Postgraduate degrees are the only way-out for many theoretical courses that have not a direct link with employment. Postgraduate courses give graduates the possibility to complement their studies by choosing to specialise in a section of their field of study or to acquire applicable knowledge in an employment area:

"Certain courses, like Sociology or Anthropology, cannot stand alone in the labour market without a specialised postgraduate degree, in human resource management or something else." (C3)

"Postgraduate studies are also a way of acquiring the 'direction' of the undergraduate course that has not been chosen." (C1)

Careers officers also noticed that employers favoured Master degrees even in specialities where the first degree is awarded after five years of study, although first degrees in these specialities are viewed, in Greece, as equivalent to Masters:

"Employers demand postgraduate degrees. The first degree is getting devalued, I think. This university has five-year long courses of study and the degree was viewed as equivalent to a Master. Now, graduates are increasingly going on studies for higher degrees." (C6)

However, employers do not demand postgraduate degrees in engineering.

"When they announce their vacancies, they do not mention postgraduate degrees. It seems that they are not especially interested in them." (C4)

Engineering is among the specialities that require five years of study. It may be one of the reasons that employers do not require a higher degree although, as has been mentioned above, employers ask for postgraduate degrees still in certain specialities requiring five years of study. Another explanation for the apparent indifference of employers to postgraduate degrees in engineering may be the fact that there is not an oversupply of graduates in engineering, because their professional body regulates entry into the profession. Thus, there is less competition among these graduates, and the first degree in engineering still maintains its market value.

A difference was also evident in the value of postgraduate degrees between the capital town and the provincial one. While in the main fieldwork with the Athens employers showed a spectrum of attitudes to holders of postgraduate degrees, employers in the provincial town were generally quite negative towards higher degrees. In Volos, employers – except for one case - viewed postgraduates studies as *"loss of time"* (V12) or *"a hole in the water"* (V7) even when the subject of study was relevant to the subject of the job. Their argument against advanced degrees was that these degrees are too specialised.

In Volos there was one case where the owner of the enterprise, a local TV channel, seemed to be proud of employing a journalist who was a PhD candidate. It was programme she enrolled for after her recruitment in the company, however.

"We have a journalist in the company, holding two degrees, one in Philosophy and another in Law, who is now studying for a PhD in Linguistics." (V6)

Being questioned whether a PhD in Linguistics is of any use to a TV channel, he argued:

"It was her choice to do such a doctorate, and it is honour for the company to have such an educated person. In any case, it is useful for a journalist to know and use the Greek language properly." (V6)

5.9 The meaning of a degree

Based on aspects of the education experience to which employers pay most attention, it would be possible to extract certain conclusions regarding the meaning of a degree to employers, and the way that particular features of a degree differentiate that meaning. Certain features of degrees, which at the same time are aspects of the education experience of graduates, stand as proxies for the potential of the individuals, that is, they are associated with particular types and level of knowledge, skills, and attributes. Consequently, a 'typology of meaning' is suggested here, supported with quotes from the comments of employers.

5.9.1 A degree as knowledge

Differences exist between countries and between employers within the same country as regards the knowledge and skills expected from graduates. Differences are mainly associated with the role of degrees in preparing graduates for working life, that is, whether a degree is viewed as complete preparation for work, a knowledge base for further development, or as a general knowledge background. Of course, employers' perceptions of the role of degrees may vary according to the type of educational institution, the field of study or other factors.

5.9.1.1 A degree as complete preparation for work

Certain degrees constitute complete preparation for work. This is a viewpoint shared mainly by careers advisers and lecturers in higher education institutions, and refer mainly to degrees from technological institutions, rather than university degrees. Degrees from TEIs specialise in a narrow area of expertise, and focus on applications instead of theoretical knowledge. It is often argued by lecturers and careers officers in TEIs that these characteristics help the quick adaptation of TEI graduates to work. However, employers gave another interpretation for the quick adaptation of TEI graduates to their job roles:

"It depends on what posts we are talking about. TEI graduates contribute to the company soon after their recruitment, because the jobs they are assigned are less demanding than those assigned to university graduates. You will not select a TEI graduate to fill a management role. You will select him, for example, for the post of an assistant accountant. For such kinds of jobs, a TEI graduate is very good, I think." (A18)

Indeed, due to the rapid production of knowledge, one can acquire deep knowledge only in a narrow area of expertise. Since depth is often at the expense of breadth, and employers appreciate the broader knowledge base provided by higher education, preparation for employment is mainly viewed as a characteristic of postgraduate degrees. Moreover, the fact that management trainees are provided with up to two years initial training, although they have already a postgraduate degree, indicates that the extent to which a degree is seen as complete preparation for employment depends on the job role to be undertaken, rather than the preparedness of individuals for employment.

5.9.1.2 A degree as knowledge base

The enormous amount of knowledge associated with a discipline or with an occupational field, as well as the diversity of job roles in organisations and the amount of knowledge that can be acquired only on the job, means that initial higher education cannot be seen as complete preparation for work. During the three or five years of studies for a first degree, one can acquire only the basic principles associated with the particular discipline or occupational field. The majority of employers support this view:

"A degree represents a level of basic knowledge, and a process through which the young person has proved that he can overcome difficulties and accumulate knowledge, and this is all. Then, the particularities of the job will be learnt on the job." (A8)

"A degree is a significant base. ... It provides the individual with the theoretical knowledge required to survive in an occupational area. It is not expected that the new engineer recruit will be able to undertake the production management the day after his recruitment. None is completely ready." (A6)

5.9.1.3 A degree as a general knowledge background

A degree is expected to provide a general knowledge background. Evidence of this viewpoint can be found in companies that recruit graduates from a range of courses for the sales sector:

"We see a degree as a complementary asset, since the nature of the job does not require graduates. ... It is only general knowledge that is required." (A17)

There is evidence that, in certain companies, although they recruit from particular courses, it is not deep knowledge that is sought after, but an understanding of certain socio-economic concepts:

"During the business game, we look for the technical skills of candidates, but not exactly technical skills. It is more about understanding of the meanings of certain concepts, like cost per capita, or cost per unit of product, or pay-off of an investment. They may not be preoccupied with all these in the beginning but they must have an understanding of economic terms." (A8)

5.9.2 A degree as evidence of a portfolio of attributes

Beyond knowledge and personal development, a degree is seen as representing a portfolio of personal attributes, including motivation and values.

"A degree shows that the person sets targets, and can employ methods and energy to realise them." (A4)

Some employers talked about the confidence of graduates:

"University graduates have confidence. A degree has positive effects on the psychological state of its holder." (HR2)

However, qualifications are also seen as achievements that may generate great expectations among their holders. This may make certain employers to reject them with the justification of 'overqualification'.

"Graduates have bad attitude. They have delusion about themselves. They don't make self-assessment. Not only they expect to gain too much, but their whole approach is wrong. Their claims are not in line with the labour market conditions." (A15)

"Graduates, especially those with a post-graduate degree, have unrealistic expectations. They think that they can become managers from the very beginning." (A5)

The great expectations of graduates can be a stressful factor for employers, especially in SMEs, because they may feel not able to satisfy the career ambitions of graduates:

"We prefer [to employ] TEI graduates instead of AEI graduates. ... The company's branch in Greece is small, thus, one has to undertake tasks that fall below the formal job description." (A15)

On the other side, they welcome the willingness of TEI graduates to undertake a diversity of tasks without worrying about the status of a task:

"You can recognise a good prospective employee. He [a TEI student during his practical exercise in an enterprise] said: I don't want office work. Place me in the production sector. Give me a uniform." (V6)

There is a sense that employers appreciate the 'working-class' values of TEI graduates, as opposed to the 'elite' values of university graduates.

5.9.3 A degree as evidence of a certain level of capacity

In addition to evidence of subject knowledge, a degree offers evidence of high potential, especially in countries where there is a selection system for higher education. The study found evidence that employers believe in both the higher innate abilities of those enrolling in higher education and in the development of the individual abilities through the higher education experience.

5.9.3.1 A degree as evidence of innate abilities

Higher educational institutions set enrolment standards as safeguards of quality. This is especially so in selective systems of higher education - as has been and is still to some extent the case in Greece, at least for the departments that are in high esteem. Thus, a degree may carry more meanings than its apparent role indicates. It may indicate high relative achievements already if it has been awarded from an institution with high enrolment standards:

"The system of enrolment in Greece is more selective than many other systems in the world. This is why we prefer people who have studied for their first degree in Greek universities. This means that they [those enrolling in Greek universities] have higher abilities ..." (A16)

5.9.3.2 A degree as development through the higher education experience

The trend to see degrees as evidence of innate abilities slows down as higher education moves from an elite to a mass higher education system. If 70 per cent of school leavers enrol in higher education institutions, this means that people with medium abilities now enter higher education. The issue is whether their potential develops through the experience of higher education. Perhaps surprisingly, the study

showed that employers believe that this is the main contribution of higher education; to broaden the mind:

"The prime contribution of higher education is that helps the intellectual level of individuals to rise. It cultivates the mind. Yet, it does not mean that every graduate has a cultivated mind." (A17)

"People who have passed through the process of higher education have broadened their minds, and they might have learnt new ways of observing the world, better ways of assessing situations, and new ways of approaching various problems and finding solutions." (A16)

5.9.4 The added value of a degree

The above categories are not mutually exclusive. They constitute typical cases as regards the meanings that employers attribute to degrees. Employers may see a degree as representing any of the above or all the above. Indeed, the study found evidence that, for the majority of employers, a degree represents at least a significant difference in the individual's knowledge and personal development:

"A degree means that the holder has been initiated in the field. The graduate has acquired a knowledge base on which he can build knowledge and skills gained by practising his profession. The higher education experience broadens the mind, so that he can capture the challenges provided by his working environment." (A18)

"A degree shows that the person sets targets, and can employ methods and energy to realise them. And, of course, graduates possess subject knowledge, while non-graduates don't." (A4)

There are also kinds of information that can be inferred only from those degrees that demonstrate particular characteristics. Degrees gained abroad, for example, are viewed by many employers as an initiation of the individual into the global society:

"There is a difference between graduates who studied in Greece and those who studied abroad. The latter have gained more experiences, personal and professional, and they have seen the international reality." (A4)

"We prefer graduates who have not gained both their degrees – first and postgraduate – from Greek universities. Someone who has studied abroad has a better command of the language of the host society and has learnt how to survive in and adapt to new environments." (A12)

5.10 Overqualification

There are a number of issues mentioned by at least some of the employers which provide useful information about how employers see higher education. Roizen and Jepson (1985) labelled such views as 'windows', through which one can explore employers' viewpoints. One such an issue is the concept of overqualification. Overqualification is a relative term. Whether a person is viewed as 'overqualified' depends on a number of factors. A form of overqualification which may be unobservable is the increase in the proportion of graduates in 'ordinary' jobs. This is an unavoidable consequence of the expansion of higher education, since employers admitted that they often select graduates unintentionally.

Nevertheless, the evidence supports the argument that employers try to employ people with a level of education no higher than that required by the job role:

"The budget of the company and the directives regarding personnel selection are specific and do not justify the selection of a person whose assets are more than the requirements of the post. Except for the case that there is a plan for the recruit to move soon to a role appropriate to his education, he is rejected as being overqualified." (A16)

"Generally, we don't select overqualified candidates, except for a case that there is an intention for placing him elsewhere in the near future. In this case, we inform him about it from the beginning." (A7)

For certain job roles, a university degree constitutes overqualification and, thus, a TEI degree is preferable:

"We prefer TEI graduates instead of AEI graduates. Graduates from AEIs are overqualified for most jobs in the company because the branch of the company in Greece is small, thus, an employee has to undertake and tasks that fall below his job title." (A15)

For other posts a postgraduate degree constitutes overqualification. While a postgraduate degree can be a passport to high status jobs, it can also be a hindrance in selection:

"The company doesn't need people with postgraduate degrees, so we avoid selecting them." (A9)

Masters and PhDs are not seen in the same way by employers. Even those that see positively an MSc or a MBA do not favour a PhD, which seems generally to be seen as an individual indulgence.

"The company approves an MSc or a MBA. Yet, a person with a PhD is overqualified for the needs of the company." (A11)

The manager of an Internet provider company tried to explain why his company is not interested in higher degrees. He argued that the skills acquired during studies for an advanced degree (i.e. a PhD) cannot be used in the company:

"There is a PhD holder working here, but his doctorate has not been used by the company, and he is not paid for this qualification beyond the formal increase that applies in these cases. His background, of course, is different and, thus, he has been consulted on various situations and problems. But, in practice, he does not contribute to the company more than any of his colleagues who is interested in new technologies and keeps himself informed about developments in this sector." (A14)

It is worth noting that this manager stated that he does not try to avoid selecting overqualified people, except for cases where he feels that these individuals expect greater rewards due to their degrees:

"We have employees with Masters and PhDs in the company. But they know that their higher degree can neither be exploited by the company nor can it be cashed... I belong to this kind of people who favour those who study something because they are interested in, and not for finding a good job or for having more rewards." (A14)

The above company, however, did not bother about turnover, which is among the major preoccupations of employers when employing overqualified individuals. There were plenty of people in the labour market, especially immigrants from Eastern Europe, with the specialities needed by the company (IT specialists).

5.11 Underemployment

Underemployment is the downside of overqualification. The overqualified can be seen as filling roles that do not use their skills and abilities. A question addressed to careers officers was about the jobs that they see as appropriate for the level of education of their graduates. Careers officers replied that, given the conditions of the graduate labour market, every type of full-time job is acceptable for their graduates. But certain careers officers consider any employment not related to the level and content of the education of their graduates as a form of underemployment:

"In the past, when our graduates had problems in finding employment, they undertook any kind of job. Now that the market situation for our graduates has been improved, they find employment related to their studies. Non-relevant employment exists to a much lesser extent and mainly among individuals that didn't manage to graduate." (C7)

Generally, for example, clerical jobs are seen as 'underemployment' for graduates. A question is whether graduates apply only for traditional graduate jobs, or, in a competitive market, respond to vacancies for clerical or manual posts. The findings suggest that graduates do apply for clerical posts, although as one employer argued, they still seemed to find little to attract them in manual work:

"Due to the crisis in the labour market, many graduates apply for jobs for which a degree is not required. I did the same some 27 years ago. Yet, it happens only in administration and the financial sector. Graduates do not apply to become manual workers or technicians." (V4)

"Graduates apply for clerical jobs only in the public sector, not in private enterprises." (V14)

A respondent in a personnel department of an insurance company also verified that graduates are interested in working in clerical posts, but not interested in becoming insurance agents:

"Graduates do not really want to work. They are ready to accept a clerical job, just to answer phone calls. There is not unemployment, in practice. Unemployment problems exist only in certain fields, such as management, administration and clerical posts. When a company faces economic difficulties,

it will dismiss employees in administration but not those in sales, because the latter are productive.” (V1)

Careers officers noticed that graduates avoid undertaking commission-based jobs, like external sales, or insurance agencies:

“Most vacancies are in sales... This is a last option job for our graduates, in the absence of other jobs. I see that our graduates do not express any interest in these jobs.” (C6)

“Graduates are not interested in working as insurance agents; they avoid such jobs. These jobs involve payment by results, working in the street, a lot of shortcomings.” (C3)

Accountancy is another job that does not attract many university graduates. TEI and college graduates, therefore, have occupied the ‘niches’ that are left open by university graduates:

“We need graduates with an economic background who have the knowledge and interest to work as accountants, but few graduates are interested in and are enthusiastic about that. ... We might be wrong, but we have a mania for recruiting people with a university degree. What happens then is that they come, become frustrated and leave.” (A19)

A difference in expectations about employment can be identified between careers officers in universities and those in TEIs. For example, a job in sales is viewed as a ‘last-option’ job for university graduates, while it is viewed as appropriate employment for TEI graduates. The following quotes have been extracted from interviews with officers in a university and a TEI careers office respectively:

“Our graduates are interested in jobs that are closely related to their studies, like jobs in technical companies, in construction and maintenance of green houses, in genetic materials, and so on. Sales are a last-option job. I see that our graduates do not express any interest in working in sales... There are certain companies that offer a sales-type job where the employee has just to demonstrate a product, not necessarily to sell it. This is much better. (C6)

In contrast, the careers officer of a TEI viewed a sales’ job as appropriate employment for their graduates:

[A job in sales]...is a graduate job. It depends on what you sell, of course. If it is a special product, a person not having relevant knowledge cannot sell it. It happens to talk with a salesman of a machine like those we have in our

laboratories and we cannot communicate effectively with him because he doesn't know the function details of the machine which he presents to us." (C7)

5.12 Degree of specialisation

Another important issue which can provide useful insights into the way that employers evaluate courses in higher education is the concept of specialisation. There is an inherent difficulty in defining and measuring specialisation. A course – and consequently a degree – can be characterised as general or specialised depending on whether it provides a broad knowledge base in a discipline or deeper knowledge in a sub-area of the discipline. Specialisation is a relative concept. One degree course is more or less specialised compared with another. It is a point on a continuum. As a manager in a large chemical industry pointed out:

"To speak about my own subject, some years ago, there was a general course in Economic Studies. Nowadays, it has broken down to 15 specialities: Economics, International and European Economics, Business Management, Statistical and Insurance Sciences, Marketing and Communication Studies, Maritime Studies, Accountancy, Banking and Stock-Exchange Economics..." (A6)

Employers admitted that they do not have time to look at the curricula of higher education programmes. Usually, the name of a course constitutes indication about the extent of specialisation. From this point of view, Business Management is viewed as a general course, while Maritime Studies, or Banking and Stock-Exchange Economics are viewed as specialised courses.

It is of interest to know whether employers prefer general or more specialised degrees. The findings suggest that it depends on several factors and, especially, the sector of employment and the nature of the job role. High technology industries need specialists. A manager in a technology and telecommunications company stated:

"If telecommunications develop further, there will be a need for more specialised courses in higher education, than it is the case at present in Greece." (A17)

Most employers favour general degrees:

"All the departments of X University are good enough but, especially, the department of Business Management, which is a broad course and, thus, it is in high demand by enterprises...A broad course is, first of all, good for the student and secondly for the enterprise. Graduates have more employment options when they have attended a broad course." (A18)

"All coins have two options. My opinion is that it is better for someone to have a broad knowledge base, like a lot in which an employer can build. Specialised knowledge restricts the employment possibilities of a graduate. There is a limited number of enterprises, then, where he can work." (V7)

Employers favour the general knowledge background provided by higher education, knowing that specialisation is always at the expense of more generalised knowledge. Typically, they do not look for a high degree of specialisation, because of the greater flexibility they feel a more general higher education can provide:

"Higher education is not obliged to cover all the spectrum of knowledge. It serves to provide only a general background." (A6)

One careers officer in a technical university argued that the broad knowledge base provided by all courses in that university is like an insurance against unemployment. When a problem arises for graduates in a speciality, they are able to transfer to a related occupational field:

"Metal engineers, who faced an employment crisis some years ago, orientated themselves to neighbour occupational fields. At present, they are occupied in environmental management or underground constructions. There are always way-outs for our engineers due to their broad knowledge base." (C4)

However, the careers officer of another technical university, whose graduates cannot register as members in the engineers' professional body, attributed the transfer of (for example) metallurgists to related occupational fields, to the power of the professional body of engineers, rather than their curriculum:

"Environmental management has been undertaken by metal engineers as a monopoly market, not permitting graduates of relative fields (i.e. agriculturists) to take part. It is due to their powerful professional body, but it is not fair, because our graduates, too, have the knowledge base to undertake a job in this field." (C6)

Other employers do not favour depth of specialisation because they believe that their organisations have more advanced knowledge in their field than universities:

"A university cannot have the specialised knowledge that a company specialising in a particular area has. Moreover, the university should not give a student such a narrow horizon." (A8)

"In certain issues, the educational market may not be able to provide the specific knowledge and skills required by industry. ... Being a member of a group of companies, we have a huge amount of knowledge in our field. Why should we go to a university, to generate something out of zero? ... It is expected that certain companies are at the frontiers of knowledge in certain fields, because they specialise in very narrow sections of a field." (A6)

The demand for graduates with more general degrees may, in part, be attributable to a lack of information on the part of employers of the spectrum of specialities. Careers officers usually favour the most relevant speciality for a vacant post, although this may encourage a trend for higher specialisation:

"They need specialists in automation but they intend to recruit electronic or electrical technologists, because they don't know that there is such speciality. It is among our responsibilities to inform employers about these issues." (C8)

Some managers seem to favour not only general first degrees, but also general postgraduate degrees:

"A postgraduate course can provide specialised knowledge in a field, but it can provide general knowledge too, like an MBA, which is about the management of business. We, indeed, are in favour of a general one." (A8).

A manager in a large chemical industry expressed a similar viewpoint:

"Specialisation is necessary, but only up to a point. The issue is that the market can absorb this specialisation. Moreover, specialisation requires maturity because it presupposes that one has decided what he wants to do in his life. Otherwise, it is better to make a more general choice. For example, in the area of economics, an MBA would be more useful than a specialised Master's degree because the former is general and provides a base for further specialisation." (A6)

A careers officer identified a relationship between the degree of specialisation expected in an enterprise and the size of the enterprise:

"The larger the size of an enterprise, the more responsibility is shared within the company. As far as Greece had small enterprises, there was a person responsible for everything in the company. Thus, courses were shallow and broad. We were teaching initiation into one field, initiation into another,

initiation into a series of fields of knowledge. An accountant ought to know the basic principles of law, management, and other subjects. As enterprises grow in size, the skill demands become more specialised.” (C5)

Other factors related to the extent of specialisation needed, are the degree of vertical organisation of an enterprise, the sector of employment and the technology used:

“The company has not many levels of organisation in Greece. Thus, we cannot employ highly specialised people who would like to make a career in their speciality. If a young person wished to do so, then his opportunities for career development within the company would be too limited. We need people who have the ability to transfer from one job to another. ” (A8)

5.12.1 The ‘theoretical to applied’ continuum

It has been argued that a course can be ‘theoretical’ or ‘applied’, depending on the degree of concern with application (Betcher, 1989). There is great variety among courses in higher education in terms of the differential weighting given to theory and application of theory:

“It depends on the objectives of a department. In the university, there are at the same time departments that emphasise theoretical knowledge and departments that emphasise applied knowledge. Moreover, within a department, there may be courses that consist of 80 per cent applied knowledge and 20 per cent theoretical knowledge, i.e. accountancy, and courses that consist of 80 per cent theoretical knowledge and 20 per cent applied knowledge, i.e. investment evaluation.” (C5)

But, there seems to be some difficulty among employers in distinguishing between the terms ‘specialised’ and ‘applied’. These terms seem to be used interchangeably. This may be due to the fact that applied courses are often – but not necessarily – specialised, and the reverse. Nevertheless, this is a source of confusion among recruiters. There was also a difficulty among respondents in distinguishing between general courses, that is, courses that provide a broad knowledge base, and courses that provide knowledge applicable in a wide range of working environments. Due to the interchangeable use of – or the semantic confusion between – these terms, the

majority of employers viewed MBAs as general degrees. A manager of an Internet provider company, however, denied the label 'general' for MBAs:

"It is not a general degree. It is a 'Passpartout'. It is business administration. It teaches you five, ten tips about the running of a company." (A14)

The emphasis on theory or application is among the aspects of the education process that affects the employability of graduates. Employability has two (or more) dimensions. One dimension refers to the ease with which one enters employment and the ability to perform effectively and be competitive in the job. The other dimension refers to the status of the job that one acquires, and the prospects for promotion.

A careers officer preferred to use the term 'education' to refer to theoretical knowledge and the term 'training' to refer to applied knowledge, and described his viewpoint as regards the consequences of a choice between a more theoretical or a more applied course thus:

"Providing the student with more theoretical knowledge and, consequently, less applied knowledge – let's say it more education and less training - you enable the individual to develop new perspectives in his job. In contrast, providing him with less education and more training you help him to acquire a job, because you enable him to make a very good first impression." (C5)

From this perspective, courses with essential theoretical components seem to offer better prospects for career development, but courses with more applied components help the transition to employment. The same respondent also described a relationship between a preference for graduates from applied courses and the size of the enterprise:

"I can say with much certainty that large enterprises approve people who have education and not training. The opposite is true for SMEs. This is so because large enterprises have the possibility to allow the recruits one or two months to learn in practice certain things. The small enterprise, instead, expects that the recruit will work and be productive from day one. That person needs training rather than education. He might be in need of theoretical knowledge only once or twice per year, when the company will change the machinery, or when it will make a new investment." (C5)

5.13 Work experience

Since most jobs for graduates are considered entry-level posts, work experience is not among the assets expected from candidates for employment. Indeed, many employers expressed the preference for new graduates without work experience. This preference is sometimes hidden behind issues of 'culture':

"Personally, I prefer a good scientist, directly from the university. A person with work experience joins the company 'vaccinated' with a different culture." (V7)

The majority of advertisements in the press are targeted at graduates with two to five years of experience in a relevant post. However, this cannot be seen as an indication that most companies expect experienced individuals. When experience is not required, companies can easily fill vacancies with applicants from their data base; therefore, they are not in any need to place advertisements. Only where experience is a clear requirement, and companies, especially SMEs, may find difficulty in filling vacancies are press advertisements placed.

However, work experience is especially appreciated in SMEs. These companies cannot afford an adaptation period for the newcomer because they often employ only one person with a particular speciality and not teams - as it is the case in larger companies - in which the newcomer can develop his skills on the job by learning from work colleagues.

For many companies, the responsibilities undertaken by the candidate in a previous job are seen as evidence about the potential of a candidate. Companies which apply aptitude tests in personnel selection explained that experienced individuals do not undergo these tests. Their CVs constitute evidence of their potential, and this may be a better predictor of their future work performance than tests:

"The 'ready cadres' in the market do not undergo assessment. A person with work experience at a supervisory post is viewed as an established member of his professional association. His career is an indication of his abilities." (A17)

"We make inferences about a candidate's abilities from the types of responsibilities being assigned in his previous job." (V12)

Naturally, work experience is best appreciated when it relates to a similar post.

Work experience in a non-relevant post is seen only as indication of the qualities and values of the individual. This was evident in the comments of a manager of a shipping management company who explained how he selected a mechanical engineer for the technical sector of the company among three candidates:

"There were two candidates with bright CVs, and a candidate with a two-year gap during his studies. In his CV there was not an explanation for this gap. I felt the need to call him and ask about it... [He explained that] at that time his father had a heart attack and he had to earn the living for his family. He worked as an unskilled worker, but this action showed ethos, respect to moral values, ability to take responsibilities... which are fundamental elements of a personality." (A19)

The institution of student placements in business and industry has developed on the supposition that facilitates the transition of students to employment, by providing them with work experience. But although work experience may be an asset in selection for a limited number of jobs, there is not evidence in the present research that it is generally of high importance. Moreover, courses with poor employment prospects cannot often ensure workplace internships for their students. This is unfortunate, as internships could be helpful for students with moderate academic performance, because they are given the opportunity to demonstrate their abilities and motivation. The careers officer of a TEI (C8) argued that, in his experience, some employers assess students on their actual performance during their practical placement rather than on their academic performance. In such cases, their chances for selection are enhanced mainly for the company in which they were interns. However, students with low academic achievements find internships difficult to obtain in popular companies, because although employers do not ask for the grades of candidates for employment, they ask for the grades of candidates for internship:

"Generally, companies do not ask about the grades of candidates for employment, except for students applying for practical exercise". (C1)

Sadly, however, few enterprises expressed interest in accepting university students as interns, because they believe that the workflow in the company is disturbed by them. This is mainly because of the conditions attached to internships, which require that university students are introduced to activity in all sectors of the company. There was more interest for accepting TEI students as interns, because their placement is longer and involves a period of real work at a specific post in the company.

And the owner of a newspaper gave another reason for not accepting students for placements in his company:

"By getting in the company, its frames and norms, students would be harmed."
(V16)

It is worrying, of course, to hear an employer expressing such a view.

5.14 The future of graduate employment

The expansion of higher education has created a new situation for graduates in Greece. Since the proportion of graduates increases more rapidly than the proportion of jobs that require advanced skills, graduates should expect that they might end up in posts that are outside what used to be seen as a 'graduate career':

"Being a graduate is just a good starting point, but it is not a ticket for a career. There are not many vacancies. There are so many CVs for each vacancy. Nowadays, graduates have not many employment options." (HR2)

"Graduate status is not enough to change one's future. It is not possible for all graduates to attain high-status posts. The problem is that the award of a degree confuses people and de-orientates them from what they will finally do for a living." (A2)

Despite the problems it creates for graduates, the majority of employers were positive about the expansion, and its benefits for the individual and the economy, provided that graduates adapted their expectations to the new realities of the labour market:

"I cannot see but positively the fact that people go on studying... We cannot restrict access to higher education only to facilitate the transition of graduates to employment or to facilitate employers' selection by having a pre-selection made for them by the educational system." (A14)

"Those who would enrol in an IEK, with the expansion of higher education, will enrol in an institution of higher education. They will get benefit by having access to education of a better quality and, in turn, they will give back this investment in the form of higher productivity. On the other hand, higher education cannot transform everybody to a scientist who will expect to do only a scientist's job." (A7)

There were those, however, who worried about the overall quality of graduates in an expanded higher education system. A few employers made the point that possessing a degree does not guarantee, any longer, that the holder of the degree is able to perform satisfactorily the jobs associated with that degree. Moreover, given the competition among graduates for jobs, it might be better for some if they chose to be occupied with less demanding jobs:

"I believe that the expansion of higher education was not a good political choice. First, because studies have lost the meaning they had in the past and, second, because the weak students that now enrol in higher education are given the impression that they can achieve things that they don't really can. Thus, they do not concentrate their efforts in things they might achieve." (A1)

Companies that expressed doubt about the abilities of candidates can be divided in two categories. First, there are companies on the edge of technological development that find shortages of technical knowledge and skills in recently graduated engineers. Then, there were companies which, due to their geographical position, or due to the employment conditions they offer, have to select their employees from candidates who were unsuccessful with other companies. Moreover, graduates in jobs in which they are not interested may not try to do their best for the company and be modest in their work efforts while continuing their job search. Employers in the sales sector and in insurance companies reported this problem.

Careers offices should stand at the interface of the academic world and the world of work. Consequently, careers offices need feedback from the business world to pass this onto university departments, reporting on the 'goodness of fit' of its graduates for

the world of work. They can get such feedback in various forms. Usually, the responsibility for communication with the labour market is assigned to an academic, preferably someone who has work experience in business. Academics, also, often have relationships with the business world. But, as they emphasised, the student placements is the most common way of their communication with employers:

"The work placement of students gives the more clear messages from the labour market. It gives institutions the opportunity of a first contact with enterprises, because someone in the enterprise is responsible for the interns. He informs us about the performance of our students. In addition to this, you have only your acquaintances in the business world, which are never many." (C5)

The director of another careers office revealed certain problems in the communication and co-operation between the business world and the higher education institutions:

"Traditionally, production draws the dance and expects others to follow. From the other side, academics claim that they know what the market needs. Thus, there is no co-operation between higher education and the production sector." (C8)

He went on to explain how the office created a management structure to support the communication between the careers offices and university departments:

"We try to share our experience [of the labour market] with the departments... but departments are not receptive to such type of information. To say that in a simple way, they feel that we invade their fields and they are somewhat annoyed by that. Yet, the organisation of this careers office includes a project team which consists of a representative of each department. We try, in this way, to facilitate the exchange of information and experience between the careers office and the departments." (C8)

A problem in communication – or a kind of competition - can be identified in the following quotation of another careers office:

"We saw well in advance the need for new specialities, which were welcomed by the enterprises later on. We did not wait enterprises to tell us how we will do our job. We predict trends in the market by studying the dynamic of occupations." (C5)

The same careers officer commented on the way that academics respond to suggestions from industry:

"There is no involvement of employers in course design. When enterprises make a suggestion about the curriculum, we pass this information on to the departments. Departments decide independently whether they want to inculcate it in their courses, or not. Departments are autonomous. An enterprise can make remarks; the department considers them in a wider planning framework." (C5)

But, suggestions from industry are not dismissed out of hand in every case because some do recognise that the employability of graduates depends to an extent on their co-operation with employers:

"Our graduates are successful in finding employment because this university is attuned to the labour market needs." (C5)

Employers' suggestions can refer either to skills missing or to specialities desired. The above careers officer, who is an academic too, explained how academics decide how they will respond to particular suggestions from employers:

"Universities have to plan from a longer perspective. Enterprises may report current shortages of certain specialities. But if we calculate that in three years time there will be a balance of supply and demand, we may decide that it is better a shortage to exist for two or three years, instead of closing up the gap now and having to face an oversupply within four years. The responsibility about the way that market signals will be dealt with lies with the departments." (C5)

At the same time, some employers in large companies complain that they are not allowed to express any opinion on traditionally academic issues:

"Nobody asks for our opinion. From the establishment of the local university [about fifteen years ago] only once we received a questionnaire concerning the needs of industry. Moreover, we have never been informed about the outcomes of this inquiry, and whether this survey has contributed to any curriculum change." (V3)

"Academics do not let others to be involved in their affairs. They have a negative attitude towards the business world, because they do not know it." (V12)

A few employers expressed disappointment with the indifference of academics to the need to revise and renew the programmes of study. Employers believe that most academics are quite resistant to their attempts at communication with universities:

"Academics are completely indifferent to whatever happens around them. They do not reform programmes of study to get them closer to the needs of industry and business because this will affect their interests. Inculcation of a new course in a programme of study means that the teaching hours of another, traditional

course, will decrease. They undermine the future of their students in order to keep their lot in the share of courses.” (V12)

Some employers feel strongly that their suggestions are not taken into consideration. The manager of a high technology industry stated:

“We have repeatedly reported to the Federation of Greek Industries that the existing higher education programmes are too theoretical.” (V4)

Instead of the bureaucracy of the university, some enterprises prefer to co-operate with specific academics that they admire for both their academic and professional work:

“We collaborate with lecturers and professors, not with universities, because a university consists of a group of people. A university cannot be the same next year if a part of its teaching staff left. I know X teacher, or Y teacher with whom I have good co-operation, who has helped me in my job, and whom I have helped, too.” (A6)

Specific proposals were also made about how to ensure that programmes of study get closer to the labour market needs:

“Higher education should be connected to production. A representative of the Federation of Greek Industries should participate in university governance. A university committee should visit industries and be informed on career issues. Universities also should send information bulletins to industries describing their study programmes and the profiles of their graduates.” (V3)

“They [academics] should pursue this feedback...with the same way that you do your doctorate study. They could assign projects that would bring some students to business to take information and give it back to their institution in the form of a good study, which will be read by a few people in the institution. They could also organise seminars where the speakers will not be academics, so that they will not tell again what they would tell in their classes, but to invite the market, since the university, in addition to providing academic knowledge, has the objective to prepare people for the labour market.” (A8)

5.15 Summary of findings

The purpose of the study was to identify what types of knowledge, skills and qualities employers are looking for in their potential recruits, and the proxies they use to identify or measure these types of knowledge, skills and qualities. The most important findings of the research are summarised below:

- Employers are looking for evidence of technical expertise, a portfolio of personal and interpersonal skills, a certain level of capacity, and personal motivation.
- Employers make inferences about most aspects of human potential, based on the educational qualifications of candidates.
- Technical expertise constitutes the touchstone in selection. Employers are looking particularly at the level of technical expertise of candidates, and its relevance to the needs of the job.
- As evidence of the type of technical expertise of a candidate, employers consider the subject of study first and foremost, the speciality, or the 'direction' of study and, in certain cases, they look even at curriculum studied.
- Evidence for the level of expertise of a candidate is imputed from the type of the institution that awarded the degree, the status of the institution, and the degree class.
- The type of expertise is considered by employers as far more important than the level of expertise. Consequently, the features of degrees associated with the type of expertise are seen as more important than those associated with the level of expertise.
- Inferences about the personal qualities of candidates are made on the basis of academic performance, interests and leisure activities, as recorded on CVs and discussed during the selection interview(s), biographical data, physical presence and, in certain cases, performance in business games.
- The personal and interpersonal skills most often sought after by employers are communication skills, the ability to cooperate, the ability to organise and set objectives as regards the job, working within deadlines, and a willingness to learn.

- Selection criteria for fast-track programmes require additionally self-confidence, ability to influence others, a positive attitude to mobility, and being a 'change catalyst'.
- Inferences about the individual ability are based on the type of the institution that awarded the degree, its status, the degree class and, in certain cases, the scores on logical and numerical reasoning tests and business games.
- Inferences about the individual motivation of candidates are made by employers on the basis of the subject of study and its relevance to the subject of the job and, especially, on the balance between the level of education which is seen as required by the job role and the level of education of the candidate.

There are also a series of findings related to specific issues, or educational debates:

- Employers are interested principally in applied degrees.
- The majority of graduates employed in industry and business are graduates of engineering or economics, either from the university or the non-university sector.
- Employers prefer general rather than specialised degrees within the above fields.
- At the time of the research, the precedence in the labour market had been taken by engineers with a postgraduate degree in economics.
- Many employers value the theoretical knowledge background of university graduates, which they associate with flexibility in dealing with change.
- Employers associate the higher enrolment standards of universities with higher 'raw' intelligence of university students compared with that of students of other degree awarding institutions.
- Degrees holders are seen as bearers of particular cultures, varying with the type of institution that awarded the degree.

The chapter that follows discusses the findings of the study and tries to identify trends in graduate recruitment and selection in Greece.

CHAPTER SIX

DISCUSSION OF FINDINGS

6 Introduction

The purposes of the study were three-fold: First, to determine the types of knowledge, skills and qualities sought after by employers of graduates in Greece. Second, to identify the features of degrees that determine their value in the market and, third, to exemplify what the subject and level of degrees signify to employers in terms of the potential of the individual.

This chapter presents an analysis of the data reported in Chapter Five in relation to the research questions. First, a theoretical model for graduate selection for employment is presented. Basic components of this model are the skill requirements of employing organisations and the employers' strategies to identify among candidates those who satisfy the skill requirements of vacant posts.

The main selection strategies of employers correspond to the main skill requirements of the workplace; 'technical expertise', 'compatibility', 'capacity' and 'motivation'. These strategies, which represent ways of assessment of the particular types of knowledge, skills and attributes sought after in the workplace, were analysed into their sub-elements, that is, the particular aspects of the educational experience of graduates which employers associate with the particular types of knowledge, skills and attributes. In this way, particular aspects of the higher education experience of graduates are assessed in terms of their usefulness in supporting the employability of graduates.

The findings are compared with the findings of previous research, and similarities and differences are identified and justified wherever possible.

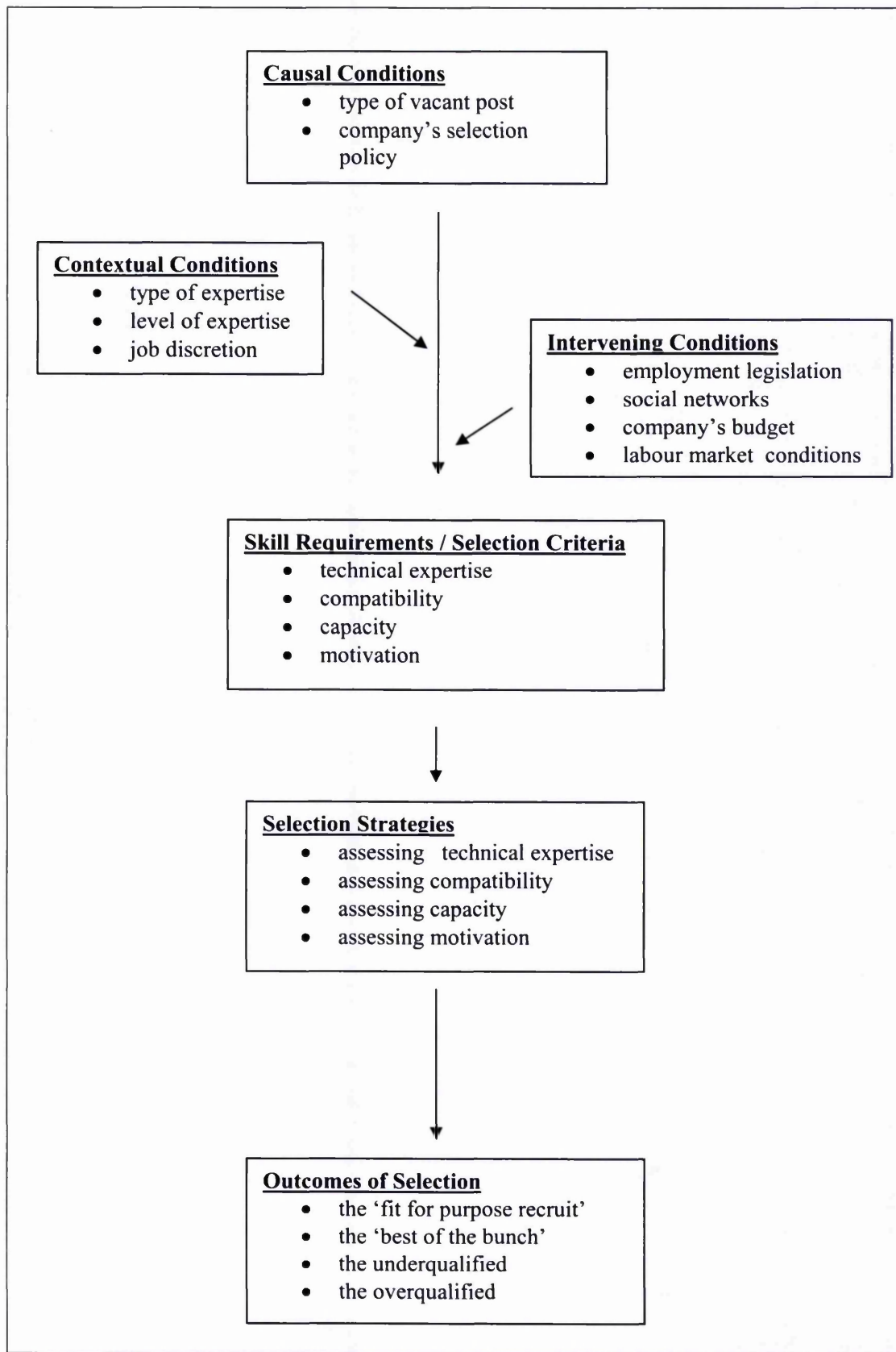
6.1 The theoretical model of graduate selection for employment

Following an inductive method of data processing, the study developed a theoretical model for graduate selection for employment. It is presented below. The basic components of the model are conditions, the central phenomenon (the selection process), selection strategies and outcomes. Conditions are the set of circumstances or situations, in which phenomena are embedded. They are causal; that is, directly influencing the phenomena. They are intervening; that is, altering the impact of causal conditions. They are contextual; that is, specific sets of conditions are dimensionally specified (Strauss and Corbin, 1998). Strategies are actions undertaken by individuals or organisations to respond effectively to the phenomenon under the particular conditions. Outcomes are the results of strategies employed by recruiters.

Selection takes place in an organisation when one or more vacancies arise. Then, the procedure that is followed depends on the recruitment and selection policies of the organisation or, in the absence of such policies, on the traditions and ethics of the organisation relating to personnel selection. The vacancy (or vacancies) and the policies related to selection are the causal conditions which result in the central phenomenon: the selection process.

The theoretical model of selection that emerged from the study is presented below:

Figure 1. Theoretical model of graduate selection for employment



The first event in the selection process is the creation of the job profile. The profile of the job and, consequently, the profile of the successful candidate for the job, are determined by the contextual conditions, which are closely related to causal conditions; indeed, the contextual conditions constitute properties of the vacant post and the employing organisation in which vacancy arises. Properties of the vacant post that were found as determining the profile of the new recruits are the sector of employment (technical, non-technical), the particular emphasis within the job role and the level of discretion exercised within the job. Properties of the employment organisation that were found as determining the skill requirements of the vacant post are the size of the company, and the scope of its activities.

In addition to contextual conditions, there are intervening conditions, too. They can occur at the micro- or the macro-level. At the micro-level, the budget of the company, its geographic location, the degree of interest of the employer in employee retention, and managers' preferences and their social networks determine, to a great extent, the outcomes of recruitment. At the macro-level, employment legislation, higher education planning, labour market conditions, and other contingencies can affect the selection process, too.

The interplay of the above conditions results in the formulation of the job profile which, in turn, is reflected in the profile sought after in the potential recruits. This, in turn, determines the appropriate selection strategies for identifying among candidates those individuals most likely to satisfy the skill requirements of the vacant post. The profile of the candidates is, then, contrasted to the profile of the job role. Some employers talked about assessing the profile of candidates 'from a technical perspective', others referred to 'technical expertise', still others to 'technical

knowledge', and so on. A range of terms referring to technical knowledge and skills or similar meanings were accommodated under the concept of 'technical expertise'. Employers also talked about 'proper personality', 'personal match', 'cultural match', and other terms with similar meanings. These terms were accommodated under the concept of 'compatibility'. Furthermore, employers' references to 'intelligence', 'intellectual ability', 'capacity', 'capability', and so on, were accommodated under the concept of 'capacity'. Finally, references to 'interest', 'motives', and terms with similar meanings, were accommodated under the concept of motivation.

6.2 Strategies of assessing the candidates' potential

The need to assess the various aspects of candidates' profiles led to the development of four parallel core selection strategies. These strategies have been labelled correspondingly with the aspects of the potential of the candidate that they seek to assess: technical expertise, compatibility, capacity, and motivation.

Figure 2. Employers' strategies for graduate selection for employment

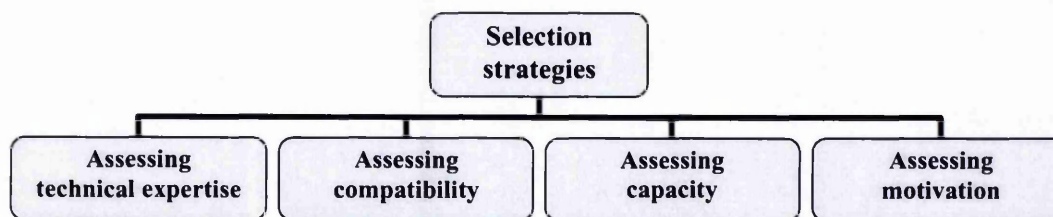


Figure 2 presents the main employer strategies in selection of graduates for employment. Each strategy contains a number of sub-strategies, which indicate the basis on which employers make their judgements about the aspects of the candidates' profile

that they relate to. In many instances, similar sub-strategies (i.e. looking at the type of the institution that awarded the degree, or looking at the degree class) facilitate the different strands of assessment (i.e. assessing technical expertise and assessing capacity alike).

In Dore and Oxenham's (1984) study, employers' selection strategies were oriented to identify among candidates those individuals who were most likely to satisfy three requirements: first, to perform certain functions adequately; second, to fit into certain patterns of organisation; and third, to get on with certain groups of personnel. The first strategy of Dore and Oxenham's study is similar to the strategy 'assessing technical expertise' identified by the present study. The two other employers' strategies found by Oxenham and Dore's study seem both to refer to 'compatibility'.

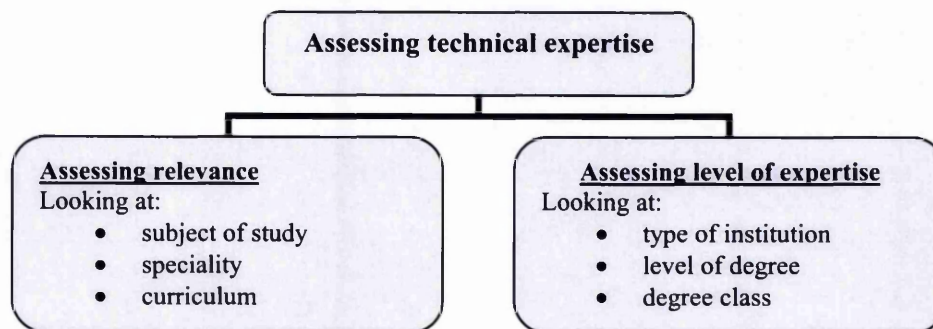
The findings of the present study are also congruent with the findings of Brown and Scase (1994) who suggested that employers assess candidates from three perspectives: suitability, acceptability, and capability. Three of the core strategies of the present study – assessing technical expertise, assessing compatibility and assessing capacity – parallel Brown and Scase's aspects of the selection processes mentioned above. However, in Brown and Scase's study, motivation is included in the concept of capability. In Harvey's *et al.* (1997) study, motivation is considered as the complement of capability, in 'making' the transformative employee. In the present study, motivation was dealt with separately, because of its distinctive role in selection, and because of the relationships it has with major concepts in the study.

6.3 Assessing technical knowledge

Technical knowledge has two basic properties: type and level. The property 'type' can range from relevant to non-relevant, a characterisation that emerges by

comparing the types of skills of the individual with the types of skills required by the job. In assessing types of technical knowledge and skills, the main strategies of employers were found to be looking at the subject of degree study, the particular speciality within that (if any), and the curriculum of the course. In assessing level of technical knowledge and skills, the main strategies of employers were found to be looking at the type of institution that awarded the degree, its status, the level of the degree (first or postgraduate), and the degree class. These were found to be the most common strategies, though some individual employers may construct their own strategies, according to their experience of graduates' fitness for work. Figure 3 presents the two aspects of technical knowledge: type of technical knowledge, assessed as relevance, and level of technical knowledge, assessed as level of expertise.

Figure 3. Aspects of technical knowledge



6.3.1 Relevance

There has been a long-running debate about relevance in education. In the particular case, the issue is about the relevance of higher education to the needs of the employment system. Relevance has emerged as a fundamental value in the Greek labour market; a relevant degree is the passport to the candidates' pool.

The study identified a series of reasons why employers see relevance as an important dimension of higher education. First, employers believe that the knowledge and skills that graduates acquire during their studies give them familiarity with the practical problems that they may encounter in the workplace, provided that they work in a relevant occupational area. If the recruit has not the appropriate educational background, it takes time to acquire the knowledge needed on the job. Moreover, an employee with a non-relevant degree will always lack the basic theoretical concepts of the field. Employers tend to believe that even graduates in subjects similar to some extent, may not understand how relevant parts of their knowledge can be put in practice. This view emerges from the fact that graduates in non-relevant subjects have not been sensitised to the culture of the particular occupational area. There is also the problem of transfer of skills to a field different from the learning environment. This refers to the distinction between 'near' transfer and 'far' transfer and the poor probabilities of the latter to take place (Stenberg, 1987). For all the above factors, employers prefer graduates in subjects relevant to the skill requirements of the job roles in their organisation.

In Continental Europe, unlike the UK, there has always been an emphasis on the subject of study. The expansion of higher education further intensified that emphasis, by focusing the interest of employers on the 'use-value' of degrees (Teichler, 1999). Holders of degrees in engineering and economics, gained either from the university or the non-university sector, constitute the vast majority of graduate staff in industry and business. These subjects find open paths to paid employment in the private sector of economy. This is particularly important at a time when the public sector is decreasing and the private sector has become the main route for new graduates. The importance of these subjects in the private sector of economy has been verified, also, by employers' responses to questions about combined or interdisciplinary studies. Employers wished

to see a combination of studies in engineering and economics. They especially appreciated a first degree in engineering combined with a postgraduate degree in economics.

A limited number of graduates in other specialities were found working in industry and business. These were usually applied degrees, like law, information technology, agriculture, and food technology. Only a few graduates in arts, humanities, and pure sciences were found working in industry and business. The conditions that led to these exceptions were most often either a very close social relationship with a senior member of the organisation, or a vocational qualification from the post-secondary education sector which became the passport to employment.

One reason for the very good employment prospects of engineers in industry is that their degree is viewed as a good basis for almost every role in the organisation. Indeed, the present study identified a pattern of engineers moving into management roles in the non-technical sector, early or later in their careers. The study also identified a trend towards recruiting engineers for posts in management, marketing, and sales. These findings are in accordance with the study conducted by the National Technical University of Athens (NTUA), which identified a diffusion of the job roles of engineers in all sectors of organisations, including production, management, and sales (NTUA and NLI, 2001). The NTUA study commented that the employment of engineers in these positions does not constitute 'underemployment' or non-relevant employment, because there is utilisation of knowledge and skills acquired during their studies and because these positions are often associated with higher pay packages. The prominence of engineers in the private sector of economy was justified, in the NTUA study, on the basis of the privileged 'relationship' that engineers have with technology, which is required in almost all posts in an organisation, including managerial and administrative positions.

A study in Canada reported that the trend among employers in the 80's to prefer engineers for managerial vacancies, even in the non-technical sector, was reversed in the 90's. This was because economic and business administration schools regained sectors of employment which had been invaded by engineers, by including in their programmes of study more courses in technology and ICT (Lavoie and Finnie, 1998, quoted in NTUA and NLI, 2001). Based on the study of Lavoie and Finnie, the NTUA study offered the following hypothesis: If schools of economics and business administration in Greece reformed their curricula, including in them more courses in technology and ICT, they could counterbalance the dominance of engineering in the labour market. Whether or not this is true, the findings of the present, as well as the above, study indicate the importance of higher education curricula in enhancing the employability of their graduates.

Subject knowledge seems to be of less importance in the commercial sector companies, where – as the findings suggest – an awareness of the basic concepts of the field is seen as adequate for successful job performance. This is in line with the findings of the study of Harvey's *et al.* (1997), who found that employers placed emphasis on graduates' understanding of basic principles rather than on acquisition of complex subject knowledge, although that study did not specify the range of jobs where basic principles of the field constituted adequate educational background. The indifference of employers to the subjects of study of candidates for employment in the commercial sector may be attributed, partially at least, to an attempt by employers to increase the pool of candidates for this sector, in which the interest of graduates has proved to be limited. From this point of view, the interest of employers in the UK for employing graduates of any subject in a wide range of jobs might be attributable to the lower proportion of graduates in the UK population compared with that in Greece.

The emphasis of employers on 'relevance' generates a series of consequences both in higher education and in employment. At first sight, such emphasis on the part of employers on the subject of study may look irrational. Yet, on closer scrutiny it is very rational. The optimal employment prospects of certain faculties in higher education result in a higher competition among prospective students for enrolment in them and, consequently, in raising enrolment standards for these faculties. This means that these faculties attract students with higher potential. As a result, in addition to relevance, employers ensure higher raw abilities among their recruits. This realisation can be seen both in a positive and a negative way. In a negative way, this can be seen as a vicious circle where the adherence of employers to the subject of study distracts students from their real interests and supports instrumentalist views of higher education. In a positive way, this can be seen as streaming individuals with high potential to the acquisition of those very skills needed by the economy.

6.3.1.1 Specialisation

A question relevant to curriculum issues is the relationship between the degree of specialisation and employment prospects. The Congress of Deans of Greek Universities (CDGU), in 1992, addressed this issue. That Congress, taking into consideration the responses from professional bodies to this question, concluded that specialised studies should take place at the postgraduate level (CDGU, 1992).

The present research found that employers had a preference for general degrees because they believed that a broad knowledge base, albeit within a particular field, better enables graduates to deal with the challenges of their jobs and to adapt their practices to changing conditions. A less broad knowledge base may hinder them from seeing the 'whole picture' and limit their adaptability within what is a rapidly changing work environment.

The evidence from employers suggested that both large companies and SMEs favour general degrees, but for different reasons. Employers in large organisations prefer general degrees because they provide specific training themselves to their employees; therefore, they prefer a broad knowledge base on which to build the specialist knowledge needed on the job. As employers commented, companies with a 'flat' structure (i.e. those branches of multinational companies that have only commercial services in their branches in Greece) prefer general degrees (always in particular occupational fields) because these companies cannot employ highly specialised people, who have not the ability to transfer between job roles within the organisation during their careers. Employers in SMEs hardly commented on curriculum issues, but careers officers explained that employers in SMEs favour graduates with general degrees because graduates in SMEs have to deal with all the issues and problems that arise in their organisation, since they are often the only person in the company having a particular speciality. Thus, the preference of employers for general degrees is evident in both large and small organisations.

The extent of specialisation expected also depends on the technology used by the organisation. Most companies do not use advanced technology and, thus, there is no need for deep specialisation. In contrast, high technology industries (i.e. telecommunication companies) favour specialisation, and warn that further developments will generate the need for even more specialised courses in this field.

There are some differences between subjects as regards the extent of specialisation expected. For example, in engineering, there is a clear preference for the traditional general degrees, while in economics there is still room for more specialisation. The traditional degrees in engineering in Greece, as in most of Continental Europe, place emphasis on theory. Employers appreciate especially the theoretical background provided by the traditional engineering programmes of Greek

universities. This can be justified by the nature of the discipline. Engineering is a more fast-moving discipline compared with economics. Research has shown that the notion of knowledge becoming obsolete fits more to applied rather than to pure subjects (Betcher, 1989). Consequently, knowledge in engineering can become obsolete more rapidly than in many other fields (i.e. physics). In fast-moving disciplines, the theoretical background of the field underpins one's ability to keep pace with new developments. These conditions justify the preference of employers for the traditional programmes of engineering schools in Greece.

The new form of specialisation that has been introduced in many undergraduate programmes, namely the 'direction' of the curriculum, has generally, been welcomed by employers. The basic principles of the discipline are given during the first years of study, while deeper knowledge in a segment of the discipline is provided during the second half of the study period. The length of studies in Greek universities (four years) permits such a curriculum design. This form of specialisation is seen by employers as a balanced recipe and as reducing the need for postgraduate studies.

There was one employer who was found to be against this form of specialisation. He saw it as a 'semi-solution'. His rejection of such a scheme might be attributable to the fact that, in general, he was in favour of the notion of studying for its own sake. Thus, he might have seen this scheme as another aspect of vocationalism spreading into higher education. Thus, he did not appreciate it.

There is, of course, a debate on the merits of different approaches to curriculum design in terms of the relative weighting attributed to theory and applications. In technician level courses, theory is seen as only a point of reference, while in pure academic courses practice is seen as a by-product of theory (Squires, 1990). Professional expertise, however, implies both theory and practice. Recent approaches emphasise the importance of both theory and applications in university programmes of

study. In the present study, employers talked about the flexibility that theoretical knowledge provide to individuals, and it is one of the main reasons on which they justified their preference for AEI graduates. Career officers commented on the consequences of choosing to emphasise theory or applications on the employment prospects of their graduates. They suggested that emphasis on applications helps graduates in their transition to employment, while emphasis on theory helps them develop a more long-term perspective; theory helps graduates to adapt to change.

6.3.2 Level of expertise

Level of expertise is formally described in terms of the type of the institution, its status, the level of the degree (first or postgraduate degree), and the degree class. It appears that the dimension of level of expertise is less important in selection than the dimension of relevance. Employers expressed this directly, as well as indirectly, by demonstrating little interest in aspects of the educational experience associated with the level of expertise. Employers argued that knowledge can be supplemented on the job. Additionally, there may be various jobs in a company requiring various degrees of expertise. The dimension of expertise may be more important for promotion to higher positions within the organisation rather than in recruitment.

A basic level of relative technical knowledge and skills is the absolute requirement for getting in a company, but the level of expertise required varies between companies. There are some identifiable trends. The activity of the company is the main factor determining the attention paid to technical skills. The metal and high technology industries set higher standards for the technical skills of engineers, because the posts of engineers are considered as the key posts in industry. Auditing companies set higher standards for the technical knowledge and skills of their accountants, since these posts, again, are more important in these companies.

As described in the Literature Review Chapter, in Greece, different types of institutions (AEI, TEI, and colleges) belong to different levels of educational provision – although TEIs are in a transition towards up-grading. Graduates of AEIs and TEIs are registered as members in different occupational groups and are attributed different occupational rights. Colleges are private, non-accredited institutions and their graduates have not graduate status.

Nevertheless, universities and TEIs have different mission statements. TEIs were established to substitute KATEs, which, in turn, were established to substitute the old schools of ‘chief workers’, when the requirements of industry increased. Therefore, studies in TEIs are expected to produce skilled workers as opposed to scientists, who are the product of universities. TEI graduates are destined to apply knowledge, while university graduates are destined to generate, disseminate and apply knowledge. As a consequence, universities need to provide a broad knowledge base, which, in turn, is associated with greater flexibility in thinking and adaptability to changing conditions. Consequently, AEI graduates are preferred in changing environmental conditions and where there is a need for the individual to have an overview of the situation. This difference between AEI and TEI study programmes is also reflected in the work placements of students. The placements of AEI students, although much shorter than that of TEI students in terms of time, involve a passage through all the sectors of the company and an acquaintance with all its activities. The placements of TEI students are, instead, a period of real work in a specific post.

A further difference between AEIs and TEIs relates to the duration of studies. Graduation from a TEI requires three years of study, while graduation from a university requires four to five years of study (except for medicine, which requires six years). The longer duration of university programmes of study, compared with TEI programmes, is an indication of provision of a greater stock of knowledge, which, in turn, is associated

with jobs requiring higher skills. The longer duration of studies permits the provision of additional theoretical knowledge during the first years of study, which is considered as the main difference between the curricula of AEs and TEs. This difference in curricula reflects the difference in mission between universities and TEs, as defined by their goals.

Since summer 2003, TEs are in process of being upgraded to university status. However, a series of differences between the two types of institutions will remain. The two types of institution are associated with different levels of quality in terms of student input. Quality of input has to do with the profile of people that enrol in these institutions, and it is directly related to enrolment standards. The different types of institutions have different enrolment standards, and students in institutions with higher enrolment standards are expected to have higher abilities. Upgrading cannot turn automatically into equalisation. In England, many of the post-1992 universities (the former polytechnics which were upgraded to universities) continue to experience this problem.

Quality of input in higher education is also an important factor in determining the quality of output. Curricula can be more intellectually demanding when student input has greater abilities. It is worth noting that with the expansion of higher education many faculties have lowered the demands of their curricula to accommodate students with lower abilities and motivation (UC, UA and UI, 2000).

The quality of educational experience is also related to the quality of lecturers in the institution. There are different qualification requirements between lecturers in universities and those in TEs. A PhD is a prerequisite for becoming a university lecturer, but not for becoming a TE lecturer. The upgrading of TEs face resistance from their lecturers because it entails that they have to acquire a PhD (within 7 years from 2002) to ensure their position in the institution. Instead, they suggest that the

upgrading of TEIs should generate such obligations only to new staff. The image of the institutions may improve with an improvement in the qualification requirements of lecturers of those institutions. Of course, this is a simplistic idea, which, nevertheless, seems to hold true among many employers.

It is also worth noting that employers did not question the expertise of university lecturers – as they do for TEI lecturers - but rather their intentions and motivation. Certain employers accused university lecturers of designing a curriculum according to their own interests and with the objective of maximising their share of courses, ignoring the needs of students for a curriculum that would help their transition to employment. Similar blame of lecturers for micro-politics in curriculum design has been found in the OECD (1997) Examiners' Report about Greece, and in a series of articles, recent and less recent, in daily newspapers written by professors and lecturers in higher education (Lianos, 2002).

6.3.3 Interventions by employment legislation

An important issue in recruitment is the restrictions that employers face because of legislation, in recruiting for certain posts, an issue related to professional rights. The phenomenon is more intense where similar specialities are provided by different types of institutions. As mentioned above, graduates of AEIs and TEIs are registered as members in different occupational groups and have different professional rights. Engineers, graduates from university departments, are represented by a powerful professional group which facilitates their transition to employment, by ensuring limited enrolments in university departments of engineers and by claiming exclusively for their members the right to occupy the top positions in large industries (industries with engine power greater than 500 HP). Graduates of TEIs are viewed by the employment legislation as sub-engineers, and have more limited professional rights. Weber's (1947)

theory of social closure applies here. By manipulation of credentials and membership in the professional body of engineers, university engineering graduates monopolise the top jobs in their employing organisations.

Restrictions on recruitment as regards qualification requirements may decrease over time, due to the upgrading of TEIs and due to the European Community legislation which permits alternative routes for the acquisition of professional rights. At the same time, the payment differentials between AEI and TEI graduates, based on the difference in status between these institutions will be removed. The situation will permit a better understanding of the employers' viewpoint regarding the fitness for purpose of various categories of graduates. The vast majority of employers do not seem to challenge legislation, so long as there is an adequate supply of qualified personnel in the specialities they need. This may also be due to the fact that legislation determines the qualification requirements for only a small number of posts within a company, mainly in the technical sector. Another reason may be that most of the respondents in this study may have been favoured by this legislation themselves, since they are university graduates and, consequently, they have not any reason to challenge it!

While TEI graduates are recognised as higher education graduates – as opposed to university graduates, who are recognised as 'highest' education graduates – there is another category of qualified people, college graduates, whose studies are, as I have pointed out, not recognised by the state, because the Greek Constitution does not recognise private education at the tertiary level. Nevertheless, graduates of those institutions do find their way into the labour market, because employers can use their expertise without the need to pay them as graduates. Colleges, alike with TEIs, claim university status via awards of degrees from the universities abroad with which they are affiliated. Colleges may also be recognised as higher education institutions in due

course if the Greek State will permit the establishment of private Higher Education in Greece.

It is worth noting that differences between AEIs and TEIs are not as wide for economic departments as they are for engineering departments. There are some differences between university and TEI graduates in economics, as regards the size of the enterprises whose auditing they can sign, but these differences seem not to limit to any great extent the professional rights of graduates from TEIs. The professional association of economists, graduates from universities, does not seek to monopolise the field for its members. This association does not serve a traditionally 'elite' occupation like that of engineers (Kasimati, 1991); therefore, it may not be able to influence the state to interfere in employment legislation, as the professional association of engineers does. However, employers still prefer university graduates for their top positions, even when they are not restricted by the legislation, but it may be partially attributed to influences from legislation, too. It may also be due to what is called 'similarity error' (McKenna, 2000) or 'similarity effect' (Kantas, 1998). 'Evaluators' tend to place emphasis on the qualities of the candidates that are similar to their own qualities. These qualities can be personal or social characteristics, achievements, and so on. Therefore, managers who are university graduates may tend to favour university graduates when it comes to recruitment.

The study showed that the main reason that employers put forward for preferring TEI graduates was financial considerations. Most companies, especially large ones, stated that they considered only university graduates for their managerial and professional jobs. For less important posts employers preferred TEI graduates, because they have lesser expectations for material rewards and promotion. TEI graduates were also preferred for jobs that are not popular among graduates, such as accountancy and engineering posts in the production sector. Since financial considerations are the main

reasons for which employers prefer TEI graduates for certain posts, studying at a university rather than a TEI pays off in the long run. Certain companies stated that the jobs they offer to AEI and TEI graduates are different only in nature and not in status. But different jobs stand at different pegs on the occupational gradient (Fevre, 1992); therefore, differences in status are also implied.

6.3.4 Effects from educational planning

An important intervention by legislation is that concerning educational planning. As described in the Literature Review, the numbers of entrants in each department of higher education are determined yearly by Ministerial Decree, following recommendations by the National Council of Higher Education and the Council of Technological Education. However, decisions are based on neither an estimation of future needs of the economy nor upon social demand. Instead, the number of student enrolments in 'elite' departments is negotiated between the state and the powerful professional groups. Professional groups impose limited enrolments on departments leading to membership to their profession to ensure better employment prospects for their members.

So powerful are the professional group of engineers, who are all graduates from universities, that unemployment among university engineers is virtually non-existent (NTUA and NLI, 2001). At the same time the overall average rate of unemployment of graduates is about ten per cent (ESYE, 2001). A large number of students study social sciences or pure sciences because higher proportions of students are admitted in these subjects, since there is not a professional group restricting entry. Additionally, the lower cost per student in these departments makes state decisions for expansion of these departments easier. It is worth noting that, in Greece, the percentage of students that 'avoid' mathematics and sciences is not as high as elsewhere in the world. A large

number of students who study mathematics or sciences would orientate themselves towards applied subjects if they had adequate information about the employment prospects of the various disciplines, and if the system permitted more enrolments in engineering subjects.

There will always be an imbalance between the needs of economy for qualified personnel and the outputs of the educational system, if enrolments are regulated by professional groups instead of being based on analyses of the needs of the economy – to the extent that it is possible. Despite the problems in estimating future manpower needs, these forecasts can indicate broad directions as to the development that higher education should take.

Of course, there is a dilemma here that emerges from the nature of education as a 'positional good'. If all prospective students became, for example, engineers, there would be too many of them. However, there is evidence that there is room for the expansion of the engineering profession in Greece and, generally, there is a need for an increase of enrolments in applied rather than pure sciences.

6.3.4.1 The status of the institution

The status of the institution attended has not emerged as playing an important role in recruitment. Perhaps this is because differences among institutions of the same type are not as great in Greece, as they are between the different types of institution. This may be due to the fact that there is not a ranking system of higher education in Greece, nor in many other countries in the world from where Greeks are awarded degrees. Moreover, given that Greeks study all over the world, the comparison between all these institutions is very difficult. In England, by comparison, where there is quality assessment of institutions of higher education, the rank of the university in the assessment league table plays a much more important role in selection for employment.

In the absence of such assessment systems, employers use other means to rank educational institutions. The study found some evidence of how the status of an institution or a department is constructed and maintained in Greece. The most important factor influencing employers' viewpoints about the quality of an institution or a department was found to be the work performance of graduates of the various institutions. For employers, the profile of a university is reflected in the profile of its graduates. Other factors having some influence on employers' views are the enrolment standards of institutions, which are annually published. Research in the UK has shown that employers associate the enrolment standards of institutions with higher 'raw' intelligence (Roizen and Jepson, 1985; AGR, 1993). Additionally, the research activity of lecturers and professors of an institution and their involvement in common activities with employers are seen as good markers of the quality of the institution.

The relations, also, that careers officers have with employers are very useful in making the skills of graduates of those institutions known in industry. Understandably, employers were found to have very positive opinions about the institutions with which they have relationships. Many employers talked about the need for more exchange of experience between employees of companies and employees of higher education institutions. This need for communication between higher education institutions and industry has been identified from the early 80's in the UK, where there have been many reports by public organisations, like HMSO, CBI, and the Organisation of Employment, referring to the need for cooperation between universities and industry, while since the early 90's it is among the policy priorities of the European Community.

6.3.4.2 Postgraduate degrees

The findings of the present study suggested that employers see the knowledge and skills provided in undergraduate courses as adequate for the needs of most jobs in

their companies. This may be attributed to the nature of the Greek economy. As described in the literature chapter, the types of economic activity in employing organisations in Greece and the types of technology used do not typically require high levels of expertise. Consequently, aspects of the educational experience of graduates associated with levels of expertise do not greatly attract employers' interest, since it may not be used in the job.

Another reason that employers show little interest in postgraduate degrees is because postgraduate studies are specialised. Employers favoured only generalist postgraduate degrees, like MBAs, before entering employment. They believe that postgraduate degrees should be relevant to the job of the employee to be of value to the company. Consequently, many employers believe that postgraduate studies should be delayed until the person has accommodated himself into the job, and knows what exactly he wants to do in his working life. In this regard, many companies see postgraduate studies as part of life-long learning, and not as a supplement to the initial education of a graduate.

Nevertheless, a postgraduate degree seems to be a prerequisite for jobs in marketing. This may be due to the fact that, until recently, there was not any undergraduate course in Greece specialising in marketing. More generally, a postgraduate degree is also better appreciated when it has been gained abroad because this, in itself, constitutes a great life experience for its holder, an initiation to a different culture, better command of the language of the country where the studies took place, and a positive attitude to personal mobility. There are all qualities that are all highly appreciated by employers.

Some postgraduate degrees – an MSc in Economics or an MBA - are of interest to certain multinational companies, especially for their management trainee schemes. Of course, these jobs are but a small part of graduate employment. However, since these

jobs constitute the most sought after graduate employment opportunities, it may be worth studying for a relevant postgraduate degree.

By contrast, PhDs are not seen positively by most employers. They believe that PhDs generate high expectations amongst their holders, while the expertise developed often cannot be used at work. However, some employers say they appreciate an employee when they believe that he pursued a PhD for its intrinsic - as opposed to its exchange – value.

Magoula *et al.* (2003) who conducted research in Greece found a quite high proportion of employers interested in postgraduate degrees and PhDs (36.8 and 6.3 per cent respectively). This may be due to the fact that the sample of that piece of research included only large companies (enterprises listed in the stock-market). The present study, too, identified, a difference between large companies and SMEs in their attitudes to postgraduate degrees and, generally, to over-qualification. Large companies were found to have a more positive attitude towards postgraduate degrees and towards employing more highly qualified people, because they can provide opportunities to their employees for career development and they have no serious problem of employee turnover.

6.3.4.3 Degree class

If a degree guarantees the minimum requirements of technical knowledge and skills in a particular subject area, certain features of the degree may indicate whether it is at the minimum requirements, above, or well above the minimum requirements. By definition, the degree class describes the extent to which the student achieved the aims of the course. Therefore, the degree class gives information about the level of subject expertise of a graduate. Yet this study showed that employers did not pay much

attention to degree class, which again suggests little interest among employers in the specific level of expertise of their recruits.

A difference was identified, however, in terms of the attention paid by employers to the degree class between university and TEI degrees. Employers paid more attention to grades of TEI graduates rather than to grades of university graduates. The reason may be that employers consider the education level provided by universities as generally above the needs of the jobs in the company, while the education level provided by TEIs is just adequate. It may be explained further by the fact that the higher enrolment standards of universities ensure that a university graduate has the potential to deal with the needs of a job, while the enrolment standards of TEIs do not. In order to ensure the level of capacity required, employers need to choose among those TEI graduates who have attained high academic performance.

At the same time, for all types of graduates, employers associate good grades with intelligence and persistence, while lower grades are considered in accordance with other aspects of the social context of the applicants, and especially with responsibilities that make great demands on their time (i.e. working during their studies). Undertaking other responsibilities during studies is an indication of maturity, and it can often compensate for lower academic attainment. This finding is an indication that it may not be the stock of knowledge associated with a degree that it is of most importance, but the potential of the individual that attains it.

By contrast, the degree class has been found to play an important role in selection in the UK. A first or an upper-second class degree is necessary for acquiring a graduate job (Harvey *et al.*, 1997). This difference might be attributed to cultural differences between the societies, or to a difference in the level of skills required in the economies of different nations.

6.3.5 Suitability for work

The assessment of the technical knowledge and skills of a prospective employee is included in the notion of suitability, as defined by Jenkins (quoted in Fevre, 1992). Suitability refers to the knowledge, skills and 'know how' required to get the job done. Brown and Scase 'borrowed' that concept, but noticed that the importance of certain personal and interpersonal skills, like communication and problem solving, makes these skills an absolute requirement of the skills portfolio of an employee; therefore they suggested that these skills should be included in the notion of suitability. The inclusion of these skills in the notion of suitability appropriately reflects the increasing importance of these skills in the new working environment.

The importance of technical knowledge and skills became more than evident in the present study. Either as a sound background – as is the case for engineers – or as being aware of the basic principles of the field – as is the case in the sales sector-, technical knowledge is a cornerstone in selection. However, in the presence of an adequate number of 'suitable' candidates, employers turn to other aspects of the potential that are considered as predictors of performance; after suitability, anything goes.

6.4 Assessing compatibility

Compatibility refers to the personal and interpersonal skills and values of candidates and the extent to which these are commensurate with the mission and the culture of the organisation, with the demands of the job role, with the personalities of other members of the organisation, and so on. The nature of work in modern organisations requires compatibility at all levels.

Employers also justified the need for these skills by reference to the structural changes taking place in organisations and the changing nature of work, which require

flexibility in thinking and a different style of behaviour in the part of employees. Personality is not unrelated to the way that one works and the outcomes can be achieved in a particular organisational culture. The importance of the personality of candidates was mentioned spontaneously by one fourth of the respondents. Possibly, it would have been mentioned by many more employers if they had not been informed at the beginning of the interview that the focus of the study would be on aspects of the higher education experience of students that determine the value of degrees in the labour market.

The personal qualities expected from graduates vary depending on the post to be filled. There are some desired personality traits for all positions in companies, and some others required for specific types of jobs. The capacity for co-operation, and communication skills, are traits expected in almost any recruit, while leadership, or negotiation skills are considered as essential only for certain types of jobs. Greek employers rarely mentioned leadership. Three employers, in their own ways, contrasted the concepts of 'team-leader' and 'team-player' and favoured the latter. Perhaps this is to be expected, however, since the majority of new graduates are considered for entry-level jobs. But there seemed to be little in identifying potential 'high fliers' at this entry stage, which is quite surprising.

The emphasis on personal skills did not mean that the importance of technical knowledge and skills has decreased. Employers choose, among those that possess the appropriate type and level of technical knowledge and skills, those who have the appropriate personal skills, too. The NTUA study also reported that employers emphasise these skills, because they take for granted the high level of technical expertise of NTUA graduates (NTUA and NLI, 2001). Teichler (1999), in Germany, arrived at similar conclusions. He suggested that although personal and interpersonal skills are very important in employment, the importance of technical knowledge and

skills should not be underestimated. The emphasis on personal and interpersonal skills may be explained by the fact that it is human resource managers that are usually surveyed and because these skills tend to be common across most job roles (ibid.).

This aspect of the selection process makes use of what has been named the 'criteria of acceptability' by Fevre (1992) and Brown and Scase (1994). Criteria of acceptability were always important in organisations (like suitability) but they are becoming more important because employers are encouraged to see their working lives as part of their personal lives (Brown and Scase, 1997). Increasingly, selection processes include selection methods that permit the 'whole person' to be exposed.

Figure 4. Strategies for assessing compatibility

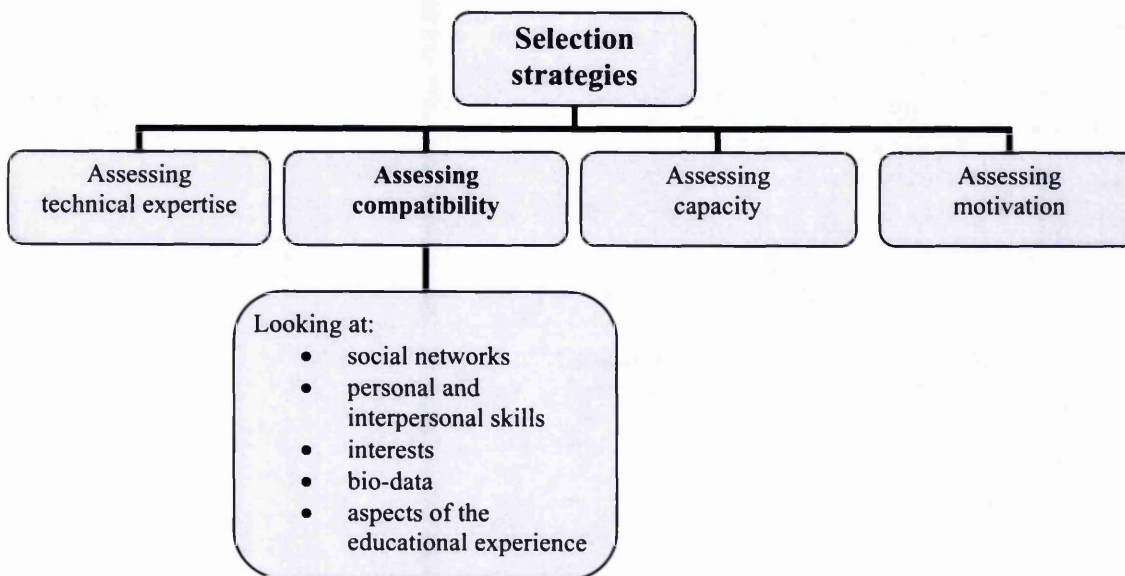


Figure 4 presents the sub-elements of the strategy orientated to ensure compatibility. These sub-elements include: looking at the personal characteristics and personal and interpersonal skills of candidates; looking at the biographical data and the interests of candidates; subjecting candidates to attitude tests; making inferences based

on educational credentials; and selecting among members of social networks connected to the company.

An interview or two, official or friendly, is usually included in the selection process. A major theme of the interview is the education and the interests of the candidate. During the interview, many of the personal and interpersonal skills of the candidate are exposed. This is a useful tool, whose effectiveness can be enhanced when supported with additional selection tools, like psychometric tests or work samples. Work samples are used in the selection process most often when the tasks of a job role can be predetermined, while psychometric tests can show the potential of the candidate.

But, only a few large organisations use formal tests to assess the personal and interpersonal skills of their potential recruits. Most organisations do not use formal aptitude tests, due to the cost of these tests, but rely on inferences about the skills of candidates, based on their paper qualifications and their overall presence during the selection interview. Those organisations that do use tests sometimes complain that certain individuals can manipulate outcomes, but they continue to use them. It may be because those individuals that can manipulate tests are seen as having greater capacity. In this way, one might conclude that employers ensure, if not the proper personality, at least a flexible individual who can understand what it is expected from him and act correspondingly.

Harvey *et al.* (1997) expressed the fear that the extended list of attributes expected by employers might demoralise graduates, making them feel inadequate, rather than informing them about the skills they ought to develop. The present study, however, found evidence that employers looked for these attributes only in terms of direction. Employers seemed to believe that no individual can demonstrate all the required qualities at an appropriate level, but they try to identify in their potential recruits trends and inclinations which could develop further on the job or with specific training.

Nevertheless, employers tended to select those individuals who already displayed these attributes because, as they explained, there were so many skills that employees should develop, that it was of benefit for the company to select those candidates that start from an advanced point.

Due to the increasing importance attached to personal and interpersonal skills, there have been discussions at the international level for complementing degrees with assessments of the personal and interpersonal qualities of their holders. Again, this is because in the new working environment while technical knowledge and skills are increasingly important, they are still only a part of the skill portfolio of graduates. It has been observed that, for complex post-bureaucratic organisations, degrees convey insufficient information for employers to make judgements about candidates for jobs (Brown and Scase, 1994). By recording achievement in 'employment-related skills' would indicate a commitment from universities to develop in graduates qualities sought after in the employment market (Nunan, 1999). But although attainment at present in personal and interpersonal skills is not formally recorded, there is much evidence that employers rely on degrees for eliciting information about qualities. This may be due to the fact that the personality traits 'rewarded' in the educational system seem to be rather similar to those rewarded in the employment system (Meighan *et al.*, 1986).

Associations between personal qualities and particular subjects have been identified by Gordon (1983). Betcher (1989), also, found that disciplines had recognisable identities, particular cultural rules and values, and a common language that can help the communication among the members of the working team and facilitate co-operation. Greek employers reported differences not between graduates in different subjects, but between graduates from different types of institutions as regards both their abilities and their attitude towards work. TEI graduates were found to have realistic expectations, and a positive attitude to undertaking tasks that fall below the

specifications of their job role. University graduates, by contrast, were found to have inflated expectations, and being cautious about the social status of particular tasks that are not included in the responsibilities of their job role. It is a tradition, however, that graduates have high expectations. Weber (1947) argued that degrees support their holders' claims for 'respectable' remuneration rather than remuneration for work done, and claims for assured advancement and economically advantageous positions.

Some have argued that differences in attitudes between AEI and TEI graduates can be explained by the different social origins of their students. The fact that the majority of TEI graduates originate from the working class (Patrinos, 1991; Kanellopoulos *et al.*, 2003) may explain the attitude of TEI graduates to manual work, and their different perceptions (or indifference) to issues of status. Differences in attitudes can also be interpreted by the selection function of higher education. Taking into account that almost the total student population of TEIs were those who failed to gain a place in a university department, the expectations of TEI graduates have already been moderated by the time they enter the job market.

Finally, differences can be explained by the reproductive function of higher education. Different institutions and different departments immerse their students in different cultures commensurate with their perceived future roles. It is known that alongside the knowledge base of professional studies is the transmission of values associated with a particular profession. 'Elite' schools, like university departments of engineering, create a totally different culture for their students than the cultural context of TEI students, even in the same discipline. Employers appreciate the culture of TEIs because they can benefit from a person demonstrating attitudes, which have similarities with working-class culture. Such elements of the working-class culture include the masculinity of manual work, the willingness to work without hesitation about the social status that the job entails, obedience to rules and rulers, and so on (Willis, 1977).

However, for certain positions a person bred in a middle-class or, preferably, in an upper-class culture might be more effective, because he could communicate better, or command respect.

Another difference in the cultures of institutions is demonstrated by their different attitudes towards theory. AEIs balance theory and application, while TEIs are orientated to applications. This difference in emphasis regarding theory between AEIs and TEIs again reminds one of the differences between working-class culture and middle-class culture, as described by Willis (1977). The working class views theory as useful insofar as it actually helps to accomplish practical tasks and effect change, while in middle-class culture theory is seen as well worthwhile even if it is never applied to the real world (*ibid.*). It serves its purpose by giving the discreet facility to the possessor of knowledge to decide whether to apply a particular bit of knowledge or not to apply it. Employers, whose majority also belong to the middle or the upper class, share that preference for theory, and believe that it is theory that gives flexibility in mind and dexterity in dealing with new environments and situations. This might explain why theory was found to be the differentiating factor between AEI and TEI graduates, and to offer a passport for higher level jobs.

Selecting individuals from within their social networks has been another strategy of employers for achieving compatibility. About a quarter of employers admitted that if someone senior in the hierarchy had a candidate to propose for a post, selection would not take place. In SMEs, it was found to be common practice. Even in large enterprises, many posts are filled by individuals belonging to the social networks of the partners, rather than through competition. As managers explained, they can do this since few posts require advanced skills. In multinational companies, all candidates have to undergo the selection procedures. It cannot be guaranteed, however, that candidates from the social networks of senior staff of the organisation have not been provided with

information about the content of tests, which are the same in successive selection procedures.

The role of social and political networks has been noted in the Greek management literature as being very important. In Greek SMEs, especially, there is not any issue of personnel selection, since the recruits usually come from the social network of the owner or managers of the enterprise (Kantas, 1997). In general, in Greece, only 15 per cent of employees have been assigned to their jobs through a fair and open selection procedure (Patiniotis, 2002). The rest have used every type of contrivance to find a job, including family connections, politicians, religious organisations, local connections, and so on. Appointment through the intervention of individuals with influence is commonplace in the public sector, but increasingly it happens in the private sector, too. Due to the decrease in size of the public sector, politicians have begun to place pressure on private employers when selecting particular individuals (*ibid.*).

Diversion from a recruitment and selection process based on skill requirements of jobs and skill portfolios of applicants often happens but, at least in large companies, there is greater opportunity for selection based on merit. While employers justified their adherence to social networks because of the low skill requirements of most jobs in their organisations, this is clearly an unsatisfactory feature of the Greek job market. This is not just a Greek practice, however. Such a recruitment fosters an image of 'family firms', and recruits are more amenable to social control, due to the obligations felt to their sponsors (Iles and Salaman, 1995).

6.5 Assessing capacity

In the study, capacity was been particularly emphasised by employers. This may be due to the fact that, until the turn of the century, there was a selective system of higher education in Greece. The expansion of the Greek higher education, which

happened especially after 2000, meant that the pre-selection function of the higher education system does not exist on the same scale. At the time of the research, however, graduates were among those that enrolled in higher education before this final expansion. Perhaps, this fact, itself, ensured a good level of capacity among graduates, and the issue is not yet important to employers.

Of course, even in the selective system of the past, there were ways of getting round the system, i.e. by studying abroad. Employers were aware of this possibility. But it might be compensated with other aspects of the profile of the individual who side-stepped the system, like social class, decisiveness, gaining maturity by living alone early in his life, personal mobility, and so on.

The expansion of higher education, however, which entailed the lowering of enrolment standards, has as a result that individuals from almost all the spectrum of human ability can enter higher education. Some employers expressed their anxiety that, with the expansion, the quality of education may fall. The greatest problem will be in specialities, where a high degree of expertise is expected (e.g. engineering) and in specialities where the enrolment standards fall dramatically due to the fall in the numbers of student candidates for enrolment because of the poor labour market conditions of graduates in those fields (e.g. pure sciences). In certain cases, the difference in quality of student input is so evident, that there have been changes in the curricula to accommodate students with lower potential and motivation (UC *et al.*, 2000).

At the same time, the study showed that many employers favour the expansion of higher education because they believe that it will be for the benefit of young people, because of the increase in average level of educational experience. Students who might have enrolled in a dubious-value institution, because of the expansion of higher education, will be able to enrol in a higher education institution whose quality, unlike

private institutions, will be maintained at a good level. Then, as employers commented, the screening function currently carried out by higher education will pass into their area of responsibility.

Figure 5. Strategies for assessing the level of capacity of candidates

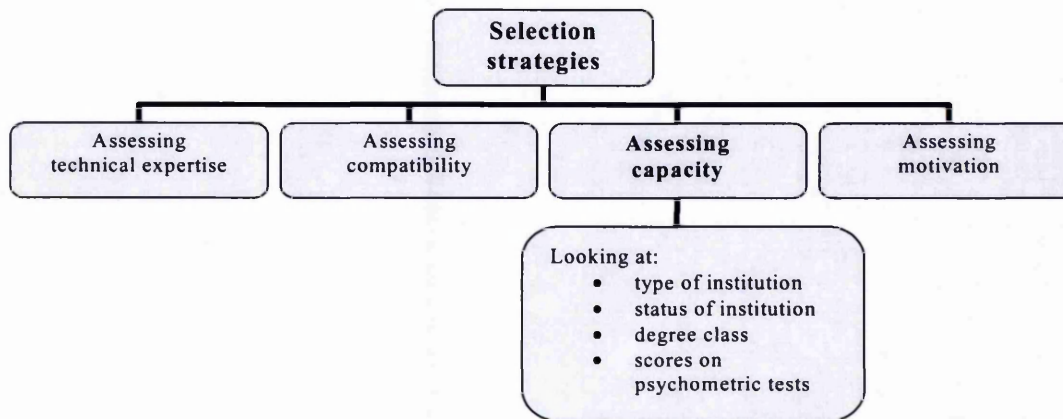


Figure 5 presents the sub-elements of employers' strategy for assessing the capacity of candidates. Thus, employers look at the bio-data of candidates and their overall performance during the interview(s), while when they want to identify above average capacity, they supplement these with a range of tests, like logical and numerical reasoning tests, business games, and so on. Other employers do not make use of psychological tests; they rely on judgements about the type of the institution attended, the status of the institution, its enrolment standards, the degree class, and previous work experience, if any.

Looking at the type of institution attended is one way of inferring capacity from the educational credentials of their candidates, because of the different enrolment standards of institutions. Universities and TEIs have different enrolment standards, thus, the type of institution is seen by employers as an indicator of the capacity of graduates. This is in line with findings from similar studies in the UK, where employers

discriminate against graduates of the 'new' universities because of their lower enrolment standards compared with the established universities (Brennan and McGeevor, 1988; AGR, 1993, Hesketh, 2000).

The enrolment standards of higher education departments can be seen as evidence of capacity of the individuals that gain entry in them because of the cluster of subjects, on the examination marks of which enrolment standards are based. No candidate for enrolment can avoid entry examinations in language subjects, but prospective students in humanities and social sciences (except economics) can avoid entry examinations in mathematics. Mathematic and language tests are viewed as close to aptitude tests because, unlike history or social studies, they test the cumulative results of learning over a long period of time and not just short term recall (Dore, 1976). Both the specialities in which employers are particularly interested are areas where students have taken examinations in mathematics and language as part of their entry requirements. Consequently, the fact that they secured entry is seen as evidence that they can cope fairly well with these subjects. This may explain why numeracy was not often mentioned in the interviews. Since the specialities in which employers are interested are based on mathematics, by excluding graduates from humanities and social sciences (other than economics), employers ensure numeracy as an asset of their recruits. Employers in England, instead, worry about the numeracy of their graduate employees (Roizen and Jepson, 1985), possibly as a result of recruiting graduates from all disciplines.

The study found that psychometric tests measuring intelligence are used by multinational companies in the selection of high potential recruits and for management trainees. Research in England also showed that criteria of capacity take precedence in selection for fast-track training programmes, and for professional and managerial jobs (Brown and Scase, 1994). These findings are in accordance with, and probably based

on, research on intelligence which showed that intelligence tests correlate highly with success in job training programmes (Gardner *et al.*, 1996). The fact that intelligence is associated with trainability, combined with the short-life span of knowledge and the need for lifelong learning in skilled occupations, makes intelligence particularly important in the ever-changing world of work.

Capacity, as it is seen by employers, is a 'positional good'. Psychology perceives the intelligence of individuals as relatively stable, at least during the mature stage of life. It is not expected to develop by practice, like other skills. Capacity, therefore, constitutes a stable accompaniment of the individual's working life (Aglas Test Battery Profile Chart). This is its unique quality in a social environment where one can acquire, through education, training and practice in many types of knowledge and skill; intelligence is the mediator in all these processes throughout life.

6.6 Assessing motivation

Motivation has been seen as an attribute which combines with capacity to make the 'difference' (Brown and Scase, 1994). Harvey *et al.* (1997) saw motivation as the complement to capacity that distinguishes the 'transformative' employee. However, in the present study, motivation was dealt with separately, because it emerged as a relative term, depending on situational factors.

Figure 6. Strategies for assessing individual motivation

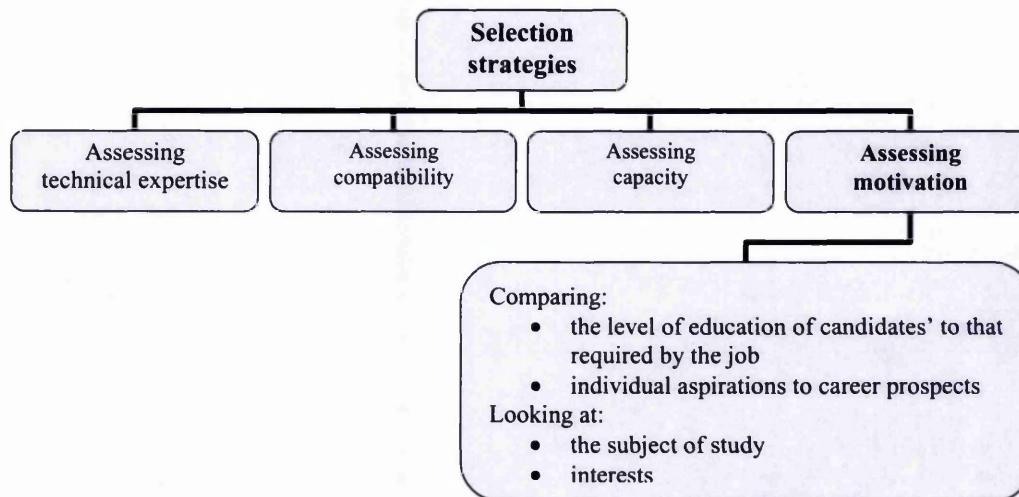


Figure 6 presents the sub-elements of employers' strategy for assessing the motivation of candidates for employment. The study showed that many employers believe that motivation is directly related to the aspirations of the individual and the extent to which these aspirations can be satisfied within the job. Consequently, they see motivation as closely related to the perceptions of individuals of what is an appropriate job for them. Perceptions of what is appropriate job are, in turn, related to the level of education of individuals. Thus, employers' main strategy in assessing motivation was found to be comparing the level of education of the individual to the level required by the job role. If the level of education of the candidate is higher than that required by the job role, the level of motivation of the candidate is predicted as low, and he is usually rejected as prone to turnover. If it is lower than that required by the job role, the candidate would have normally been rejected during the phase of assessing technical expertise. This finding is in line with research in the UK, which found that employers often avoided employing graduates because they had great expectations and an 'inflated' sense of their economic value (Roizen and Jepson, 1985). Employers

considered that overqualified employees see the job as a temporary situation, and remain only until they find something that matches better with their level of education.

The above finding is also in line with research on motivation. Psychological theories suggest that the content of the job, and especially the degree of difficulty of the assigned tasks, should be at a level similar to the level of the knowledge and skills of the individual to achieve high levels of motivation, because in this case the individual will be both challenged by and achieve satisfaction within work (Csikszentmihalyi, 1990). In this way, motivation is adversely related to overqualification. This may constitute a justification for the rejection of overqualified candidates for a particular job. The belief of employers in Greece in the adverse relationship between overqualification and motivation impedes the selection of overqualified individuals and results in rise of graduate unemployment.

Another finding of the research was a difference between large companies and SMEs over the issue of overqualification. Large companies tend to be more elastic to overqualified individuals, for a number of reasons. First, the budget of large companies is often larger than that of SMEs, thus, they can afford to pay a little more for the overqualified. Second, there is always the possibility for an overqualified individual to advance his position in the company later. Third, individuals prefer large companies because they have better career prospects in them and, consequently, large companies have fewer turnover problems. SMEs, by contrast, that cannot offer opportunities for career development, are especially careful to avoid recruiting overqualified individuals. Oxenham (1984) related the issue of overqualification to the ethics and prejudices of particular societies, and the extent to which a society is prepared to accept highly qualified people in jobs which were previously occupied by much less qualified people. His study also differentiated between public and private employers, and identified the public sector as the area where overqualification is more intense and better tolerated.

The study also found differences in the roles that graduates seem prepared to undertake and the roles employers are willing to assign to them. Generally, employers were found to be unwilling to assign clerical jobs to graduates because they considered them as overqualified for clerical jobs. Another reason for the unwillingness of employers to offer clerical posts to graduates might be – although it was not directly expressed - the fact that there are always individuals in the close social network of managers willing to undertake ‘safe’ posts of low responsibility. Instead, employers offered to graduates jobs in sales, although graduates, as careers officers reported, considered these jobs as ‘underemployment’, because jobs in sales are often associated with poor working conditions and payment levels depending on performance. Such work arrangements make a job in sales less popular than a clerical job, even if the potential earnings are greater. However, the study carried out by the National Technical University did not consider the employment of engineers in sales as underemployment, since there is utilisation of knowledge and skills acquired during their studies, and these posts are often associated with higher pay packages (NTUA and NLI, 2001).

Nevertheless, reports of institutions on the employment of their graduates in sales roles often overestimate the employment and pay prospects. Moreover, such commentaries might be part of a more general attempt by educational institutions to influence the attitude of their graduates towards jobs that are currently not popular graduate choices. But, there are so many different terms and conditions surrounding work in sales that it is difficult for clear conclusions to emerge.

Inevitably, what it is seen as an appropriate job for a particular level of education is both somewhat arbitrary and time-bounded, and one would expect that when there is oversupply of graduates (as was the case in Greece at the time of the research) employers could raise qualification requirements without feeling obliged to offer better working conditions or pay packages. However, they do not seem to make

much use of that possibility because, as they explained, Greek society has not internalised yet the consequences of the expansion of higher education for graduate employment. Despite over-supply, the values associated with a degree do not change easily within a generation, with the consequence that many people judge the value of a degree by the norms and conditions of the past. The expansion of higher education happened so rapidly that neither public opinion nor graduate expectations have had time to adapt. Though, according to employers, graduates have not realised the discount in the value of degrees and their expectations are not in line with current labour market conditions in Greece, the rate of adjustment must quicken. While the conditions of the past continue to feed graduate expectations for jobs of higher status and rewards, those finding work in jobs traditionally occupied by non-graduates might be demoralised and prone to 'job-hopping'.

However, a distinction should be made here between overqualification and overeducation. Overqualification refers to the surplus of accredited knowledge compared to the job requirements. Non-accredited knowledge does not constitute overqualification. The problem with overqualification emerges from the expectations that degrees generate to their possessors. Instead of raising qualification requirements for jobs, employers in Greece prefer to raise requirements in the skills that are not accredited and, thus, have not raised graduate expectations. This may be an additional reason that personal and interpersonal attributes have come to the fore; these are non-accredited assets that employers can use as selection criteria without altering formal qualifications requirements. However, recruits with additional non-accredited assets are as likely to find work unstimulating as those with accredited ones.

Another strategy orientated to assess motivation is looking at the subject of study. Employers believe that relevance of education is associated with motivation within a job. Some employers expressed the suspicion that graduates are led to apply for

jobs not relevant to their studies because of problems in finding a relevant job. In such cases, graduates are seen as lacking intrinsic motivation for the job and as being prone to leaving. Thus, the few companies that tended to accept graduates from any discipline, mainly recruit them into jobs that are not popular (i.e. insurances, sales).

The international literature has not related the issue of relevance to overqualification. This may be because in certain countries, and especially in the UK, a great percentage of jobs are open to graduates in any discipline (AGR, 1993). In that case, any type of education is considered as desirable and the company celebrates the variety of graduate talent. In Greece, where the subject of study is of prime importance, it is the relevance dimension that allocates individuals to jobs, while any non-relevant education counts as overeducation for the assigned role.

6.7 Outcomes of employment strategies

The object of most recruitment processes is to allocate the right person to each job. This is attempted by comparing the skills portfolio of candidates with the skill requirements of the vacant post. The recruit should have the types and levels of technical skills required by the job, the personal and interpersonal skills required, a certain level of capacity and motivation so that he is able to perform effectively on the job and fit into the organisational culture.

The variety of jobs in an organisation requires that the people that undertake these jobs differ in terms of their education and personal qualities. There are always some standards set for each job, and candidates are assessed against whether they meet these standards. Usually, advertisements for jobs state the minimum qualification requirements for the job. Evidence for the existence of both minimum and maximum skill requirements have been found by Dore and Oxenham (1984) and Harvey *et al.* (1997). These maximum requirements constitute a turning point, beyond which, one can

be called 'overqualified'. Dore and Oxenham (1984) had suggested that although employers were more elastic to overqualified than to underqualified individuals, they tended to favour applicants whose qualifications clustered fairly closely to the minimum requirements that they had set. The study of Harvey *et al.* (1997) suggested that employers recruit people that lie at any point of a continuum, one end of which is occupied by the 'adaptive' employee', an individual that can add value to the organisation, and the other end of the continuum is occupied by the 'transformative' employee, an individual that can help the organisation evolve.

The present study found a polarisation in the types of graduates that employers seek to recruit. Thus, employers were found to prefer those candidates whose assets are close to the minimum requirements of the job for the majority of posts, but for posts of high responsibility they tend to prefer 'high calibre' individuals. The main patterns identified here have been termed: 'the fit for purpose recruit', and 'the best of the bunch', and are commensurate with a trend found among organisations to be at the same time cost-flexible and response-flexible (Harvey *et al.*, 1987).

The skills portfolio of the 'fit for purpose' recruit corresponds to the combination of skills required by the job role that is assigned to him. 'The best of the bunch' recruit is the best recruit that can be found for a particular position under particular circumstances. Obviously, the types of recruits differ in terms of their skills portfolio. But, they also vary between the types as well as within the types. A candidate is characterised as 'fit for purpose' always in relation to a particular job role. Even the notion of the 'best of the bunch' is relative because the 'bunch' of applicants varies among companies and among jobs within a company, that is, its profile depends on contextual and intervening conditions.

Of course, the patterns identified in the data do not preclude selection of individuals that lie on the continuum between the two 'ideal' types of recruits. The

minimum requirements can be viewed as a threshold that permits entry into the organisation. Moreover, given the difficulties in assessing people objectively, especially where psychometric tests are not used, and the variability of individual talents, then even individuals that are assessed as equivalent in quality, will in fact have many qualitative differences. But, since qualifications tend to be clustered fairly closely to the minimum requirements, the differences between those recruits lying on the continuum will be more in terms of personal and interpersonal skills and qualities rather than their education. Thus, some recruits might be more sociable, and/or more capable than the 'fit for purpose' recruit. This makes echoes to Harvey's *et al.* (1997) study who called those individuals that lie between the two ends of the continuum 'adaptable' employees, that is, adaptive but with the additional quality of being able to show a degree of initiative within a predetermined framework.

Furthermore, departures from this general tendency (polarisation of selection in terms of the types of recruits) due to contingencies (intervening conditions) result in additional patterns; elasticity towards individuals that fall both above and below the limits they have set. These patterns of recruits - the 'overqualified' and the 'underqualified' - are seen as deviant and have been examined separately.

The underqualified recruit does not satisfy all the skill requirements of the job, but may be selected without competition, because he belongs to the social networks of the employers or the senior managers of the organisation. The overqualified recruit has a surplus of skills which will be underutilised on the job. Conditions that lead to such a choice were found to be thoughts for future utilisation of their skills in another post within the company, or an indifference of employers to employee turnover, due to a surplus of such specialities in the labour market.

6.7.1 The 'fit for purpose' employee

As noted above, in many cases, employers do not target the best qualified recruit, but the recruit whose skills are in balance with the skill requirements of the job. Similarly, Roizen and Jepson (1985) found that the preoccupation of employers was most often with "finding the 'best' qualified recruits at the least cost to the organisation" (p.155), where the 'best' was defined in terms of a combination of academic and non-academic characteristics, and it was not seen in the same way by different employing organisations.

The notion of a 'fit for purpose' recruit coincides with that of the best recruit under the particular circumstances. Organisations are not always in a position to recruit or to retain the best people available. Both proficiency in job performance and length of tenure are measures of successful recruitment, but it has been found that there is a tension between proficiency and tenure (Robertson *et al.*, 2002). In general, it is probable that an organisation will attempt to keep a balance between proficiency and tenure. Whether the emphasis is placed on performance or on tenure depends on the management of the company, the requirements of the post, and the state of the labour market. Some balance can be achieved by selecting the 'fit for purpose recruit'. In fact, this is the most common type of recruit. It is seen as the goal of most recruitment processes: attempting to fit a satisfactory person into each job. The recruit should have the skills required by the job, but not much more than those required by the job. Thus, he is likely to be able to perform effectively on the job, and 'fit in' the organisation culture.

The 'fit for purpose' candidate is very close to the notion of 'suitability' as described by Brown and Scase (1994), that is, a portfolio of technical knowledge and skills and certain types of personal and interpersonal skills that are considered as important for effective performance on the job. The attributes of the 'fit for purpose'

employee correspond also to what Harvey *et al.* (1997) has described as the attributes of the 'adaptive' employee. It is what employers were found to expect from an employee at the time of his recruitment, while later they expect him to follow an enhancement route during his career and he might be turned into an 'adaptable' employee in particular circumstances (Harvey *et al.*, 1997).

Roizen and Jepson (1985) suggested that employers' statements about graduate recruitment should be seen in context against the pool of candidates they have, because they, too, compromise their expectations according to the pay packages and working conditions they offer and, consequently, to the pool of candidates they have. The preference of employers for the 'fit for purpose' recruit may indicate that most companies try to be cost-flexible organisations, as opposed to response-flexible organisations. The 'fit for purpose' recruit represents for an organisation the 'best value for money'. Most Greek enterprises are family enterprises; they were small shops or small offices which became enterprises either by chance, or by absorbing public and European Community funds (Kottis, 1994). They have strong survival instinct and do not take risks. They can be characterised as cost-flexible organisations. Such types of organisation tend to select individuals who satisfy what Brown and Scase (1994) called suitability criteria or, to put it another way, they tend to select what Harvey *et al.* (1997) called 'adaptive' and 'adaptable' individuals.

Moreover, the preference for the 'fit for purpose' employee is not only justified by cost reasons. The present study showed that the choice of the 'fit for purpose' recruit is related to the issue of motivation. Employers seem to believe that the 'fit for purpose' employee is most likely to do his best in order to maintain his position in the organisation. It recalls Csikszentmihalyi's (1990) conclusion that the employee gains most pleasure from his work when there is a correspondence between his level of skills and the level of skills required by the job.

6.7.2 The 'best of the bunch'

For key posts in the organisation, some employers attempt to select from among the candidates the 'best of the bunch'. The 'best of the bunch' recruit does not only satisfy criteria of the four types mentioned above, but he has developed them at a higher level than other candidates have. While in selecting the 'fit for purpose' recruit the emphasis is on criteria of suitability and compatibility, in identifying the 'best' the emphasis is on criteria of capacity. Capacity is the distinguishing factor between the 'fit for purpose' recruit and the 'best of the bunch'. This conclusion is based on the fact that in fast-track recruitment and, generally, for recruitment of high potential individuals, the emphasis is on performance in aptitude tests.

Performances in aptitude tests are viewed as not being developed by practice. Thus, where an above average level of capacity is required, it is felt this can be identified by particular tests. Another way of selecting the 'best of the bunch' is by selecting among already established professionals. Then, the academic and professional records of the individual both constitute evidence for his capacity.

The concept of the 'best of the bunch' is outlined in the study of Roizen and Jepson (1985), and was chosen for its simplicity and inclusiveness of meaning. It referred to a type of graduate with high 'raw' intelligence, preferred by large companies for particular roles. The search for capability was described by Brown and Scase (1994) as one important aspect of the selection process, especially for roles of high responsibility. But greater capacity was, according to Harvey *et al.* (1997), what distinguishes the 'transformative' employee, that is, the employee who can make real impact on the organisation.

The question here is how education contributes to the creation of the 'best of the bunch'. Since the notion of the 'best of the bunch' has a positional character, it is not possible for education to transform the majority of students into 'the best of the bunch'. Education should strive to help all students to develop to their full potential, but there are a lot of intervening factors, that contribute to transforming an individual to the 'best of the bunch', especially heredity and environmental influences during the first years of life.

In the context of the current emphasis on personal transferable skills, and the debate about whether these skills are transferable or not, it should be noted that the really transferable 'skill' is intelligence and, especially, 'general' intelligence, which is the mediator to all specific categories of intelligence. And without becoming involved in the debates about the nature of intelligence and the extent to which this is innate or nurtured by environmental conditions, the individual differences that are found in populations may justify employers making judgements based on this criterion. Intelligence must be the ultimate transferable skill, and mediates the acquisition of all types of skills, so it is sensible to look for it.

Perhaps, the fact that intelligence (or capacity) was not especially emphasised by many interviewees is due to the small proportion of companies that are interested in identifying and selecting the 'best'. Because the best, like other 'goods', has its price. And employers, in cost-flexible organisations, prefer the 'best value for money'- which coincides with the 'fit for purpose' recruit - not the 'best of the bunch'. Moreover, the term 'intelligence' and others with similar meaning are avoided because assigning labels to people, like 'less intelligent', can be seen as an act of discrimination.

However, the emphasis on capacity may increase in the immediate future. The proliferation of degrees in the labour market results in a large pool of 'suitable' and

'acceptable' candidates for jobs. In a context of high competition, a candidate has to demonstrate qualities that in a less competitive environment might be expected only by individuals targeting posts of high status and responsibility (Teichler, 1996). Therefore, the assets required in fast track recruitment today, may be expected in any job tomorrow.

6.8 Selection strategies and labour market theories

The interest of employers in certain aspects of the educational process rather than others may be an indication of the beliefs of employers in terms of the labour market theories. The findings suggested a strong basis of beliefs in human capital theory, mainly demonstrated by the strategies used to assess technical expertise. The emphasis on the subject of study and the curriculum of the course supports the view that human capital is the touchstone in selection. Similarly, Oxenham (1984) found that virtually all employers believed that education helps fit people for work. By favouring the educated, employers accorded with the concept of human capital (*ibid.*).

Strategies oriented to identify compatibility are vaccinated by social biases, however. Evidence of social screening can be traced behind employers' preferences for TEI graduates, because of their lower career expectations and their positive attitude to work, and also behind employers' preferences for AEI graduates for particular qualities, like confidence, or leadership. Although these selection practices can be seen as exhibiting social biases, they may be justified on the basis that certain qualities required in the working environment have been found as associated with particular social groups (Hinchliffe, 1987). The student population of the university and the non-university sectors of higher education in Greece originate from different social classes (Kasimati, 1991; Xanthopoulos, 2002). Moreover, the present study found that cultural differences

between institutions may explain many of the differences in attitudes that exist among graduates of different types of institutions. Oxenham (1984) found evidence of social biases, indicating that the practices of a proportion of employers might be in accord with the social screening theory. Yet, in many cases, what looks as social screening can be explained by the distribution and utilisation of educational opportunities, rather than by a deliberate policy of discrimination (ibid.). Furthermore, adherence to the social screening theory does not preclude an employer from adherence to the human capital theory, too.

Nevertheless, strategies oriented to assess capacity clearly demonstrate a belief in the ability screening function of higher education. The preference of employers for universities because of their higher enrolment standards is one indication of employers' screening for ability through the use of educational credentials. Oxenham (1984) also found that a proportion of employers complied with the ability screening theory. That study showed that employers use educational credentials in selection because they believe that the educational system tends to identify those more likely to perform well in jobs in today's organisations because it rewards the same qualities (Oxenham, 1984).

The same is true when employers look at the degree class of graduates, a strategy most often seen when employers select TEI graduates. In this case, employers may rely on the 'selection function' of the course, if they do not rely on the enrolment standards of these institutions, which are actually quite low for most departments. This is also in line with the finding of Oxenham (1984) that employers believed that the course itself has a selection function by sorting out those that do not have the right pool of abilities.

The addition of specific tests measuring capacity in cases where employers want to ensure a high level of capacity, may be attributed to the fact that there have always

been ways for people to bypass the selection function of higher education or due to the fact that the selection function of education is decreasing over time because of the expansion of higher education. A more probable explanation for the use of aptitude tests in selection might be that academic achievement can be attributed either to high capacity or to a fair level of capacity and great persistence. The use of tests of logical and numerical reasoning might be an attempt by employers to differentiate between those individuals whose academic achievements depend more on optimal conditions, great persistence, or luck, and those whose academic achievements depend on their great intellectual ability. For posts requiring high capacity employers favoured the more able, rather than the more hard-working.

6.9 Skill needs and structure of economy

Economic analysts in Greece have characterised the Greek economy as a traditional economy, based on a middle-skill level of development which, except for a few large firms, does not need highly qualified personnel (Papatheodosiou, 1991). This model requires people with middle-level skills. TEIs served this purpose by producing people with skills whose levels lie between the university and the post-secondary level. The up-grading of TEIs will create a gap in the skills gradient adjacent to the middle in an economy which is based on middle-level skilled jobs. An economic system needs skills at all levels, and having more highly qualified young people will not substitute for a lack of middle level candidates.

One of the basic principles of labour markets is social hierarchy. The ranking of educational institutions corresponds to the way that the labour markets are organised. Since the market needs people that lie at different points of a continuum in terms of potential, it seems rational that there should be a variety of programmes of study in

terms of demands in time, capacity, and commitment. At the international level, there is a trend towards establishing short programmes in higher education, so that people with the appropriate level of skills enter labour markets in a short time-frame (Tsaousis, 1990; CDGU, 1992). The upgrading of TEIs is in contrast with this trend since it will lead, probably, to an extension of the programmes to four years, like universities. The market needs people that will enter the labour market after shorter programmes of study. Any delay in entering the labour market due to extended study programmes is costly for the economy, especially if the skills that are to be acquired will not be utilised on the job.

The middle-level skill model of Greek economy is to a great extent responsible for the low degree of absorption of graduates into the workplace. Indeed, employers justified their reliance on social networks in recruitment by the low skill requirements of the jobs in their companies. On the same basis, they justified their reasons for not selecting recruits with postgraduate studies, or for not employing graduates, or for preferring graduates from the non-university sector, and generally for not employing people with high levels of education. A common argument was that the low requirements of the jobs in their company made this unnecessary. This finding echoes writers and economic analysts in Greece who have emphasised the danger of a 'vicious circle', where education and economy get out of phase and restrict one another (Kottis, 1994). There is a need for a more dynamic, interactive relationship between education and the economy.

The lack of an interactive relationship between the education and the employment systems can result in either the production of 'specialists' that have become already obsolete in the employment system, or preparation of specialists that the employment system is not ready to absorb yet (Kottis, 1994; Pepelasis, 2000). In both cases, there will be problem for the individuals who have those specialities. A

traditional educational system can hinder the economy by the absence of properly qualified individuals, while a traditional economy can result in high graduate unemployment or a 'brain drain', as graduates seek out work elsewhere.

A 'dialectical' correspondence is at the heart of policies for cooperation between higher educational institutions and enterprises. The model of the Greek economy does not require an educational system simply receptive to the requests of the employment sector, but rather a proactive higher education system to facilitate the economy developing from a lower to a higher level of equilibrium, maximising the exploitation of material and human resources or, at least, minimising the loss of their capacities.

In the light of the above considerations, programmes of entrepreneurship that have been introduced at all levels of education and into higher education too, may be seen as a solution to the present problems of the Greek economy. These programmes attempt to cultivate an entrepreneurial culture in higher education and to support graduates – both financially and in terms of information – to create their own enterprises, which might be more in accordance with their levels of skills and the immediate needs of the economy.

6.10 The value of a degree

A degree is awarded after examinations on the content of a number of courses. Degrees testify that their holders possess knowledge and skills associated with the subject of study. The extent to which the holder has achieved the aims of the course of study is demonstrated by the degree class. From this perspective, degrees are close to the achievement tests that are often applied in selection procedures, since they testify what their holders can do. Their use in the selection process is based on their usefulness in predicting job performance. Degrees can also be seen as an indicator for trainability.

The award of a degree presupposes ability and willingness to learn, qualities which are very important in the context of lifelong learning.

If degrees are viewed as achievement tests, then it is reasonable to think about their reliability and validity, two qualities essential to any kind of measure. Reliability and validity are integral qualities of any test, and achievement tests differ in their quality. Degrees differ too. An achievement test gains its legitimacy by being applied in practice, and by being proved to be a valid measurement instrument. Thereafter, the designer's signature is a guarantee for its quality. Similarly, degrees establish their superiority in comparison with other degrees by proving to be better predictors of job performance. In this respect, the institution that awarded the degree has a role similar to that of the designer of an achievement test.

Reliability refers to the consistency of the scores given by the test, including stability across time. The award of degrees involves a series of successive examinations and assignments. Consequently, the reliability of degrees is enhanced by being a combination of measures, rather than one testing at a particular point in time.

Validity refers to the extent to which a test gives appropriate information about the quality under investigation. There are several aspects to validity. Content validity is the extent to which the items of the instrument sample the domain of interest. In this respect, a degree in a subject of study relevant to the needs of the job role for which selection is performed is an 'achievement test' with greater content validity than a degree in a non-relevant subject. Thus, selecting among graduates in a relevant subject is like selecting among candidates who have been subjected in an achievement test with higher content validity. Degree class is the actual score on the test. Consequently, it has meaning when comparing scores on the same test, that is, when comparing graduates from the same university.

In a relatively stable environment, degrees were secure predictors of successful performance. In a context of rapid change and the rapid obsolescence of knowledge, it is more important to know an individual's potential to perform rather than what he is currently able to do. Thus, aptitude tests rather than achievement tests are more important in today's organizations. Again, degrees constitute an appropriate selection tool for those organizations that need to select people with particular types of knowledge and skills, but are inadequate selection tools in organizations which emphasize potential. The more the qualified individuals in the labour market, the less will be the power of a degree to differentiate among their holders in terms of their potential. The less selective higher education becomes, the more the selective function is undertaken by employers.

A higher degree (a Master's or a PhD) has not been proved to be a more appropriate selection tool in the context of the expansion of higher education. It cannot tell employers much more than what a first degree can do. This is especially true of Greece, where job requirements in most jobs within organizations are low, and a higher degree is often seen as overqualification. Degrees are increasingly becoming a pre-selection tool. In the near future, their use will be confined in 'delimiting' the pool of candidates for employment. Then, depending on where the priorities are for the organization, the adoption of appropriate selection tools is required.

It can be argued that the proliferation of degrees in the labour market transforms degrees into low validity achievement tests which fail to differentiate among subjects who do not differ greatly in their abilities. This is similar to the 'bunching' of scores in cognitive tests (Robertson *et al.* (2002, p. 131), where small differences in scores may be attributable to measurement error and not to differences among candidates. This raises issues for the expansion of higher education. Yet, as employers commented, it is not reasonable to deny the right of individuals to education simply to facilitate the

selection processes in their organizations. Moreover, in addition to its exchange value, education has its intrinsic value. Education cultivates a way of thinking that enables the individual to have access to culture.

Programmes of study should have and can have both extrinsic and intrinsic value. Social sciences, especially, are associated with such intrinsic value. However, young people cannot afford to study merely for its intrinsic value. All programmes of study should have an applied component, so that their graduates find their 'niche' in the labour market. Thus, for example, interdisciplinary programmes can include the perspectives of philosophy or sociology related to a particular subject. And, indeed, there is a trend in programmes of sciences to include courses in social sciences (NTUA and NLI, 2001), although it is also done for employment reasons, and is therefore also instrumental.

6.11 Conclusion

Higher education is in fact a pre-selection for employment, because by the time that someone enrolls in higher education (or drops out), many aspects of his working future have already been determined. The two basic characteristics of the labour market, the division of labour and social hierarchy, can be identified in the structures and cultures of higher education too. The division of labour is institutionalised by the existence of subjects or specialities, and it is based on the principle of relevance. There are strong boundaries between subjects and weak boundaries between the specialities of a particular subject. The social hierarchy of labour is also institutionalised by the existence of different types of institutions, which correspond to different levels of education. A series of interventions, also, by the state and the professional bodies enhances the boundaries between specialities and types of education, as the professional bodies try to ensure exclusive rights for their members, including future ones.

In Greece, as regards the output of the higher education system, employers expect a large number of skilled individuals to cover the needs of their companies for skilled workers, and a small number of highly skilled individuals – mainly in large companies - to fill high responsibility posts. This, itself, indicates that relevance is a more important dimension than level of expertise. Relevance is the key to employability; therefore, the subject of the study is the basic differentiating feature of degrees, because it points out the relevant occupational area. Thus, the degrees that are valued in the labour market are those whose curricula correspond to the skill requirements of the working environment. The skills required depend on the types of activities of the company and the technology used, but they also depend on the perceptions of employers about what the skill needs of their organisation are.

Employers use the educational qualifications as proxies for almost every aspect of the potential of the individual. The inferences that employers make from academic records constitute evidence of beliefs in both the screening function of higher education and its developmental power (human capital theory). In terms of the screening function of higher education, employers emphasised the higher enrolment standards of universities compared with TEIs as evidence of higher ‘raw’ intelligence of university graduates. In terms of the developmental power of higher education, employers appreciate the higher quality of experience provided by universities compared with other types of institutions and, especially, the sound theoretical background given by university courses compared with programmes limited to applied knowledge.

Yet, degrees remain just simple proxies. When employers are interested in taking more accurate measurements of candidates’ potential, they apply their own psychometric tests. Generally, degrees play the role of achievement tests. In rapidly changing contexts, aptitude tests are more useful predictors of job performance than

achievement tests. However, even in these cases, degrees as ready-to-hand achievement tests are used in pre-selection, to 'delimit' the pool of candidates.

The last chapter is a discussion of the implications of these findings for higher education and its stakeholders.

CHAPTER SEVEN

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

7 Introduction

This study attempted to identify the types of knowledge, skills and personal qualities among graduates sought after in business and industry, and to identify what university degrees signify to employers in terms of the skills portfolio of graduates. This chapter considers the implications of the findings for higher education and its stakeholders. Implications refer to the management of information taken from the employment system and the elaboration and dissemination of that information to higher education stakeholders. Implications can be divided into six parts:

- a. Implications for careers advice;
- b. Implications for higher education curricula;
- c. Implications for higher education planning;
- d. Implications for higher education management;
- e. Implications for recruitment and selection; and
- f. Implications for university-industry cooperation.

With reference to the above areas, practical measures and policy changes are outlined, which could help the higher education system to become more responsive to the needs of the economy, and students and employers to make more informed choices. Finally, some areas emerging from the study, which deserve consideration for further research, are suggested.

7.1 Implications of the study

This research represents a first attempt towards developing a framework for looking at the relationship between paper qualifications and substantive qualities. A theoretical model of current selection strategies was constructed, drawing on the qualitative analysis of interview data and my understanding of the inferences that employers in Greece make from particular aspects of the educational experience of graduates. The model identifies the determinants of successful transition into the employment system and, consequently, the factors that are within the responsibility of higher education to develop.

7.1.1 Implications for careers advice

Higher education should be better informed about the expectations that students bring with them into their degree programmes and prospective students should be better informed about what higher education, in general, and the attendance of a specific course, in particular, can offer them. Prospective students should know that their choice of a course of study is to an extent a choice of a career. Although there are some courses with a range of career options, in many cases, the graduates' consequent employment has been determined to a great extent at the time of choosing a particular course. This is because of the different types of knowledge and skills provided in different courses, as well as the established occupational rights of the various professional groups.

Not all courses offer graduates the same chances in the labour market. The emphasis of employers on the subject of study when recruiting graduates indicates the importance of the subject of study on consequent careers. This implies that potential students should have up-to-date information about the working conditions and the employment prospects of various occupations. Of course, individual success in an

occupation with poor general employment prospects is not impossible, but requires a great deal of perseverance and determination, and perhaps some luck.

Enrolment in 'controlled' occupations is still a guarantee for successful transition to employment. But this may not last much longer. There is much pressure from industry and from the European Community legislation for the abolishment of professional rights associated with particular courses, and the establishment of professional rights on evidence of competence.

Another choice that prospective students have to make is between general and specialised courses. The difference between general and specialised courses is not that between liberal and vocational education. Both general and specialised courses can relate to a particular professional area. In SMEs, a small number of graduates co-ordinate the whole enterprise. Therefore, those graduates should have taken a broad education so that they are able to deal with any problem emerging in the company. In large enterprises, employers prefer general degrees for another reason. These enterprises themselves provide their employees with the specialised training that they need. Thus, employers, both in large and SMEs seem to favour general degrees, though for different reasons.

Nevertheless, a specialised course can be a good choice under particular conditions. First, it depends on the degree of confidence that one has about the area in which one wishes to seek employment. A specialised course may enhance chances for employment in a particular sector of employment, but it may limit possibilities for selection in other occupational areas. A light form of specialisation during the second half of studies, achieved under the 'direction of the curriculum' route, was seen as a sensible option by many employers in the sample, because it permits the acquisition of deep knowledge in a segment of the discipline, but without limiting opportunities by narrowing the general knowledge base of the graduate.

Evidence from the fieldwork interviews showed that graduates from applied courses typically experienced a smoother transition to employment than graduates from theoretical courses. In Greece, where unemployment is mainly concentrated around the issue of finding first-time employment, the development of more applied courses is required within the university sector.

Another dilemma may be the choice between going on for a postgraduate degree or entering employment after graduation. A postgraduate degree is necessary only in certain specialities (i.e. marketing) and for management trainees. For most entry-level jobs possession of a higher degree may not be a disadvantage, although this does not mean that having a higher level of education than that required by the job necessarily increases chances of being selected for the post. Further, higher level qualifications are sometimes associated with higher expectations; therefore certain employers, especially those in SMEs, avoid selecting overqualified candidates. While a postgraduate degree is seen as a 'disqualification' in many small companies, where graduates will have limited opportunities for career development, it has been suggested that in larger companies sooner or later graduates end up in posts appropriate to their level of education. So the importance of a postgraduate degree over a career should not be underestimated, even if it is not a passport into entry-level posts.

Despite the strong competition among graduates for jobs, employers do not generally raise the qualification requirements for jobs, but only their expectations in terms of non-accredited skills. These skills refer to personal and interpersonal skills, qualities and values. Communication skills, team-working skills and negotiation skills are increasingly important in the new working environment, especially for jobs in the service sector. In parallel, capacity, as demonstrated by high scores on aptitude tests, is sought after by large organisations. Why employers raise their expectations in terms of these skills rather than in terms of qualifications is not clear, but the practice is

common. This may be because they believe that knowledge and skills can be acquired on the job but capacity and certain personal skills may not.

Of course, there is some evidence that higher education tries to respond to the needs of the employment sector. New methods of teaching and learning in higher education are orientated to the development of these skills. The increased use of group work, presentations, internships, and projects in partnership with industry are some of the activities aimed at developing these skills that are becoming more widespread within degree programmes. Students should be encouraged to participate in such activities as well as being aware of the skills developed during these activities and their value in the job market. Given the high competition that they will face in their transition to employment and later for career development, students need to be aware of the skills sought after by employers and to be aware of how they measure up in these areas. This self-assessment can have important implications for their decisions about study and employment. It can also help them plan ways that they can develop, by participating in educational experiences that develop particular skills.

Despite the growing emphasis in skills, good academic performance remains vital to employing organisations, and in particular for posts, where technical skills are pre-eminent (i.e. in high technology industries and in audit companies). It is suggested that students should continue to pursue high academic performance, despite the need for skills too, because this will be increasingly important due to the increasing competition for jobs.

7.1.2 Implications for higher education curricula

This study, seen as a feedback from employers, generates implications for the types of knowledge and skills that higher education should seek to develop. This does not mean that higher education should blindly accept the suggestions of the labour

market uncritically. Market ethics often differ from the principles of education. But the needs of industry should be taken into consideration in designing curricula, since the preparation of students for employment is among the main responsibilities of higher education institutions.

Market relevance proved to be the passport to employment. The evidence suggests that employers are interested only in particular courses when recruiting graduates, the content of which is relevant to the needs of the world of work. On the other hand, Greek higher education is orientated to the needs of the public sector, because this was until recent times the most common employment destination for new graduates. The decrease in the scale of public sector operations over time, and the need for increased efficiency in industry and business perhaps suggest the time has come for a reconsideration of the needs of the employment system and a reorientation of the educational system around the provision of knowledge and skills needed in industry and business sectors, rather than the civil service.

Of course, employers have only superficial knowledge of university curricula. Often they base their judgements about the content of a course on the title of the course. This also indicates the need for universities to market their programmes, and the skills of their graduates, more effectively. It should be part of the normal communication taking place between the academic and the business worlds, through the careers offices of the universities.

Employers are interested in courses that offer a balance between theory and applications. This indicates that most courses would benefit from an applied component to help students develop skills appropriate to the transition to employment. On the other hand, 'theory' is perceived as the basis for learning on the job, and those who have mastered it are seen as showing more flexibility in dealing with change. Thus,

employers also appreciate courses that incorporate theoretical components in their curriculum.

For the most part, employers choose from the delimited pool of candidates who are graduates in a particular discipline. In situations where the delimited pool is still large – as it is often the case in large companies – they go further and express particular preferences for the section of the subject in which they would like candidates to specialise. What is evident is that the detail of the curriculum acquires increasing importance as the queue of graduates for employment becomes longer and longer.

In some areas, there is a need for an interdisciplinary approach to knowledge. The nature of work, especially in key posts, requires one to understand the function of the 'whole' system, and to be able to communicate about this with people in other fields. The traditional disciplinary-based courses do not promote this kind of understanding and communication between professionals in different fields. However, applied programmes often combine knowledge from different fields. Among the interdisciplinary or the combined courses that employers appreciate most, those combining some knowledge of technology, economics and business management are preferred, because such combinations of knowledge are seen as essential components of high work performance and, especially, the capacity to plan strategically for the organisation's future.

Employers' reservations in accepting graduates from disciplines non-relevant to the needs of the jobs have mainly to do with financial considerations (paying them for skills non-relevant to the needs of the job), though there are also issues of motivation and of skills transfer. Higher education can help as regards the issue of transfer. Practising skills in a wide range of learning and working contexts – for example, by involving students in projects and internships – can develop the ability to transfer skills from one context to another.

The ways in which the practical placements of students from universities is organised makes many employers reluctant to participate. Employers, though generally they welcome cooperation with universities, seem to have no incentive to accept university students in internships. Indeed, they raise questions about the role of practical placements due to the short duration of this scheme and the component of 'on the job training' that universities seem to expect that employers will provide to university students on placement. On the other hand, the practical placement of TEI students, differently organised, is seen as appropriate for the purpose it serves.

But there is evidence of fundamental misalignment between higher education institutions and employing organisations, regarding the different levels of attainment expected by these institutions. Employers seem content to seek out those who meet with the minimum skill requirements, while higher education strives for excellence. The notion of minimum skill requirements is a powerful criterion in selection, and perhaps argues that the job market would prefer some variety in the types of educational institutions and the types of programmes available to supply the types and level of skills needed by the economy.

7.1.3 Implications for higher education planning

The importance of a degree in a particular discipline in getting a job suggests that there is a need for better higher education planning. This should be based on estimates – to the extent that this is possible – of the needs of economy. Despite the problems in estimating future manpower needs, forecasts can indicate some broad direction as to the developments that higher education institutions should be making. It should be supplemented by a continuous flow of information to prospective students as regards the current state of the labour markets, to enable them to make more informed choices.

The majority of jobs in salaried employment in the private sector of economy, according to this study, require a degree in engineering or economics. At the same time, the professional association of engineers controls the numbers of enrolments in the university departments of engineering, to protect their existing members from unemployment problems. However, there is evidence that there is room for the expansion of this profession. The social control of the engineering profession should be removed. Professional groups should not deter higher education institutions from responding to the needs of economy. There is evidence of a need for an increase of enrolments in applied courses, and especially in engineering, and artificial barriers imposed by powerful professional groupings should be removed through government action in this area.

7.1.4 Implications for higher education management

A basic problem of the Greek higher education system is that it is oriented to the needs of the public sector, which has been the major employer of graduates up to the present time. Yet, the public sector is decreasing over time, and the needs of the private sector should be given greater consideration, as the OECD (1997) Examiners' Report has recommended. There is a need for a re-organisation of the system, giving more attention to the needs of the private sector of the economy. The current policies for cooperation between the liaison and careers offices of universities and enterprises are a step in the right direction, but only a small one move is needed.

However, beyond the need to make in higher education more responsive to the economy, the Greek economy itself needs to change, too. Many economic analysts have suggested that Greek economy has to transform itself into a higher skills model of development, to make use of the existing pool of highly qualified personnel. This requires that the cooperation between higher education and economy should take place

at a more fundamental level than that of employment. Higher education and industry should cooperate in the realisation of innovative ideas emerging from research in universities, to change the structures of industries and jobs.

Another issue is the composition of university faculties and the consequences this has for the design of curricula. Some employers in the sample, mainly speaking about their own experience, argued that the courses are not updated because teaching staff accommodate their own interests in designing the curricula, instead of taking into consideration the subsequent employability of students. This, together with the fact that in most cases a major part of staff has been awarded all their degrees from the faculty at which they were finally appointed, has had the consequence that an overwhelming proportion of teaching staff in higher education comes from the traditional specialities and is lacking the new specialisms emerging in new sectors (Pesmazoglou, 1994). The introduction of new programmes and more appropriate staffing of departments could result in the preparation of a more up-to-date and appropriately qualified workforce.

However, policies on the employability of graduates can only ensure that higher education provides the appropriate knowledge, skills or business acumen needed in the employment sector. This refers only to one dimension of the employability of graduates. The other dimension is positional in nature. If all graduates have the appropriate knowledge, skills and personalities, it does not mean that they will all find appropriate employment. From this perspective, every policy improves the employment prospects of a particular category of graduates, but the problem at the aggregate level remains. Here, the advantage lies with those who can offer additional, not assessed assets.

7.1.5 Implications for recruitment and selection

Recruitment and selection practices are dominated by financial considerations. Some employers in the sample seem to take for granted that the solutions that are the

cheapest are correct from an economic perspective, too. As a result they tend to select persons with the minimum skills portfolio required for the job, although these may not be the most appropriate employees for the organisation in the long run.

Employers should also be aware that certain parts of their organisations do not attract the appropriate (in terms of size and quality) pool of candidates because of the poor working conditions that dominate these sectors. The fieldwork data both from employers and careers officers showed that graduates do not have negative attitudes to business and industry generally, but only to certain sectors, like sales or insurance. These sectors, traditionally employment destinations for non-graduates, are associated with flexible working arrangements, like working as an external worker, and working conditions which are unattractive to the graduate population. Therefore, higher education cannot be accused of nurturing an anti-business culture, as it is often heard. Employers should improve the working conditions in these sectors if they want to attract graduates.

7.1.6 Implications for higher education-industry cooperation

The relationships of an educational institution with employers were found to have very positive influence on the perceptions of employers about the quality of the particular institution. This finding points to the need for increased co-operation between educational and employing organisations. This can be a good way of marketing educational institutions.

Relations can be at the individual level, at the level of departments or at the institutional level through the careers offices of the universities. At the individual level, the relationships of lecturers with employing organisations should be supported by measures and motives introduced by the institutions or the state to facilitate the involvement of teaching staff from higher education institutions in joint activities with

industry and business. At the institutional level, problems in funding of the careers offices have been found as impeding the function of these offices, with the result that their services are reliant on the good intentions of the academic and administrative staff of the institution. The state should provide support to careers offices, in terms of funding and personnel, for the facilitation of their role in connecting the two worlds, the academic world and the world of work, and introducing a genuine, two-way communication between them. Communication between industry and universities may alter the way that employers see higher education and the way that academics and students see the world of work. For a particular institution, its relations to business and industry may improve its image, as well as the employment prospects of its graduates. This is a way also of getting feedback from the business world and informing a department about the 'goodness of fit' of its graduates for the world of work. An issue where feedback was found to fall short relates to the lack of procedures of recording the outcomes of the selection procedures in which they are involved. This type of recording could provide a great deal of feedback to departments and to students, too. Thus, the establishment of such a mechanism is needed.

There is also a need for increased mutual understanding between the two worlds, and a realisation that both systems – education and employment – should contribute their own knowledge and experience, especially now that knowledge production happens in universities as in industry, to a closer dialogue about the way forward. Both sides seem to welcome such cooperation, although they both expressed reservations that the other side wants to take precedence in this 'dance'. As employers in the sample suggested, universities could ask people from industry to give lectures and presentations in universities, and students could be assigned to projects in industry as part of their academic work. This would help the exchange of information and could enhance understanding between the two worlds.

The challenge for the Greek economy, in its passage from a lower to a higher skill model of development, could also be facilitated by enabling graduates to develop their own enterprises where they could make use of their high level skills. Therefore, higher education should develop an entrepreneurial culture. Programmes of entrepreneurship which are now initiated in universities may become a motive for the creation of enterprises that demand individuals with higher education background. Universities should become the springboard of a new generation of entrepreneurs, who will have a good appreciation of technology and the marketplace, and ideas they want to try out. The new generation of entrepreneurs must embrace graduates, or Greece is losing out the skills of its most able citizens.

7.2 Scope for further research

Though in completing this study I believe that I did manage to answer the research questions posed, inevitably, any such study is limited. Not surprisingly, therefore, there are several aspects emerging from this study that would provide focus for future research:

- a. In this study, it was predominantly human resource managers that were interviewed.

Further research is needed to investigate the viewpoints of managers in the technical and the financial sectors of the company. Investigating the viewpoints of those other managers who directly or indirectly intervene at some point of the selection process and may influence the opinions of human resource managers, would provide more information about the skill requirements of the workplace, especially as regards technical knowledge and skills. It may also shed light on the ways companies assess differences among graduates in terms of these skills.

- b. As noted in the conclusions, this study is delimited to the viewpoints of employers and careers officers. Further research is needed to investigate the labour market

experiences themselves, both employed and unemployed, with regard to their experiences of the selection process. Especially, unemployed graduates' own interpretations of the reasons that they cannot find a suitable job might bring an important new perspective.

- c. The scope of the present research is delimited to Athens and Volos. Given the demography of Greece, further research is needed to cover other cities to increase the trustworthiness of the research. Especially, there is a need for research to cover cities at a greater distance from Athens and, especially, the islands, where practices may be very different.
- d. The present study is focused on the private sector of the economy. Further research could focus on selection for employment in the public sector. Recruitment and selection policies in the public sector are set by politicians and members of the Highest Council of Personnel Selection (ASEP). Additionally, these are changing very often depending on the political situation. At times the criteria are moved in favour of vulnerable social groups, while most often they are criticised for appearing to be tailor-made to favour particular interest groups. Of course, access to members of ASEP may be difficult, and such research might need to be based mainly on documentary analysis.

7.3 Concluding remarks

Finally, I would like to try to step back and take a broader perspective. The present study explored the skills required at the workplace and the inferences that employers make about these skills by considering particular features of degrees. Further, the study considered certain aspects of the education process and their impact on graduate employment. The study arrived at certain conclusions which are reported

above. But it was essentially a study of the value of degrees from the perspective of employers.

Managers from business and industry often criticise education staff for not having experience of the 'real' world of work and, thus, holding anti-industry and anti-business prejudices, which they pass onto their students. An important parameter of this investigation was that the researcher was an educator, without much experience of business before the fieldwork, but, I hope, without prejudices either. Consequently, what the researcher learnt about the business world was what an educator could see and understand. Nevertheless, I feel that my understanding of how managers in the business world think has been substantially increased. Perhaps it would be useful if some way could be found to introduce some of those I interviewed to the way those in education think. This is the kind of mutual understanding that needs to be built in Greece if we are going to prepare graduates for the workplace and, at the same time, develop industry to make best use of the knowledge and skills they have to offer.

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APPENDIX I: The sample of organisations

- V1: Multinational insurance company, branch
- V2: Large newspaper publishing company, branch
- V3: Large local food industry
- V4: Large multinational chemical industry, branch
- V5: Large multinational high technology industry, branch
- V6: Small TV channel, central office
- V7: Large national metal industry, branch
- V8: Private primary school
- V9: Centre for liberal studies
- V10: Post-secondary college
- V11: Medium-sized local food industry
- V12: Large national food industry, branch
- V13: Large food industry, branch
- V14: Large local chemical industry
- V15: Small commercial importing company
- V16: Medium-sized local newspaper publishing company
- A1: Large national insurance company
- A2: Large national food industry
- A3: Multinational bank
- A4: Large national construction industry
- A5: Multinational bank
- A6: Large national chemical industry
- A7: Multinational energy company

A8: Multinational energy company
A9: Large national newspaper
A10: Medium-sized food industry
A11: Large national food industry
A12: Multinational drink industry
A13: Large national industry of electrical products
A14: Telecommunications company
A15: Multinational company of high technology
A16: Telecommunications company
A17: Multinational Pharmaceutical company
A18: National food manufacturing company
A19: Ships management company
HR1: Multinational Human Resource company
HR2: Multinational Human Resource company

Note: The letters before the numbers indicate the cite of research: V stands for Volos, and A stands for Athens. HR stands for Human Resource Organisations.

APPENDIX II: The sample of careers offices

- C1: Careers office, general university
- C2: Careers office, economic university
- C3: Careers office, general university
- C4: Careers office, technical university
- C5: Careers office, economic university
- C6: Careers office, technical university
- C7: Careers office, technological institution (TEI)
- C8: Careers office, technological institution (TEI)

Note: C stands for careers office.

APPENDIX III: The interview guide for employers

- a. **Company details** (geographical position, size, activity)
- b. **Manager's personal data** (position in the company, education)
- c. **Graduate employment** (proportion of graduates in the company, job roles assigned to them, their specialisms)
- d. **Selection process** (selection procedures, the role of social networks)
- e. **Selection criteria:** (the role of education (subject of study, type and status of the institution attended, degree class, postgraduate degrees), the personal qualities sought after, preference for general or more specialised degrees, work experience)
- f. **Evaluative judgements** (the cost-effectiveness of employing graduates, the stance of employers towards overqualification, shortages in skills)

APPENDIX IV: The interview guide for careers officers

- a. **Institution details** (type of institution, the subject orientation of its courses)
- b. **Respondents' personal data** (professional status, education)
- c. **Careers office's objectives** (involvement of the careers office in recruitment and selection by employing organisations, and other relations with employers)
- d. **Graduate employment** (types of jobs offered to graduates of the various departments, the specialties in demand, the specialties with employment problems)
- e. **Selection criteria** (types of knowledge, skills, and qualities expected from graduates and the aspects of education to which employers pay attention)
- f. **Feedback from the employment sector** (types of feedback from the employment sector, factors in the responsibility of the institution that could improve the employment prospects of graduates, the means (if any) by which they give feedback to the departments)

APPENDIX V: Extracts from the Research Diary

3/7/2001

I decided to try to get an idea of what it is supposed to be my fieldwork. First, I would like to discuss informally with academic staff to understand their viewpoints about the streaming of students in specific careers so early in their life. Are there so different the types of knowledge and skills that they develop, and so attuned to an occupation that justifies such limitations in the occupational roles that a graduate undertakes later in his life? Are employers those who established that situation, or the educational system?

4/7/2001

I tried to contact academic staff in a university. The period is not good. They are busy with the exams of July period. Finally, I talked to an assistant professor. I explained to him that I am interested in interviewing academic staff for the purpose of my research, and explained that purpose. He told me that courses have specific objectives to accomplish and prepare students for particular roles. At my question about the ability of students to use their knowledge and skills in area different than that of their studies, and about skills that are developed in higher education beyond the subject knowledge, he directed me to the careers service.

6/7/2001

I had another try to contact academic staff at the university. He explained to me that every course has a curriculum adapted to the needs of the subject or the occupational area, and I was addressed again to the careers office. I visited the careers

office, one site of this office, anyway. I asked about any research done on employment of graduates. They told me that they are about to publish the results of such a research and called a person involved in this study to tell me more on that. I realised that the person was the managing director of the careers office. I am not sure that this study is relevant to mine.

9/7/2001

I have the sense that academics are not preoccupied with employment issues. I also think that I am not prepared enough for such an interview. Even worse, I don't think that I will manage to get a sample of academics. It would be better if my target group was less 'elite', like students. But students cannot reply to my questions.

I have to rethink my questions and adapt them to the existing opportunities. It may be better to focus on the viewpoint of employers, instead of academics.

1/6/2002

I felt ready to start my fieldwork. I went to the careers office to arrange an interview with the managing director. First, I explained my topic and I asked whether he is aware of any research done on the area of my topic. He replied negatively. I asked his opinion about where should I begin from, and he addressed me to the Municipal Organisation of Development (ANEM). I asked him to give me an interview and he kept my phone number to call me when he would be able to do so.

I went to the Municipal Organisation of Development. They gave me a directory of organisations in the area with the profiles of those enterprises. It looks very promising.

4/6/2002

I visited the centre of vocational centre of the municipality at another part of the town, because I had heard that it conducts research on employment regularly in order to create vocational programmes that match the labour market needs. This office proved to be orientated to lower levels of education and not to graduates, although sometimes they accept graduate candidates. They mentioned the employment agency of the Municipality of Volos.

I went there – at another part of the city - and asked for any research done on employment. They welcomed me and set at my disposition everything they thought was relevant to my topic. I also took an interview from the career advisor of the agency [not included finally in the sample].

5/6/2002

I visited again the municipal agency where a member of the agency gave me a presentation of researches done, with its most important points. I made also certain copies of these materials.

Then, I visited the Organisation of Employment, the central office of the prefecture. I took an interview from the employment advisor [not included in the sample]. We discussed about the vocational programmes of the organisation and the entrepreneurship programmes.

6/6/2002

I decided to visit one company from the ANEM Directory. I chose a company at the harbour that claimed that all its members were professionals with advanced degrees and professional ethos. The address of the company led me to a building where, after

having searched every level, I arrived at the end of the lifts and continued to the roof. There, outside a door which might lead to open air or at best at a very small apartment occupying part of the roof , there was the label of the company I was searching for, as well as the name of other five to six companies. Some labels had only a company name; others had a company name and the owner's name together. The owner was the same for several of these firms. They, probably, belonged to the same person. They may also be funded by the European Community and the state...

I decided to visit banks and insurance companies. Unfortunately, the managers of three banks that I visited told me that recruitment is conducted by the central offices in Athens. Two insurance companies that I also visited told me the same. Only recruitment for insurance agents is made in this branch. He offered to explain me, and I took an interview from him. Working as an insurance agent is not full-time salaried employment. But the discussion focused to the attitudes of graduates to that job, to secretarial jobs and to career days and presentations at the universities.

8/6/2002

I visited a large local drink industry in a nearby town. Entry was not permitted and I telephoned them. They told me that the owner (and general director) was at a meeting and I had to call again after an hour. When I gained entry, I asked to speak to the general director. He called the financial manager to discuss with me. She was an 'economic technician', that is, a non-graduate with over 10 years of experience. I took an interview from her. In the last years they have recruited only one TEI graduate, a food technologist! I asked to interview him afterwards. I was given the permission, but the first few minutes he was called to go somewhere. I waited him to come back, but soon there was another break. He came back but again he was called to go somewhere

else. While I was waiting and wondered whether this interview is of use, a secretary said me that I had caused trouble to the company already.

11/6/20002

I went to the industrial area. It was supposed to be a vivid place, a centre of economic activity. It looks more like a dessert. Even worse, it is full of dogs. I visited a drink industry, branch of a national drink. The only graduate was a chemist, recruited about fifteen years ago, who also had the management of the factory. Then, I visited a local drink industry. It did not employ any graduate at all. ... I feel less secure about my health now that I have realised that SMEs food and drink industries do not employ graduates. I visited a factory of painting materials. They undertake contract work for other companies, thus, they do not need graduates.

13/6/2002

I went for the appointment [arranged the day before]. Again, I waited at the entrance of the factory, far from the offices, because the manager was out. When I gained entry finally, I remembered, unlike yesterday, to ask permission to use my tape recorder. He declined. Later, he asked me why I don't keep full account of what it is said. I told him that it is because he has specified a short time frame for the interview, and I want to make full use of it. At the end of the interview I asked him to interview any graduate employee recruited during the last three years. He said that they hadn't recruited any graduate during the last three or four years. He may be didn't want me to 'triangulate' his interview with one of his employees. I, nevertheless, decided to ask to interview any graduates recruited during the last five years instead of three, so that it is difficult for them to tell me that they haven't recruited any graduate for so long.

20/6/2002

I went without appointment to a factory, branch of a large national metal industry. Entry was easy and soon I was found interviewing the general director. It was a good, long interview. At the end, I asked to interview any graduate recruited during the last five years. He denied my access to employees of the company and ... assured me that he had said to me whatever I should know. Then, the climate became friendly again. I think that my attempt to triangulate with graduates in employment has already been ruled out.

His viewpoints about graduates are complicated. He appreciates the attitude of TEI graduates to work but would employ them as nothing more than chief of welders... He appreciates the broad knowledge base of university graduates, but he dislikes their attitudes to work. He holds strong ideas about divisions of labour.

27/6/2002

The managing director did not call me as promised. I went to find him but I didn't. Then I asked information from the person responsible for labour market issues. I took a short interview from him. The interview was not 'rich' because the office belonged to a particular department, and had to do more with the students of this department. However, there was not any other careers office for the other departments.

29/6/2002

Finally, I found my first interviewee accepting tape-recording. After a series of objections to recording I hesitated even to ask in certain cases. The interview was very friendly and I nearly forgot my role. The interviewee – the owner of the enterprise – had certain problems in findings suitable personnel, and I was found offering "business

consultancy", instead of concentrating on my topic. I was misled by inflated enthusiasm.

4/11/2002

More confident than last year, and having analysed the findings of the preliminary fieldwork, I started my fieldwork in Athens. I wanted to interview managers from banks and insurance companies. The first difficulty was to identify the central office. It was not evident in the Directory of Telecommunications of Greece from which I tried to locate my sample. In the first company I gained entry very easily, together with sellers of cleaning materials and auto insurance. But while they served their purpose of entry, I was left waiting to talk to the managing director for at least thirty minutes. During that time I complained three-four times to the persons I had access. It is not reasonable to wait so long until I know whether I will be given an interview. The managing director was seeing me from her office, knew the purpose of my visit but felt comfortable to see me waiting. When I decided to leave, someone called me to proceed to her. Arranging her papers, she told me that she is too busy, that I should sample small banks instead of large (?) and, after a short 'debate' on the composition of my sample she stated that she would give me an interview if I could not find volunteers... I left feeling terribly with the way I was treated.

I tried to arrange interviews with other banks. A bank didn't permit my entrance in the offices and connected me only by phone to the general director. She asked me to send her my questionnaire with the porter. I explained that my research tool was interviewing. She denied participation. I visited other banks; they connected me to the phone at the entrance of the building after leaving me waiting for long. No arrangement for interview was made. I approached a small bank. The general director was very friendly but, as he explained, the company since its foundation didn't conduct any

recruitment and all the company's employees were acquaintances from the very beginning.

6/11/2002

The day was quite successful as regards my research. I chose to contact companies on an avenue which crosses Athens. I was attracted to a chocolate manufacture. The porters showed me the way to the human resource manager. She was a young woman, happy with her working life in the company, and for the travelling and educational experiences the company offered her. She promptly gave me an interview, and a box of chocolates. My morale was rescued. There is another chocolate manufacture nearby...

28/11/2002

There were many times during my fieldwork, that I was treated like a dealer or a distributor of advertisement materials. The following incident, which happened a week ago, refers to some of the most miserable moments of my fieldwork.

I approached a petrol company for my research purposes. I arrived at the entrance (glass door and walls) together with another person and I could have gained entry. For reasons that I still do not understand, I hesitated to enter and stayed outside to talk to the microphone of the door as the person already there had done. A voice called me to explain what I wanted. I explained my purpose and the voice told me to wait. I couldn't see any person talking to me despite the transparency of the office. This made me feeling uncomfortably. After waiting some time, the voice told me that they couldn't accept me in. That was all, without justifications. Even the tone of the voice was different than before. Later, I learnt that the company would not be included in the sample in any way, since it belongs to a great extent to the public.

There is notice on the entrance of many buildings: "No entrance to salesmen and distributors of administrative materials". After that incident, I look unconsciously to see whether the notice includes researchers...

12/5/2003

I have a great difficulty in identifying the location of the career service of a university. It is a 'multi-site' office where the one site does not know where the other is! I was said that it was at a particular department, but no students, even final-students, of that department were found knowing whether such an office exists.

14/5/2003

I found finally the location of the office and I got the telephone numbers of the person responsible for the labour market and the managing director. I was said that the first is more aware of the issues that I would like to discuss.

15/5/2003

I called again, repeatedly, the person responsible for the labour market at the careers office. When I finally found him, he refused to give me interview. I called the office of the general director. One member of the staff volunteered to give me an interview. For a moment I hesitated, because I had arrived at the conclusion that the 'richness' of the data provided by more experienced individuals (and higher in the hierarchy) was worth of trying a little more to persuade them to give me an interview. She felt my hesitation and then took her proposal back.

16/5/2003

The 'volunteer that declined later' undertook the initiative to give me a reply in the part of the managing director since she realised that I would not be able to find him. At one of my later phone calls she explained me that I should apply for an interview, providing detailed account of what I want to know, and supported by documents. My application would be examined at the next congress. I asked how long it would take. He told me "a month, more or less". I explained that I could provide the documents required but I hadn't more than three to four days before going back to Manchester. She told me that in this case it was impossible to do something about it. It will be the only university careers office left out of the sample.

[Later I found that there was another school of further education that was upgraded to university. So, it is finally two the university careers offices in the Greater Athens area not included in my sample.]

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