Temporary Employment Contracts and the Application of Real Options Theory: A Case Study in the Irish Third Level Academic Sector

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A Thesis Submitted for the Degree of Doctor of Business Administration

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DECLARATION

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Business Administration is entirely my own work, and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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'Tell me how the Germans have taught you to fight Buonaparte by this new science you call "strategy"?'

(Prince Nikolái Andreevich Bolkónski, War and Peace by Leo Tolstoy)
ABSTRACT

This thesis discusses temporary employment contracts in the third level academic sector supported by a number of papers which referred to academic employees having to undertake temporary academic employment positions while waiting for a permanent position. For academic institutions this is a useful screening mechanism that: maximises flexibility, avoids irreversibility and offsets uncertainty.

Three literature reviews are presented. The first on relevant theories of the firm discusses: transaction cost economics, the resource-based view of the firm and real options theory. The second on real options theory, deemed the most appropriate theory for undertaking the study, due to its consideration of flexibility, irreversibility and uncertainty. The third on temporary employment contracts focusing on their: being a source of flexibility, delaying an irreversible decision, and dealing with uncertainty. Research questions derived from the literature reviews are presented which underpin the research.

The research undertaken was in two phases: phase one - an employee perspective, which provided confidence to undertake phase two - two other perspectives: an employer perspective and a human resource management perspective.

The key empirical findings are: real options theory is an appropriate framework for which to discern the most appropriate employment contract mode; an 'immediate exit' option protects institutions from an irreversible decision; flexibility, irreversibility and uncertainty are key determinants in deciding upon the most appropriate employment mode; temporary employment contracts are both flexible and reversible and shift uncertainty from the institution to the employee; consideration of irreversibility and uncertainty can lead to the hire of temporary employees; temporary employment contracts offer an opportunity to assess the competence and fit of the employee; human resource management
approaches do not currently appear to reflect the need to manage uncertainty and deliver flexibility.

Overall conclusions are discussed and the research questions addressed with research limitations and suggestions for further research included.
CHAPTER 1 - INTRODUCTION

1.1 Introduction
This chapter is the first of eleven chapters that make up this thesis which looks to identify and apply a concrete and tangible framework to human resource management practice and research, particularly the recruitment and selection aspect. The overarching question is: how can the use of real options reasoning help human resource managers to think more strategically about temporary employment contracts. The chapter is laid out as follows: background - author and thesis, the doctoral journey, thesis focus (which includes: the third level academic sector; flexibility, irreversibility and uncertainty; real options theory; and the Irish context) and the purpose and significance of the research, with an overview of the other thesis chapters at the end.

1.2 Background
In terms of background, the author has worked in senior human resource management positions within organisations in the private and semi-state sectors and has had close ties to the public sector also. These organisations were in the financial sector, the healthcare sector and the information, communications technology sector and included indigenous Irish companies as well as multi-national. In terms of relevant qualifications, the author holds a degree in business studies, a master’s degree in human resource management and a postgraduate diploma in employment law.

Wright et al. (2001: 701) observed the human resource management profession: 'has consistently faced a battle in justifying its position in organisations'. The author suggests this is still the case, questioning whether the profession has really developed, strategically. The author acknowledges there has been some evolution, for example human resource management is rightly positioned now on organisations top management teams. But, has this evolution more to do with, for example, significant increases in employment legislation? From a strategic perspective, for instance, has the 'strategic' element of human resource management properly evolved or is the profession heavily weighted in
operational aspects? Is the reference to strategic human resource management therefore more of a concept than a reality, in practice? While it might not be popular, the author posits the answer to the last two questions is, yes; the profession is predominantly weighted in operational aspects and, in reality, does not get the strategic weighting it should.

In the author's experience there are 'boxes to tick', for example, training and development, compensation and benefits, and health and safety, while most line managers shudder at the thought of having to engage in performance management with their employees. Employee relations is essentially a form of fire-fighting and is driven by legislation to the point where the human resource management profession is often overshadowed or only considered once the opinion of a qualified lawyer has been received. Industrial relations forums, tribunals and courts are dominated by solicitors and barristers. In the context of the foregoing, what is left from a human resource management perspective is the recruitment and selection aspect which is a large component of this thesis.

According to Bhattacharya and Wright (2004: 13): 'the primary uncertainty is hiring', because of the related costs associated with recruitment, training and benefits, as well as the maintenance of employees (emphasis added). In the author's view, the correct recruitment and selection decisions can add strategic value, from a human resource management perspective, to organisations both in terms of the personnel recruited and the type of employment contract offered and offset the 'uncertainty' referred to by Bhattacharya and Wright (2004). This last sentence sums up the background to this thesis. The author hopes to, as outlined earlier, identify and apply a concrete and tangible framework with respect to strategic human resource management whereby recruitment and selection decisions can influence and offset uncertainty and therefore add much needed strategic value to the human resource management profession and organisations.
While the focus of this thesis will be discussed in detail, it is important to describe the journey that has been taken to get to the point of presenting this thesis.

1.3 The Doctoral Journey

'Doctoral programmes are seen to be 'crucial" (EUA, 2007: 28). The author's journey over the last number of years has, like many undertaking similar study and research, taken different turns along the way. The journey included attendance at a series of taught modules which included: What is Research, Doing Research, and Reflection and Development, in addition to a number of discussion seminars on strategy. Related to the foregoing modules and seminars, a number of formal assignments were undertaken which included: an essay on the philosophical and methodological issues and disputes within the research area, papers describing the evolution of the research, and the positioning of the author as practitioner-researcher undertaking the research and a comprehensive pilot study. These modules, seminars, essay, papers and pilot study were all precursors to this thesis, the main document in the doctoral journey.

A comprehensive literature review assignment, in the context of the modules and related assignments mentioned above, was also undertaken. In this regard, the author undertook a number of separate literature reviews which culminated in the assignment. These included literature reviews on: transaction cost economics, the resource-based view of the firm, dynamic capabilities, core competence, real options theory, and principal agency theory. These were drawn on only in summary form in this thesis.

As should be evident from what is mentioned in the above paragraphs, the outcome of the doctoral journey has long since evolved from what the initial plan was. It goes without saying, there have been many periods of reflection.
1.3.1 Reflection

Reflection is vitally important both in a professional capacity (practitioner) and academic capacity (researcher). Perhaps this is one of the key differences between the practitioner and the researcher: While the researcher should be constantly reflecting on what it is they are undertaking; from the professional or practitioner perspective, a number of writers suggest organisations can fail in ways due to a lack of reflection which is seen as indispensable (Hammer and Stanton, 1997; Kouzes and Posner, 1995; Sherman, 1994; Wolfe, 1993). In the author's professional experience the cut and thrust of life in an organisation leaves little time for reflection as, and as alluded to previously, the human resource management role is predominantly one of fire-fighting and weighted in operational aspects. In an academic capacity, the author recognises study and research of the magnitude undertaken for a doctoral thesis would be futile without significant periods of reflection.

1.3.2 Practitioner-Researcher

Anderson et al. (2001) differentiate between practitioners and researchers by way of the views one group holds of the other i.e. practitioners generally view researchers as interested only in methodology and not concerned with the real world, while researchers view practitioners in a negative light due to their willingness to embrace developments regardless of theory or evidence. Rynes et al. (2007: 987) suggest the difference is: 'so persistent and pervasive that some have despaired of its ever being narrowed'. It is reasonable to assume the same viewpoints apply in the field of strategic human resource management and in this regard the author assumes a practitioner-researcher role which will add credibility to the points made earlier in relation to strategic human resource management and also add credibility to the research, findings and conclusions of this thesis.

Watson-Boone (2000) sees practitioner-researchers as approaching projects and problems in a way that yields solutions, enlarging understanding of their area of practice and suggesting improvements within their area of practice. Additionally, Watson-Boone (2000) advises the validity of practitioner-research
is grounded in real life situations. The author attempts to reflect the views of Watson-Boone (2000) in this thesis.

1.3.3 Evolution of the Research
As advised earlier, the outcome of this thesis has long since evolved from the initial plan due mainly to the author's having undertaken a number of different literature reviews. These will be discussed in the next two chapters; but as each was undertaken, new aspects came to light informing the author as to the best areas to focus on. In addition to the literature reviews, a pilot study was undertaken to test out the research approach. The outcome of the pilot study showed the research was valid and the approach was sound and provided confidence to continue the research. The acceptance of a paper based on research carried out for this thesis for the European Academy of Management (EURAM) 2009 Conference (Briody, 2009) provided further affirmation the research area was one worth pursuing. Finally, the thesis, in its current form, is, naturally the last in a number of iterations.

So, what is it all about?

1.4 Thesis Focus
While the aspects of human resource management are many; some of which were listed previously, the primary focus of this thesis lies in the area of recruitment and selection. The recruitment of the right human resources (or human assets or capital) and the selection of the most appropriate employment mode are, in the author's opinion, the first steps in getting things right. If this is not carried out properly and appropriately, it can be a long and arduous road to correcting it. It can, for example, be very costly and time consuming for an organisation to terminate an employment contract and then re-recruit due largely, in the author's opinion, to legislation favouring employees more so than organisations.

The thesis focuses on the third level academic sector in Ireland which could be viewed as an unusual sector within which to undertake such research. The
selection of this sector is down to a number of reasons covered in the following sections.

1.4.1 Sector Selection
According to Finn et al. (2007), surprisingly few third level academic institutions utilise a formal approach towards strategic thinking, operational planning and risk management. The same writers put forward the following statement: 'Alarmingly, many [third level academic institutions] address the uncertain and complex climate of change with a rag-bag of random tools and techniques, eclectically drawn from the realms of corporate management theory, that produce a veritable chimera of visions, mission statements and multifarious goals and objectives' (Finn et al., 2007: 13). They, Finn et al. (2007), go on to say some institutions, however, are finding some form of structured strategic approach can create: 'a productive planning process within which [such institutions] can think, plan and act, to frame their preferred future and establish their present policy themes and action agenda' (2007: 13).

In the context of such planning in the sector, Dator (2002) claims future outcomes can be influenced by choices made in the present: 'present actions or inactions themselves can impact on the future achieved' (2002: 7). Along the same lines, Finn et al. (2007: 15) advise institutions should: 'try to move towards achieving [objectives], by monitoring their progress and reconsidering their choice as new information or experiences are gained' (emphasis added).

The variety of employment contracts offered within the sector is a further reason for its selection and, in particular, the fact it is a sector in which a large number of temporary employment contracts are offered. Finn et al. (2007: 68) advise new staff in the sector: 'are often hired on short-term contracts', leading to the notion of permanency changing from being a professorial privilege to something academic employees aspire to. Any risk of such employees being poached by other institutions within Ireland is also mentioned by Finn et al. (2007) who advised competition has lead to university Presidents having to sign an agreement on the poaching of staff.
Further reasoning for choosing the third level academic sector is provided within the next section which provides a strong focus for undertaking this study.

### 1.4.2 The Third Level Academic Sector

From the viewpoint of undertaking research within the third level academic sector, it is important to make reference to a number of papers on the sector despite: 'the rather scarce literature on PhD graduates' early careers' (Recotillet, 2007: 499), which is very much related.

A good portion of literature relates to the French academic sector with Bonnal and Giret (2010: 437) advising: 'short-term contracts in the academic sector have been multiplied'. Mangematin et al. (2000: 118) outline in France: 'very few graduates are recruited into academia without having first had a temporary job in a university'. According to Musselin (2005), the French academic sector offers: 'time limited contracts', to graduates, some of which: 'cannot be renewed more than once' (2005: 139). Interestingly Musselin (2005: 139) suggests, despite the previous point: 'access to permanent positions happens rather early'. This leads to potential issues for the academic institution as, according to Musselin (2005: 139): 'this early tenure implies that institutions have to make a committed decision (for the next 30 years) at a moment when information on the candidates' competencies are still rather limited. As a consequence, there are almost no possibilities for reversibility' (emphasis added). In the same context, Bonnal and Giret (2010: 438) remarked: 'this recruitment procedure [i.e. permanent appointments] leads to great uncertainty about the productivity of applicants: how should their performance be measured if the period of observation is too short?' (emphasis added).

Musselin (2005) also commented on the German context advising graduates are: 'expected to go from one contract to another', with the process for permanency being: 'long, selective and risky', because German academic institutions: 'invest resources on a person with the hope that they will recover their investment thanks to the reputation, research contracts, pedagogical assets
etc. s/he will bring' (2005: 141). This concurs with Enders (2002: 499) who advises: 'graduates' search for employment has become a more and more complex and protracted procedure in Germany'.

Staying with Musselin's (2005: 144) paper, she advises the third level academic sector is changing in terms of its approach to employment contracts: 'one can see the seeds of change and a move towards a stronger role of universities in staff management', while: 'the suppression of tenure', achievable: 'by avoiding 'forever' [i.e. permanent] employment contracts', or improving the ratio between permanent and temporary employees, seeks to give: 'more flexibility to universities in staff management' (emphasis added).

Carmichael (1998) took a strong view of permanency in the third level academic sector, questioning the need for it at all and suggesting the: 'opportunity cost', of permanent appointments is the: 'lost output', of those: 'who will not be hired in the future because the funding (i.e. the 'slot') is not available' (1998: 453).


Robin and Cahuzac (2003) advise the early careers of PhD graduates are characterised by temporary employment contracts because they have to wait for a period of time before permanent employment in the academic sector becomes available. The imbalance between the supply and demand means PhD graduates are often forced to apply several times before they are offered permanent positions which means in the interim, they must find temporary positions which results in: 'queuing at the doors of the academic world' (Robin and Cahuzac, 2003: 1). Such positions are referred to as: 'waiting positions' (Cruz-Castro and Sanz-Menéndez, 2005: 5; Recotillet, 2007: 475). This echoes Bonnal and Giret's (2010: 438) reference to a quote in a French paper by Béret
et al. (2004): 'the increasing use of short-term contracts in the academic sector is leading to a growing job queue in the PhD labour market'.

Van Emmerik and Sanders (2004) advise academic institutions increasingly rely on temporary employment contracts as a way to achieve staffing levels without having to make long term commitments. They suggest such employees offer the institution a source of flexibility, providing the opportunity to delay the largely irreversible decision of hiring permanent employees while assessing the competence of the temporary employee (emphasis added). This is seen as a highly valid employee selection device when considering candidates for permanent positions (Van Emmerik and Sanders, 2004).

1.4.2.1 The Academic Employee

While this research is very much from the institutional perspective, it is no harm to mention, according to Feldman and Turnley (2004: 285), there is: 'some qualitative data that suggest that not all academics want full-time, permanent positions'. The same writers in an earlier paper, however, advised that academic employees who may have invested heavily in their education can find themselves not fully employed and are likely to have less enthusiasm and attachment to their profession as a result (Feldman and Turnley, 1995). The research undertaken in phase one covers these points.

1.4.3 Flexibility, Irreversibility and Uncertainty

The author would like to draw specific attention to the references in the preceding paragraphs to flexibility, irreversibility and uncertainty, as well as the references to new information being gained in the future, in the section before. In particular, the references in the foregoing paragraphs to temporary employees being 'a source of flexibility' and providing the opportunity to delay an 'irreversible decision', as these aspects, together with 'uncertainty' mentioned by Bhattacharya and Wright (2004) and Bonnal and Giret (2010) are core to both the decision making process and the theory of the firm identified as the appropriate theory upon which this research is based. They are the rationale for
much of this thesis - flexibility, irreversibility and uncertainty - being key considerations in organisational decision making.

Musshoff and Hirschauer (2008) state organisations decisions are characterised by flexibility, irreversibility and uncertainty. In the world of organisational decision making consideration of these three components is essential, a point made by Lukas (2007) who argues incorporating flexibility, irreversibility and uncertainty gives insight into achieving optimum results in organisational ventures.

1.4.4 Real Options Theory
The 'preferred theory of the firm' referred to in one of the previous sentences is the theory of real options which inherently deals with the three aspects: flexibility, irreversibility, and uncertainty, and new information being gained in the future. Taking this into the human resource management arena and in particular the recruitment and selection process referred to earlier; managing the workforce in a strategic fashion can provide real organisational benefit. Real options theory provides a framework for the strategic management of human resources and the strategic use of temporary employment contracts, and can assist an organisation in achieving the necessary flexibility and reversibility to deal with uncertainty. As mentioned earlier, this thesis examines such strategic use of temporary employment contracts in one specific sector in one country: the third level academic sector in Ireland.

1.4.5 The Irish Context
'The Irish government views education as the key to the country's future social and economic prosperity' (Finn et al., 2007: 58). Within Ireland, the third level academic sector is made up of seven universities, five recognised colleges, fourteen institutes of technology, seven colleges of education, eight state-aided institutions, and a number of other institutions who run programmes recognised by relevant awarding bodies. The Higher Education Authority (HEA) is the statutory planning and development body for higher education and research in Ireland and has wide advisory powers throughout the sector as well as being the
funding authority (Source: Department of Education and Skills Website). Legislation governing the sector is comprised of: The Universities Act, 1997 which sets out the objects and functions of the universities, and The Institutes of Technology Act, 2006 which sets out the same for the institutes of technology. According to the Department of Education and Skills Website, the National Strategy for Higher Education to 2030, launched in January 2011, is the future blueprint for the sector and aims to transform Ireland's third level academic sector over the next two decades.

Statistics relating to temporarily employed academics in Ireland are not readily available but the following information is important in the context of this thesis.

A 2004 OECD review of higher education recommended Ireland double its PhD output. The number of PhD graduates at that time was 168 per million of population, a figure below other European countries (Forfás, 2009). For example, the corresponding figures for Finland, Sweden and Germany were: 356, 426 and 280 respectively (Forfás, 2009). Since then, the OECD has reported Ireland as having one of the fastest annual growth rates of PhD graduates (Forfás, 2009), a point demonstrated in Table 1.1. While many graduates will take up positions in industry, the figures show the possibilities for those hoping to take up academic positions will not be made easy with increases in PhD graduate numbers. This is a point that arises in the research undertaken in phase one.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Numbers</th>
<th>Variance With Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003 / 2004</td>
<td>720</td>
<td>-</td>
</tr>
<tr>
<td>2004 / 2005</td>
<td>774</td>
<td>+54</td>
</tr>
<tr>
<td>2005 / 2006</td>
<td>919</td>
<td>+145</td>
</tr>
<tr>
<td>2006 / 2007</td>
<td>1055</td>
<td>+136</td>
</tr>
<tr>
<td>2007 / 2008</td>
<td>1091</td>
<td>+36</td>
</tr>
<tr>
<td>2008 / 2009</td>
<td>1205</td>
<td>+114</td>
</tr>
<tr>
<td>2010</td>
<td>1153</td>
<td>-52</td>
</tr>
<tr>
<td>2011</td>
<td>1447</td>
<td>+294</td>
</tr>
</tbody>
</table>

(Source: created by the author based on statistics from the HEA website)
1.4.5.1 Legislation

From a legislative perspective, Ireland has the Protection of Employees (Fixed Term Work) Act (2003), which was introduced into Irish law to give effect to the requirements of EU Directive 99/70 (concerning the framework agreement on fixed-term work concluded by ETUC, UNICE and CEEP). The spirit of the Act is to protect temporary employees from continuous temporary employment contracts. From an organisational perspective, a temporary employee can be employed for up to four years but once the four year anniversary is exceeded there is generally an obligation to provide the employee with what is termed a contract of indefinite duration - a permanent employment contract. The author has experience from both the employee perspective (representative) and the organisational perspective (human resource management).

The Act is one that caught many organisations off-guard in not implementing proper procedures. For example, appropriate notification relating to renewals. While the spirit of the act is noble, in the author's opinion it can have a negative impact on employees in many instances. The author, like numerous organisations, has had to undertake the unpleasant task of advising good and competent temporary employees approaching the four-year mark, who would have been perfectly satisfied to continue on the same basis, because of the Act, the organisation will not incur the risk of additional permanent headcount by employing them over four years. That been said, the Act should not have a major impact on what the author sets out to do in this thesis as organisations should know whether or not there is a longer term position for a temporary employee well in advance of four years. Even with the four year mark looming, if an organisation can demonstrate objective justification for offering temporary employment contracts beyond the four year limit, the Act may not be invoked.

1.4.5.2 Recruitment Moratorium

The Irish Government introduced a moratorium on recruitment in the public service in March 2009; it is important to briefly mention it here. While the moratorium is generally around monetary savings related to the public service
pay and pensions bill, its aim is to restrict the filling of posts across the public service including the higher education sector in which an employment control framework was put in place to provide for the application of the moratorium to third level institutions (Department of Finance website). With respect to the previously discussed section, the moratorium also applies to temporary appointments on a fixed-term basis and to the renewal of such contracts.

The author includes the above two sections as they demonstrate certain realities in Ireland at present. However, the author points out, in line with the literature relating to the third level academic sector, something the research findings will also make clear: the third level academic sector in Ireland and elsewhere (for example, France and Germany) appears to have implemented a practice of restriction in the form of utilisation of temporary employment contracts long before any moratorium was implemented, and well ahead of the current economic meltdown.

1.5 Purpose and Significance of the Research
It is the author's intention this research be: 'a piece of research that can lay claim to being a worthwhile, if modest addition to knowledge' (Rowley, 2002: 16). While the research looks at the employment mode possibilities that can be offered to the employee (the core ones being permanent employment and temporary employment, and to a lesser extent, outsourcing of employment), the research primarily focuses on the temporary employment contract mode. The reasoning for this is due to the greater potential for temporary contracts to be offered within the third level academic sector as discussed by Mangematin et al. (2000), Musselin (2005), Carmichael (1998), Recotillet (2007), Bonnal and Giret (2010), Enders (2002), Robin and Cahuzac (2003) and Van Emmerik and Sanders (2004).

There has been a good deal of empirical research undertaken in the area of temporary employment (for example, Magnum et al., 1985; Abraham, 1988; Barry and Grant, 1990; Abraham and Taylor, 1990; Koh and Yer, 2000; Voudouris, 2004), yet there appears to be a consensus research carried out in
the area of temporary employment contracts is scarce and uncommon (Mitlacher, 2006; Ellingson et al., 1998; Burgess and Connell, 2006; McLean Parks et al., 1998; Davis-Blake and Uzzi, 1993) and at an early stage (Connelly, 2004). Mitlacher (2006) declared the area has been neglected by the scientific community. Connelly (2004) shares these views although acknowledges some discussions have emerged in Germany and Holland. Connelly (2004) pointed out while temporary employment has steadily increased around the world, the research has not kept the same pace.

From a trawl of the literature, the research undertaken appears to focus mainly on comparing temporary employees with permanent employees (McDonald and Makin, 2000; Connelly and Gallagher, 2004; Pearce, 1993; Ang and Slaughter, 2001). This could be attributed to the lack of an appropriate framework, a point made by McLean Parks et al. (1998), who suggested empirical investigations are in short supply and advised on the need for a broader framework for distinguishing between and/or analysing different types of employment arrangements and relationships. Davis-Blake and Uzzi (1993) also posited research in the area is hampered by the lack of a framework as did Wright and McMahan (1992) who advised it is an area: 'in need of a solid theoretical foundation to guide both research and practice' (1992: 316).

Lai et al. (2008) outline most organisations have made changes in their recruitment arrangements suggesting the underlying theme is to keep pace with developments and be able to adapt quickly and efficiently to changing demands and opportunities. This thinking echoes that of Leavy (2004a: 12) who advised with respect to strategy: 'Agility, built upon accelerated learning and rapid reconfiguration of resources, will be a key success requirement in the new strategy game, with a new managerial mindset needed to support it'.

The main purpose of this research is to explore the most appropriate choice of employment mode for investment in human resources, assets or capital (employees), in terms of how that choice will provide organisations with: flexibility, avoidance of an irreversible decision and offsetting of uncertainty,
so as required changes can be made to address situations as new information becomes available over time.

While permanent employment is always an option for an organisation, this research places a large emphasis on the advantages temporary employment contracts and, to a lesser extent, outsourcing can bring in the context of flexibility, irreversibility and uncertainty which makes it significant. The research sits in the area of strategic human resource management and what adds additional significance is, a key element is the exploration undertaken to identify the most appropriate and applicable theory of the firm within which to frame the purpose of the research. As mentioned earlier, the theory is real options theory.

The encompassing of the key characteristics of real options theory - flexibility, irreversibility and uncertainty - into the strategic human resource management area adds a very tangible strategic element to the area which, in the author's view, adds further significance.

1.6 Thesis Overview

The thesis is laid out as follows: Chapter 2 examines relevant theories of the firm. Chapter 3 is a standalone literature review on the theory of real options. A review of the literature on temporary employment contracts and how they interact with flexibility, irreversibility and uncertainty follows in the next chapter, Chapter 4. Chapter 5 presents the research questions and Chapter 6 discusses the research methodology. Chapters 7 and 8 present the findings of the phase one research and the analysis and discussion on same respectively. Chapter 9 presents the findings of the research undertaken in phase two while Chapter 10 is an analysis of and discussion of these findings. Chapter 11, the concluding chapter, includes: a discussion on the main findings and contributions; a general commentary based upon the author's general, professional and academic experience; implications for practice; a revisiting of the alternative theories with the research questions then being addressed. Research limitations and potential for further research also mentioned.
CHAPTER 2 - RELEVANT THEORIES OF THE FIRM

2.1 Introduction

This thesis looks to identify and apply a concrete and tangible framework to human resource management practice and research by exploring how the use of real options reasoning can help human resource managers to think more strategically about temporary employment contracts. In this context, this chapter explores relevant theories of the firm.

The author would like to focus on Van Emmerik and Sanders' (2004) references to temporary employment contracts being 'a source of flexibility' in addition to providing the opportunity to delay an 'irreversible decision', a point supported by Musselin (2005). Also, the references to 'uncertainty' in the same context made by writers such as Bhattacharya and Wright (2004) and Bonnal and Giret (2010). This chapter examines relevant theories of the firm in the context of these three characteristics (flexibility, irreversibility and uncertainty) and their interaction with the strategic use of human resources. The theories identified are: transaction cost economics, the resource-based view of the firm and real options theory. This chapter also looks at similarities and differences between the three theories in the context of: when each theory applies, business development, outsourcing, alliances, governance, and opportunism. Before conclusions are drawn the three characteristics (flexibility, irreversibility, and uncertainty), which form the rationale for much of this thesis, are looked at in the same context.

Some writers have utilised transaction cost economics to explain an organisation's choice of employment contract mode (for example, Wachter and Wright, 1990; Williamson, 1975). Others have utilised the resource-based view of the firm for the same purpose (for example, Conner and Prahalad, 1996; Grant, 1996; Prahalad and Hamel, 1990).
2.2. Transaction Cost Economics

The transaction cost economics approach to the study of organisations has been applied at three levels of analysis (Williamson, 1981). The first level is the overall structure of the organisation and how its operating parts relate to each other. The second level focuses on the operating parts themselves, positing questions as to which activities should be performed internally or in-house (for example, permanent employment) and which activities should be performed externally (for example, temporary employment or outsourced employment). The third level concerns itself with the manner in which human assets are organised (Williamson, 1981). Simply put, transaction cost economics tries to explain how trading partners (for example, the organisation and the employee) choose an arrangement which offers protection for their relationship at the lowest cost (Shelanski and Klein, 1995). These trading and negotiating costs are called transaction costs and social arrangements such as contracts or employment contracts tend to reduce these costs. A further element of transaction cost economics is the elimination of adversarial interests, which can be achieved through mutual exchange (for example, an employment contract) or something as extreme as a merger between organisations. In transaction cost economics this is referred to as a governance structure. In Williamson's own words, it is an effort to: 'align transactions, which differ in their attributes' (1991b: 79).

Aside from the governance structure mentioned above, asset specificity is a further variable of interest in transaction cost economics (Shelanski and Klein, 1995). In the context of this research, human asset specificity is important as it relates to an organisation's human assets and describes the knowledge achieved through specialised training or learning-by-doing (Williamson, 1983). The other variables in transaction cost economics are vertical integration, opportunism and bounded rationality.

Vertical integration relates to the organisation's choice of whether to 'make or buy'. Miles and Snow (1984) and Bhattacharya and Wright (2005) explain that...
'make' refers to permanent employees while 'buy' refers to temporary or outsourced employees, and will be mentioned later under Human Assets.

Opportunism is where one of the parties tries to exploit opportunities that may arise. An example is the one described by Leavy (2004b: 23-24) whereby General Electric's outsourcing arrangement with Samsung led to: 'a steep dependence spiral', that: 'saw it ceding most of the investment and skills development', 'to its outsourcer within just two years'. This led to: 'Samsung's emergence as a global powerhouse in consumer appliances', from being: 'just a modest enterprise little known outside of Korea'.

Bounded rationality suggests while people are capable of being perfectly rational, they can only handle a limited set of information and alternatives. While there exists an acceptance economic exchange should be organised by contract, bounded rationality suggests, due to the complexity of such exchanges, incomplete contracting, discussed in Chapter 4, is the best that can be achieved.

On the aspects of flexibility, irreversibility and uncertainty, Van de Vrande et al. (2006) suggest when uncertainty is high, flexibility and reversibility are of major importance and more important than control. Unfortunately, as Williamson (1985) and Kulkarni and Ramamoorthy (2005) suggest, uncertainty can act as a catalyst for opportunism between different contracting parties. This will most likely lead to increases in the costs of transactions and to internalising employment i.e. appointing employees on permanent employment contracts (rather than temporary employment contracts) which are inflexible and difficult for the organisation to reverse. New information, available at a future date, may suggest the organisation should have adopted a different approach.

Slater and Spencer (2000: 81): 'exposed the problems surrounding the concept of uncertainty in transaction cost economics theory', concluding neither Coase nor Williamson, the Godfathers of transaction cost economics, offered a clear
definition of uncertainty. This mirrors Duncan's (1972) conclusion, discussed later, that many of the definitions of uncertainty do not facilitate a clear view of the concept. Similar to Van de Vrande et al. (2006), Slater and Spencer (2000) point out transaction cost economics simply does not deal with uncertainty. Rese and Roemer (2004) suggest transaction cost economics concentrates on safeguarding contractual arrangements which reduces the level of flexibility available to an organisation.

In the context of this thesis, relating to the choice of employment mode, the question is whether to hire a permanent employee or a temporary employee or outsource employment. Transaction cost economics offers only part of the explanation for an organisation's choice of employment contract mode according to Kulkarni and Ramamoorthy (2005). In this regard, Koene et al. (2004) are particularly critical of the use of transaction cost economics. They suggest it has shortcomings and has failed to explain the variation in the use of different employment contract modes in different European countries. They postulate the increase in the use of temporary employment contracts over the previous two decades did not correlate with the factors transaction cost economics suggests would effect the choice of employment contract mode. This point is echoed by Forde and Slater (2007) who outline research in the area of employment contracts shows organisational practice does not fit with transaction cost economics.

A negative aspect of transaction cost economics as a theory is that it is static (Ghoshal and Moran, 1996; Slater and Spencer, 2000). Ghoshal and Moran (1996) maintained it is bad for practice due to its failure to recognise differences between organisations and markets and suggest within an organisational context the theory can tell very little. For example, while it has proven to be a valuable framework for studying transactions in established markets for goods and services (Williamson, 1991b), it does not deal with uncertainty. It assumes this is beyond the control of the organisation (Van de Vrande et al. 2006).
Barney and Lee (1998) advised empirical tests of transaction cost economics have had mixed results and this has led some researchers to examine alternative theories. Elsewhere, Pitelis and Pseiridis (1999) concluded transaction cost economics does not supply convincing answers on either the nature of or the running of organisations. They claim it offers a partial explanation of the 'nature' but little on the 'essence' (1999: 221).

2.3 The Resource-Based View of the Firm

The resource-based view of the firm regards the organisation as a set or bundle of resources and capabilities that are viewed as unique and therefore must be supported and guide the organisation's strategy (Grant, 1991). The focus being to exploit these unique resources, that are valuable, rare, difficult to imitate and non-substitutable (Barney, 1991; Conner, 1991; Schulze, 1992). The intention of this exploitation of resources is to gain competitive advantage (Wernerfelt, 1984; Barney, 1991; Peteraf, 1993). Such resources include: assets, capabilities, processes or ways of working, and information and knowledge, all of which need to be controlled so as to enable the organisation to conceive of and implement strategies that improve its efficiency and effectiveness (Daft, 1983; Learned et al., 1969; Porter, 1981). This is expected to result in good performance (Poppo and Weigelt, 2000).

The organisation's resources must have a number of elements to make them unique (Barney, 2001a). They must be valuable to exploit opportunities and neutralise threats, they must be rare in the context of competitor resources, and they must be inimitable and difficult to substitute (Barney, 2001a). In addition to their unique elements, the organisation's resources can be classified as either physical capital resources for example, plant and equipment, location, access to materials (Barney, 1991; Williamson, 1975); organisational resources for example, the reporting structure, formal and informal planning, systems, the informal relations among internal groups (Barney, 1991; Tomer, 1987); and most importantly in the context of this thesis, human capital resources for example, employee experience, judgement and intelligence, and the relationships and insights of managers and employees of the organisation.
Resources are therefore both tangible and intangible (López, 2001).

Wright et al. (2001) advised the resource-based view of the firm has contributed to strategic human resource management by emphasising people are strategically important to an organisation's success. This is attributed to human resource management systems and routines that contribute to the creation of specific employee skills (Barney et al., 2001). This is important as it has been found resources that are intangible impact more significantly on organisational success than those resources that are tangible (Galbreath, 2005). As Fitz-enz (2000: 1) puts it: 'people, not cash, buildings or equipment, are the critical differentiators of a business enterprise'. In other words, human assets are organisations most important assets.

In the context of flexibility, irreversibility and uncertainty, advocates of the resource-based view of the firm argue organisations should choose the most appropriate employment contract mode based upon the degree to which the employee's skills could contribute to the core competence and dynamic capabilities of the organisation (Quinn, 1992; Venkatesan, 1992).

Mathews (2002) suggests the resource-based view of the firm is anchored to a view that sees organisations look inwards only. Leavy (2004b: 24) refers to core competence, which is an off-shoot of the resource-based view of the firm, as a potentially: 'dangerously inward-looking notion', while Priem and Butler (2001) question whether it is a useful theory suggesting much work needs to be done because definitions of resources make it difficult to establish contexts and a lot of the 'hows' and 'whys' are viewed as unclear.

With respect to transaction cost economics and the resource-based view of the firm, Lepak and Snell (1999) point out these two theories do not offer a defining logic for understanding how organisations should manage their employees. They also concluded both theories offer only part of the logic for
understanding how organisations can best manage employment contract relationships so as to best achieve competitive advantage.

2.4 Real Options Theory

When taking a real options theory approach to managing human assets, recognition uncertainties can also arise due to employees is essential (Alchian and Demstez, 1972). An organisation does not own its human assets: they may leave the organisation taking critical skills with them (Bhattacharya and Wright, 2005). Jacobs (2007) advises it is impossible to recover related costs (for example, training and development costs); investments are therefore sunk. In this context, the foundations for the introduction of the real options theory approach into the human resource management sphere were laid (Berk and Kaše, 2005). Human resource management practices may generate capabilities with real options characteristics in the form of employees who then become more valuable to the organisation. Measuring and considering the value of such a capability as a real option can enhance the validity of human resource management practice (Bhattacharya and Wright, 2005) which is an important point with respect to this research project.

Real options are designed to enable organisations to postpone investment decisions and can thus be regarded as a very valuable tool for decision-making under high levels of uncertainty. McGrath and Nerkar (2004) argue organisations, either explicitly or implicitly, use real options theory when making choices under uncertain conditions. They make a clear link between real options theory and uncertainty by suggesting an organisation's options can keep costs down until uncertainties are resolved or until new information becomes available (The author recalls Finn et al., 2007, and Dator, 2002, who made similar comments). Additionally, a number of writers posit real options theory owes a significant part of its achievement to the way it deals with uncertainty (Van de Vrande et al., 2006; McGrath, 1997; Folta and Miller, 2002; O'Brien et al., 2003; Rosenberger and Eisenhardt, 2003; Folta and O'Brien, 2004).
A primary context for this thesis is also to be found in Foote and Folta's (2002: 592) argument: 'real options theory predicts that greater irreversibility and environmental uncertainty should lead to a greater propensity to outsource employment (i.e. hire temporary workers)'. This quote effectively links the various strands of the thesis: real options theory, human resource management, outsourcing, temporary employment, uncertainty and irreversibility. Dixit and Pindyck (1994) suggested real options theory can illuminate recruitment decisions because it provides optimal investment rules where recruitment decisions are potentially irreversible and uncertainty is present. What Foote and Folta (2002) are essentially suggesting is an organisation that employs temporary employees rather than permanent employees is exercising a real option that offers the organisation a great deal of flexibility. This point is also supported by Badders et al. (2007). The general assumption with other approaches is, investments are fully reversible and therefore do not capture the nature of workforce management in which investments typically are not fully reversible (Foote and Folta, 2002). Interestingly, Foote and Folta (2002) acknowledge the applicability of real options theory to organisational recruitment processes has largely been ignored.

Flexibility, irreversibility and uncertainty are the key components of real options theory. Gilroy and Lukas (2006) put it that the methodology of real options theory allows for the incorporation of these three important features. Palmer and Smith (2000) echo this thinking when they advised the central insight of the real options theory approach is, investment decisions have three important characteristics: there exists a degree of uncertainty about the future state of the world, the investment entails an essentially irreversible commitment of resources, and there is usually some discretion (i.e. flexibility) as to the timing of the investment.

In terms of flexibility, Bryan and Farrell (2008) suggest organisations should develop as many options as possible so as they can be exercised either when new information becomes available or certain events occur or levels of uncertainty reduce.
The following section looks at similarities and differences between transaction cost economics, the resource-based view of the firm and real options theory.

2.5 Theories of the Firm: Similarities and Differences
A number of writers have examined the three theories together and discussed them in the context of various factors.

2.5.1 When does Each Theory Apply?
Steensma and Corley (2001) examined the three theories using the underlying question: 'when does each theory apply?'. They looked at the threat of opportunism in the context of organisations with low levels of managerial ownership compared with organisations with high levels of managerial ownership. They also considered the threat of failure when an organisation has either an abundance of resources or when an organisation has scarce resources. They explain the main difference between the theories is the emphases each places on threats of loss and opportunity for gain. They conclude: transaction cost economics emphasises the threat of loss resulting from opportunism, real options theory focuses on the negative outcomes resulting from failure, and the resource-based view of the firm focuses on the opportunity for developing a sustainable competitive advantage.

2.5.2 Business Development
Van de Vrande et al. (2006) suggest organisations should initially look at small reversible investments so uncertainty can be reduced, gradually moving towards larger more irreversible investments. Over time, and as new information becomes available, it will become clearer whether or not the organisation will create value with the venture. Real options theory should therefore be to the fore in the early stages of business development (Van de Vrande et al., 2006) with the original business idea being transformed into a business plan or strategy. The focus should then shift from flexibility to control and the organisation will most likely choose more hierarchical governance forms (i.e. transaction cost economics) as the need for flexibility reduces and the need for control increases (Van de Vrande et al., 2006).
2.5.3 Outsourcing
Logan (2000) and Barthélémy and Quélín (2006) focused on outsourcing from the perspectives of transaction cost economics and resource-based view of the firm. Logan (2000) concluded both theories can be used in evaluating outsourcing relationships adding, the provider's ability to serve the user organisation must be evaluated as well as determining whether synergies exist between them. In this context, the transaction costs that should be assessed are asset specificity, investment needs and the levels of uncertainty (Logan, 2000). Barthélémy and Quélín (2006) empirically researched outsourcing contracts through a survey of both European and American organisations. Their findings supported the validity of using transaction cost economics for outsourcing activities of strategic value.

2.5.4 Alliances
The organisational dilemma of whether to internalise transactions or align with strategic partners was looked at by Pateli (2006). Under conditions of uncertainty, organisations tend to opt for more hierarchical forms of governance (Leiblein and Miller, 2003; Sutcliffe and Zaheer, 1998) which is the transaction cost economics perspective. Pateli (2006) contests, however, with real options theory, organisations demonstrate less hierarchical alliances in uncertain environments. This thinking is consistent with Santoro and McGill's (2005) review of alliance activity. They posit transaction cost economics prefers control of hierarchical governance (i.e. through internalisation), whereas, real options theory stresses governance should provide flexibility under uncertainty, providing the ability to make future discretionary investments while avoiding irreversibility.

2.5.5 Governance
In his 2003 paper, Leiblein explored organisational governance decisions in the context of the three theories commenting there has been little effort to link insights across the theories. Leiblein (2003) contends the theories differ with respect to uncertainty. Real options theory emphasises the role of uncertainty with respect to future returns and opportunities from an investment, while the
resource-based view of the firm emphasises how the uncertainty of joining two or more economic activities can lead to costly-to-imitate resources. Transaction cost economics is deemed to be sceptical with regard to uncertainty as it can lead to investment hold-up problems in the form of delay or the potential for cheating by involved parties (Leiblein, 2003). In terms of investment outcomes, both real options theory and the resource-based view of the firm emphasise the benefits of factoring in uncertainty in the context of creating opportunities.

2.5.6 Opportunism

Leiblein's (2003) paper also looked at opportunism from the three different perspectives concluding: the real options theory framework leaves little room for the notion of opportunism, the resource-based view of the firm generally suggests opportunism is not considered, and transaction cost economics generally relies on opportunism.

Lastly, but very importantly in the context of this thesis, flexibility, irreversibility and uncertainty are discussed.

2.5.7 Flexibility, Irreversibility and Uncertainty

Flexibility is of major importance to organisations in uncertain times in order to cope with unforeseen contingencies. Such flexibility can be achieved by using strategies that involve low commitments, with a high degree of reversibility. Folta (1998) suggests organisations should avoid internalisation (for example, permanent employment contracts - the transaction cost economics approach) at an early stage due to uncertainty. This view mirrors what Santoro and McGill (2005) mentioned above in the section on Alliances. Van de Vrande et al. (2006) advise flexibility and reversibility are more important when uncertainty is high (for example, temporary employment contracts or outsourcing).

With respect to transaction cost economics and real options theory, Rese and Roemer (2004) advise both approaches focus on different origins of uncertainty. While transaction cost economics concentrates on the
safeguarding aspect of contractual arrangements reducing uncertainty and flexibility, real options theory deals with uncertainty and favours greater flexibility. They comment, while there are sharp differences between both theories, there are commonalities also. For instance, both address the issue of decision-making under uncertainty and while real options theory considers irreversibility of investments, transaction cost economics considers the specificity of assets in an investment. In this regard, Rese and Roemer (2004) suggest the real options theory approach and the transaction cost economics approach resemble each other to a certain degree.

Other studies that looked at uncertainty in the context of two of the theories include: Shin (2003) and Van de Vrande et al. (2006). Shin (2003) examined the role of uncertainty in transaction cost economics and the resource-based view of the firm while Van de Vrande et al. (2006) looked at uncertainty from both the transaction cost economics viewpoint and real options theory. Both concluded separately, combining or integrating theories could lead to improved decision making under uncertain conditions.

Referring to Barney and Lee's (1998) paper, they advised in respect of transaction cost economics and real options theory, one is the converse of the other. They outlined predictions associated with real options theory are the opposite of predictions associated with transaction cost economics by virtue of real options theory focusing on maximising flexibility and minimising the threat of opportunism which is a key aspect of transaction cost economics.

2.6 Concluding Remarks
This chapter has looked at relevant theories of the firm particularly in the context of flexibility, irreversibility and uncertainty. It also discussed similarities and differences between the theories.

In the introductory chapter, reference was made to McLean Parks et al. (1998) suggesting the need for a framework for distinguishing between and/or analysing different types of employment arrangements and relationships. In
addition, Davis-Blake and Uzzi (1993) reflected the area as being hampered by the lack of a theoretical framework. Further evidence was put forward by Kulkarni and Ramamoorthy (2005) who outlined transaction cost economics and the resource-based view of the firm: 'offer only part of the explanation for an organisation's choice of employment contract' (2005: 744).

Given that it deals directly with the concepts of flexibility, irreversibility and uncertainty (Gilroy and Lukas, 2006; Palmer and Smith, 2006), real options theory appears to be the appropriate theory of the firm to bring to bear in examining the choice of employment contract for an organisation. The author recalls Musshoff and Hirschauer (2008) who stated organisations decisions are characterised by flexibility, irreversibility and uncertainty, and Lukas (2007) who argued that flexibility, irreversibility and uncertainty give insight into achieving optimum results in the world of organisational decision making.

In addition to Van Emmerik and Sanders' (2004) references to temporary employment contracts being 'a source of flexibility' and providing the opportunity to delay an 'irreversible decision', echoed by Musselin (2005), and the references to 'uncertainty' in the same context made by Bhattacharya and Wright (2004) and Bonnal and Giret (2010), the reference made by Foote and Folta (2002) regarding the outsourcing of employment with the use of temporary employment contracts in the face of irreversibility and uncertainty, is hugely important in setting the context of this thesis. It intrinsically links the references of Van Emmerik and Sanders (2004), Musselin (2005), Bhattacharya and Wright (2004) and Bonnal and Giret (2010) with the utilisation of temporary employment contracts as a form of outsourcing under the auspices of real options theory, within the third level academic sector.

The following chapter explores the real options theory literature in greater depth.
CHAPTER 3 - REAL OPTIONS THEORY

3.1 Introduction
This chapter reviews the literature on the theory of real options. The reasons for a standalone literature review were touched upon at the end of the last chapter but it is worth reiterating some of the other reasons also.

Van Emmerik and Sanders (2004) and Musselin (2005) referred to temporary employment contracts as being a source of flexibility and enabling the opportunity to delay an irreversible decision, while Bhattacharya and Wright (2004) and Bonnal and Giret (2010) referred to uncertainty in the same context. Add to this the claims of Foote and Folta (2002) that the use of real options theory with respect to irreversibility and uncertainty should lead organisations to hire temporary employees or outsource employment, and Dixit and Pindyck (1994) encouraging the use of real options theory in recruitment decisions, coupled with the links between flexibility, irreversibility and uncertainty and real options theory made by Gilroy and Lukas (2006) and Palmer and Smith (2006), and there is evidently an opportunity to bring all of this into the strategic human resource management arena. Further evidence of this are the comments made by writers such as Mitlacher (2006), Ellingson et al. (1998), Burgess and Connell (2006), McLean Parks et al. (1998), Davis-Blake and Uzzi (1993) and Connelly (2004) with respect to the lack of research on temporary employment contracts, discussed in Chapter 1, allied to the suggestions by McLean Parks et al. (1998), Davis-Blake and Uzzi (1993) and Wright and McMahan (1992) that this is an area in need of a framework and solid theoretical foundation. Finally, it is worth remembering Foote and Folta's (2002) advice that the applicability of real options theory to organisations choice of employment mode has largely been ignored. For the reasons outlined above and at the end of the last chapter, the author has selected real options theory as the theory to underpin the research undertaken for this thesis.

This chapter focuses on a number of aspects relative to real options theory including: the appeal and origins of the theory, definition and logic, types of
real options, real options models (relating to human resource management and employment modes), examples of real options, entrepreneurship and experimentation, with shortcomings and criticism, and concluding remarks at the end.

So how exactly is the appeal of real options theory described within the literature?

3.2 The Appeal of Real Options Theory

The appeal of real options theory can be identified in the day-to-day concerns and challenges organisations face. They face uncertain futures and the outcomes, good or bad, of their prior investment commitments. Therefore, even at as simplistic a level as this, real options theory precisely fits an organisations strategic challenges by: 'linking current actions to uncertain futures' (Adner and Levinthal, 2004: 74). Amram and Kulatilaka (1999) delivered a somewhat similar message when they advised traditional strategy planning methods tend to be weak in an uncertain world. They often fail to capture opportunities which unfold over time. Amram and Kulatilaka (1999) advised real options theory makes up for these shortfalls which makes it a very appealing theory. As Barwise et al. (1987: 42) put it when describing strategic investment projects, such projects are: 'to a greater or lesser extent an investment in future options rather than just in one particular market opportunity'. Bowman and Hurry (1993) put it in somewhat stronger terms in saying real options: 'form the choice of mechanism that underlies strategy' (1993: 764). Two further papers that come out strongly on the appeal of real options theory are those by Leslie and Michaels (1997) and McGrath and Nerkar (2004). Leslie and Michaels (1997) declared organisational strategies can be improved in four ways by applying real options theory: opportunities will be emphasised, leverage will be enhanced, rights will be maximised and obligations will be minimised. McGrath and Nerkar (2004) advised in terms of offering guidance for decision making under uncertainty, real options theory: 'is poised to occupy a central conceptual position' (2004: 86).
Is this appeal visible in the real world?

An appeal of real options theory is, according to Leslie and Michaels (1997), the change it brings to the way managers think due to their having to work through options systematically. They advise, rather than fearing uncertainty and therefore minimising investment, managers should seek out potential gains attached to learning from uncertainty. Real options theory: 'underlines a frame of mind and uses methodologies that appeal to a wide array of managers', according to Boyer et al. (2003: 3). Opportunities for development consideration are approached in stages whereby opportunities with upside potential can be pursued, and projects can be decided upon around key milestones (McGrath and Nerkar, 2004). Exposition to downside risk is reduced while exposition to upside opportunities is promoted (Boyer et al., 2003).

For his 2007 article, Block surveyed *Fortune 1000* companies to see if they utilised real options theory. Out of 279 respondents, 40 admitted they were using real options (14.3%) but as Block (2007) acknowledged, while this percentage is small, it is higher than in previous studies. On a more positive note, Block (2007) was encouraged over half the non-users advised they would consider the use of real options in the future. In an earlier study, when investigating whether organisations use real options theory in capital budgeting decisions, Graham and Harvey (2001: 197) found that 27% of the Chief Financial Officers they surveyed claimed to: 'always or almost always', use real options theory.

According to other writers, many prominent organisations utilise real options for example: Intel, Toshiba, GE (Boyer *et al.*, 2003), Enron, Apple, Mobil, Exxon, ICI, Texaco (Copeland and Antikarov, 2001) Airbus, and Hewlett-Packard (Boyer *et al.*, 2003; Copeland and Antikarov, 2001). They have typically been used to assess internal development decisions such as research and development for new technologies or the construction of power plants.
(Warner et al., 2006). Table 3.1 outlines 'when' and 'why' the companies named by Copeland and Antikarov (2001) utilised real options.

**Table 3.1 Companies that Utilised Real Options**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>When</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enron</td>
<td>1994</td>
<td>New product development</td>
</tr>
<tr>
<td>Apple</td>
<td>1995-1996</td>
<td>Exit decision for their PC business</td>
</tr>
<tr>
<td>Exxon</td>
<td>1990's</td>
<td>Oil exploration and production</td>
</tr>
<tr>
<td>ICI</td>
<td>1997</td>
<td>New plant construction</td>
</tr>
<tr>
<td>Texaco</td>
<td>1990's</td>
<td>Exploration and production</td>
</tr>
<tr>
<td>Airbus</td>
<td>1996</td>
<td>Valuing delivery options</td>
</tr>
<tr>
<td>Hewlett-Packard</td>
<td>Early 1990's</td>
<td>Production and distribution</td>
</tr>
<tr>
<td>Mobil</td>
<td>1996</td>
<td>Development of a natural gas field</td>
</tr>
</tbody>
</table>

(Source: created by the author based on Copeland and Antikarov, 2001)

### 3.3 Research Undertaken

From a research perspective, empirical research is still rather scarce according to Pennings (2008) although research undertaken includes the following areas: multinational flexibility (Reuer and Leiblein, 2000; Kogut and Kulatilaka, 1994), joint ventures (Kogut, 1991; Tong et al., 2007; Chi, 2000), mergers and acquisitions (Dunis and Klein, 2005; Hackbarth and Morellec, 2008), market entry (Chang and Rosenzweig, 2001), diversification (Kim and Kogut, 1996), privatisation (Pennings, 2008), governance structure (Folta, 1998), entrepreneurship development (McGrath, 1999, Lee et al., 2007), human resource management (Malos and Campion, 2000), temporary workers (Foote and Folta, 2002), education (Hogan and Walker, 2007) and human capital investment (Jacobs, 2007). A number of writers testify to the significance of real options theory due to the fact critiques and refinements have emerged (for example, Garud et al., 1998; Coff and Laverty, 2001; Reuer and Leiblein, 2000; Miller, 2002; Adner and Levinthal, 2004; McGrath and Nerkar, 2004), with evidence of its usefulness being acclaimed in practitioner journals (Foote and Folta, 2002).
3.4 Origins of Real Options Theory

The concept of real options theory came about as a response to dissatisfaction among strategists and practitioners and some academics with other more traditional theories, allied to stagnation in the field of investment under uncertainty (Schwartz and Trigeorgis, 2004). It gained recognition as having the required tools to unlock possibilities and revolutionise (Schwartz and Trigeorgis, 2004) this area, and be a bridge between finance and strategy. While having received attention within academia, it has also gained recognition and acceptance in the business world (Piesse et al., 2002). According to Gilroy and Lukas (2006), researchers had been highlighting the importance of a more dynamic theory, stressing the need to overcome the static nature of past models (Buckley and Casson, 1998). So real options theory is now a widely accepted term and concept both in the academic and business worlds (Kauffman and Li, 2005).

Its origins are in finance (Lee et al. 2007; Black and Scholes, 1973; Dixit and Pindyck, 1994) as academics saw how the methodology could be applied to non-financial assets or real assets (for example, human assets). Amram and Kulatilaka (1999) noted real options theory could act as a bridge between finance and strategy as: 'both disciplines attempt to obtain the highest possible return on risky assets' (1999: 25). This is echoed somewhat by Anderson (2000) who suggests real options theory has moved from dealing with single investment situations to strategic situations, a point supported by Dixit and Pindyck (1994) and Trigeorgis (1996).

According to Bowman and Hurry (1993), real options theory valuation started indirectly with Bachelier (1900) and took form in stock option valuation calculations. This rings true in the author's view as some form of prior investment is a necessary pre-condition for launching a new major investment. For example, for an investment to be successful in a new market or country, an initial trial investment in the form of a joint venture often forms an essential first step. The trial investment serves to hold the option open for the
organisation to make the full-scale investment which increases the potential for long-term success (Bowman and Hurry, 1993).

So how exactly are real options defined?

3.5 Definition of a Real Option

A real option is the right to undertake a business decision without the obligation (Adner and Levinthal, 2004; Kogut and Kulatilaka, 1994). An example is the hiring of an employee on a temporary employment contract. The hiring organisation can undertake the decision to hire but does not have a long-term obligation to retain the employee, unlike the commitment to a permanent employee.

A real option is commonly defined as a two-part decision. The first part is the creation of an opportunity without an obligation, with the second part being a subsequent more beneficial decision, built upon the first decision, after a period of time has elapsed in which new information may have become available (the author recalls Finn's et al. (2007) reference in Chapter 1 to such a strategy in the context of the third level academic sector). For example, using the scenario above of the hiring of an employee on a temporary employment contract, the organisation can decide, when new information becomes available over time, to extend the temporary employment contract, terminate it or indeed give the employee a permanent employment contract. Real options theory essentially provides the benefit of a 'wait and see' feature following the first decision when uncertainty has been reduced.

In many ways real options are similar to financial options because the initial decision is similar to writing (buying or selling) an option and the subsequent one to exercising or refusing to exercise it (Janney and Dess, 2004). The real options theory framework suggests exercising a real option on a strategically important matter enables the organisation to postpone long-term commitment until any uncertainty about the opportunity has been resolved. After the initial investment decision, the organisation can turn its attention to other matters and
wait to see whether or not it is appropriate to: 'harvest or cultivate the initial investment' (Adner and Levinthal, 2004: 75).

3.6 The Logic of Real Options Theory
According to Warner et al. (2006), the logic of real options theory is based upon the uncertainties organisations are faced with when making sequential investments in non-financial assets or real assets (for example, human assets). In general terms, the logic argues, when organisations have a degree of discretion in the timing of investment decisions, they can wait for the resolution of uncertainty. Coff and Laverty (2001) describe the logic as providing organisations with the opportunity to make smaller investments with lesser commitment, prior to pursuing full investments with much larger commitment at a later date. This allows organisations to capture potential gains while avoiding the risk of large losses.

A number of clichés were coined by Razgaitis (2009) so as to capture the idea of real options theory. Some of these are: 'don't dig big holes', 'do the last experiment first', 'stage gate product development', 'phase 1 feasibility funding', 'let's spend a little and learn a little (or a lot)'. The common theme among these clichés is decision makers should avoid making large commitments in high levels of uncertainty by sequencing opportunities so as to enable small investments which should lead to decreases in uncertainties (Razgaitis, 2009).

Other writers on real options theory suggest taking a real options based approach is not just a matter of using new valuation methods and models; it requires a new way of actually framing strategic decisions. There are echoes here of Leavy's (2004a: 12) advice regarding the need for: 'a new managerial mindset'. Real options, while difficult to precisely define exist in almost every business decision (Amram and Kulatilaka, 1999; Luehrman, 1998b).

3.7 Types of Real Options
Exercising real options will often be offensive moves. For example, which acquisitions could be attractive on what terms? How much capital would be
required? What new products best fit different scenarios? If one or more competitors should falter, how will the organisation react? In which markets can it gain share? (Bryan and Farrell, 2008). Organisations should develop many types of options so as they can be exercised when either new information becomes available, certain events occur, or levels of uncertainty reduce.

A number of writers have come up with terminology for types of real options (for example, Amram and Kulatilaka, 1999; Trigeorgis, 1993, 2004; Kyläheiko et al., 2002; Brach, 2003; Bailey et al., 2004; Janney and Dess, 2004). Amram and Kulatilaka (1999) name types of options as: timing options, growth options, staging options, exit options, flexibility options, operating options and learning options. Brach (2003) classifies real options into six broad categories: the option to grow, option to delay, the option to abandon, the option to expand or contract, the option to switch, and the compound option - a combination of any of the above options. Janney and Dess (2004) describe five different types of real options: immediate entry, immediate exit, delayed exit, delayed exit and complete exit, all of which are discussed below. Janney and Dess' (2004) taxonomy of options are chosen by the author because they uniquely position the use of temporary employment contracts as an example of a type of real option. This provides concrete links with Foote and Folta's (2002) arguments and those of Dixit and Pindyck (1994) also on the benefits of using real options theory in recruitment decisions which are core to this thesis.

3.7.1 Immediate Entry
This option is defined as the benefit of early involvement. It allows the organisation to make a relatively small immediate commitment right away to create or acquire the right to pursue a full commitment later. These options can be particularly valuable in the acquiring of exclusive product rights (Janney and Dess, 2004). One such example put forward is the way Apple enjoyed a two-year lead over competitors by acquiring the rights to miniature hard drives that were integral to the design of the iPod.
3.7.2 Immediate Exit
This option is defined as the benefit of making full commitments reversible. The organisation generally commits funds up front. In doing so, it is acquiring: 'the right to avoid an irreversible decision' (Janney and Dess, 2004: 63), i.e. it can terminate the option quickly (Janney and Dess, 2004). It is this option this research is very much centred upon. The potential for hiring an employee on a temporary employment contract so as the organisation can decide, when new information becomes available over time, to extend the temporary employment contract, terminate it or indeed give the employee a permanent employment contract. There is evidence having the option to exit a project can be an important influence on the decision to adopt the project in the first place (Grinyer and Daing, 1993).

3.7.3 Delayed Entry
This option is defined as the benefit of avoiding irreversible uncertainty. In simple terms it is seen as something of a defensive manoeuvre as it essentially protects the organisation from any disadvantage of being a late mover. Because of this, exit costs can be high (Janney and Dess, 2004). Some studies have shown when an irreversible decision is contemplated in the face of uncertainty, the option to postpone or delay can be highly valuable (Brennan and Schwartz, 1985; Paddock et al., 1988; Ingersoll and Ross, 1992). An example here is where an organisation might acquire land and zoning permits necessary for their business. Actual construction, however, would be delayed until more information emerges.

3.7.4 Delayed Exit
This option is defined as the benefit of not yet having to reverse a full commitment. It allows the organisation to effectively 'buy time' before making an irreversible commitment to abandon an investment decision. As with the immediate exit option, there is an upfront financial commitment; however, the cost of exiting is substantially greater (Janney and Dess, 2004). Staying with the example of land acquisition in the foregoing option type, if the organisation finds having constructed a plant on the land and utilised it for a number of
years, it is proving costly to continue running the plant, due perhaps to changing market conditions, they might 'mothball' the plant i.e. spend enough to keep it operational but otherwise letting it sit idle until market conditions improve.

3.7.5 Complete Exit
This option is the most expensive option as the organisation may lose access to critical resources upon exiting (Janney and Dess, 2004).

3.8 Real Options Models
The following sections discuss real options theory models in the context of human resource management and employment contracts.

3.8.1 Foote and Folta's Options Model
Foote and Folta (2002) looked at an organisation's: 'ability to consider irreversibility' (2002: 579), in the context of workforce decisions under conditions of uncertainty and flexibility. While they do not diagrammatically provide a model for their hypotheses, the author has created a model based on their hypotheses (Table 3.2) which is given in Figure 3.1. Their central theme is: 'real options theory predicts that greater irreversibility and environmental uncertainty should lead to a greater propensity to outsource employment (for example, hire temporary workers)' (2002: 592). They argue hiring permanent employees is irreversible due to at least four conditions: labour market rigidities, explicit commitment, implicit commitment and the lack of an internal labour market. The options to defer or abandon when new information becomes available are more attractive i.e. the use of temporary employees. Foote and Folta (2002) also suggest irreversibility has a moderating effect on uncertainty in that uncertainty will effect the hiring process only if it involves some irreversibility: 'If hiring permanent employees can be costlessly reversed, uncertainty should have no direct effect on the hiring decision' (2002: 589).
Table 3.2 Foote and Folta's Hypotheses

<table>
<thead>
<tr>
<th></th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The greater the uncertainty, the greater the option value for using temporary workers</td>
</tr>
<tr>
<td>2</td>
<td>The greater the labour market rigidities, the greater the option value for using temporary workers</td>
</tr>
<tr>
<td>3</td>
<td>The greater the wages and benefits to permanent employees, the greater the option value for using temporary workers</td>
</tr>
<tr>
<td>4</td>
<td>The stronger the implicit contracts, the greater the option value for using temporary workers</td>
</tr>
<tr>
<td>5</td>
<td>The less diversified firms are, the greater the option value for using temporary workers</td>
</tr>
<tr>
<td>6</td>
<td>Uncertainty will have a stronger positive effect on the option value for using temporary workers when firms:</td>
</tr>
<tr>
<td></td>
<td>(a) operate under higher labour market rigidities</td>
</tr>
<tr>
<td></td>
<td>(b) pay higher wages and more benefits to their permanent employees</td>
</tr>
<tr>
<td></td>
<td>(c) have stronger implicit contracts</td>
</tr>
<tr>
<td>7</td>
<td>The less the productivity disadvantage (relative to permanent employees) of using temporary workers, the greater the option value for using temporary workers</td>
</tr>
</tbody>
</table>

Figure 3.1 Foote and Folta's Options Model of Temporary Employment

(Source: created by the author based on Foote and Folta's hypotheses)
3.8.2 Bhattacharya and Wright's Model of Human Resource Options

Bhattacharya and Wright (2005) put forward an illustration of uncertainty types and the options that manage them (Figure 3.2). They propose organisations facing uncertainty should explore ‘growth’ and ‘learning’ options to manage uncertainty. Growth options reduce the risk of employee loss and create growth opportunities while learning options foster training and development to manage skill obsolescence and the need for new skills in the future.

Figure 3.2 Bhattacharya and Wright's Model of Human Resource Options
3.8.3 Bhattacharya and Wright's Model for Human Capital Acquisition

In a separate paper, Bhattacharya and Wright (2004) define human capital options as the organisation's capability to respond to future events and therefore enable the organisation to develop and deploy employees: 'for managing uncertainties and irreversibility's' (2004: 11). They suggest the primary uncertainty is hiring because of the related costs associated with recruitment, training and benefits, as well as maintenance of employees. These are irreversible investments if the employee is terminated or leaves the organisation. They advise: 'where uncertainty and irreversibility of hiring is high, options for alternative employment arrangements are valuable' (Bhattacharya and Wright, 2004: 13). In this context, they presented the following framework (Figure 3.3).

Figure 3.3 Bhattacharya and Wright's Model for Human Capital Acquisition

3.8.4 Malos and Campion's Model of Career Mobility

Malos and Campion (1995) discussed organisational growth and the value of related options to an organisation. They posited the value of such options is dependent on factors such as time and the level of uncertainty. They set out a process for developing growth options as follows: create the option - new business opportunity; recognise the option and its opportunities; acquire the option; hold the option for a period of time, over time, information becomes
available, and this will suggest whether the option should be exercised or abandoned. Malos and Campion (1995) put forward the recruitment process as an example of this process and presented the following framework (Figure 3.4).

**Figure 3.4 Malos and Campion's Model of Career Mobility and Corresponding Option Process**

3.8.5 Bowman and Hurry's Options Model

Bowman and Hurry (1993) discussed strategy and strategic decisions in the context of the real options theory framework. They described real options theory as the: 'mechanism that underlies strategy' (1993: 764), and presented the Options Chain Model (Figure 3.5). Bowman and Hurry's (1993) model is not unlike Malos and Campion's (1995) model discussed above in that an option is recognised and exercised and when new information becomes available over time, decisions are made with regard to furthering or abandoning the option.
To briefly comment on the foregoing models, there are similarities between some. For example, Bowman and Hurry's (1993) and Malos and Campion's (1995) whereby the option is recognised and exercised etc. That said, the models differ substantially also, including the two just referred to, particularly in terms of structure. Despite relating to real options theory, the models differ in respect of consideration of flexibility, irreversibility and uncertainty. Foote and Foltà's (2002) model considers certain irreversible conditions and their moderating effect on uncertainty. It does not consider irreversibility as a sole concept, or flexibility. Bhattacharya and Wright's models consider specific uncertainties (2005), and uncertainty and irreversibility (2004), but do not factor in flexibility. Bowman and Hurry's (1993) model includes flexibility but like Malos and Campion's (1995) model which does not reflect flexibility, irreversibility or uncertainty; the real options theory process is simply outlined.
3.9 Examples of Real Options
Real options theory perspectives have typically focused on investments through joint ventures (Kogut, 1991; Hurry et al., 1992) or organisational collaboration (Chi and McGuire, 1996) i.e. alliances, acquisitions or outsourcing. Warner et al. (2006) make a similar statement. In line with this, the four foremost examples of real options in action are generally held to be: joint ventures, alliances, acquisitions and outsourcing situations.

3.9.1 Joint Ventures
An organisation's task of building and maintaining a competitive market position requires: 'lumpy and nontrivial investments' (Kogut, 1991: 19). Kogut (1991) suggests it is generally beyond the resources and capabilities of a stand-alone organisation to expand into new markets. A partner, in the form of a joint venture, which brings the requisite skills should be identified and pursued so as to share the costs of realising the opportunity, with a buyout clause written into any contract (Kogut and Kulatilaka, 1994). Other writers to comment on this are Bowman and Hurry (1993), Folta and Miller (2002) and, Hart and Moore (1990) who analysed joint venture partnerships and suggested unless a specific 'right to acquire' is embedded into the contract, the control of assets is retained by the owner of those assets. Joint ventures have been viewed as real options scenarios and: 'represent ways to limit the resource commitments to activities that might develop future business opportunities' (Anderson, 2000: 248).

3.9.2 Alliances
Like joint ventures, alliances have also been viewed as real options scenarios. The same application of property rights does not apply, however. Preferential access does not give an investing organisation the right to make decisions about the property of the allied organisation, and the absence of control weakens the notion of real options in alliances (Warner et al., 2006). Unlike joint ventures, however, Warner et al. (2006) advise, rights to internal development projects are not straightforward (i.e. the right to proceed or abandon the option) with respect to alliances. In common with joint ventures, alliances should have a buyout clause written into any contract (Kogut and Kulatilaka, 1994).
3.9.3 Acquisition

Acquisitions convey strong property rights to the buyer and, if undertaken when uncertainty is high, are strategically equivalent to the same opportunities created by internal investment. For example, Folta and O'Brien (2004) considered internal development and acquisition as theoretically parallel. The distinction they made was, options can be bought out or abandoned when the uncertainty that created the option is resolved.

3.9.4 Outsourcing

According to Jiang et al. (2008), the application of real options theory in the outsourcing literature is booming. In their 2007 paper, Alvarez and Stenbacka made the assumption an organisation can benefit from the cost advantage associated with outsourcing by investing in the design of a system whereby it can search for competitive suppliers and monitor the performance of these suppliers with which it will sign specific contracts.

3.10 Experimentation and Entrepreneurship

Experimentation is a concept generally associated with real options theory, particularly the learning attached to experimentation (Janney and Dess, 2004). The real options theory perspective is deemed to be very useful when considering: 'investments in research ventures or new markets as ways to obtain cheap options on new business activities' (Anderson, 2000: 248). They can provide organisations with a strategic tool to actively increase the value of new business opportunities (Luehrman, 1998a) with the process involving two stages: options creation and options exercise (Rittipant, 2005). Allied to such experimenting and learning is the knowledge it will lead to improved decision-making which will add to the organisation's resources of knowledge which can lead to the formation of new strategic combinations (Janney and Dess, 2004).

Taking this a step further, there is a belief the learning and experimentation associated with real options theory make it a natural fit for entrepreneurs: 'Most efforts to help entrepreneurs are designed to reduce failures, whereas the real options theory literature is designed to encourage them based on the notion
smaller losses are preferable to larger ones' (Janney and Dess, 2004: 74). Similar thinking is put forward by Kogut (1991) who considered organisations looking to expand into new business or markets. He proposed an organisation's initial investments in new business or markets can be considered as buying the right to expand in the future i.e. learning and experimentation. When new investments can be staged, organisations or entrepreneurs can choose to take further action, defer or even abandon the opportunity to invest (Bowman and Hurry, 1993). Such a philosophy can provide significant opportunities for the organisation or entrepreneur to grow (Folta and O'Brien, 2004). 'The entrepreneurial mindset of an organisation is enhanced to the extent that they can operate with discovery-driven principles' (Rita McGrath in Leavy, 2009: 9).

The following section highlights some shortcomings and criticism of real options theory.

3.11 Shortcomings and Criticism of Real Options Theory

Some writers have identified potential shortcomings with real options theory. For instance, Janney and Dess (2004) suggest it cannot solve all uncertainty related issues. In addition they posit organisations failing to fully understand the limitations of real options theory can potentially lead to: 'unsupported confidence in the decisions made' (2004: 66), which could in fact be potentially perilous for the organisation. Some of the examples of organisations failing to fully understand the limitations of real options theory, put forward by Janney and Dess (2004), are at times more to do with the decision makers themselves. For example, managers believing they have special talents that allow them to influence outcomes when they actually cannot; writing several small options may lead a manager to manage them less carefully, overlook problems, or accept greater risk in aggregate, relative to a large decision; and by writing the wrong type of real option, managers may overlook valuable benefits. The author is again reminded of Leavy's (2004a: 12) advice regarding the need for: 'a new managerial mindset'.

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Barnett (2008) cites some critics of real options theory (Barwise et al., 1987; Coff and Laverty, 2001; Adner and Levinthal, 2004) as suggesting it can be: 'overly seductive' (Adner and Levinthal, 2004: 83), tempting organisations to over invest in risky projects that may ultimately fail. Busby and Pitts (1997) add, real options are not always beneficial since they reduce organisational commitment to a planned outcome, event or project and they may often be unavailable due to legislation, regulation or commercial commitments. Coff and Laverty (2001) also make reference to the difficulty in extinguishing options that may no longer promise upside potential, which McGrath (1999) submits should be extinguished ruthlessly. This thinking would not be very far removed from comments by Leavy (2007: 44) when suggesting a real options theory approach: 'can be a very difficult one to explain to shareholders, not least the value of potentially investing in options that might later have to be abandoned'.

Benaroch (2002) highlighted issues having conducted a study, from a real options theory perspective, into information technology investment risk. Within his paper, he identified a number of gaps between what real options theory offers and what is needed to effectively configure real-world information technology investments. He suggested this area (information technology investments) involves areas of risk that real options theory does not look at. While it considers financial risk, market risk and cost risk, information technology investments involve other areas of risk such as functionality risk and organisational risk. He further suggests real options theory generally considers no more than two sources of risk at a time. This point is probably better explained by Amram and Kulatilaka (1999: 110) who advised: 'the computational complexity increases as more sources of uncertainty are added'. With respect to information technology investments, Benaroch (2002) declared such investments could be exposed to more than two risks and therefore it may be necessary to look to other models to evaluate such investments.
3.12 Concluding Remarks

The purpose of this chapter was to provide a standalone literature review on the concept of real options theory, the theory that has been chosen to underpin the research undertaken for this thesis. As is evident from the foregoing sections, real options theory has been covered by a wide number of writers. Interestingly, no one name in particular jumps out in the way, for example, Jay Barney does for the resource-based view of the firm. The concept of real options theory is a relatively recent phenomenon but one that has gathered rapid pace.

This chapter focused on a number of aspects relative to real options theory including: the appeal and origins of the theory, literary definitions and logic, types, models and examples of real options, entrepreneurship and experimentation, while some shortcomings and criticisms brought the chapter to this conclusion. At this point the conclusion of this chapter is not going to differ too much from what was concluded at the end of Chapter 2 and mentioned at the start of this chapter. To recap on those points is a useful exercise at this juncture.

From a literary perspective, the key points supporting real options theory are: There is a need for a framework for distinguishing between and/or analysing different types of employment arrangements and relationships (McLean Parks et al., 1998). This is an area hampered by lack of an evident appropriate theoretical framework (Davis-Blake and Uzzi, 1993). Transaction cost economics and the resource-based view of the firm only offer part of the explanation for an organisation's choice of employment contract (Kulkarni and Ramamoorthy, 2005) and these two theories do not offer a defining logic for understanding how organisations should manage their employees (Lepak and Snell, 1999), while real options theory is an increasingly important tool with very broad applicability (Foote and Folta, 2002).

From the perspective of flexibility, irreversibility and uncertainty, the key points supporting real options theory are: Van Emmerik and Sanders' (2004)
and Musselin's (2005) references to temporary employment contracts being a source of flexibility and enabling the opportunity to delay an irreversible decision and Bhattacharya and Wright's (2004) and Bonnal and Giret's (2010) references to uncertainty in the same context. Foote and Folta (2002) claim the use of real options theory with respect to irreversibility and uncertainty should lead organisations to hire temporary employees or outsource employment. Dixit and Pindyck (1994) encourage the use of real options theory in recruitment decisions. And, Foote and Folta (2002) advise the applicability of real options theory to organisations choice of employment mode has largely been ignored.

The next chapter looks at temporary employment contracts and how they interact with flexibility, irreversibility and uncertainty.
CHAPTER 4 - TEMPORARY EMPLOYMENT CONTRACTS

4.1 Introduction

This chapter is a review of the literature on temporary employment contracts and how they interact with flexibility, irreversibility and uncertainty.

By way of background, it is important to recall the following: Chapter 1 identified flexibility, irreversibility and uncertainty as embedded in recruitment decision making within the third level academic sector and as the rationale for organisational decision making. The theory identified in Chapter 2 and discussed at length in Chapter 3, real options theory, deals directly with the concepts of flexibility, irreversibility and uncertainty (Gilroy and Lukas, 2006; Palmer and Smith, 2006). In the context of temporary employment contracts, Foote and Folta (2002) claim the use of real options theory with respect to irreversibility and uncertainty should lead organisations to hire temporary employees or outsource employment.

The chapter initially focuses on temporary employment contracts as: a 'source of flexibility', delaying an 'irreversible decision', and dealing with uncertainty. Aspects such as models, benefits, research and general points are discussed. The chapter then goes on to consider human resource management from a strategic point of view. In particular, human assets, contracting, the role of temporary employment and outsourcing are discussed.

In the previous chapters, the author brought the reader's attention to Van Emmerik and Sanders' (2004) references to temporary employment contracts being 'a source of flexibility' in addition to providing the opportunity to delay an 'irreversible decision'. These references are a good place to commence this literature review. The following sections explore and expand upon Van Emmerik and Sanders' (2004) thinking which was supported by Musselin (2005).
4.2 Temporary Employment Contracts: A Source of Flexibility

The purpose of temporary employment contracts is to provide organisations with greater flexibility in distributing the workforce so fluctuations in demand can be dealt with (Kalleberg, 2003). When organisations utilise temporary employment contracts it generally reflects an evolving strategy to increase flexibility (McKay, 1988; Way, 1988). As Burgess and Connell (2005: 28) put it when discussing the rationale for organisations utilising temporary employment contracts: 'flexibility has been hailed as the panacea'. Berk and Kaše (2005) advise organisations should adjust their workforces to changes in demand i.e. hire to bring in new skills as needed or implement layoffs to eliminate redundant or obsolete skills. This is referred to as organisational agility by Dyer and Shafer (1999). Support for such thinking can be identified within a number of frameworks constructed by different writers which are set out below.

4.2.1 Models of Flexibility

Atkinson (1984) presented a model of the flexible firm (Figure 4.1) which advocated that organisations can design and distribute their workforce so as to better meet their business needs using flexible staffing arrangements (Chew, 2004). Atkinson's model contends the organisation must be flexible from a workforce perspective so as to be able to expand, contract or change (Lai et al., 2008) as required. The model is composed of tiers of core employees (permanent) and peripheral employees (temporary or outsourced employees) which results in greater flexibility for the organisation from functional, numerical and financial perspectives.
Following on from Atkinson's (1984) model, Atkinson and Meager (1986) constructed a model of the flexible firm based around flexible working practices (Figure 4.2). They highlighted the need for flexibility with respect to permanent employees while other categories of employees (for example, temporary or outsourced employees) should be subject to peripheralisation strategies. From an organisational perspective, Atkinson and Meager's (1986) model presents many potential advantages such as: numerical flexibility, functional flexibility, remuneration flexibility and distance i.e. the employee may be contracted.
Like the foregoing models, Handy (1991) also presented a flexibility model focusing on employment modes. Handy suggested the organisation should consist of three employment modes, each representing an important human resource base for the organisation: the permanent employee cohort, a flexible or peripheral employee cohort comprising of temporary employees, and individual employees that provide non-essential work, for example, outsourced employees.

The philosophy of the three models just discussed is summarised well by Wenger and Kalleberg (2006: 356) who posit organisations are: 'likely to develop a periphery of workers that serve to buffer core employees'.

In 1999, Lepak and Snell developed a model, or as they referred to it: an architecture, around the allocation of human resources within the organisation. Their model divides employees into four employment mode quadrants according to the value of their skills in relation to the organisation (Chew, 2004). The four employment modes are: internal development, acquisition, contracting, and alliance (Figure 4.3). The four quadrants are described by Chew (2004) as follows: Quadrant 1 represents core employees an organisation will invest in, in terms of training and development, remuneration and benefits and human resource programmes to protect their investment. These, in the author's view, are the permanent cohort of employees. Quadrant 2 represents acquisitions in the form of mainly autonomous professionals, for example accountants, lawyers and academics. Their skills, while valuable, are not unique to the organisation. Such employees may be referred to as committed to their profession rather than to an organisation. In the author's view, these are employees who will generally be hired on a temporary or contractual basis. Quadrant 3 represents temporary employees who represent skills that are widely available. In the author's view, these employees would represent outsourced employees. Quadrant 4 represents low value employees the organisation does not need to employ directly. These employees, in the author's view, would represent employees of a different organisation which the
original organisation has an alliance with, for example a catering or cleaning company.

Figure 4.3  Lepak and Snell's HR Architecture

While the fourth quadrant in Lepak and Snell's (1999) model represents an organisational alliance and these employees are not therefore directly employed by the organisation, the four models of employee flexibility have one very common theme: an organisation is comprised of two cohorts of employees: permanent employees and temporary or outsourced employees.

4.2.2 Benefits of Flexibility

A good example of the flexibility the second cohort of employees (temporary or outsourced) can offer an organisation is that an organisation can 'screen' employees for permanent positions (Wenger and Kalleberg, 2006; Engellandt and Riphahn, 2005). A similar point was made by Van Emmerik and Sanders (2004) who described the use of temporary employment contracts as a highly valid employee selection device. The organisation can use the temporary employment condition as a pseudo-probationary period to preview workers from whom they can screen out those who do not meet the relevant criteria, or
fit with the organisation. The organisation can extend an offer of long-term employment to desired employees (Foote, 2004). In common with these points, two writers, Williamson (1991a) and Jacoby (1999), suggest outsourcing employment can also be used as a screening method in employee selection.

A further advantage of the flexibility afforded to an organisation in utilising temporary employment contracts is, skill formation is taken out of the organisation (Carnoy et al., 1997) i.e. the organisation can directly hire in the relevant skills required. Temporary employment contracts can provide the organisation with specialised functions that are necessary but occur infrequently or unpredictably. This enables an organisation to focus the efforts of permanent employees on core competence (Von Hippel et al., 1997).

4.2.3 Flexibility in a More General Context

More generally, flexibility is the ability to respond rapidly to unanticipated changes or outcomes and to adjust to any unexpected consequences (Bahrami, 1992). Porter (1996) declared organisations must be flexible so as to be able to respond to the different challenges and competition of the market. Flexibility is the ability to reallocate resources quickly and smoothly as needed (Jones and Ostroy, 1984). An organisation that considers and adapts a flexible position is allowing for greater responsiveness to future events, even opportunistic events (Benjaafar et al., 1995). Sarker et al. (1994) advised globalisation and advances in technology coupled with the intensity of competition make it imperative for organisations to be highly flexible and therefore able to respond to change. Benjaafar et al. (1995) posited flexibility should be taken into account in the decision making process. In essence, flexibility provides organisations with the possibility to change their minds upon the receipt of new information or as Bryan and Farrell (2008: 9) put it: 'organisations need greater flexibility to create strategic and tactical options they can use defensively and offensively as conditions change'.

Kumar (1999) advised flexibility has interested researchers in many diverse fields, for example: economics, organisation theory, decision theory, and
manufacturing management. Researchers in these various fields have recognised flexibility has huge value, while Evans (1991) noted flexibility has been duly recognised in the context of organisational strategy research as being valuable. Operations management research literature also noted the value inherent in flexibility (Rifkin, 1992; Sethi and Sethi, 1990).

Moving on to irreversibility.

4.3 Temporary Employment Contracts: Delaying an 'Irreversible Decision'
Gilroy and Lukas (2006) identify irreversibility as an organisation's fixed costs which are already sunk i.e. difficult to reverse. They are in effect assets which are irreversible or very difficult to reverse. A number of writers have shown there are additional benefits for an organisation in refraining from undertaking an irreversible action (for example, Arrow and Fisher, 1974; Henry, 1974; Freixas and Laffont, 1984) such as maintaining flexibility and offsetting uncertainty (Van Emmerik and Sanders, 2004; Musselin, 2005; Bonnal and Giret, 2010). O'Sullivan (2002) suggests organisations may need to consider exiting from business activities that have become costly due to uncertainty or a lack of flexibility i.e. organisations must retain the ability to reverse decisions. The author posits the question, taking account of Gilroy and Lukas' (2006) point above: is a permanent employment contract fundamentally a fixed asset? It is a question that will be touched upon later.

4.3.1 Irreversibility and Recruitment
Temporary employment contracts can form an integral part of an organisation's recruitment and selection strategy that enables reversibility (Wenger and Kalleberg, 2006) due to the organisation being in a position to take on or let go temporary employees while retaining a core tier of permanent employees in whom the organisation has substantially invested. Foote and Folta (2002) mention four 'irreversible' conditions in the context of recruitment: labour market rigidities, explicit commitment, implicit commitment and the lack of an internal labour market. These points were mentioned in Chapter 3.
The author points out temporary employment contracts are much more reversible than permanent contracts due to their potentially shorter duration. It is the fact they end on a certain date that makes them more 'reversible' than permanent employment contracts. Another way of looking at this is: with temporary employment contracts the organisation chooses whether or not to end or extend the contract whereas with permanent employment contracts it is the employee who generally chooses whether or not to end the contract.

The fundamental strategic requirement for an organisation when considering recruitment and selection is an ability to retain a high level of flexibility so a decision can be reversed if required as new information becomes available over time. This ability to avoid entirely or at least limit the irreversibility of decisions provides the organisation with increased flexibility in dealing with an uncertain environment.

4.3.2 Tests of Irreversibility
Shaanan (2005) looked at irreversibility but concluded few studies have tested irreversibility properly and the focus has mainly been on the role of uncertainty, not irreversibility. Abel et al. (1996) undertook a similar study to Shaanan's (2005) when they looked at the area of opportunities for future expansion or contraction but they also focused mainly on the role of uncertainty.

4.3.3 A Model of Reversibility
There does not appear to be any models or frameworks based around the concept of irreversibility. Van de Vrande et al. (2006), however, presented a simple model of corporate venturing that incorporates reversibility (Figure 4.4). The premise of their model is organisations can consider acquisitions, alliances or ventures in the context of levels (low or high) of reversibility and commitment.
4.4 Temporary Employment Contracts: Dealing with Uncertainty

Uncertainty is the randomness of outcomes from a decision (Amram and Kulatilaka, 1999) and can substantially influence an organisation's choice of employment contract mode (Kulkarni and Ramamoorthy, 2005). It is therefore one of the main determinants (Bentolila and Bertola, 1990) of the organisation's approach to recruitment and selection. Kennelly-McGinnis (1991) advised temporary employment contracts shift uncertainty from the organisation to the employee, an approach which should have significant appeal for organisations.

Henley et al. (2001) advised temporary employees are more likely than their permanent counterparts to accept assignments that carry a degree of risk. This is advantageous for the organisation as temporary employees are less likely to resist strategies they view as risky. The distinction here is a permanent workforce could hinder a company competing in an uncertain environment, thus temporary employment contracts offer a tremendous advantage over permanent employment contracts (Henley et al., 2001). The organisation can use the factors of uncertainty and length to determine the appropriate employment contract type (Eisenhardt, 1989).

Bhattacharya and Wright (2004) and Bonnal and Giret (2010) were referenced in the Introduction with their mention of uncertainty in the context of the recruitment process. The effect uncertainty has on the employment contract mode has not yet been addressed (Kulkarni and Ramamoorthy, 2005; Drakos
and Kallandranis, 2006) which is a gap in the literature this thesis seeks to explore too. It is surprising given an organisation faces a dilemma of uncertainty, whether to commit or stay flexible (Ghemawat, 1991), with respect to the employment contract mode. Drakos and Kallandranis (2006) advise uncertainty is compatible with the presence of irreversibility and the value of waiting for new information is important because an irreversible decision made in the presence of uncertainty incurs the opportunity cost of making an alternative hiring decision when new information becomes available after a period of time. The reader will recall similar remarks made in the context of the third level academic sector by Carmichael (1998) and Finn et al. (2007) in the introductory chapter.

4.4.1 Uncertainty in a More General Context

From a more general perspective the global recession that has gripped the world since the autumn of 2008 has created the most uncertain business environment since the 1930s (Bryan and Farrell, 2008). In this context, there is a need, more than ever before, for organisations to offset uncertainty. McGrath and Nerkar (2004) suggest an organisation should keep costs down until uncertainties are resolved, when new information becomes available, while Leavy (2007: 44) suggested organisations need to: 'make clear commitments in the face of future uncertainty', and: 'try to mitigate the uncertainty'.

So what exactly is the uncertainty referred to and how is it measured?

The uncertainty can relate to the environment. For example, Leavy (2007: 44) advises: 'when the environment changes either more rapidly or more slowly, then the intrinsic capacity of organisations for adaptation is very limited'.

While Dixit and Pindyck (1994) and Trigeorgis (1996) suggested uncertainty may be of different types and may arise from different underlying sources, obtaining a measure of organisational uncertainty is not straightforward (Bulan, 2005). There will be a number of factors involved, ranging from internal
factors to external factors, competition and the prevailing climate. A number of writers have attempted to answer the above question with frameworks.

### 4.4.2 Uncertainty Frameworks

Duncan (1972: 317) set out to place uncertainty: 'in a logical framework so that it could be operationalised more effectively'. He concluded many of the definitions of uncertainty were too broad and do not facilitate a clear view of uncertainty whereas other definitions were too narrow. This led him to construct a framework of perceived uncertainty (Figure 4.5) with four individual cells. Each cell contains a measure of uncertainty, ranging from simple-static environments with little uncertainty whereby outcomes could be assessed (Cell 1), to complex-dynamic environments with the greatest uncertainty due to many differing and changing factors whereby decision making is extremely difficult due to an inability to obtain appropriate information (Cell 4).

**Figure 4.5 Duncan's Model of Perceived Uncertainty**

Other writers to examine uncertainty and propose a measureable framework were Courtney (2001) and Clampitt and Williams (2005). Courtney (2001) formulated a framework to help determine levels of uncertainty surrounding strategic decisions (Figure 4.6). The levels in the framework range from a
clear, single view of the future (Level 1) to a limitless range of possible future outcomes (Level 4). The premise of Courtney's framework is organisations need to shape or adapt and by making the right strategic moves, they can return better payoffs quicker. On the other hand, making the wrong strategic moves carries a high risk of failure (Courtney, 2001).

**Figure 4.6 Courtney's Model of Residual Uncertainty**

What differentiates Clampitt and Williams' (2005) framework from those of Duncan (1972) and Courtney (2001) was their framework not alone took account of the organisation's approach to uncertainty; it also took account of the employees approach to uncertainty. They put forward what they referred to as the uncertainty management matrix which outlines how different climates emerge in the context of both the organisation approach and the employee approach to uncertainty. In common with the other frameworks, Clampitt and Williams' framework (Figure 4.7) is in the form of four quadrants each describing a type of climate, ranging from a Status Quo Climate (both the organisation and employees wish to avoid uncertainty) to a Dynamic Climate (both the organisation and employees embrace uncertainty; employees want change and progress and the organisation promotes it). The other climates are described as an Unsettling Climate (the organisation embraces uncertainty but the employees desire certainty) and a Stifling Climate (the organisation desires certainty but the employees embrace uncertainty).
So where does this leave the organisation in terms of the best approach to employ with respect to obtaining the most appropriate employee on the most appropriate employment mode? To answer this requires a look at strategic elements which are turned to in the next section.

4.5 Strategic Use of Employment Contracts
According to Leavy (2007: 44): '[organisational] attempts to predict the future with any expectation of accuracy are futile, since so much about it that is strategically relevant is inherently unknowable far enough in advance'. For an organisation, strategy is a high-stakes game whereby the organisation's management team develop a vision for the future. The management team: 'project themselves and their organisation into the future, creating a path from where they are now to where they want to be' (Luehrman, 1998a: 89). This vision or path generally will involve making hard-to-reverse (irreversible) decisions in the form of commitments about where the organisation should focus its energies, its capital, and its employees (Beinhocker, 1999). It would be extremely beneficial if organisational decision makers, when considering and developing 'a vision of the future' took account of various types of uncertainty and utilised a framework like one of the frameworks described
above. This is, unfortunately, highly unlikely in the author's experience because future uncertainty is rarely factored into such considerations or developments, never mind different types of uncertainty.

This thesis relates to organisations needing to consider which modes of employment contract best capture a source of sustainable competitive advantage (Kulkarni and Ramamoorthy, 2005) and in order to best address this point, aspects underpinning this area are explored in light of Kulkarni and Ramamoorthy's (2005) point that a theoretical model does not appear to exist to address why organisations choose different employment contract modes. It is appropriate therefore to discuss those, other than the organisation, who will be impacted by the strategy, the human resources or capital, also known as human assets.

### 4.5.1 Human Assets

Human assets arguably are an organisation's most valuable assets (Hartog, 2000). They are: 'the most important form of capital in modern economies' (Becker, 2002: 3) and are generally regarded as non-liquid assets (Friedman, 1962). In other words, assets the organisation invests in but cannot easily sell or convert into cash due to a lack of sufficient control over such assets. They bring various skills and abilities to an organisation: 'a person's productive, marketable skills' (Hartog, 2000: 7), both tangible skills or abilities and tacit knowledge, which no other asset type can bring. They are the main sources of competence and capability for the organisation (Hamel and Prahalad, 1994; Ulrich and Lake, 1990) and are critical for creating and sustaining competitive advantage. This competitive advantage can be 'bought' by hiring employees i.e. temporary or outsourced employees or it can be 'made' through training and job experience i.e. permanent employees (Bhattacharya and Wright, 2005). Hartog (2000: 7) puts it somewhat unusually: 'employing a worker is like setting an engine in motion'.

Like any asset, human assets can entail uncertainties of return and an important part of the organisation's strategic management is to manage these uncertainties

Human assets must be treated differently to other assets. Schultz (1961) covered this point in referring to economists who he describes as not being timid and indeed proud of being impractical. With respect to human assets, Schultz advises economists: 'proceed gingerly as if they were stepping into deep water' (1961: 2). Economists, while comfortable with financial information, budgeting and projections etc, are generally not within their comfort zone if they have to deal with employees and their related issues. It is probably fair to suggest few economists take up careers in the human resource management sphere. Hartog (2000) covered much the same point as Schultz (1961): the interaction between economists and human assets or capital. Hartog (2000: 17) described human capital as: 'a fascinating concept', one economists are drawn to: 'like a moth to a flame' (2000: 17). He went as far as to suggest for economists, human capital: 'is like a secret lover' (2000: 17). Akin to Schulz's comments above, the predicament for economists is human assets or capital: 'cannot be directly observed', cannot: 'be sold and priced on the market', 'can seldom be measured', yet they are: 'fruitful', and: 'susceptible to all kinds of calculations' (Hartog, 2000: 17).

Human resource management approaches need to manage uncertainty and deliver flexibility while influencing the employment relationship (Bryson and Blackwell, 2006). They also need to take cognisance of the fact the management of human assets can be broken down into 'make-or-buy' decisions: 'make' referring to permanent employees while 'buy' refers to temporary or outsourced employees (Miles and Snow, 1984).

The future value of human assets can be uncertain. For example, performance of employees may change over time or job responsibilities may change causing a misfit between the person and the job. Such changes may in turn lead to
uncertainties of returns (Bhattacharya and Wright, 2005). Therefore, investment in human assets carries uncertainty which may stem from changed strategic direction, the market, business conditions, customer needs and competitor actions. The uncertainty factor provides an incentive for an organisation to 'wait and see' if the uncertainty can resolve itself favourably (Hogan and Walker, 2007) because human capital investments are both risky and largely irreversible (Jacobs, 2007; Levhari and Weiss, 1974). There are echoes of Robin and Cahuzac (2003), Van Emmerik and Sanders (2004) and Musselin (2005) here.

The next section extends the discussion on the strategic use of employment contracts to include contracting. The discussion revisits concepts already touched upon earlier: the discussion on risk-sharing, adaptability as new information becomes available, uncertainty and the potential for long-term contracts turning out to be prohibitively costly, and the need for a high degree of flexibility and adaptability.

4.5.2 Contracting

It was the view of Coase (1937), Simon (1951) and Foss (2000) that the essence of the organisation is the employment contract. Contracting embodies the contractual element of the employment relationship. It is described as the relationship between parties of future projected exchange (Macneil, 1974) or the promise of doing something in the future which will involve economic exchange (Rahman and Kumaraswamy, 2001). Two types of contracting have been identified in the literature: relational contracting and incomplete contracting, while the psychological contract is also touched upon.

4.5.2.1 Relational Contracting

Macneil (1985) refers to relational contracting as contracting that allows for better organisational risk-sharing (Alsagoff and McDermott, 1994; Jones, 2000). This is based upon recognition of mutual benefits through cooperative relationships such as, partnerships, alliances, joint ventures (Rahman and Kumaraswamy, 2001) and outsourcing (Muehlberger, 2007). The similarity
between these relationship types, Lepak and Snell's (1999) employment mode quadrants (acquisition, contracting or outsourcing, alliance) and the Examples of Real Options is noteworthy.

The advantage of these relationships is highlighted by Muellherger (2007) and Baker et al. (2002) who advise relational contracts are adaptable as new information becomes available. They: 'leave room for adapting to new information that arises during the business relation' (Muellherger, 2007: 719-20). This concept of adapting to new information is a key theme of this thesis.

Further support of the advantages of relational contracting is found in Williamson's (1987) suggestion that long-term contracts issued under uncertain conditions can turn out to be prohibitively costly for an organisation. This is due to future contingencies not being identifiable when such contracts commence. Relational contracts on the other hand allow for a high degree of flexibility and adaptability to new environments (Macneil 1978, 1980; Joskow 1987, 1990; Leffler and Ruker, 1991; Gundlach and Achrol, 1993; Swierczek, 1994). An example of relational contracting is the Fuji-Xerox relationship which lasted for decades and included several restructurings at key junctures (McQuade and Gommes-Casseser, 1992; Baker et al., 2002).

4.5.2.2 Incomplete Contracting
Kulatilaka and Marks (2001) advise the labour market is one market in which incomplete contracting is the norm while Foss (1999) advised the employment contract belongs to the incomplete contracting category. Incomplete contracts are closely linked to relational contracts, as a contract is considered to be incomplete if there is uncertainty about the future at the commencement of the contract (Maskin, 2002). As Alchian and Demstez (1972) suggested, the organisation and employee should regularly renegotiate contract terms because neither the organisation nor the employee is bound to continue the relationship. This, in essence, could describe the nature of temporary employment contracts. Simon (1951: 304) puts this point very eloquently when proposing a model to look at planning under uncertainty: 'The postponement of choice may be
regarded as a kind of: 'liquidity preference where the liquid resource is the employee's time instead of money'. In other words, the trade centres on commitment of time rather than money.

Finally, on the subject of incomplete contracting, it is worth emphasising, outsourcing and an organisation's decisions about where to outsource also fall within the incomplete contracting sphere of activity (Tomiura, 2008).

It would be remiss not to mention the psychological contract in this discussion relating to contracting.

4.5.2.3 The Psychological Contract
Rousseau and Greller (1994) defined the psychological contract as an individual's beliefs regarding the terms and conditions of an exchange agreement between themselves and another party. Rousseau (1989) suggested the employment contract is a psychological contract in that it not only involves transactional factors or rewards employees can reasonably expect to receive in exchange for their work (for example, wages, career advancement), but also involves relational obligations (for example, job security, loyalty to the company).

The balance of the psychological contract is largely dependent on two conditions: the degree to which employees’ expectations of what the organisation will provide and what is owed in return must match the organisation’s expectations of what it will give and get, labelled as reciprocal expectancy (for example, money in exchange for time at work, social need satisfaction in exchange for work, and security in exchange for work and loyalty) (Sims, 1994); and whether or not there is agreement on what is actually to be exchanged between the employee and the organisation (Korac-Kakabadse et al., 1999). These conditions represent an 'implicit' exchange between the parties of factors such as social support, promotion prospects and job satisfaction in return generally for: organisational commitment and socialisation (Korac-Kakabadse and Korac-Kakabadse, 1997).
Given the quandary over the 'make' or 'buy' decision, the need to manage risk and deliver flexibility, and the factoring in of uncertainty, there are significant benefits to having a 'wait and see' approach to strategic human resource management. Use of temporary employment contracts are one method of implementing a 'wait and see' approach, allowing the option of incorporating new information as it becomes available.

4.5.3 The Role of Temporary Employment
The role of temporary employment has changed dramatically from past decades (Foote, 2004). For temporary employees, Rubin (1995: 310) comments: 'impermanence is becoming permanent'. Traditionally, temporary employees replaced or filled in for permanent employees for reasons of absence (for example, illness or holidays) or an unexpected increase in business (Houseman, 2001; Burgess and Connell, 2005). Nowadays, however, many organisations regard temporary employees as a critical part of their human resource management strategy with positions at executive, managerial and professional levels being occupied in a temporary capacity (Foote, 2004; Applebaum, 1987; Hipple and Stewart, 1996; Bryson and Blackwell, 2006). Such employees: 'perform managerial, professional and technical work' (Marler et al., 2001: 4).

The statistics and research bear this out with growth in the numbers employed on temporary employment contracts in organisations in European, North American and Pacific Rim countries (McLean Parks et al., 1998; Anderson et al., 1994; Barling and Gallagher, 1996; Belous, 1989; Dale and Bamford, 1988; Delsen, 1993; Polavieja, 2002). For instance, Carnoy et al. (1997) reported temporary employment in France grew from three percent to ten percent from 1980 to 1993, while forty percent of the Japanese workforce was either self-employed or temporary, with similar proportions in the UK. Further to this, Von Hippel et al. (1997) reported, between 1991 and 1993 in the United States, twenty percent of new jobs were temporary. This growth is largely driven by multiple organisational objectives, for example: cost reduction, increased flexibility, and less responsibility for direct management of employees (Nollen and Axel, 1996; Pfeffer and Baron, 1988) (emphasis added).
Lepak and Snell (1999) suggested temporary employment contracts can be transactional, whereby employees have limited association with the organisation and the focus is on short-term economic exchanges. They also suggested outsourcing or using temporary employment contracts could potentially mitigate the development of organisations core competence. Leavy (2004b: 24) advises on the importance: 'for managers to recognise that core competence, as understood in many businesses, can be a dangerously inward-looking notion', while Mascarenhas et al. (1998) advised activities that are not part of organisations core competence should be outsourced.

Guest (2004) suggested differences in attitudes towards temporary employees could exist in the context of temporary employees known as 'knowledge workers', who use the freedom conferred by the high demand for their services to choose to work on a series of temporary assignments. There are commonalities here with the employment modes presented in the second and third quadrants of Lepak and Snell's (1999) model mentioned earlier: acquired employees and contracted employees.

The extensive use or reliance on temporary employment contracts could have the effect of creating two classes of employees: permanent employees with relatively secure employment and temporary employees who have only sporadic work (Davis-Blake and Uzzi, 1993; Forde and Slater, 2006). This reflects points put forward in the section on Models of Flexibility by Atkinson (1984), Atkinson and Meager (1986), Handy (1991) and Wenger and Kalleberg (2006). Staying with the point of 'classes of employees', two studies undertaken on the use of temporary employees present varying conclusions. Pearce's (1993) study suggested the presence of temporary employees may lead their permanent counterparts to have diminished trust in the organisation, as well as reduced productivity. Osterman's (1988) findings, in contrast, suggested the presence of temporary employees actually improved the productivity of permanent employees. Osterman (1988) also noted temporary employees do not generally get involved in organisational politics and interpersonal conflicts.
4.5.3.1 The Academic Sector Perspective

Some general statistics were given above; the following relate to the academic sector. Bryson and Blackwell (2006) outline figures relating to the UK Higher Education sector as follows: '53 percent of the 134,000 academic staff [in higher education institutions] are employed on temporary contracts' (2006: 208). They advise no other sector in the UK employs so many professional employees in this manner and refer to similar patterns in Europe, the USA and Australia. Brown et al. (2010) advise casual employees accounted for 11 percent of fulltime equivalents in 1990 in Australian universities. By 2001, this figure had increased to 29 percent while a percentage of between 40 and 50 is cited for 2008 (Brown et al., 2010).

While there was a discussion on the third level academic sector within the introductory chapter, it is important to touch upon some of the debates surrounding the use of temporary employment contracts within the sector. It is sometimes referred to as 'precarious' employment (Bryson and Blackwell, 2006): 'where risk is transferred from the employer to the employee' (2006: 208). Husbands (1998) referred to it as an: 'invisible faculty', while Bryson and Blackwell (2006: 209) advise it is a strategy: 'to encourage numerical flexibility', i.e. the recruitment of disposable employees (Bryson, 2004). It is: 'the way in which turbulent labour markets and financial insecurity has been passed on to the workforce through short and fixed-term contracts' (Bryson and Blackwell, 2006: 209-210). Bryson and Blackwell (2006: 209) advise such employees may be: 'contract researchers', a category of employee Bryson's (2004) examination of the Working in Higher Education Survey (1999) mentions. Bryson outlines: 'a large number of new staff were research only staff' (2004: 44). In terms of confidence, Bryson (2004: 49) advises: 'the highest levels of confidence were shown by permanent teaching staff... and the lowest by fixed term research staff'.

Brown et al. (2010) borrow a term from Marginson and Considine (2000) in labelling the university: the new 'enterprise' university. Other labels have emerged such as: the 'McUniversity' (attributed to American Sociologist
George Ritzer) and the 'McDonaldisation of Higher Education' (attributed to Hayes and Wynyard, 2002). Brown et al. (2010) suggest academic institutions have: 'begun to resemble a flexibilised factory' (2010: 170), and outline that university management are committing to: 'flexibilisation strategies' (2010: 170), or as Shumar (1995: 94) called it: 'permanent flexibility'. Brown et al. (2010) also refer to a Review of Australian Higher Education (Bradley et al., 2008) which highlights: 'a clash between flexibility and quality' (Brown et al., 2010: 171). These points bear similarity to points made by Musselin (2005) and others in Chapter 1, a debate Bryson (2004: 41) outlines: 'centres on the transfer of power from academic autonomy to managerial prerogative'. Kimber (2003: 43) refers to it as: the introduction of private sector management practices into the public sector'. Such an agenda is: 'pressuring higher education institutions to cut costs and seek 'flexibility' in staffing and in responding to fluctuations in enrolments' (Kimber, 2003: 44). In line with Nollen and Axel's (1996) and Pfeffer and Baron's (1988) suggestion earlier regarding less responsibility for direct management of employees, Kimber (2003: 44) advises: 'universities are responding to the pressures to reduce costs and achieve flexibility in staff appointment by attempting to 'relieve' themselves of the 'responsibilities' associated with continuing employment that accrue from appointing to tenure'. Kimber (2003: 41) also maintains this has: 'contributed to the emergence of a two-tiered academic workforce - the tenured core with security and good conditions and the tenuous periphery with insecurity and poor conditions, which reflects Davis-Blake and Uzzi's (1993) and Forde and Slater's (2006) thinking. The perspective of the 'tenuous periphery' is discussed below.

4.5.3.2 The Employee Perspective

According to Foote (2004), an individual’s motivation to take up a temporary employment contract varies widely and includes: the inability to secure more desirable or permanent work, or a desire or need for retraining or for greater choice in when and where to work. Nevertheless, a large number do so with the tacit hope of obtaining an offer of longer-term employment (Foote and Folta, 2002). Individuals not seeking permanent employment contracts are
likely to be less concerned about the quality of the employer-employee relationship than are those who seek more stability and commitment in work relationships (Foote, 2004).

Foote (2004) suggests the following organisational factors as contributing to the likelihood that temporary employees may quit their assignments prior to the scheduled termination date: inadequate socialisation, perceptions of organisational injustice, exclusion from decision-making activities, low expectations for a permanent job, relatively low age and tenure compared to permanent employees, relatively low tolerance for perceived inequity compared to permanent employees, and relatively low levels of commitment toward the organisation compared to permanent employees. Taken together, these factors result in limited motivation on the part of temporary workers, leading to reduced productivity and a predisposition toward early departure (Foote, 2004).

Temporary employees have many concerns (a point that will be evident in the phase one research). Feldman et al. (1994) investigated areas of discontent among temporary employees. The most prominent concerns were: the dehumanising and impersonal way they are treated in the job, the insecurity about their employment and pessimism about the future, the lack of benefits, employer’s failure to provide an accurate picture of their job assignments and being underemployed.

4.5.3.3 Temporary Employment Model

While this paper is examining temporary employment contracts from the organisation perspective, it is worth noting Koh and Yer’s (2000) model whereby they looked at the impact of the employee-organisation relationship with respect to temporary employees and developed a related model (Figure 4.8) to demonstrate the factors that can impact on temporary employees. While general factors such as performance, satisfaction, commitment, fairness, job level and tenure are contained in the model, Koh and Yer (2000) discuss four different contract relationships: quasi-spot (an exchange model, which aims to achieve flexibility), under-investment (the employee is expected to accept
broad and open-ended obligations with no commitment or investment from the organisation, mutual investment (the organisation provides the employee with certain inducements that may go beyond monetary rewards for example, investment in training) and over-investment (the organisation offers the employee open-ended and broad-ranging rewards including training, and a commitment to provide them with career opportunities, while the employee is only expected to perform narrow specified roles).

**Figure 4.8 Temporary Employee - Organisation Relationships Model**

Lastly, this section looks at outsourcing.

**4.5.4 Outsourcing**

For the readers benefit, this thesis assumes a definition of outsourcing as being a strategic decision that entails the external contracting of: 'activities or business processes necessary for the manufacture of goods or the provision of services by means of agreements or contracts' (Espino-Rodríguez and Padrón-Robaina, 2006: 52).

Outsourcing: 'offers companies the opportunity to grow in market presence without a corresponding expansion in organisational size or bureaucracy' (Leavy, 2004b: 21). It allows them to: 'scale up', yet avoid increases: 'in organisational mass and complexity' (for example, permanent employment contracts), which: 'is an attractive reason to consider outsourcing at any stage in a company's development' (Leavy, 2004b: 21).
While this may seem like an unlikely avenue to go in the context of this thesis, there are strong links in the literature between outsourcing and employment modes (for example Foote and Folta, 2002, which was brought out in the previous chapters; Williamson, 1991a; Jacoby, 1999, both referred to earlier; Matusik and Hill, 1998). According to Matusik and Hill (1998), outsourcing can establish a greater potential for accessing external knowledge which can be achieved by outsourcing employment or contingent employment in the form of temporary employment contracts. For example, relationships can be established with specialised suppliers (Demsetz, 1988), and inter-organisational learning (Dyer and Nobeoka, 2000; Lubatkin et al., 1999; Mahnke, 2001) can occur. Such forms of outsourcing include alliances, joint ventures and relational contracting (Macneil, 1985).

4.6 Concluding Remarks
This chapter explored literature on temporary employment contracts and their interaction with flexibility, irreversibility and uncertainty. It also looked at the strategic use of employment contracts and a number of related aspects such as human assets, contracting, the role of temporary employment and outsourcing. Linking what was discussed in this chapter with some of the key points made in Chapter 1, the incorporation of flexibility, irreversibility and uncertainty into the recruitment process bring many advantages for an organisation. Temporary employment contracts enhance: 'possibilities for reversibility' (Musselin, 2005: 139), and offset the: 'primary uncertainty', or: 'great uncertainty', referred to by Bhattacharya and Wright (2004: 13) and Bonnal and Giret (2010: 438) respectively. In utilising temporary employment contracts: 'forever employment contracts', can be avoided so as to: 'give more flexibility' (Musselin, 2005: 144). Temporary employment contracts, like outsourcing, are a source of flexibility, providing the opportunity to delay the largely irreversible decision of hiring permanent employees while assessing the competence of the temporary employee (Van Emmerik and Saunders, 2004).

The next chapter outlines the research questions which were derived from the literature covered in the previous chapters.
CHAPTER 5 - RESEARCH QUESTIONS

5.1 Introduction
This chapter identifies and presents the research categories and related research questions. Eisenhardt (1989: 536) stresses the importance of this as: 'without a research focus, it is easy to become overwhelmed by the volume of data'. Boutellier et al. (2011: 2) advise research questions need: 'to be formulated based on a thorough literature review'.

5.2 The Literature Reviews
From the literature reviews undertaken, a number of different aspects were identified as research categories. These categories are: temporary employment in the third level academic sector, flexibility, irreversibility, uncertainty, outsourcing, real options theory and the 'immediate exit' option. These same categories are the basis for categorising the findings and the analysis and discussion of the phase one research discussed in Chapters 7 and 8, which showed using a real options lens proved to be a useful way of examining the phenomenon of temporary employment contracts. As will be evident in later chapters, the phase two research continues to use this lens, expanding the scope of the study from employees to employers and senior human resource management personnel within the Irish third level academic sector. The same strategy for categorising the findings and the analysis and discussion is maintained in the phase two research.

The author identified a number of key statements in the literature under the different research categories and inserted these statements into tables (along with the appropriate reference) representing each of the research categories named above. As flexibility, irreversibility and uncertainty are generally interlinked within the related literary statements, they are included in the same table. A number of research questions are derived from the research categories and their related statements.
The first research category is temporary employment in the third level academic sector.

### 5.2.1 Temporary Employment in the Third Level Academic Sector

This category focuses on temporary employment in the sector in which the research undertaken centres, the third level academic sector. The choice of this sector was based chiefly upon the statements made by a number of writers: Mangematin et al. (2000), Musselin (2005), Carmichael (1998), Recotillet (2007), Bonnal and Giret (2010), Enders (2002), Robin and Cahuzac (2003) and Van Emmerik and Sanders (2004). Eight statements issuing from the literature are presented (Table 5.1).

**Table 5.1 Temporary Employment in the Third Level Academic Sector**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very few graduates are recruited without having first had a temporary employment contract in the academic sector.</td>
<td>Mangematin et al. (2000)</td>
</tr>
<tr>
<td>2</td>
<td>The academic sector offers ‘time limited contracts’ to graduates.</td>
<td>Musselin (2005)</td>
</tr>
<tr>
<td>3</td>
<td>The early careers of academics are characterised by temporary employment contracts because they have to wait before permanent employment in the sector becomes available.</td>
<td>Robin &amp; Cahuzac (2003)</td>
</tr>
<tr>
<td>4</td>
<td>Academic institutions increasingly rely on temporary employment contracts as a way to achieve staffing levels without having to make long term commitments.</td>
<td>Van Emmerik &amp; Sanders (2004)</td>
</tr>
<tr>
<td>5</td>
<td>Temporary employees offer academic institutions the opportunity to assess the competence of the temporary employee.</td>
<td>Van Emmerik &amp; Sanders (2004)</td>
</tr>
<tr>
<td>6</td>
<td>Temporary employment contracts are a highly valid employee selection device when considering candidates for permanent positions.</td>
<td>Van Emmerik &amp; Sanders (2004)</td>
</tr>
<tr>
<td>7</td>
<td>Temporary employment contracts act as a pseudo-probationary period to preview employees whereby employees who do not meet the relevant criteria or fit can be screened out, or desired employees can be offered long-term employment.</td>
<td>Foote (2004)</td>
</tr>
<tr>
<td>8</td>
<td>Temporary employment contracts enable an organisation to ‘screen’ employees for full-time or permanent positions.</td>
<td>Wenger &amp; Kalleberg (2006); Engellandt &amp; Riphahn (2005)</td>
</tr>
</tbody>
</table>
The first five statements refer to the reliance of the third level academic sector on temporary employment contracts and the benefits they bring. The latter three statements posit temporary employment contracts can be considered a useful method for screening or assessing employees. The following research questions were derived from the statements:

1. Do temporary employment contracts offer institutions the opportunity to assess the competence of temporary employees?
2. Are temporary employment contracts used for assessing employees for permanent positions?

Question 1 is based upon the statements made by Mangematin et al. (2000), Musselin (2005), Robin and Cahuzac (2003) and Van Emmerik and Sanders (2004) who were referenced early in this thesis due to their examination of employment relationships in academic settings. Their statements reflected the characterisation of employment in academic institutions and the reliance upon temporary employment contracts, while also giving the institution an opportunity to assess the employee. This latter part of the forgoing sentence was a reference to the statement made by Van Emmerik and Sanders (2004) which was echoed in the statements of Foote (2004), Wenger and Kalleberg (2006), and Engellandt and Riphahn (2005), who all made the point temporary employment contracts can be used as an assessment or screening tool, or a pseudo-probationary period, which is what Question 2 is based upon.

5.2.2 Flexibility, Irreversibility and Uncertainty

With respect to flexibility, irreversibility and uncertainty, fourteen statements from the literature from eleven different writers are presented (Table 5.2).

The first five statements relate to at least two of the three categories: flexibility, irreversibility and uncertainty, discussing the incorporation of these characteristics into the employment mode decision making process and the benefits they bring. The sixth, seventh and eighth statements focus on flexibility relating to the potential benefits choosing the option of a temporary employment contract can offer in terms of flexibility.
### Table 5.2 Flexibility, Irreversibility and Uncertainty

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Temporary employees offer academic institutions a source of flexibility, providing the opportunity to delay the largely irreversible decision of hiring permanent employees.</td>
<td>Van Emmerik &amp; Sanders (2004)</td>
</tr>
<tr>
<td>2</td>
<td>Temporary employment contracts are a source of flexibility that enables the opportunity to delay an irreversible decision.</td>
<td>Van Emmerik &amp; Sanders (2004)</td>
</tr>
<tr>
<td>3</td>
<td>Delaying an irreversible employment decision until uncertainty is resolved supports the need to incorporate the key elements of flexibility, irreversibility and uncertainty into the employment mode decision making process.</td>
<td>Drakos &amp; Kallandranis (2006)</td>
</tr>
<tr>
<td>4</td>
<td>Uncertainty is compatible with the presence of irreversibility and the value of waiting for new information.</td>
<td>Drakos &amp; Kallandranis (2006)</td>
</tr>
<tr>
<td>5</td>
<td>Uncertainty influences the choice of employment contract mode substantially due to the underlying benefits of flexibility.</td>
<td>Kulkarni &amp; Ramamoorthy (2005)</td>
</tr>
<tr>
<td>6</td>
<td>An advantage of the flexibility afforded in utilising temporary employment contracts is that skill formation is taken out of the organisation.</td>
<td>Carnoy et al. (1997)</td>
</tr>
<tr>
<td>7</td>
<td>The dilemma facing an organisation, with respect to the employment contract mode is whether to commit (permanent employment) or stay flexible (temporary employment).</td>
<td>Ghemawat (1991)</td>
</tr>
<tr>
<td>8</td>
<td>Avoiding ‘forever’ or permanent employment contracts gives more flexibility.</td>
<td>Musselin (2005)</td>
</tr>
<tr>
<td>9</td>
<td>Temporary employment contracts form an integral part of the recruitment and selection strategy that enables reversibility.</td>
<td>Wenger &amp; Kalleberg (2006)</td>
</tr>
<tr>
<td>10</td>
<td>A consequence of permanent employment contracts is that there are almost no possibilities for reversibility.</td>
<td>Musselin (2005)</td>
</tr>
<tr>
<td>11</td>
<td>Uncertainty is one of the main determinants within the recruitment and selection process.</td>
<td>Bentolila &amp; Bertola (1990)</td>
</tr>
<tr>
<td>12</td>
<td>Temporary employment contracts shift uncertainty from the organisation to the employee.</td>
<td>Kennelly-McGinnis (1991)</td>
</tr>
<tr>
<td>13</td>
<td>Permanent employment contracts lead to great uncertainty.</td>
<td>Bonnal &amp; Giret (2010)</td>
</tr>
<tr>
<td>14</td>
<td>Human resource approaches need to manage uncertainty and deliver flexibility while influencing the employment relationship.</td>
<td>Bryson &amp; Blackwell (2006)</td>
</tr>
</tbody>
</table>
The ninth and tenth statements focus on (ir)reversibility and the benefit a temporary employment contract offers with regard to irreversibility. The eleventh, twelfth and thirteenth statements focus on uncertainty asking if it is key to the choice of employment mode and also whether the choice of temporary employment contracts, as the most appropriate employment mode, transfers any such uncertainty from the organisation to the employee. Lastly, the fourteenth statement has to do with human resource management approaches and their consideration of delivering flexibility as a way of managing uncertainty. The following questions were derived by the author from the statements:

- Do temporary employment contracts offer institutions a source of flexibility, providing the opportunity to delay irreversible decisions?
- Is flexibility a key determinant in deciding upon the most appropriate employment mode type?
- Is irreversibility a key determinant in deciding upon the most appropriate employment mode type?
- Is uncertainty a key determinant in deciding upon the most appropriate employment mode type?
- Are temporary employment contracts a source of flexibility that enable the opportunity to delay an irreversible decision?
- Are temporary employment contracts a source of flexibility that offset uncertainty?
- Does the flexibility associated with temporary employment contracts shift uncertainty from the institution to the employee?
- Does the reversibility associated with temporary employment contracts shift uncertainty from the institution to the employee?
- Do human resource approaches reflect the need to manage uncertainty?
- Do human resource approaches reflect the need to deliver flexibility?

As there are commonalities among many of the questions (for example, the second, third and fourth questions ask the same question; the deviant being either flexibility, irreversibility or uncertainty), some of the questions are amalgamated. Six research questions are therefore presented:
3. Do temporary employment contracts offer institutions a source of flexibility, providing the opportunity to delay irreversible decisions?

4. Are flexibility, irreversibility and uncertainty key determinants in deciding upon the most appropriate employment mode type?

5. Are temporary employment contracts a source of flexibility that enable the opportunity to delay an irreversible decision and, therefore offset uncertainty?

6. Does the flexibility associated with temporary employment contracts shift uncertainty from the institution to the employee?

7. Does the reversibility associated with temporary employment contracts shift uncertainty from the institution to the employee?

8. Do human resource approaches reflect the need to manage uncertainty and deliver flexibility?

5.2.3 Outsourcing

One statement from the literature posits that outsourcing employment can be considered a useful method for screening or assessing employees (Table 5.3).

Table 5.3 Outsourcing

<table>
<thead>
<tr>
<th></th>
<th>Outsourcing employment can also be used as a screening method in employee selection.</th>
<th>Williamson (1991a); Jacoby (1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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</table>

The following research question is derived and put forward:

9. Are outsourcing contracts used for assessing employees for permanent positions?

5.2.4 Real Options Theory

As the name suggests, the link between the statements in this research category is to do with the theory discussed in Chapter 3, real options theory. Six statements from five different writers, taken from that literature review, form the basis for the category (Table 5.4).
Table 5.4 Real Options Theory

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Real options theory is the most appropriate framework for distinguishing between and/or analysing different types of employment arrangements and relationships.</td>
<td>McLean Parks et al. (1998)</td>
</tr>
<tr>
<td>2</td>
<td>Real options theory precisely fits with the choice of employment contract mode and answers all related questions.</td>
<td>Kulkarni &amp; Ramamoorthy (2005)</td>
</tr>
<tr>
<td>3</td>
<td>There is a need for a framework; real options theory is the answer.</td>
<td>Davis-Blake &amp; Uzzi (1993)</td>
</tr>
<tr>
<td>4</td>
<td>The use of real options theory with respect to irreversibility and uncertainty leads to the hiring of temporary employees or outsourcing of employment.</td>
<td>Foote &amp; Folta (2002)</td>
</tr>
<tr>
<td>5</td>
<td>The applicability of real options theory to the choice of employment mode has largely been ignored.</td>
<td>Foote &amp; Folta (2002)</td>
</tr>
<tr>
<td>6</td>
<td>Real options theory illuminates recruitment decisions because it provides optimal investment rules where recruitment decisions are potentially irreversible and uncertainty is present.</td>
<td>Dixit &amp; Pindyck (1994)</td>
</tr>
</tbody>
</table>

The general philosophy of the statements is, in the areas of organisational choice of employment mode and analysis of type of employment mode, there is a need for an appropriate theory with which to underpin these factors; real options theory has been identified as the appropriate theory. While flexibility, irreversibility and uncertainty were discussed in the second research category above, their links with real options theory are noteworthy here also.

Taking the six statements and framing them into questions, the following research questions are presented:

10. **Is real options theory an appropriate framework for which to discern the most appropriate employment contract mode?**

11. **Does irreversibility and uncertainty lead to the hire of temporary employees?**

12. **Does irreversibility and uncertainty lead to the outsourcing of employment?**
5.2.5 The 'Immediate Exit' Option

The last research category relates to the type of real option this thesis is very much centred upon: the 'immediate exit' option (Janney and Dess, 2004). It is where the organisation generally commits funds up front and in so doing acquires: 'the right to avoid an irreversible decision' (2004: 63), i.e. it can terminate the option quickly. Two statements are set down (Table 5.5).

<table>
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<tr>
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<th></th>
<th></th>
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<tbody>
<tr>
<td>2</td>
<td>Having the option to exit a project can be an important influence on the decision to adopt the project in the first place.</td>
<td>Grinyer &amp; Daing (1993)</td>
</tr>
</tbody>
</table>

One research question arises:

13. Does initiation of an 'immediate exit' option avoid an irreversible decision?

5.3 Concluding Remarks

Thirteen research questions have been put forward in the preceding sections derived from statements in the literature. As there is replication between questions 1 and 2, question 2 is withdrawn. Similarly, as there is replication between questions 3 and 5, question 3 is withdrawn. Eleven research questions therefore form the basis for the research undertaken. The eleven questions are presented again in the next chapter and in the conclusions chapter.

The next chapter looks at the methodology that underpins the research.
CHAPTER 6 - RESEARCH METHODOLOGY

6.1 Introduction
Karami et al. (2006: 43) ask the question: 'what type of methodology is appropriate in management studies?'. This chapter answers such a question by way of discussing the research methodology. Rowley (2002: 18) advises the research methodology should be: 'an action plan for getting from the questions to the conclusions'. The discussion encompasses both the phase one research, discussed in the next two chapters, and the phase two research discussed later. This chapter is in three main sections with the philosophical foundations underpinning the research preceding them. The first section is very much a literature review of relevant research methodology in which the following aspects are discussed: case study research including definitions and types; characteristics, organisation and challenges with case study research; and data collection methods and analysis. The second section focuses on: the appropriate approach to the research encompassing: the type of case study used; characteristics, organisation and challenges; and data collection. The third section focuses on: the undertaking of the research including sampling frames, the interviews and data analysis. Concluding comments bring the chapter to a close.

Before delving in to the methodology it is useful to remember a point made in the context of the origins of real options theory, which was, it came about due to dissatisfaction among strategists, practitioners and academics (Schwartz and Trigeorgis, 2004). This research project will hopefully add to the field of strategic management research from a real life perspective and also from a literary perspective as a number of writers (Sanchez et al., 1996; Mahoney and Sanchez, 1997; Sanchez, 2003) suggested the most difficult challenge in management studies is adequately representing the multidimensionality and complexity of strategic decision-making.

In common with some of these points, Rowley (2002: 19), in commenting on case study research, points out: 'both practitioners and researchers can generate
questions that are of interest’. The author recalls the point made in the introductory chapter whereby the role of practitioner-researcher was assumed so as to add credibility to this research project. Rowley (2002) also mentioned research questions have to be formulated, which is what the author did in Chapter 5. The research questions are presented again in Table 6.1. Like the linking of the research questions to the literature reviews, Christie et al. (2000: 16) comments: 'case study research can achieve construct validity by developing its constructs through a literature review'. This reflects what the author does in section 6.3.

Table 6.1 Research Questions

<table>
<thead>
<tr>
<th></th>
<th>Do temporary employment contracts offer institutions the opportunity to assess the competence of temporary employees?</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Are flexibility, irreversibility and uncertainty key determinants in deciding upon the most appropriate employment mode type?</td>
</tr>
<tr>
<td>3</td>
<td>Are temporary employment contracts a source of flexibility that enable the opportunity to delay an irreversible decision and, therefore offset uncertainty?</td>
</tr>
<tr>
<td>4</td>
<td>Does the flexibility associated with temporary employment contracts shift uncertainty from the institution to the employee?</td>
</tr>
<tr>
<td>5</td>
<td>Does the reversibility associated with temporary employment contracts shift uncertainty from the institution to the employee?</td>
</tr>
<tr>
<td>6</td>
<td>Do human resource approaches reflect the need to manage uncertainty and deliver flexibility?</td>
</tr>
<tr>
<td>7</td>
<td>Are outsourcing contracts used for assessing employees for permanent positions?</td>
</tr>
<tr>
<td>8</td>
<td>Is real options theory an appropriate framework for which to discern the most appropriate employment contract mode?</td>
</tr>
<tr>
<td>9</td>
<td>Does irreversibility and uncertainty lead to the hire of temporary employees?</td>
</tr>
<tr>
<td>10</td>
<td>Does irreversibility and uncertainty lead to the outsourcing of employment?</td>
</tr>
<tr>
<td>11</td>
<td>Does initiation of an 'immediate exit' option avoid an irreversible decision?</td>
</tr>
</tbody>
</table>
Referring once again to Karami's et al. (2006: 43) question at the start of this chapter: 'what type of methodology is appropriate in management studies?', according to Boutellier et al. (2011), research in management studies is dominated by two methodologies: large-scale research and case study research. The factors that determine the appropriate methodology are according to Rowley (2002: 17): 'the types of question to be answered, the extent of control over behavioural events, and the degree of focus on contemporary as opposed to historical events'. Yin (1994: 9) advised case study research is useful when: 'a how or why question is being asked about a contemporary set of events over which the investigator has little or no control'.

The research methodology for this thesis is qualitative case study research in the form of semi-structured interviews. The philosophical foundations are discussed in the following section.

6.2 Philosophical Foundations

This section briefly introduces the fundamental philosophical concepts of ontology and epistemology and then goes on to discuss the philosophical approach taken in this research project.

6.2.1 Ontology

Holden and Lynch (2004: 398) suggest the scientific dimension involves: 'either a subjective or an objective approach to research, and these two major philosophical approaches are delineated by several core assumptions concerning ontology (reality) [and] epistemology (knowledge)'. The author now briefly examines the concept of ontology.

Ontology can be defined as: 'the theory of what exists in the world' (Benton and Craib, 2001: 10), the nature of existence or being (Nozick, 1981) or the science or study of being (Blaikie, 1993). Dixon and Dogan (2003) suggest ontology gives rise to a set of questions: What does and can exist? What is it for something to exist? What are the conditions necessary for its existence? What might be the relations of dependency among things that exist? The two
extremums of ontology are: social constructionism at one end and positivism at the other.

Social constructionism can be defined as a reality that is a co-creation of the observer and the observed. Benton and Craib (2001) advise it is a term coined by Berger and Luckman (1967) in their book *The Social Construction of Reality*. It is a term that: 'has come to refer to processes within consciousness, to different interpretations of the world rather than actions upon an external world' (Benton and Craib, 2001: 85).

Easterby Smith *et al.* (1991) outlined the basic beliefs of positivism as the world being objective and the observer being independent. Positivism, has been used extensively to characterise approaches to social science which have made use of large data sets, quantitative measurement and statistical methods of analysis (Benton and Craib, 2001). The researcher should focus on facts, look for causality and fundamental laws, reduce phenomena to simplest facts and formulate, then test hypotheses (Benton and Craib, 2001). Paré (2001) advises case studies are consistent with the conventions of positivism.

While ontology and epistemology are core concepts in the philosophy of science, they are also fundamentally interrelated (Burrell and Morgan 1979). Hallebone and Priest (2005: 10) echo this view: 'ontology and epistemology must be articulated in the research plan as the ground work for coherence and consistency'. For example, Benton and Craib (2001: 10) suggest: 'positivism is primarily concerned with epistemology, realism is primarily concerned with ontology'. Realists, according to Blackburn (2005: 188): 'tend to believe that whatever we believe now is only an approximation of reality and that every new observation brings us closer to understanding reality'. Realism can be spoken of with respect to the past, the future, universals, moral categories and the material world (Blackburn, 2005). The next section looks briefly at the concept of epistemology.
6.2.2 Epistemology

Epistemology is described by Benton and Craib (2001: 3) as: 'the technical term for [theory of knowledge]'. It considers the most appropriate ways of enquiring into the nature of the world (Easterby-Smith et al., 2008) and the sources and limits of knowledge (Eriksson and Kovalainen, 2008). French (2009: 19) suggests: 'most of the work conducted in the field of strategy has been set in an epistemological paradigm'. The epistemological debate concerns the relationship between the objective and the subjective (Dixon and Dogan, 2003). Holden and Lynch (2004) describe the objectivist approach to research as developed from the natural sciences - social science researchers decided to employ the successful methods of the natural sciences to investigate social science phenomena. Subjectivism arose as critics argued both sciences are separate. There are two broad epistemological approaches (Hollis, 1994): hermeneutics and naturalism. Hermeneutics contends knowledge rests on interpretations embedded in day-to-day expressions or forms of life derived from cultural practice, discourse and language (Winch, 1990). Naturalism, on the other hand, grounds social knowledge in material forces and has two key traditions: positivism which rejects unobservables as knowable; and realism which accepts unobservables as knowables.

Worrall (2004) takes an interesting view on the relevance of ontological and epistemological stances within the realm of management research. He suggests: 'the 'epistemological authority' of experimental design is unquestioned' (Worrall, 2004: 9), and: 'a framework that is epistemologically and ontologically circumscribed actually militates against research creativity and the identification of new ways of thinking about issues' (Worrall, 2004: 10). To overcome this Worrall (2004) presents an ontological-epistemological framework for defining a research project, which presents four differing ontological/epistemological views: simplified ways of 'knowing' / single 'truths'; simplified ways of 'knowing' / complex 'truths'; complex ways of 'knowing' / single 'truths'; complex ways of 'knowing' / complex 'truths'. He concludes: 'if the researcher wishes to make use of a purely instrumental approach to research, there is little doubt that they should confine their activity
to [simplified ways of 'knowing' / single 'truths'] and that they should conduct research in a domain where ontological realism and epistemological objectivism prevails' (Worrall, 2004: 13).

6.2.3 Philosophical Foundations of this Research Project

While the philosophical foundations that underpinned this research project at the outset leaned towards a positivist/realist ontological approach and an objectivist epistemological approach; as the research project evolved the philosophical foundations shifted to become somewhat more constructionist in ontology and subjectivist in epistemology.

An important part of the doctoral journey, prior to commencement of the dissertation itself, entailed writing an essay on the philosophical and methodological issues and disputes within the research area. This was important in light of the various literature reviews undertaken as part of the 'journey'. At this early stage of the doctoral process the author's ontological stance was strongly positivist/realist, viewing the research area as being based strongly on a reality independent of the author. At this same early stage the author's epistemological stance was strongly objectivist with the author accepting he has little influence on the area being researched. However, as the research project went along the author, after much deliberation, considered taking a more qualitative approach to the research project. This necessitated a shift in ontological stance from strongly positivist to taking a somewhat more interpretivist view of reality i.e. from viewing reality as: 'concrete structure', to viewing reality as: 'concrete process' (Morgan and Smircich, 1980: 492). Taking a more qualitative approach also required the author to make a shift in epistemological stance from the objectivist one of creating and testing hypotheses to the somewhat more interpretivist one of studying: 'systems, process, change' (Morgan and Smircich, 1980: 492). This change of philosophical standpoint provided a much better fit with a qualitative, interview based research approach, allowing the author freedom to interpret the data gathered and freedom to adapt the interview situations as needed, for example
by using probing or confirmatory questions, in order to better answer the overall research questions.

To conclude this section and as a useful lead in to the methodology discussion, the author would therefore position himself as mainly positivist/objectivist in orientation and managerial in outlook. However, the author also recognises that the data being explored are not value free or interest free: employer, employee, and even the author himself, may present or view the data from a particular viewpoint, and this presentation or viewpoint may influence the meaning and value of the data. The author is also anxious to allow the data collection approach to be open to capturing some of these potential differences and exploring their implications which veers away from the positivist/objectivist extreme.

6.3 Why a Case Study?
Case study research is a methodology that focuses on understanding the dynamics present in management situations (Eisenhardt 1989). According to Meyer (2001: 330), case study research is: 'a common research strategy', while Hartley (1994) outlines such research is commonly utilised in studies of organisations such as sociology and industrial relations. Boutellier et al. (2011: 2) describe case study research as: 'an iterative process with multiple feedback loops', that allows for adaption. Emory and Cooper (1991) argued a case study is a very worthwhile way of exploring existing theory, while Yin (2003) suggests a case study is a story about something unique or interesting and can be about organisations, institutions or processes. Other writers advise case studies aim to locate mechanisms and inferences about real-life experiences (for example, Sykes, 1990, 1991; Tsoukas, 1989).

Eisenhardt and Graebner (2007) advise when choosing a case study the researcher should provide justification as to why a case study is the most appropriate research method for the subject matter. Neale et al. (2006: 4) suggest the main: 'advantage of a case study is that it provides much more detailed information than what is available through other methods, such as
surveys'. Eisenhardt concludes her 1989 paper suggesting case study research is: 'well-suited to new research areas or research areas for which existing theory seems inadequate' (1989: 584-549). On the same theme, Moriarity (2011) outlines a number of advantages with respect to the use of case study research. In terms of advantages, she suggests they: 'provide timely insights', to critical outcomes of what is being researched (2011: 16). Such research can: 'include multiple perspectives... from a range of different stakeholders' (2011: 16). Case studies also offer: 'substantial flexibility in terms of what data is collected and how' (Moriarity, 2011: 17). Lastly, case studies can provide: 'a richness and variety to the way that research is written up' (Moriarity, 2011: 17).

6.3.1 Case Study Definitions
Simons (2009) posits there is no single definition of a case study. Many writers therefore have put forward definitions in the literature but the most common definition appears to be that of Yin (1993: 59) who defined a case study as an investigation or: 'empirical inquiry', into: 'a contemporary phenomenon within its real-life context'. Rowley (2002:18) explains this as: 'a valuable way of looking at the world', as there is no need to: 'to replicate the phenomenon in a laboratory or experimental setting'. Elsewhere, Robson (1993) defined a case study as an approach that has the ability to generate answers to the questions: 'why?' as well as 'what?' and 'how?'. Other definitions are attributed to: Barratt et al. (2011: 329): 'rich data from... real world settings', and Hitchcock and Hughes (1995: 319): '[a study of] key players, key situations [and] critical incidents'. Robson (1993) also suggested it is the development of detailed, intensive knowledge about a single case, or a small number of related cases, a point also made by Rowley (2002). Such a study focuses: 'on broad issues of organisational culture or strategy', ensuring a: 'helicopter view of the case' (Rowley, 2002: 22).

6.3.2 Types of Case Studies
Yin (2009) lists three types of case studies: descriptive, explanatory and exploratory. Descriptive case studies are meant to describe a phenomenon such as a process or event. Explanatory case studies are more investigative in that
they seek to explain characteristics and interrelationships. Exploratory case studies are applicable to new fields of research whereby the researcher has, for example, no framework to work of (Yin, 2009).

Elsewhere, Barratt (2011) refers to two types of case study logic: inductive and deductive. Inductive case studies are intended to: 'build theory because existing theory is incomplete' (Boutellier et al., 2011: 1). In other words there is a gap in the literature the researcher seeks to fill. Deductive case studies use and test existing theory which can be confirmed or falsified (Barratt, 2011).

6.3.3 Characteristics of a Good Case Study
According to Yin (2009), the essential criteria to be fulfilled to ensure research is of a high quality are validity and reliability. Yin (2009) mentions three types of validity: construct, internal and external. Construct validity refers to the quality of the conceptualisation and operationalisation. Yin (2009) suggests construct validity can be enhanced by using multiple sources. Internal validity is the relationship between variables and results and can be enhanced by the use of analytic techniques like explanation building and examining alternative explanations (which is discussed below). External validity refers to the logic of replication in the research and matching patterns (Eisenhardt and Graebner, 2007). The reliability of the case study is based upon its being carried out with a minimum of errors or biases (Yin, 2009). Maintaining transparency through: 'appropriate recording keeping' (Rowley, 2002: 20), and good documentation is one way of ensuring reliability (Boutellier et al., 2011).

6.3.4 Organising a Good Case Study
Yin (2009) advised upon a four step strategy for organising case study research: reliance on theoretical propositions, developing a case description, deciding upon use of quantitative and/or qualitative data, and examining alternative explanations. Theoretical propositions and case description can be taken together as the second is seen as an alternative to the first i.e.: 'an alternative to the use of theoretical propositions is to develop a case description' (Boutellier et al., 2011: 3).
6.3.5 Challenges with Case Studies

Case studies are sometimes criticised for their lack of rigour, their unscientific feel (Emory and Cooper, 1991) or objectivity (Rowley, 2002). Challenges can include the sample size despite suggestions: 'there is no single rule' (Crosthwaite et al., 1997: 7), and ensuring an appropriate trade-off between simplification and determination (Siggelkow, 2007). Both points are addressed below.

6.3.5.1 Sample Size

Some of the challenges put forward by Boutellier et al. (2011) relate to the sample size being small or non-representative. For instance, a small sample size can raise questions as to whether: 'the entire scope of the research', is encompassed (Boutellier et al., 2011: 4). Rowley (2002: 21) suggests: 'there is no simple answer to this'. Eisenhardt and Graebner (2007), however, allay such concerns advising any: 'assumption that the case study should be representative of some population' (2007: 27), is false. Boutellier et al. (2011) go further advising small sample size can entail greater investigation depth which may not be as feasible with large sample sizes, while Kennedy (1979) suggested large sample sizes do not necessarily achieve better generalisation. These same points were touched upon by Siggelkow (2007: 20) (with a short story about a talking pig!) who advises, the management field: 'is not alone in its debate about the value of small-sample research'. Rowley (2002: 16) also makes comparable points advising case studies: 'offer insights that might not be achieved with other approaches particularly in preliminary or exploratory research. Eisenhardt (1989) suggests limiting the sample size where incremental contribution will only be marginal while retaining the flexibility of adding additional cases if necessary.

6.3.5.2 Simplification v. Determination

Siggelkow (2007) made mention of the researcher ensuring they find an appropriate trade-off between simplification and determination. The researcher must also be careful to avoid obviousness which would not contribute to the literature and must present their findings structurally and clearly (Siggelkow,
These comments have a lot in common with comments made by Rowley (2002: 16) who suggests a challenge to the researcher undertaking case study research is: 'to lift the investigation from a descriptive account of what happens to a piece of research that can lay claim to being a worthwhile, if modest addition to knowledge'.

6.3.6 Data Collection Methods and Analysis

Miles and Huberman (1994) provide some sound advice to the researcher about to collect data. The researcher needs: 'to consider feasibility in terms of the resource costs of money and time, the practical issues of accessibility and whether the sampling strategy is compatible with the researcher's work style' (Curtis et al., 2000: 1003).

There are many methods of data collection. For instance, Saunders et al. (1997) outlined the data collection methods employed for case study research can be varied and may include: interviews, observation, documentary analysis and questionnaires. Questionnaires are described by Remenyi et al. (1998) as for the purpose of obtaining information not readily available, so as to describe, explain or test hypotheses.

6.3.6.1 Interviews

Interviews on the other hand are defined by Burgess (1982) as the opportunity to probe deeply and secure vivid, accurate accounts based upon personal experience, or as Stake (1995: 64) claims: 'the interview is the main road to multiple realities'. Interviews are: 'one of the most important sources of case study information' (Tellis, 1997: 8), and: 'the most common data collection method in qualitative research' (Moriarity, 2011: 8). With interviews, key themes or research questions: 'may be used to guide the formulation of questions to interviewees' (Rowley, 2002: 22). Rowley (2002: 22) also advises: 'the researcher undertaking data collection needs to be able to ask good questions, to listen and to interpret the answers'. The researcher needs to have a: 'sound grasp of the questions and propositions of the case study, and [be] able to approach the study in an unbiased, and flexible manner' (Rowley, 2002:
The same writer suggests this is a key difference with using a questionnaire in that the (interview) evidence: 'is defined as it is collected, and the researcher is an active agent in the process' (2002: 22).

Moriarity (2011) describes interviews as either semi structured or in-depth: 'The former are based on a series of open-ended questions about a series of issues the researcher thinks are relevant to the topic. The latter may only include one or two topics but in much greater detail' (2011: 8). The same writer suggests interviewing is best carried out somewhere that is comfortable for the interviewee: 'meeting people on their 'home' ground is thought to help participants to be more relaxed and allows the researcher to meet participants in a natural setting' (2011: 9).

6.3.6.2 Sampling Frame
An important matter for the researcher about to collect data is the construction of a sampling frame. According to Neuman (1997), a researcher operationalises a population by developing a specific list that closely approximates all the elements in the population. This list is a sampling frame. The sampling frame should be relevant to the conceptual framework and the research questions, generate rich information on the type of phenomena to be studied, enhance the generalisability of the findings, produce believable descriptions and explanations, and be ethical and feasible (Curtis et al., 2000).

6.3.6.3 Data Analysis
When the data has been collected it needs to be carefully analysed. Eisenhardt (1989: 539) stated that data analysis is: 'the most difficult and the least codified part of the process', a point also made by Tellis (1997). It should take place at the same time as data collection (Eisenhardt, 1989; Miles and Huberman, 1994) though: 'there is no set procedure for analysing data in a case study' (Hsieh, 2002: 101).

Having examined the research: 'constructs through a literature review' (Christie et al., 2000: 16), the appropriate approach to the research is discussed in the
next section. Some of the headings bear similarities to some of the headings just discussed.

6.4 The Appropriate Approach to the Research

This thesis is a case study as the title states: a case study in the Irish third level academic sector. A case study was chosen for the following reasons which were mentioned in the foregoing sections: It is research in the management sphere, case study research being one of two dominant research methodologies in management studies (Boutellier et al., 2011). Case study research is useful when: 'a how or why question is being asked about a contemporary set of events over which the investigator has little or no control' (Yin, 1994: 9). This is the fundamental nature of this research i.e. the research questions are 'how' or 'why' type questions about contemporary events (the use of temporary employment contracts within the third level academic sector) over which the author has no control. Case study research focuses on understanding the dynamics present in management situations (Eisenhardt, 1989) and is commonly utilised in studies of organisations such as sociology and industrial relations (Hartley, 1994), which would have close connections with the human resource management focus of this thesis. Case study research is a very worthwhile way of exploring existing theory (Emory and Cooper, 1991) which, again, is something this thesis does: real options theory. Or as Johnston et al. (1999) advised, the case study begins with an existing theory. In this case real options theory. A case study is a story about something unique or interesting and can be about organisations, institutions or processes (Yin, 2003) and aims to locate mechanisms and inferences about real-life experiences (Sykes, 1990, 1991; Tsoukas, 1989). The author recalls Watson-Boone's (2000) comments from Chapter 1 regarding practitioner-researchers approaching projects in a way that yields solutions, enlarges understanding of their area of practice and suggesting improvements in their area of practice while grounded in real life situations. Case study research: 'provides much more detailed information than what is available through other methods, such as surveys' (Neale et al., 2006: 4). Case studies provide timely insights to critical outcomes of what is being researched and can include multiple perspectives from different stakeholders.
(Moriarity, 2011). In this case, three different stakeholder perspectives are included: employee, employer and human resource management. Finally, case study research is the development of detailed, intensive knowledge about a single case, or a small number of related cases (Robson, 1993; Rowley, 2002). In the case of this research, this is an appropriate point. While the research was carried out in a number of different institutions from the human resource management perspective; a significant part of the research related to one particular institution, but from two different perspectives: the employee and the employer. Yet as outlined above it is also a case study within the Irish third level academic sector. This case study is an holistic case study in that it examines: 'the case as one unit' (Rowley, 2002: 22). Such a study focuses: 'on broad issues of organisational culture or strategy', ensuring a: 'helicopter view of the case' (Rowley, 2002: 22).

6.4.1 The Type of Case Study Used

The author suggests the research carried out for phase one was somewhat different than the research carried out for phase two as it was exploratory in nature due to the 'field' being new or novel (the phenomenon of applying real options in the form of temporary employment contracts to an institution within the Irish third level academic sector) and the author having no framework to work off, a point that will be discussed below. In contrast, the research carried out for phase two tended towards the descriptive as the same phenomenon of applying real options in the form of temporary employment contracts to the same institution from a different perspective (employer) and also across other institutions within the sector from a third perspective (human resource management), had been justified in phase one.

The author also suggests both research phases veered more towards the deductive: using and testing existing theory, which was real options theory. There is a case to be made, however, that aspects of the research were inductive with respect to the novel application of the theory used (real options theory) and its related components - flexibility, irreversibility and uncertainty - to a
particular and specific context: the Irish third level academic sector, which was not done before.

6.4.2 Characteristics of the Case Study
Taking account of Yin's (2009) criteria for ensuring the research is of a high quality (validity and reliability), the following points are put forward: With respect to this research, the conceptualisation is the relationship between the research categories and questions identified and the objective of the research i.e. the application of real options theory and its characteristics to the third level academic sector. The operationalisation is the conducting of the research within the sector. Yin (2009) suggests construct validity can be enhanced by using multiple sources. In this case, the three sources utilised in undertaking the research (the employee, the employer and human resource management) enhance the construct validity. As highlighted by Eisenhardt and Graebner (2007), external validity refers to the logic of replication and matching patterns which is something that was consistent throughout the research in both phase one and phase two.

The author is satisfied the 'validity' criteria has been appropriately met in terms of ensuring the research is of a high quality. The construct validity was met by way of the clear links between the research categories and questions and the objective of the research. The objective of the research was clearly outlined in the Introduction and pursued in the literature reviews from which the research categories and questions were derived, with the research then undertaken within the actual sector using multiple sources. Internal and external validity were met respectively by virtue of the research being explanation building and replicated throughout the process.

In terms of reliability, when undertaking the research, the author recorded and immediately personally transcribed all research data, which is readily available. Rowley (2002: 20) also advised reliability is demonstrated when the: 'data collection produced can be repeated with the same results'. This was achieved with the three interviewee categories during the data collection.
6.4.3 Organising the Case Study

With respect to Yin's (2009) four step strategy for organising case study research (reliance on theoretical propositions, developing a case description, deciding upon use of quantitative and/or qualitative data, and addressing alternative explanations), the following points are made: The seeking of theoretical propositions upon which to rely for the purposes of undertaking the research was something the author committed much research to. The conclusion arrived at was: the real options theory literature focused on propositions specifically aimed at business and business strategies. There was a lack of appropriate propositions, research questions or hypotheses on which to test the application of real options theory to employment contract modes within a third level academic setting. The research categories and questions identified and presented in Chapter 5 therefore formed the basis of the research or as Boutellier et al. (2011: 3) puts it: 'a general framework of how to collect the data'.

This study is in the form of qualitative research. Qualitative research is an inquiry: 'based on building [an] holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting' (Creswell, 1994: 2). Qualitative case study research: 'has been widely applied by researchers in small-scale research' (Hsieh, 2002: 111). Like the search for theoretical propositions mentioned above, there was no available appropriate quantitative data and the nature of the research and thesis was to be descriptive.

In terms of alternative explanations, Chapter 2 covered alternative theories: transaction cost economics and the resource-based view of the firm before real options theory was selected as the most appropriate for assessing appropriate employment mode types in the academic sector. The reasoning behind the choice of real options theory over the alternative theories was discussed in Chapter 2. From a real options theory perspective, it was chosen as the most appropriate theory due to its focus on flexibility, irreversibility and uncertainty and its links to being a very useful employee screening mechanism in the form of temporary employment contracts, all points discussed by Robin and Cahuzac
(2003), Van Emmerik and Sanders (2004) and others (for example, Mangematin et al., 2000; Musselin, 2005; Carmichael, 1998; Bonnal and Giret, 2010; Recotillet, 2007) in their papers on employment arrangements in academic settings, which were mentioned in the introductory chapter.

6.4.4 Data Collection

With the decision to undertake a qualitative case study having been made, the next decision was on the most appropriate approach for collecting the research data. In considering this, there were two important elements: the sector under research (the Irish third level academic sector) and the eleven research questions identified and presented in Chapter 5.

6.4.4.1 Sector Considerations

This thesis is a case study in the Irish third level academic sector and while sample size was discussed above, the sector is a relatively small sector. As outlined in Chapter 1, the Irish third level academic sector is made up of seven universities, five recognised colleges, fourteen institutes of technology, seven colleges of education, eight state-aided institutions, and a number of other institutions who run programmes recognised by relevant awarding bodies. Not alone that, there are significant commonalities and similarities with many of the institutions. For example, the seven universities would have strong similarities (five come under the umbrella of the National University of Ireland) as would the fourteen institutes of technology, bearing in mind they all come under the same statutory planning and development body: The Higher Education Authority.

6.4.4.2 Research Question Considerations

The reader will recall the point made by the author when discussing theoretical propositions for the purposes of undertaking this research, concluding there was a lack of appropriate propositions or hypotheses on which to test the application of real options theory to employment contract modes within a third level academic setting. This led to the identification of the research categories and the eleven research questions, derived from the literature reviews.
6.4.4.3 Outcome

Potential issues could arise with some of the data collection methods mentioned by Saunders et al. (1997): interviews, observation, documentary analysis and questionnaires. Neither observation nor documentary analysis would be appropriate in answering the research questions identified, or within a sector like the Irish third level academic sector, which left interviews and questionnaires. As the phase one research was somewhat exploratory in nature (mentioned earlier), semi-structured interviews were utilised. With the confidence to proceed gained from phase one, it was the author's intention to develop a number of hypotheses and test them by way of a questionnaire in the phase two research. The author developed a theoretical framework and related hypotheses before devising a questionnaire with which to test the framework and hypotheses. A draft of the questionnaire was tested on thirteen individuals of varying positions, organisations and backgrounds, chosen by the author, then amended to reflect their feedback. After long and careful consideration the questionnaire method was ruled out. The main reason for ruling it out being the point in preceding paragraphs: there was a lack of appropriate propositions or hypotheses on which to base the questionnaire and the author was not fully confident that it would stand up to academic scrutiny as the design of a questionnaire should be based upon appropriate tried and tested scales and items and there was a lack of same. In addition, the makeup of the sector meant a questionnaire might not provide enough discursive data even if there was a good response rate.

The method of research used therefore for both research phases was interviews: semi-structured interviews. The reasons being: they are: 'one of the most important sources of case study information' (Tellis, 1997: 8), and: 'the most common data collection method in qualitative research' (Moriarity, 2011: 8). They provide the opportunity to probe deeply and secure vivid, accurate accounts based upon personal experience (Burgess, 1982). The use of interviews meant the author could stick to the research categories identified in the literature: 'to guide the formulation of questions to interviewees' (Rowley, 2002: 22), which formed the basis for the research questions. It also meant
discourse would not be limited and: 'the researcher [was] an active agent in the process' (Rowley, 2002: 22).

The choice of semi-structured interviews was based upon the nature of such interviews being: 'a series of open-ended questions about a series of issues', the researcher thought relevant (Moriarity, 2011: 8).

On the basis of all the points in the foregoing paragraphs, the author is satisfied the research undertaken was appropriately undertaken as qualitative research and as a case study, the sample size was appropriate and representative, and the use of semi-structured interviews was also appropriate. The next section discusses the process involved in undertaking the research.

6.5 The Undertaking of the Research
Three different categories of interviewee were decided upon in the Irish third level academic sector: the employee, the employer (those who make the decision to issue employment contracts), and the human resource management perspective. Sampling frames for the above categories were established.

6.5.1 Sampling Frames
The sampling frame for the employee category in the phase one research was an available list of academic staff in the business faculty within an Irish third level academic institution in Dublin. The business faculty was chosen because it linked closely to the author's area of practice and research, and the institution's website welcomed and detailed permanent new starters and temporary new starters. Combining this with the information regarding the mix of temporary and permanent starters, an email was sent to sixteen employees (a copy of the email is given in Appendix 1). Of the sixteen emailed, three failed to respond and four responded they would not be suitable because they had not been employed on a temporary employment contract with the institution. Of the remaining nine employees who agreed to partake in the research, five were employed on temporary employment contracts while the other four had been employed on temporary employment contracts but had since become
permanent. The tenure of the five employees on temporary employment contracts varied: two lasted one year; one, two years and two, three years. The tenure of the initial temporary contract for the four permanent employees also varied: one lasted two years; two, three years and one, four years. Five of the employees had a postgraduate degree and four held doctorates. Two respondents had less than one year's service at the institution; four had between one and three years, two had between four and eight years and one employee had between nine and thirteen years.

In the phase two research, the sampling frame for the employer category was the Deans of the four faculties within the same third level academic institution as the employees interviewed in phase one. In this regard an email was sent to the faculty Deans who all responded positively and agreed to be interviewed.

The second part of the phase two research involved interviews with senior human resource management personnel in a number of third level academic institutions in Ireland. As the area within which this thesis sits relates to human resource management, the interviewing of senior human resource management personnel within such institutions was appropriate. The list of institutions is readily available and the names and contact details of senior human resource management personnel are detailed on relevant websites. A sampling frame using this information was constructed. Contact was made by way of an introductory email which was sent to ten third level academic institutions in the Dublin area. Five immediately responded positively outlining they were amenable to an interview. The institutions were chosen based upon: four of the Irish universities, four of the institutes of technology, almost all the recognised colleges and colleges of education and state-aided institutions, being in the Dublin area.

6.5.2 The Interviews
With respect to the interviews, the author applied Miles and Huberman's (1994) advice on feasibility in terms of money, time, accessibility and compatibility with work. Dublin area based institutions suited the author in terms of: 'money
and time', practical accessibility, and work style, as the author was in fulltime employment in Dublin. The author also applied Eisenhardt's (1989) advice of limiting the sample size where the incremental contribution of extra cases is only marginal, while retaining the flexibility of adding additional cases if necessary. In choosing the institutions, the author retained the flexibility to add additional cases but, in the course of the data collection, found further incremental contribution would be minimal and would not alter the research findings as the interviews undertaken encompassed: 'the entire scope of the research' (Boutellier et al., 2011: 4).

As guarantees of confidentiality were made and because of the number of institutions in the data collection, they will not be described in any manner that could make them identifiable. The phase one research institution was a university. In the human resource management interviews, the five institutions included two universities, one institute of technology, one state aided institution and one institution validated by the Higher Education Training and Awards Council (HETAC).

Interviews generally lasted between sixty and ninety minutes and were based on the following: 'series of issues' (Moriarity, 2011: 8), or research categories: temporary employment in the third level academic sector, flexibility, irreversibility, uncertainty, outsourcing, real options theory and the 'immediate exit' option. These were identified in earlier chapters as key research categories, from which the research questions were drawn. They also form the basis for categorising the findings and the analysis and discussion of both the research phases which will be evident in later chapters, which was in line with Siggelkow's (2007) advice that the findings must be presented structurally and clearly.

All interviews took place in interviewee's offices: 'their 'home' ground' (Moriarity, 2011: 9). The interviews were recorded and immediately personally transcribed by the author. The interviewees were not provided with a list of questions prior to interview but were free to opt out and offered the opportunity
to review their transcript although none requested the transcript for this purpose. No ethical issues arose before, during or after the undertaking of the research. The author was at all times cognisant of the University's guidelines pertaining to ethical research with human participants and completed the Research Ethics Form prior to undertaking the research and the Research Ethics Declaration. A sample interview transcript is given in Appendix 2.

6.5.3 Data Analysis
The author employed a straightforward strategy for analysing the data or the findings of the research by using the research categories referred to above for categorising, analysing and presenting the data. Appendices 3, 4 and 5 each provide a synopsis of the responses within the employee, employer and human resource management interviews respectively, under each research category.

6.6 Concluding Remarks
As the aspects of this chapter have been discussed in detail concluding remarks are brief. The reasoning behind choosing to undertake qualitative case study research in the form of semi-structured interviews was clearly outlined. In addition, the sample size was explained and justified. The author would comment that the use of certain 'guiding principles' in the form of the research categories was important in both undertaking the research and then categorising, analysing and presenting it.

The following chapter presents the findings of the research undertaken in phase one.
CHAPTER 7 - PHASE ONE RESEARCH FINDINGS

7.1 Introduction
The thesis will now turn to the research undertaken. This chapter presents the findings of the phase one research which, as referred to previously, provided confidence to pursue the phase two research. Undertaking the phase one research was important due to the consensus of a number of writers referred to in Chapter 1 being: research in the area of temporary employment contracts is scarce and uncommon or generally focuses on comparing temporary employees with permanent employees, allied with the points mentioned at the end of Chapter 3, that there is a lack of research combining real options theory with strategic interactions.

The following categories, which were the basis for the research questions identified and presented in Chapter 5, form the basis for the findings: temporary employment in the third level academic sector, flexibility, irreversibility, uncertainty, outsourcing, real options theory and the 'immediate exit' option. The following sections outline the findings under these categories with a summary of the findings presented at the end of the chapter in Table 7.1. Interviewee quotes are denoted by different letters, for example Interviewee B - (B).

7.2 Temporary Employment in the Third Level Academic Sector
A good introduction to this aspect is to quote one of the interviewees who outlined: "the academic world is funny because you come in as an asset and then you almost build a product around you" (A). This concurs with the opinions of most of the employees interviewed. Most felt what they were providing the institution with was what could be described as core competence. For instance, one individual commented that if they were to design a programme or module and then happen to move on, the programme or module stays within the institution. It is stressed, however: "the assets [meaning themselves] and the products are so intrinsically linked that it could be very difficult even if somebody had my material to deliver" (A). Similar points were
made by another interviewee: "everybody gets a curriculum of topics and build around that. It is up to the individual" (H), and: "you always put your own mark on a course" (H). Yet: "it is hard to use somebody else's work" (H).

7.2.1 Institutional Commitment

An interesting question posed was in relation to ownership of materials: "it is also a question of who owns your material" (H). The question was asked in the context of acknowledging the institution provides the curriculum and books etc, but the personal stamp the deliverer of the material puts on lectures in the form of: "videos and multimedia etc" (H), the time the lecturer puts into: "enriching the course" (H), what happens if there is no long term commitment from the institution? As one employee asks: "should I go the extra mile? Is it worth it? Is it going to be appreciated?" (H). They are of course referring to the lack of long term commitment made to them by the institution. The interviewees are presented with a temporary employment contract of most likely one or three years duration. Their questions relate to whether they should put all this time and effort into delivering a class, module or programme now when they might not still be there, through no fault of their own, the following semester or year: "you don't really know how much it is appreciated or regarded within the institution" (H). The questionable commitment by the institution to lecturers they employ on temporary employment contracts is interestingly illustrated by one interviewee who clearly and unequivocally stated: "it would delay a full contribution" (J). What they are stating is they are restricted from delivering as much as they would like to due to the time limit on their employment contract. The temporary employment contract means they cannot take on a PhD candidate for instance: "it delays me planning for say recruiting a PhD student or two or maybe trying to build up an expertise. It means I would be reluctant to start" (A). They also advised: "It is also about the value that you can add to the department" (A). Apart from the suggested loss of commitment from the temporary academic, the institution itself could be losing out as such employees may not be given the full remit of duties that goes with an academic post: "if you are on a one year contract you teach more because you are not supposed to have administrative and research responsibilities" (A). It was commented: "the
worst thing about a short-term contract is that it is de-motivating" (A), which reflects what Feldman and Turnley (1995) hinted at with respect to academic employees.

The loss is potentially compounded by the fact temporary academics are not all newly qualified PhD graduates. For instance, many are already well established: "I am not a new academic, you see some people use temporary contracts to get their foot in to a new sector, but that does not suit me" (A). "I have a lot of experience in the academic world" (A).

7.2.2 Contractual Limitations
Of course there are those who are looking to establish a foothold in academia, as referred to above, and may therefore be satisfied with a temporary employment contract: "The initial thing for myself was, it is a three-year contract, a great opportunity to effectively publish from the PhD and those were my initial thoughts" (D). "I had just come out of a PhD programme so what I wanted then effectively was a couple of years to be able to produce publications. So [temporary] from my perspective was fine" (D). They also, however, recognise the limitations imposed on them by the temporary employment contract: "if you wanted to move on past individual research, if I want to grow a research programme, I need to take on a number of PhD students, I need to acquire external funding... then definitely it would be a huge preventative from being able to move forward with that sort of work" (D). "Now when you are in the job you say well there is so much more I can do from here" (D). Another interviewee advised: "there is at least a full workload of a very specialist area and I think that could continue to develop" (A). Lastly, on this point, one interviewee referred to the awkward situation they can face if approached by a student requesting supervision. In this situation the interviewee advised they are not in a position to accede to such a request as: "you have to ensure you are here. You are not in a position to say that until April/May which is quite late for them" (H). "Planning is very hard" (H). As another interviewee outlined: "There are certain elements of academic work that you would not begin, for example, the supervision of a PhD student,
bidding for research money. If you did not know you were going to be here four years from now it would be terribly unfair to take on a PhD student so it would diminish my enjoyment of academic life" (A).

The importance of permanency is illustrated again with reference to funding and the precarious position a temporary academic is placed in with respect to this: "[If permanent] you can pull in longer term projects particularly say funding for research projects; they are always in five-year blocks" (D). Another interviewee remarked: "when I am at the negotiating table saying, 'we can do this, we can do that and we can deliver that and we can design that', I am thinking, 'if I am here, if I am here, if I am here'. But you cannot say, 'if I am here we will be able to' because clearly the client would run a mile" (A).

7.2.3 Emotional Concerns

Most interviewees were anxious their next employment contract be a permanent one, as mentioned in The Employee Perspective section: "from here on you would prefer obviously to get to a stage where you have a permanent contract" (D). This is mainly due to the reasons given above i.e.: "if you want to introduce a Master's programme, if you want to introduce something into the [institution], if you want to take on a PhD student, something as simple as that which you know is going to be a four or five year programme of work" (D). The concerns are obvious: "you are concerned in the sense that, will I be around here in two years time? It is not fair to take on somebody if you are not going to be here. So that would be a concern" (D). "Obviously you want to grow your position and I think that getting a permanent position definitely does afford you with that opportunity" (D).

Some of those interviewed hinted at the emotional tie to their position, despite it being temporary: "I am on a contract here and I cannot leave in the middle of it because you cannot leave a class in the middle of a semester. Information could get around" (G). Another advised: "I had come to like the academic life and was happy to stay with it. I tried it and liked it" (E). A slightly different perspective came from another interviewee in relation to the modules/subjects
they were delivering: "there are no other [academic institutions] at the moment in Ireland where I could have a full role" (A). "You do not want any black marks" (E).

7.2.4 Rationale

In line with some of the foregoing points, one interviewee questioned whether the institution in utilising temporary employment contracts was simply exploiting matters: "It is more difficult to understand the rationale [for] doing this other than to purely exploit the situation" (E), which is a very interesting view (and one that will be examined later in this thesis in the responses from the employer and human resource management perspectives). One of those interviewed categorically stated: "I would not even have accepted it normally but it was just the circumstances" (A), while another said: "I was willing to take it but I was not very excited about a one-year contract" (H).

A comment from one interviewee that could be viewed as supportive of the utilisation of temporary employment contracts and which may explain the rationale was as follows: "[third level academic institutions] have to look at long lived competencies which tend to be more generic and less attractive than short lived ones. There can be a boom in an area for a couple of years but they become absorbed into main stream" (E).

Interestingly, a number of those who came to the institution on temporary employment contracts vacated permanent positions in industry or elsewhere which led to concerns in itself: "You are obviously concerned because you come from permanent employment" (H). As one individual commented: "Now that is what I would call a high-risk strategy" (A). Like some of the concerns mentioned earlier, the 'buy-in' from the institution is again questioned: "you do naturally enough think, why do I work putting all this together and somebody else will take it next year" (H).
7.2.5 Comparison with Permanent Employees

Naturally, in discussions such as these interviews, the comparison with permanent colleagues was touched upon and there appeared to be some unease in relation to this. For example: "I do see there is a difference in the way you are viewed by the institution. I think the institution is prepared more to invest in you when you are permanent" (E). "Those on one-year contracts are not as well treated. The [institution] does not really invest in them" (E). The same individual felt there was little difference between a one year and a three year contract. Yet another interviewee commented: "I probably have a bigger workload in terms of teaching than permanent staff but less administration workload" (G), which concurs with points made above in relation to the teaching, administration balance. A further comparison between temporary and permanent was touched upon as: "people view the permanent position as [where] you can really build and you can really develop" (D). Finn's *et al.* (2007) reference to professional privileges now being aspirational appear appropriate.

While it is obvious temporary employees have concerns with being offered such a contract, further temporary extensions appear to escalate concerns as evidenced by one interviewee: "I strongly disagree with continuous temporary contracts because that will effect motivation" (I).

Naturally, a temporary employee can walk away from the institution, despite the emotional elements commented on earlier. The question arises, however, as to what the institution will do in such a case. One interviewee addressed this point as follows: "Can they invest in it? Yes, by ensuring those people do not walk. The [institution] needs experienced, qualified lecturing staff and research staff. Can they invest in it? Yes, they can by ensuring they attract those individuals and those individuals stay. Can they own them? No" (C).

7.3 Flexibility, Irreversibility and Uncertainty

Moving on to these three categories, it is noteworthy there was little discussion on irreversibility which would be expected as it is highly unlikely the employee
perspective would be overly concerned with the reversibility associated with temporary employment contracts. This is realistically an organisational consideration. There was much discussion with respect to the balance of risk and uncertainty for the employee.

7.3.1 Flexibility and the Balance of Risk

As noted previously, the flexibility associated with temporary employment contracts is advantageous for the institution as the following remark demonstrates: "definitely the [institution is] maintaining flexibility and the risk is transferred to the individual because they may not have the work down the road" (C). Another interviewee posited: "the employee incurs the risk, there is only so much flexibility" (F).

An interesting comment made in relation to this was that there needs to be an appropriate balance between both parties to the contract i.e.: "There needs to be a balance between what [the institution] is gaining and what the individual is gaining. If that balance becomes 'out-of- kilter', I think there is a serious issue then because people are already motivated, they are looking outside, and they are looking for another [institution]" (A). They suggest: "It is a high-risk strategy if it is overused in an academic context" (A), which is interesting because what they are essentially suggesting is the employee may leave.

Staying with the 'balance of risk' aspect, most interviewees felt the temporary employee shouldered the risk. For example, one individual stated: "The risk is with me I think more than the [institution]" (D), while another mentioned: "I think overall it weighs more favourably on the side of the employer" (G). One very definitive comment, echoing Robin and Cahuzac (2003), referred to it being: "definitely a seller's market in terms of academia" (H). They evidenced this remark by putting forward the fact that in 2006 there were 920 PhD graduates in Ireland and less than fifty available posts. This: "means that [institutions] can afford to engage in short contracts because they are not worried that some other institute will snap you up because there is a scarcity of posts. So the risk is definitely higher for an employee. I do not see any risk for
the employer" (H). Others commented: "I felt at the time, [the risk was] almost entirely on my side" (E), and: "the staff member has more risk" (C), and: "obviously they would be able to replace me" (A).

7.3.2 Uncertainty
The comments on uncertainty were very much in line with previous comments in that the interviewees feel any uncertainty is with them in that the temporary employment contract transfers any uncertainty to the temporary employee. For instance: "Obviously uncertainty was one of the key concerns" (I), and: "Uncertainty I really dislike. The thing of being secure this year and next year but the following year I will be back to square one again" (A). A somewhat similar comment was as follows: "[there was] lots of uncertainty in terms of… the three-year contract or one year contract" (B). The most important thing for the same person was: "elimination of uncertainty" (B).

One interviewee suggested, in terms of uncertainty: "The [institution's] business is less unpredictable or less uncertain than other business" (I), which begs the question, why an academic institution needs to utilise temporary employment contracts if its business is reasonably certain. This point is developed by another interviewee who begs the same question by advising: "they are stretched and yet the [institution] is very loathe giving long-term contracts. So they keep on turning over people" (B). The same individual provides a very interesting slant on this. They describe it as follows: "It is sliding down the snake every year. You build that person up the ladder and then that person leaves because they are on a one-year contract" (B).

7.4 Outsourcing
When the discussion with the interviewees came around to outsourcing, there were mixed comments but most felt their being on a temporary employment contract was in effect a form of outsourcing. Probably the most straightforward comment in this regard was: "If I was just told, here is a two-year contract and you have to go after two years, I would consider that as outsourcing" (I). Another interviewee advised: "I think that is exactly what it is. They are not
outsourcing to a company but to freelancers" (H). A reason for this type of outsourcing is given as the institution's inability to provide certain competence from within their permanent cohort: "One reason you would outsource is that you would hope the person you outsource it to will give a better quality than you are able to provide internally. That might increase the know-how, the knowledge, the industry experience that they might not have within the [institution]. So they would have their reasons for outsourcing" (H). The author recalls the reference by Matusik and Hill (1998) to the potential for accessing external knowledge by outsourcing employment or utilising temporary employment contracts.

A very measured view was: "you could typically call it outsourcing. The rationale behind it is somewhat similar to outsourcing for the [institution]. It is a business service from the individual" (F).

According to one interviewee: "it is not a bad strategy to use; I think it was probably a very wise strategy to use" (A). The same person felt there are potential risks though: "it would be perhaps an unsafe strategy to use because there is risk [in] somebody delivering specialist modules and then have to replace them" (A). On the matter of specialist modules, this particular interviewee was lecturing: "in an emerging academic area" (A). And while: "there are lots of practitioners in Ireland, there would not be a lot of people who have studied this as an academic subject so it may be more high risk than maybe asking somebody to teach more mainstream subjects" (A). In this regard the outsourcing reference appears appropriate.

Those who disputed temporary employment contracts are a form of outsourcing advised so on the basis the institution: "retain the management control, the key processes" (B). They (the interviewee) do, however, acknowledge the institution is: "buying a service; they are buying it on a temporary basis and they are buying it for a year or whatever" (B). In the author's view, this sounds like outsourcing. A different interviewee declared: "I would not see it as outsourcing as such" (D). One fairly definitive comment in regard to
outsourcing was: " Outsourcing for me is giving it to somebody else. I do not view temporary contracts as outsourcing because outsourcing to me is to a third party that is not involved" (G). In relation to what they teach, the same interviewee advised: "Certainly I believe I am the only person capable of delivering that" (G), while another said: "when you take in someone as a full time member of staff, I do not see that as an outsource but I do see it as an extended test and at the end you still may not get anything if you pass the test" (E). This last remark goes to the core of the suggestion temporary employment contracts or indeed outsourcing could be simply pseudo-probation periods. The author will return to this point later.

7.5 Real Options Theory

It is probably fair to say few if any of the interviewees were familiar with the concept of real options theory going into the interviews. Therefore, part of the discussion involved providing an overview of what the theory entails. The interviewees commented it was an interesting and innovative perspective and could see the logic of its utilisation: "To clarify, what you are saying is that it will allow greater flexibility in terms of using people for the length you need and then disposing of them in the way you would with other resources? Clearly, that seems to be the key reason" (A). "I think it is more likely that [institutions] do not want to commit to long-term commitment to a human resource. Therefore, they will make the shortest possible decision that they have to" (A).

One interviewee immediately picking up on the advantage the utilisation of real options holds for the institution commented: "If the [institution] needs resources in terms of staffing on a short-term basis or needs resources now but there is a risk they won't need them in a year's time, by taking them in on contract, they are eliminating the risk" (C). The interviewee recognised the risk could potentially be twofold: "they probably have created the risk that they still need the [employee] in a year's time but [the employee] won't be available to them then. That would appear to be the risk they have created" (C). However,
they further commented: "With real options [the institution] might have no risk in that [they] won't have work in a year's time" (C).

Some comments were like a quote from the literature: "Obviously there is a trade off between the longer-term investment in having the person... I think very often for organisations it is a trade-off between less costs now so they are not investing in the future of having permanent staff" (C). There are very clear echoes of some of the papers referenced in the introductory chapter (for example, Carmichael, 1998; Musselin, 2005) here. Another individual commented: "I do see it as an option. The [institution] taking an option on a person where they have the most control of the option" (E).

A different interviewee made the clear link between what the institution is doing and uncertainty, but questioned whether the institution has in fact any real uncertainty in the way organisations in other sectors do: "It is true, the more the uncertainty, the more from an organisational point of view it would make sense using the option of contract in labour in this context" (C). The questioning of uncertainty was as follows: "In this environment to be quite honest, contract work does not seem to add anything because they have certainty" (C). And: "I do not see a need in this industry" (C). The same interviewee questions, on the basis of their foregoing comments, why there is a need to transfer any 'risk' with the use of temporary employment contracts: "why is the risk been transferred, I really do not see any reason for it" (C).

A slightly different perspective from another interviewee acknowledged why the institution would utilise a real option in the form of a temporary employment contract: "To a certain degree maybe they have an excuse. Maybe for too long people were in these jobs for too long and were not good enough and they could not get rid of them unless they did something wrong. Maybe by having one/three year contracts they can make sure that it is the person they want and are going to keep" (H). This is once again a reference to the use of temporary employment contracts as pseudo-probationary periods. It was developed further in the following comment: "From a quality strategy to make
sure they get the people they want, the individuals that would bring specific research topics or areas that would interest the [institution]" (H). Also: "it can be a way for them to filter as they tend to go for people who will bring in research funding. In the last five years they tend to run [institutions] more as an enterprise rather than as an educational institution" (H). Ironically, around the time of these interviews, a national newspaper carried an article titled, 'Colleges too obsessed with making cash'. The article referred to a poll which indicated three quarters of university lecturers believed the education of students to be under threat as universities adopt an increasingly corporate ethos i.e. changing from places of learning into businesses.

7.6 The 'Immediate Exit' Option
The heading for this aspect is the 'immediate exit' option. This is a heading probably more appropriate to the employer/human resource management interviews as like irreversibility, it is not really something the employee would be considering. In reality the heading from the employee perspective may more suitably be 'pseudo-probationary period'. That being said one interviewee commented: "You can see from the employers’ perspective that they have two, three or four years to see if they want to keep someone" (F), so the awareness is there. For example, one of those interviewed outlined: "In terms of taking somebody in on contract rather than permanent the [institution] is eliminating the risk that they do not need the person in the future, that the person does not work out, does not perform" (C).

Another interviewee commented: "obviously what you are trying to pursue long-term is a permanent position" (D), while others advised their wish was to be made permanent: "my hope would be that I would be offered or manage to get a full-time post" (A), and: "permanency would be the ultimate goal" (G).

A comment that brings in some points made in earlier sections relating to commitment and security, in addition to the wish for permanency, was: "You would like to be offered at least a permanent contract. [It] gives you more security and sense of belonging. Also I think to a certain degree it impacts on
your commitment. You are committing to something and putting so much work into something that you do not know if there is anything for you next year" (H).

In regard to this aspect there are interesting distinctions between those who were still on temporary employment contracts and those who had been but had since become permanent. The attainment of permanency was something that sat very comfortably with these employees: "I got affirmation in the best way possible that I was making a contribution, that I was adding value and [I was] happy to continue doing that" (B). Another of these employees stated: "If I had not gotten the permanent role I would have been worried" (F). They did get the permanent position; however, the institution had not made the situation particularly easy for them as the role they were to be in temporarily for four years ended up being advertised on a permanent basis after the first year: "What they promised me was that I had four years then suddenly they [brought] the [permanent] position forward three years. So I would still have had my four years but I would be worried about the fact that there was a permanent position [and] they gave it away and I did not know if there is one coming up again" (F). They commented on the temporary employment contract as follows: "Essentially they had given me four years to show what I could contribute" (F). Such a policy should offset Bonnal and Giret's (2010: 438) concerns regarding: 'uncertainty about the productivity of applicants'.

Further comfort with the attainment of permanency was spoken of as: "There is a huge difference. Being permanent you become more committed, more secure so I could fully concentrate on my job without thinking of what I am going to do for the next year so I can be fully committed" (I). This can only be a good thing for the institution itself as the peace of mind associated with permanency equates to increased commitment and concentration: "When I got the permanent role I could allocate my time more effectively. I can make my research more productive. I can manage my time, teaching and research better" (I).
A further distinction made was: "with temporary, you really have to gear everything just for the three years; anything that will help your case at the end is worth doing. Whereas now I do not have that scenario" (E). Being temporary: "you want to have things to fill the boxes whereas now I do not have to. I would take on different sorts of things - more strategic and long term" (E).

To bring this aspect and this findings section to a close, the last word is left with one interviewee who outlined in fairly stark terms what they would do upon expiry of their temporary contract: "At the end of this year if I was not made permanent I would just leave because I think it would not be right for me and then the risk would be totally on my side" (A).

7.7 Concluding Remarks
The author was satisfied the findings were in the form of: 'rich data from...[a] real world setting' (Barratt et al., 2011: 329), and a study of: 'key players, key situations [and] critical incidents' (Hitchcock and Hughes, 1995: 319). In addition, the author was satisfied the findings demonstrate a good spread of responses and a point of saturation with respect to the research.

Concluding remarks based on the full phase one study (findings, analysis and discussion) are presented at the end of the next chapter which is an analysis and discussion of the foregoing findings.
### Table 7.1 Summary of Phase One Research Findings

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Employee</th>
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<tbody>
<tr>
<td>Temporary Employment in the Third Level Academic Sector</td>
<td>The third level academic sector is a somewhat unusual sector in which to work. The utilisation of temporary employment contracts raises questions of commitment and a delay in contribution. Temporary lecturers cannot realistically take on PhD students, and feel uncomfortable in seeking funding due to uncertainty of the future. A permanent contract is the ultimate goal.</td>
</tr>
<tr>
<td>Flexibility, Irreversibility and Uncertainty</td>
<td>The institution is maintaining flexibility and the risk is transferred to the individual temporary employee although it can be a risky strategy as the employee can leave. The uncertainty factor is a major concern for the employee.</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>Most employees felt the utilisation of temporary employment contracts was a form of outsourcing, or could be referred to as such.</td>
</tr>
<tr>
<td>Real Options Theory</td>
<td>Interviewees recognised that the utilisation of temporary employment contracts was a real option being exercised by the institution, particularly in terms of their flexibility and transferring of risk to the employee. They viewed them as pseudo-probationary periods which means the institution can re-evaluate matters after a period of time has passed.</td>
</tr>
<tr>
<td>The 'Immediate Exit' Option</td>
<td>Interviewees recognised that the institution was in effect hedging-its-bets in terms of retaining the 'option' to reconfigure the employment contract or exit from it altogether.</td>
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</tbody>
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CHAPTER 8 - PHASE ONE RESEARCH ANALYSIS and DISCUSSION

8.1 Introduction
This chapter is an analysis and discussion of the findings presented in the previous chapter with the same sequence preserved in order to retain the research category sequence. Naturally, there is crossover among the different research categories and there will be parts of some references, quotes and discussions in some categories that would be equally appropriate in others.

8.2 Temporary Employment in the Third Level Academic Sector
In the first chapter, Mangematin et al. (2000), Musselin (2005), Carmichael (1998), Recotillet (2007), and Van Emmerik and Sanders (2004) were referenced as advising academic institutions increasingly rely on temporary employment contracts as a way to achieve staffing levels without having to make long term commitments. This is a point very much verified in the interviews whereby it was commented that academic institutions should examine their areas and competencies in the context of which will be sustainable and long term and which will be less so.

Perhaps the key reason for academic institutions utilising temporary employment contracts is, as Folta (1998) suggests, to avoid internalisation (for example, permanent employment contracts) at an early stage due to uncertainty (Bonnal and Giret, 2010). While this may be the case, it would be remiss not to highlight the concerns of the majority of interviewees as a result of being offered a temporary employment contract, generally for one or three years. Such contracts are viewed as a questionable commitment by the institution and some interviewees felt they could not contribute fully in their role. Interviewees questioned whether they should put time and effort into delivering a class, module or programme when they might not be there, through no fault of their own, the next semester or the next year. They felt restricted in delivering as much as they would like to due to the time limit on their contract, which again echoes Feldman and Turnley (1995). Further restrictions were in the form of not being able to take on a PhD candidate or seek research funding
simply because they were unsure if they would still be employed by the institution into the future. Like the previous comment on not being able to fully contribute, interviewees felt temporary employment contracts were: "de-motivating".

As mentioned in the findings, those employed on temporary employment contracts are not all newly qualified employees. Many are already well established within academia while others came from permanent industry positions. They felt they could be adding a lot more but were restricted by virtue of the temporary nature of their contract.

Reverting to the literature, Robin and Cahuzac (2003) and others (for example, Finn et al., 2007; Bonnal and Giret, 2010; Mangematin et al., 2000; Musselin, 2005) advised the careers of academics are characterised by temporary employment contracts because they have to wait for a period of time before permanent employment in the academic sector becomes available. A very definitive comment from the interviews along the same lines as Robin and Cahuzac's (2003) suggestion was, academia is: "definitely a seller's market". One interviewee evidenced this remark by putting forward the fact that in one year there were 920 PhD graduates in Ireland and less than fifty available lecturing posts.

Most interviewees were anxious their next contract be a permanent one as it would be an opportunity for them to develop and build their position within the institution. The importance of permanency was further illustrated by way of reference to seeking research funding and the precarious position a temporary academic is placed in with respect to this on the basis they may not have a future with the institution.

Another point is the emotional tie felt by some interviewees. Many felt tied in because they could not simply leave in mid-semester. Others acknowledged they were very much enjoying working in academia and wanted to remain in it.
Because of these emotional ties, there was a strong perception of exploitation by the institution.

Van de Vrande et al. (2006) advise, when uncertainty is high, flexibility and reversibility are more important, which are important facets of temporary employment contracts, which leads appropriately to the next section on flexibility, irreversibility and uncertainty.

8.3 Flexibility, Irreversibility and Uncertainty
A couple of different writers referred to the importance of flexibility, irreversibility and uncertainty in the context of organisations and the decision making process. Musshoff and Hirschauer (2008) outlined organisations decisions are characterised by the three factors, while Lukas (2007) pointed out the incorporation of flexibility, irreversibility and uncertainty gives insight into achieving optimum results for the organisation.

As highlighted in the findings there was little discussion on irreversibility which is as expected as it is highly unlikely the employee perspective would be overly concerned with the reversibility associated with temporary employment contracts.

The utilisation of temporary employment contracts is reflected as a strategy to increase flexibility (McKay, 1988; Way, 1988) so as organisations can adjust their workforces to changes in demand (Berk and Kaše, 2005). Interviewees acknowledged this was the case suggesting the institution was maintaining its flexibility by transferring the risk to the temporary employee who they felt: "incurs the risk". The institution is effectively enabling reversibility with its recruitment and selection strategy in using temporary employment contracts (Wenger and Kalleberg, 2006) or as O'Sullivan (2002) suggests, it is retaining the ability to reverse or exit from decisions which could prove costly due to uncertainty or a lack of flexibility.
In terms of uncertainty, Kulkarni and Ramamoorthy (2005) advise uncertainty can influence an organisation's choice of employment contract mode substantially and with the use of temporary employment contracts, uncertainty can be shifted from the organisation to the employee(s) (Kennelly-McGinnis, 1991). This has been verified by the interviewees. It is interesting, however, as clearly third level academic institutions have very little uncertainty, a point made clearly in the interviews. Naturally, from the interviewees’ perspective, their own uncertainty was of major concern and the hope for something more permanent was unanimously expressed.

### 8.4 Outsourcing

There are strong links in the literature between outsourcing and employment modes, for instance Matusik and Hill (1998) mention outsourcing can establish a greater potential for accessing external knowledge which can be achieved by outsourcing employment or utilising temporary employment contracts. Many interviewees on temporary employment contracts felt they were an outsourced commodity. One interviewee felt by outsourcing in the form of temporary employment contracts, the institution is hoping to get more quality from the temporary or outsourced employee than the permanent or internalised cohort of employees may be able to provide, because of the temporary or outsourced employee's: "knowledge [and] industry experience". Another interviewee acknowledged such an arrangement was actually a good strategy because, like the previous comment, these temporary employees would bring new and interesting research topics. A further benefit of outsourcing employment in the form of temporary employment contracts was proposed by Williamson (1991a) and Jacoby (1999) who suggested outsourcing employment can also be used as a screening method in employee selection which provides further links and commonalities between outsourcing and the use of temporary employment contracts.

There were interviewees who were not entirely convinced they were an outsource. They felt what they represented was the institution: "buying a
service", on a temporary basis, which in the author's view could very well be described as outsourcing.

8.5 Real Options Theory
This category relates to real options theory which is the central framework of this thesis. Real options are typified in temporary employment and outsourcing arrangements and its consideration of flexibility, irreversibility and uncertainty should be obvious by now. As one interviewee stated in the context of uncertainty from an organisational perspective: "[the] option of contract in labour", is a sensible one.

Particularly strong arguments were put forward by Foote and Folta (2002) in claiming the use of real options theory with respect to irreversibility and uncertainty should lead organisations to hire temporary employees or outsource employment. Dixit and Pindyck (1994) also encouraged the use of real options in recruitment decisions, while Foote and Folta (2002) advised the applicability of real options theory to organisations choice of employment mode has largely been ignored. The interviewees responses in respect of real options and its links with the temporary employment contracts they were on was very encouraging for the author as there were some very constructive comments on this point. Interviewees acknowledged the option of temporary employment contracts allowed for: "greater flexibility", and for the institution to effectively dispose of such resources (temporary employees): "in the way you would with other resources". The institution was: "eliminating the risk", and exerting as much control as possible with respect to the employment arrangement. The institution has: "control of the option".

8.6 The 'Immediate Exit' Option
This category is the 'immediate exit' option which is defined as the benefit of making commitments reversible i.e. the organisation can terminate the option quickly (Janney and Dess, 2004) after having committed funds up front, which follows on neatly from the closing points of the preceding section.
Interviewees acknowledged the institution was giving the temporary employee a period of time to: "show what [they] could contribute". The interviewees acknowledged the institution was: "eliminating the risk", the employee might not either work out or may not be required in the future and therefore the institution was not committed to them long term. This is exactly what the 'immediate exit' option is. It is the potential for hiring an employee on a temporary employment contract so as the organisation can decide, when new information becomes available over time, to terminate it if the information dictates as such. As Grinyer and Daing (1993) outlined, having the option to exit can be an important influence on a decision in the first place.

8.7 Concluding Remarks
It is clear the third level academic sector is a somewhat unusual sector in which to work. It is a sector in which the utilisation of temporary employment contracts is widely undertaken. There are two ways to look at this: from the institutional perspective and from the employee perspective. As the interviewees were all employees, it is their perspective which is presented here, although they make reference to the institutional perspective also. The employees have many concerns with their being given a temporary employment contract, chief among them being the fact they may be held back from making a full contribution due, in particular to, they not realistically being able to take on PhD students or seek research funding as they may not be with the institution in the not too distant future if their contract is not renewed. For these temporary employees, a permanent contract is the ultimate goal or objective.

From an institutional perspective, the utilisation of temporary employment contracts allows the institution to maintain flexibility with any risk being transferred to the temporary employee. This can be a risky strategy as the employee can leave; however, when the number of PhD graduates in a given year (which is increasing) is measured against the number of available positions, the reality of the employee leaving of their own accord should be unlikely. The utilisation of temporary employment contracts means the institution is protecting itself from making an irreversible decision in the form
of appointing an employee on a permanent employment contract which is generally very difficult to reverse out of in a sector like the third level academic sector, a point made by Musselin (2005). By maintaining flexibility and avoiding an irreversible decision with the utilisation of temporary employment contracts, the institution is doing exactly what Van Emmerik and Sanders (2004) and Musselin (2005) outlined when they suggested temporary employees offer the institution a source of flexibility, providing the opportunity to delay the largely irreversible decision. Van Emmerik and Sanders (2004) also mentioned temporary employment contracts can be useful as a highly valid employee selection device when considering candidates for permanent positions. Interviewees felt this was indeed the case - temporary employment contracts are effectively pseudo-probationary periods as referred to by Foote (2004). All of this means the institution is offsetting any potential uncertainty which, it has been advised, should be very little.

The interviewees acknowledged with the utilisation of temporary employment contracts, the institution is doing two other key things. The institution is effectively outsourcing employment as referred to by Foote and Folta (2002), and exercising a real option, as also referred to by Foote and Folta (2002), particularly in terms of maintaining flexibility and transferring risk to the employee. Finally, it was recognised within the interviews, the institution was in effect hedging-its-bets in terms of retaining the 'option' to reconfigure the employment contract or exit from it altogether. It is, in effect, exercising the type of real option described by Janney and Dess (2004) as an 'immediate exit' option.

From the author's perspective, the conclusions outlined above indicated the area(s) explored in the phase one research, and prior to that within the literature reviews, were ripe for further research. The next two chapters present the phase two research which comprised two perspectives: the employer perspective of the phase one institution and the human resource management perspective across other third level academic institutions.
CHAPTER 9 - PHASE TWO RESEARCH FINDINGS

9.1 Introduction
With the phase one research having provided confidence for further research, this chapter presents the findings of the phase two research undertaken. These findings are also presented under the categories that formed the basis for the research questions identified in Chapter 5 (and the findings, analysis and discussion of phase one) which are: temporary employment in the third level academic sector, flexibility, irreversibility, uncertainty, outsourcing, real options theory and the 'immediate exit' option.

As outlined in Chapter 6, two different categories of interviewee within the Irish third level academic sector were interviewed for this phase: the employer (those who make the decision to issue temporary employment contracts) and the human resource management perspective. Therefore, a first set of interviews was undertaken with the Deans of the faculties within the same institution as those interviewed for phase one. A second set of interviews was then undertaken with senior human resource management personnel in a number of other Irish third level academic institutions. Both perspectives are presented under each category (listed above).

The findings are presented in the following sections with a summary presented in Table 9.1 at the end of the chapter. As with Chapter 7, interviewee quotes are denoted by different letters.

9.2 Temporary Employment in the Third Level Academic Sector
This section presents the outcome of the discussions with respect to temporary employment in the Irish third level academic sector.

9.2.1 Employer Perspective
The best place to begin with the employer perspective for this category is to pick up on a point in the phase one research findings - the reference to the institution's rationale for utilising temporary employment contracts as being
simply exploitation. The interviewees were extremely clear on this point: "The exploitation argument is always one we are very worried about" (J), and: "the [temporary employees] are always the manipulated element of the resource" (J). It was interesting to hear such a forthright assessment. Comments in the next sections also address this point.

The interviewees expressed a number of views with respect to the concept of third level academic institutions as employers, suggesting this is not the most comfortable topic for such institutions. One interviewee reflected: "The notion of the [institution] as an employer is interesting as there is a tension between the objectives of the [institution] as the [overall] employer and the faculty level manager as representative of an employer. There is a tension there which is interesting" (L). Perhaps the following comment sums up this tension: "We are always trying to protect our resource base; it is a struggle thing" (L).

From a recruitment perspective, one interviewee highlighted, along similar lines to Musselin (2005), the nature of hiring had changed in the institution due to its being: "vocationally driven" (J), and requiring: "staff who are industry experts" (J). It is about: "enriching, bringing in experience you do not have on your staff" (M). This is added to in terms of a comment relating to Ireland's economy: "Ireland is small so the smart economy argument, the real smart economy is thinking through paradigms in different areas" (J). Newly recruited lecturers: "are coming in because they are bringing in specialist knowledge. Some of them want to do it because it gives them kudos in the sense that they are getting real life experience through teaching" (J). While the reference to newly recruited lecturers: "getting real life experience", is understandable (particularly from the employee perspective), it is very difficult to reconcile lecturers: "bringing in specialist knowledge", while being able to: "think through paradigms in different areas", only being awarded, in many cases, a one-year contract. The employer perspective addressed this somewhat by suggesting such employees: "need to know the game of what education is all about" (J). The same interviewee felt such employees: "may find that they are
actually lured to the game and may want to move from industry into the 'game' of education" (J).

Is the 'game' really that enticing? The responses suggest it is whereby it was suggested employees (lecturers): "found the excitement of education being more reactive… you are renewed easier each year with new students coming in; you do not have the monotony of doing the same sort of things" (J). They: "are adding to [their] own professional area and obviously people are enticed by that, that they can actually do stuff that interests them and that is the whole idea" (J).

In contrast one interviewee outlined they are: "cautious about going for significant numbers of [temporary employees]" (L). Their reasoning was: "There were not that many really capable good people either willing or prepared to give the time with the qualifications in industry that would have the flexibility to come and do what we want them to do" (L). So, flexibility is important.

Going back to one of the previous points questioning the justification for utilising temporary employment contracts, one interviewee advised: "In recent years we have had strong revenue streams in some areas but in those very areas it is very hard to get suitably qualified people to take on permanent posts... we got candidates with core competence but not the full set, those people would have been offered temporary posts" (K). They also said: "they do not have the full set of core competence" (K). Again, there are contradictions with previous paragraphs here. Some weak validation is these temporary employees: "would then apply for the permanent post when it becomes publicly advertised" (K). The pseudo-probationary period comes back into the equation. The answer is given as there: "would be justification for us [because] the person does not yet have the full set of competencies" (K).

The point employer interviewees expressed amazement on is the move into temporary academic employment from a permanent industry position: "I have
been amazed in recent years; we have had somebody give up a permanent post elsewhere in business to come here for a fixed-term contract" (K).

Within the phase one research interviews, one of the concerns expressed by the temporarily employed was the restriction on being able to sit confidently in front of a research funding supplier, seeking funding, knowing in the back of their minds they may not be still in the institution at a point in time in the future. The employer side addressed this scenario as: "There is a practice here where once people get three years behind them, the school has to come up with a guarantee to say that they will be around" (L). This is, again, a somewhat contradictory statement as the only entity that can guarantee: "they will be around", is the institution and the best way for the institution to do this would be with permanent employment contracts rather than temporary contracts. A further contradiction is made by another interviewee who advises the institution: "does not allow a [temporary] member of staff to be the module coordinator even if they are teaching it for a couple of years; it has to be a full-time member of staff" (J). The interviewee suggests this: "causes a bit of schizophrenia with regard to the [temporary] staff who feel it is their module but yet they are not in control" (J).

9.2.2 Human Resource Management Perspective

Very much in common with both the phase one research findings and the employer perspective above, the human resource management perspective highlighted: "Educational institutions are kind of unique operations" (O). This thinking was very much on the basis such institutions generally operate on a cyclical basis in that they have a throughput of end users (i.e. students) every year who on average would be with the institution for four to five years. In some instances this is correlated with the contracts of lecturers: "You bring somebody in, you have made a commitment to them" (O). This is supported by the: "critical nature of the relationship between students and teaching staff" (O). The institution needs: "to ensure that contractual supports are such that are going to foster and nurture those relationships" (O). This point is emphasised with the assertion lecturers: "provide a core competence in terms of the core
objective of any educational institution [being] the transfer of knowledge" (N). This is interesting, however, due to the admission: "some of them are on temporary contracts; they are actually performing a core competence" (N), a point shared in the employee responses but both shared and contradicted within the employer responses above.

The use of temporary employment contracts in academic institutions seems to be something that has grown in recent times (for example, Finn et al., 2007; Bonnal and Giret, 2010; Mangematin et al., 2000; Musselin, 2005; Robin and Cahuzac, 2003; Van Emmerik and Sanders, 2004) due to a need for flexibility, evidenced by the comment, third level academic institutions: "probably have never had a need to have a flexible model before" (Q). Further support of this change is: "the dynamic is we have taken on a huge number of temporary staff" (Q). Another interviewee outlined: "We appointed people on fixed-term contracts and our rule of thumb was roughly this, if hitherto the position would have been appointed on a permanent basis, then we will appoint on a fixed-term basis" (O). A further comment made was: "we just issue them with a contract that covers a defined period of time" (N). The notion of flexibility (and indeed irreversibility) comes back into play as one of the interviewees advised of the need to: "be able to respond to peaks and valleys" (O), i.e. if the institution needs the individual they will retain them; if they are not required the contract will not be renewed. This is summarised very well by the following comment: "We want somebody to give us something new that we do not have. We want someone to add to maybe an area [where] we are trying to build some critical mass. These are all the reasons why we might have a post filled temporarily" (O), points that reflect what Matusik and Hill (1998) advised. As another interviewee commented: "we are building up fixed-term [contracts]" (Q).

Perhaps a reason for the need to: "have a flexible model", is due to the poor levels of 'churn' or turnover within the permanent cohort of employees: "the retention levels are so good that it actually becomes a problem" (Q). The interviewees develop this somewhat in stating: "what you are looking for is a balance… you are looking for reasonable churn" (O), and: "there are occasions
you would wish there was churn" (O). Further to this point, one interviewee commented, in using temporary employment contracts they: "are refreshing the expertise cadre in the [institution] on a reasonably regular basis" (O). Another interviewee outlined: "there may be a growing appreciation to have fifteen or twenty percent of your workforce on a flexible temporary model" (Q). This point corresponds with some of the models discussed in Chapter 4, for example Atkinson's Model of the Flexible Firm.

Interestingly, one of the institutions: "looked at a scheme funded from private income" (R). This scheme was for forty posts, and faculties within the institution had to compete for the posts which were then filled by way of temporary employment contracts. The interviewee commented: "we got some brilliant people" (R). This is interesting because it clearly demonstrates the institution very clearly and deliberately embarked on a policy of recruitment of employees for temporary employment contracts.

9.3 Flexibility
On the issue of flexibility, there was some interesting discussion from both interviewee categories with the central theme being: temporary employment contracts provide flexibility for the institution.

9.3.1 Employer Perspective
The importance of flexibility with respect to the recruitment process is made very clear by the employer interviewees who reference the flexibility afforded by temporary employment contracts as follows: "Our mantra is flexibility and adaptation" (J); temporary employment contracts: "certainly allow flexibility" (J). The contrast between the benefits of temporary employment contracts, with respect to flexibility, and permanent employment contracts was verified by one interviewee: "once you employ a permanent member of staff then you have the fixed-cost that has to be covered whereas the flexibility of [temporary employees] allows that" (J). This comment reflects the dilemma presented earlier with respect to whether a permanent employment contract is fundamentally a fixed asset. A further comment regarding permanent
employees emphasised the inflexibility associated with them: "unless you get a retirement or you increase your complement you do not really have a lot of flexibility" (M). There are very distinct echoes here of Musselin's (2005) comments mentioned in Chapter 1 regarding early tenure and: 'no possibilities for reversibility' (2005: 239).

One interviewee displayed concern for the temporary employee and the flexibility they provide in saying: "I would worry that they are being just used as pawns to over extend the flexibility" (J).

9.3.2 Human Resource Management Perspective

In the context of the discussions on flexibility, the human resource management interviewees reflected: "strictly speaking, temporary employees do offer you more flexibility" (N). Further to this, the use of temporary employment contracts as a means of offsetting or transferring risk to the employee was acknowledged: "there would be a preference to transfer the risk to the hire, the person you are hiring" (Q). This point echoes what was said within the phase one research interviews, however, the interviewee contradicted this comment somewhat in adding: "there is no desire to transfer the risk to the person they are hiring" (Q). They clarify this by suggesting the recruitment process is not essentially about managing the risk but rather: "trying to manage a budget" (Q).

The possibility of losing a temporary employee was effectively dismissed by one interviewee who advised: "I do not think it is a particular risk at the moment" (Q). They do, however, mention: "if they are good, that is a real risk" (Q), while another interviewee felt: "there is always a risk" (R). These references are to the potential for someone being poached by a different institution with perhaps the offer of a permanent contract being the 'carrot'. This was developed a little by way of reference to the loyalty of some employees to their subject area rather than an institution, a point mentioned when Lepak and Snell's (1999) model was discussed in Chapter 4. Quadrant 2 was a category of employee who may be referred to as committed to their profession rather than to an organisation: "If somebody is good, their loyalty,
for a lot of academics, is to their subject area not to the institution. The recognition that they most crave is from their peers in the subject" (Q). Further to this, it was suggested: "if somebody's reputation is good, they meet each other at conferences and there is a risk that somebody is poached" (Q). A possible solution to this is given as institutions: "want the ability to hold onto people and permanency gives them that" (Q), which contradicts what is actually happening. The pragmatic statement was what one interviewee outlined: "Academics are mobile generally and because there are faculties internationally there is always the risk" (R).

9.4 Irreversibility
Like the phase one research, irreversibility is probably one of the lesser spoken of categories which is not unexpected. In the author's view this is due to the interviewees rarely, if ever, having considered the possibility of reversing out of a recruitment decision. It also reflects Shaanan's (2005) conclusions when looking at studies of irreversibility, mentioned in Chapter 4, where it was outlined studies focused mainly on the role of uncertainty rather than irreversibility. There was still some good commentary from both interviewee groups.

9.4.1 Employer Perspective
From the employer perspective, irreversibility was intertwined with flexibility. The benefit of being able to reverse a decision is very clearly demonstrated with the comparison made between temporary employment contracts and permanent employment contracts: "once you employ a permanent member of staff then you have the fixed-cost that has to be covered" (J). In other words, the fixed cost attached to a permanent appointment is virtually unrecoverable: "unless you get a retirement or you increase your complement" (M), which echoes Musselin's (2005) comments.

9.4.2 Human Resource Management Perspective
From the human resource management perspective, the use of temporary employment contracts appears to off-set irreversibility as testified by the
suggestion that with the utilisation of temporary employment contracts: "the thing about being locked into an employee - the irreversibility - does not really matter" (O). Another remarked: "If the [temporary employee] does not work out for whatever reason, their contract is simply not renewed. In terms of irreversibility, there is no commitment to the employee" (P). Two further comments demonstrating the advantage of reversibility were: "If you had some reversibility then in terms of our model that would be good" (R). And: "you are more likely to be more innovative, a bit more risk taking" (R). The potential reversibility associated with a temporary employment contract was highlighted as follows: "It is probably very applicable because generally there are not that many capital costs so the human cost is pretty easy to reverse out of" (Q).

9.5 Uncertainty
As would be expected, there was plenty of discussion from both sets of interviewees with respect to uncertainty.

9.5.1 Employer Perspective
The context provided from the employer perspective was to consider the institution having to manage different types of uncertainty: "For example, the business unit could discontinue and the revenue stream dries up so we have to cover the costs" (K). In common with points earlier that mentioned risk, employer interviewees referred to the use of temporary employment contracts as not so much transferring uncertainty to the temporary employee, but rather by issuing temporary employment contracts they were effectively managing uncertainty. The potential uncertainty linked with temporary employment contracts was referred to in the context of whether the employee will commit for the full tenure of the temporary contract if a different proposition (for example, a permanent contract) was put before them: "We would run the risk that our competitor institutions would poach because they would see that person who is a competent lecturer getting into a position where they would then be able to put up a good case for a permanent post" (K). "I think that the employee is much less secure in their continuation of their services if they are on a temporary contract because they will be looking around and be thinking of
that particular horizon" (K). One somewhat conciliatory remark was: "Your commitment to them is not what it needs to be" (L).

A point mentioned earlier was the employee, permanent or temporary, can walk away which can generate its own uncertainties. An interesting scenario was put forward by one interviewee in this regard: "we have had some cases of outstanding individuals who came here, completed a three year contract, had the permanent post for the taking and walked away - they had opportunities or options back in business, did not want to stay in academia too long, cut at the best possible time when they said - look I have got three years of different experience on [my] CV" (K).

A further fairly stark example of uncertainty with employees was detailed by another interviewee who recalled losing an employee: "I remember losing someone and not only did we lose him, we lost a group; a research group and it dropped activity levels by maybe 10-15%. I remember trying to talk to someone in the [institution] saying shouldn't we be intervening here? Isn't there something that should be done? And of course the answer is, what can you do? What can you do in terms of people walking away? They take their research students with them, you have to take the hit" (L).

Another type of uncertainty referred to was: "you employ the person who is not able to deliver" (M). The benefits of the utilisation of temporary employment contracts are clear in this regard in that the employee's contract should not be renewed.

9.5.2 Human Resource Management Perspective

In terms of uncertainty for the institution, when asked to define what this may be, one interviewee responded: "I suppose the uncertainty is around the future funding model, the core fund that comes from the government and the funding that comes externally from [industry]" (Q). Another interviewee advised: "The external environment is the uncertainty. I have no idea, in terms of trying to be strategic in HR" (R). This is a very interesting point from a human resource
management perspective and the author refers the reader back to the opening paragraphs of this thesis wherein the author suggested strategic human resource management does not get the strategic weighting it deserves.

A further suggestion as to what the uncertainty might be was: "where uncertainty comes in is, each year we do not know what the level of student applications is going to be like, whether they are going to be up or down or even will certain programmes become unpopular all of a sudden, and what was once a 'cash-cow' is now no longer attracting people so that is where uncertainty comes in from year to year" (N). One of the other interviewees posited: "If production drops then the number of people that you need should drop too" (Q), which is a scenario where the benefits of temporary employment contracts are obvious. On the same matter, the economic climate was also mentioned and its impact on the sector: "I think it would be probably fair to say that this economic situation that has arisen in Ireland in the last few years is the first time that the [institution] has ever had to respond significantly to a massive reduction in money and funding" (Q).

Probably the most cogent statement in regard to uncertainty in either the institution or the sector was the following: "It is only uncertainty of how much and when, not is the [institution] going to close? Are we going to be sold? Are we going to be merged? So is there uncertainty? My view is there is no real uncertainty" (Q).

9.6 Outsourcing
Moving onto outsourcing. There was a divergence of opinion between the interviewee categories. The employer interviewees were more accepting of the positioning of temporary employment contracts as a form of outsourcing while the human resource management interviewees were somewhat in denial. The author speculates this may have more to do with human resource management professionals not really seeing outsourcing as something that comes within their sphere. They would probably see outsourcing as relating to services rather than to personnel.
9.6.1 Employer Perspective

The question of whether temporary employment contracts are in essence a form of outsourcing (as defined in by Foote and Folta, 2002) was put to the interviewees. Not surprisingly, responses were mixed with some agreeing temporary employment contracts are a form of outsourcing while others question this application. In terms of those who felt such contracts are, the following statements were made: "I think outsourcing is a good way of describing it" (J), and: "a way of looking at it" (J), and: "It is a version of outsourcing if you want to put it that way. You could actually model it that way" (L).

Probably the most comprehensive comment was: "You will find a little bit of outsourcing in that classical sense. It is outsourcing in the sense that the competency and the time available etc would not be available within the permanent core of staff so you go looking for a flexible resource and you have discretion over what that is in terms of qualification and expertise. So you are outsourcing in that sense" (L). Again, Matusik and Hill's (1998) reference to accessing external knowledge by outsourcing employment or utilising temporary employment contracts is recalled.

The same interviewee, however, was not fully convinced temporary employment contracts are a form of outsourcing: "it is not the classic term or definition of outsourcing but I think the model, looking at it from the perspective of identifying a structural model for it, is no harm, whether or not you can cover it with a version of outsourcing" (L). "The outsourcing model is an interesting one whether or not you can cover this sort of thing with it or not. I do not think the classic definition would cover it" (L).

Another interviewee felt the utilisation of temporary employment contracts may not carry the same risks as outsourcing: "I do not see that it carries the risk of outsourcing" (K). Their reasoning for this was if the temporary employee left, the institution: "can attract equally qualified people" (K).
9.6.2 Human Resource Management Perspective

On outsourcing, one interviewee in an institution that conducts courses on-line advised the academic staffing policy: "is an outsourcing situation" (P). Each year they contract employees who are seen as independent contractors or service providers, who pay their own taxes etc and may indeed work with other institutions also. It will be interesting to see if this facet develops as more institutions may turn more to online courses.

Other human resource management interviewees were not as convinced as the employer perspective in the previous paragraphs. One interviewee felt outsourcing: "could be conceivable" (R), while at the same time acknowledging: "in the context of consolidation you actually would outsource something to another [institution]" (R). Other interviewees: "never really thought about outsourcing and the academic side of the employment" (Q), or felt: "there is a lot of scope for outsourcing in the non-academic areas" (Q), as in the areas traditionally outsourced, for example, IT or Payroll.

Another interviewee outlined very definitively: "there is no sense whatsoever we are outsourcing core competence or where we want to outsource core competence" (O). A somewhat similar comment came from another interviewee who said: "As a [third level academic institution] essentially what is going to make us stand out and why we continue to have a reputation is the quality of the faculty, and I do not think you outsource [what] is your key selling point or your key strength, the quality of your faculty" (R). This is interesting as there has already been an acknowledgement temporary employees are providing much of what could be described as an institution's: "key selling point", or: "key strength, the quality of [the] faculty".

9.7 Real Options Theory

The penultimate aspect is real options theory, one of the cornerstones of this thesis. In common with the phase one research, it is probably fair to say the interviewees were not entirely familiar with the concept of real options theory.
9.7.1 Employer Perspective

During the employer interviews, interviewees were asked for their opinions regarding the use of temporary employment contracts as a real option being exercised by the institution. They put the following thoughts forward: "You have to think of what the real option is or what the real options are; the options are there" (L). And: "the options here are constrained so if the decision you are making is a business driver, your options are business drivers" (L).

With respect to the recruitment conundrum one interviewee suggested: "There is probably very strong interaction between resourcing and your resource capabilities and the option that you actually choose" (L).

9.7.2 Human Resource Management Perspective

One interviewee made it very clear: "[in] situations where a school thinks a programme will generate income but they are not sure, they would take people in. It may be headed up by a current member of staff but they will take in people on a temporary basis and not have a financial commitment beyond three years to see what the revenue flows are and so, they would typically hire them in on temporary contracts" (Q). This is very much the language and ethos of real options theory. The temporary employment contract allows for flexibility and reversibility until such time as the uncertainty about the future of the programme has been clarified. Institutions: "would hire people on temporary contracts to see how a programme flies" (Q).

Further confirmation of the same thinking was one of the interviewees declaring they: "are likely to stress a number of factors for continuing with the policy of fixed-term as opposed to permanent recruitment and one is obviously that it does allow flexibility to react to events we cannot foresee at this particular point in time which may require the organisation to take pretty quick steps" (O).

Of interest was the fact one institution is looking at increasing presence outside the country. They reflected the benefit of temporary employment contracts in
any initial phase as follows: "initially we will offer temporary employment contracts but our aim would be to move to permanent contracts if things work out" (P). Again, the link to new information becoming available over time so as the 'option' can be adjusted or reconfigured is noted and Finn's et al. (2007) reference in Chapter 1 to the same is obvious.

9.8 The 'Immediate Exit' Option
This last category is based upon one of the types of options set out by Janney and Dess (2004) and is defined as the benefit of making full commitments reversible. It is this option this thesis is very much centred upon as the expiry of a temporary employment contract would be termed as an immediate exit for an organisation.

9.8.1 Employer Perspective
Some of the employer interviewees were surprisingly direct when discussing this aspect. One interviewee outlined the lack of commitment to those on temporary employment contracts: "No question and unambiguously - there is no commitment to [them] here, we will not commit anything to [them] in the long run" (L). This was confirmed by another interviewee: "I think you will find a lot of frustration" (M), which would be borne out in the phase one research findings. The lack of commitment is developed somewhat in the comment: "What you hope for is that they will be there for two years or three years" (L). There may be more than 'hope' here though as the same interviewee adds: "Ireland is a very small country so the full range of opportunities that might be in Germany or the US are just not available here" (L). A similar comment was: "I think that the employee is much less secure in their continuation of their services if they are on a temporary contract because they will be looking around and be thinking of that particular horizon" (K).

Another interviewee also referenced Ireland and the small pool of opportunities: "there are not a lot of people moving on, then you have basically got blockage" (M). This is further developed on the basis those on temporary employment contracts could be hampered within competitions for permanent
posts: "you have to have an open competition. If somebody comes in from outside in those circumstances then the internal candidates are not going to get the job. We have had those situations" (L).

9.8.2 Human Resource Management Perspective

The human resource management interviewees made some interesting points in respect of this category, some of which demonstrated significant differences between them, as human resource management professionals, and academic managers. The link with pseudo-probation was clear, as was the case within the phase one research: "If they are not cutting it they are gone and [the institution] could take somebody else in on the same" (Q). Another interviewee, however, advises: "we would not have a philosophy of using fixed-term contracts to actually assess people" (N).

On the differences between human resource management and academic managers, the following statements were made: "The way the academic may think about it and the way HR may think about it would be different" (Q). "It is a regular discussion that goes on between myself and the Deans because in some respects they probably favour taking in somebody for three years and see how they work out but they also will acknowledge that while somebody is in that arrangement they can perform out of their skin and once you give them [permanency], the performance drops off" (N).

A different interviewee outlined a comprehensive point on this: "I tend to find with the academics, if they find someone that they think is great at an interview, they will go through walls to get them and they want them and they want them now and they want to pay them twice as much as they are paying themselves and they want to hire them forever. They think that everything is going to work out. I would not say that is the case with every one of them. I have seen lots of examples where these 'stars' did not turn out to be stars" (Q). A slightly different angle was taken by another human resource management interviewee who felt there were instances whereby academic line managers who advocated temporary employment contracts were in actual fact seeking to: "avoid taking
responsibility for managing the individual in the first instance" (O), in that the actual manager is not left with a permanent fixture in the event the individual does not work out or circumstances change over time. The interviewee felt it was: "making line managers, particularly academic line managers, lazy in terms of their responsibilities" (O). This is a very different angle on the matter but nonetheless highly interesting from the author's perspective and experience, who would agree in principle, line managers will generally divest responsibility for employees if at all possible. One is reminded of the references in the literature whereby temporary employment contracts can mean less responsibility for direct management of employees (Nollen and Axel, 1996; Pfeffer and Baron, 1988). It is a bit like Schultz's suggestions regarding economists and human assets: '[they] proceed gingerly as if they were stepping into deep water' (Schultz, 1961: 2). The author reiterates a point made in the introductory chapter: most line managers shudder at the thought of having to engage in performance management with their employees.

9.9 Concluding Remarks

This chapter was a presentation of the findings determined by interviews with the Deans of Faculty in an Irish third level academic institution and senior human resource management personnel in a number of different Irish third level academic institutions, with the findings segregated under a number of different research categories. Like the phase one research findings, the author was satisfied the phase two research findings also demonstrated a good spread of responses and research saturation.

These findings are analysed and discussed in the next chapter.
<table>
<thead>
<tr>
<th>Aspect</th>
<th>Employer</th>
<th>Human Resource Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Employment in the Third Level Academic Sector</td>
<td>The utilisation of temporary employment contracts was thought of as exploitation. The institution as an employer was described as interesting. The nature of recruitment had changed.</td>
<td>Third level institutions are seen as unique employers. Temporary employments contracts have increased in use in recent years due to a need for flexibility.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>&quot;The institution's &quot;mantra is flexibility and adaptation&quot; and temporary employment contracts &quot;certainly allow flexibility&quot;. Permanent contracts are &quot;fixed costs&quot;.</td>
<td>&quot;Temporary employees do offer you more flexibility&quot; and transfers risk to the employee. There is the risk of a temporary employee walking away, however</td>
</tr>
<tr>
<td>Irreversibility</td>
<td>Irreversibility is tied up in the fixed costs associated with permanent employment contracts.</td>
<td>Temporary employment contracts appear to off-set irreversibility.</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Temporary employment contracts effectively manage uncertainty and commitment is questionable.</td>
<td>Uncertainty is related to future funding, government and the external environment.</td>
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<td>Outsourcing</td>
<td>Temporary employment contracts could be described as outsourcing or as a version of outsourcing.</td>
<td>Temporary employment contracts could be conceived of as outsourcing but it is questionable.</td>
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<td>Real Options Theory</td>
<td>There is a strong interaction between recruiting and real options theory.</td>
<td>The institution will take in people on a temporary basis and not have a financial commitment long term.</td>
</tr>
<tr>
<td>The 'Immediate Exit' Option</td>
<td>&quot;No question and unambiguously – there is no commitment to [them] here, we will not commit anything to [them] in the long run&quot;.</td>
<td>&quot;If they are not cutting it they are gone and [the institution] could take somebody else in on the same&quot;.</td>
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CHAPTER 10 - PHASE TWO RESEARCH ANALYSIS and DISCUSSION

10.1 Introduction
This chapter is an analysis and discussion of the phase two research findings which were outlined in the preceding chapter. It does so in conjunction with the literature reviews. The order in which the findings were presented is preserved also in this chapter: temporary employment in the third level academic sector, flexibility, irreversibility, uncertainty, outsourcing, real options theory and the 'immediate exit' option. Naturally, and as with the phase one research, there is crossover among the different research categories and there will be parts of references, quotes and discussions in some categories that would be equally appropriate in others.

10.2 Temporary Employment in the Third Level Academic Sector
The best place to start is at the beginning and at the beginning of this thesis reference was made to a number of papers that discussed employment in academic institutions: Mangematin et al. (2000), Musselin (2005), Carmichael (1998), Recotillet (2007), Bonnal and Giret (2010), Enders (2002), Robin and Cahuzac (2003) and Van Emmerik and Sanders (2004). Some of these papers advised that academic careers are characterised by temporary employment contracts. Generally, there is a long period of time before permanent employment becomes available in the sector. This is termed as: 'queuing at the doors of the academic world' (Robin and Cahuzac, 2003: 1), and: 'a growing job queue in the PhD labour market' (Bonnal and Giret, 2010: 438). Academics must avail of temporary employment contracts as that is what is offered by third level academic institutions.

Robin and Cahuzac's points (and those of the other writers mentioned above) are verified by both the employer interviewees and the human resource management interviewees. The employer interviewees outlined that the nature of recruitment has changed and become more vocationally driven in order to bring in high levels of expertise and competence and specialist knowledge.
While this is said in one breath, with another, however, they essentially say the people they bring in are not competent or expert enough to be awarded a permanent employment contract. The institution appears to want the expertise and competence but have the 'option' to cut it loose, should the need arise. Their explanation is, it is good for the employee who is building a profile. However, it could be argued if the employee has been brought in because of their expertise, competence and knowledge then their 'profile' is already at an appropriate level. In fact, the employer points are contradicted by colleagues who point out there are not that many capable good people with the qualifications or full set of competence. In fact by virtue of their employment contract being temporary, the employee is essentially prohibited from undertaking the full set of duties associated with an academic post. They cannot realistically supervise PhD students or seek funding for long-term research projects.

Similar observations were forthcoming from the human resource management interviewees who declared many temporarily employed academics are providing core competence of the institution. It was also acknowledged temporary employment contracts were utilised due to the flexibility they brought to the institution i.e. the need to: "respond to peaks and valleys". They are generally utilised to bring in something new or add to a new or existing area, which is what Matusik and Hill (1998) referred to. The human resource management interviewees acknowledged there was a need for more 'churn' or turnover within the institution and with temporary employment contracts, there is less likelihood of a need for turnover as contracts could simply expire.

Revisiting Van Emmerik and Sanders (2004) paper and Musselin's (2005) paper, they advised academic institutions increasingly rely on temporary employment contracts as a way to achieve staffing levels without having to make long term commitments. They suggest such employees offer the institution a source of flexibility, providing the opportunity to delay the largely irreversible decision of hiring permanent employees while also assessing the competence of the temporary employee. This is seen as a highly valid
employee selection device when considering candidates for permanent positions.

It is obvious from the discussions temporary employees are 'a source of flexibility' providing the academic institution with an opportunity to delay an 'irreversible decision' of recruiting permanent employees and are also a very useful tool for assessing the employees' competence. One employer interviewee expressed concern regarding manipulation of temporary employees in respect of the foregoing points on flexibility and irreversibility, while another referred to the institution requiring 'flexible' employees to: "do what we want them to".

Van Emmerik and Sanders (2004) mentioned maintaining staffing levels without having to make long term commitments which was also verified in the discussions. It would appear employees on temporary employment contracts are taken in as such, from the institutional perspective, as they provide flexibility without the long term commitment associated with permanent employees. The institution can see, over the duration of the temporary employment contract, whether the employee is a good or competent fit. The temporary employment contract is in essence a pseudo-probationary period as referred to in the literature.

Before analysing flexibility, irreversibility and uncertainty it is worthwhile remembering two quotes from the literature that bring these three categories together from an organisational perspective. Lukas (2007) argued the incorporation of flexibility, irreversibility and uncertainty gives insight into achieving optimum results in organisational ventures, while Musshoff and Hirschauer (2008) stated organisational decisions are characterised by flexibility, irreversibility and uncertainty.

**10.3 Flexibility**

Van Emmerik and Sanders' (2004) and Musselin's (2005) references to temporary employment contracts being 'a source of flexibility' were mentioned
within the previous sections. Concurring with these, other writers say temporary employment contracts provide organisations with greater flexibility in distributing the workforce so as fluctuations in demand can be dealt with. When organisations utilise temporary employment contracts, it generally reflects an evolving strategy to increase flexibility (McKay, 1988; Way, 1988). These statements stand up in the context of the employer interviews. For instance employer interviewees were quick to extol their: "mantra", of: "flexibility and adaptation", and temporary employment contracts: "certainly allow flexibility", while others mentioned temporary employees were being used to extend flexibility.

The human resource management interviewees mirrored what the employer interviewees said with respect to flexibility, acknowledging temporary employees: "offer you more flexibility". They also advised of the advantages of this flexibility in enabling the transfer of risk from the institution to the employee. This flexibility is of major importance to organisations in uncertain times in order to cope with unforeseen contingencies. Such flexibility can be achieved by using strategies that involve low commitments with a high degree of reversibility. This is exactly what temporary employment contracts bring or as posited by Bryan and Farrell (2008) in terms of flexibility, organisations should develop as many options as possible so as they can be exercised either when new information becomes available or certain events occur or levels of uncertainty reduce.

Within the literature a number of flexible models were referenced (for example, Atkinson, 1984; Atkinson and Meager, 1986) and displayed. Each model basically supported the need for 'flexible' employees in addition to a permanent cohort. Those on temporary employment contracts represent this 'flexible' employee base or as Von Hippel et al. (1997) advised: this 'flexible' employee base provides specialised functions that are necessary but infrequent. This is an interesting point in the context of the human resource management interviews as it was suggested academics loyalty: "is to their subject area". There are strong links in this thinking with Lepak and Snell's (1999) human resource
architecture model whereby they relate temporary employees to being committed to their profession first and foremost. In this respect, the claim of Carnoy et al. (1997) that utilising temporary employment contracts can take skill formation out of the organisation stands up.

A number of writers (for example, Wenger and Kalleberg, 2006; Engellandt and Riphahn, 2005; Van Emmerik and Sanders, 2004) referred to the flexibility associated with temporary employment contracts as a useful employee screening mechanism. This was confirmed in the opening section. In addition, a human resource management interviewee advised if the temporary employee is not working out: "they are gone".

So, is the flexibility that comes with the utilisation of temporary employment contracts offset by the possibility the employee may walk away? While: "there is always a risk", the answer is generally, no. Interviewees did not think it: "a particular risk". A good safety net in this regard is the reference in the phase one research to the oversupply of PhDs and the figures in Table 1.1 in the introductory chapter.

By way of closing off on flexibility and introducing irreversibility, it is worth remembering Folta's (1998) suggestion that organisations should avoid appointing permanent employees at an early stage because of the importance of maintaining flexibility and reversibility (Van de Vrande et al., 2006). It is also useful to recall Musselin's (2005:139) premise that a consequence of permanent employment contracts can be: 'almost no possibilities for reversibility'.

10.4 Irreversibility

In the literature, Wenger and Kalleberg (2006) highlighted that temporary employment contracts can form an integral part of an organisation's recruitment and selection strategy that enables reversibility. This is due to the organisation being in a position to take on or let go temporary resources as appropriate. Within the employer interviews, the benefit of being able to reverse a decision was very clearly demonstrated with the comparison between temporary
employment contracts and permanent employment contracts. One interviewee mentioned the long term fixed-cost associated with employing a permanent member of staff which: "has to be covered". In other words, the fixed cost (Gilroy and Lukas, 2006) attached to a permanent appointment is virtually unrecoverable, which suggests permanent employees are fundamentally fixed assets.

The benefit of reversibility, as in organisations retaining the ability to reverse decisions as advised by O'Sullivan (2002), was mentioned by a number of writers (for example, Arrow and Fisher, 1974; Henry, 1974; Freixas and Laffont, 1984) and also touched upon by the human resource management interviewees. They viewed it on the basis of its antonym, irreversibility, whereby they felt irreversibility: "does not really matter", because: "being locked into an employee", does not really occur with the use of temporary employment contracts. On the same theme, interviewees advised: "there is no commitment", towards the temporary employee and temporary employment contracts are: "easy to reverse out of".

In the introduction to this category, Folta (1998) was referenced with respect to flexibility and irreversibility. Folta (1998) also outlined organisations should avoid appointing permanent employees at an early stage due to uncertainty, a point made also by Bonnal and Giret (2010) in the context of the academic sector.

10.5 Uncertainty
Like any asset, human assets can entail uncertainties of return and an important part of human resource management should be to manage these uncertainties. As Bryson and Blackwell (2006) put it, human resource management approaches need to manage uncertainty and deliver flexibility while influencing the employment relationship. The uncertainty factor provides an incentive for an institution to 'wait and see' if the uncertainty can resolve itself favourably (Hogan and Walker, 2007) or: 'new information or experiences are gained' (Finn et al., 2007: 15).
Uncertainty therefore has a major bearing on the recruitment process or as Kulkarni and Ramamoorthy (2005) put it, it should influence an organisation's choice of employment contract mode substantially. Also in the literature, Bentolila and Bertola (1990) pointed out it is one of the main determinants within the recruitment and selection process. Despite these points, however, the effect uncertainty has on the choice of employment contract mode has not yet been addressed (Kulkarni and Ramamoorthy, 2005; Drakos and Kallandranis, 2006). Employer interviewees referred to this uncertainty as the possibility of a program or unit discontinuing, resulting in the necessity to continue covering costs despite the fact the: "revenue stream dries up". In contrast, human resource management interviewees referred to such uncertainty as to do with: "the future funding model", which they referenced as external funding like government funding. They also alluded to: "the external environment", in the form of student levels fluctuating or certain programmes continually: "attracting people". One very important admission, in the author's view, bearing in mind the comments made in the opening paragraphs of this thesis, was from a human resource management interviewee who expressed uncertainty with respect to being: "strategic in HR". The questions are posed again: Has the 'strategic' element of human resource management properly evolved or is the profession heavily weighted in operational aspects? Is the reference to strategic human resource management more of a concept than a reality, in practice?

A solution to uncertainty is provided by Kennelly-McGinnis (1991) who advised temporary employment contracts can shift uncertainty from the organisation to employees, a point already touched upon in the section on flexibility which mentioned the transfer of risk from the institution to the employee. As the interviewees put it, by issuing temporary employment contracts, they are effectively managing uncertainty. In the context of the point above regarding programs or units discontinuing and the need to continue covering costs, one human resource management interviewee outlined, as productivity declines, employee levels: "should drop too".
The 'uncertainty dilemma' from a choice of employment mode perspective is: whether to commit by way of a permanent employment contract or stay flexible by way of issuing a temporary employment contract (Ghemawat, 1991). Staying flexible in order to address the 'uncertainty dilemma' can be dealt with according to Kulkarni and Ramamoorthy (2005) by making recruitment decisions which are small, frequent and reversible i.e. 'immediate exit' options. In doing so the institution can deal quickly and effectively with a scenario whereby they have taken on an employee who, it turns out, fails to or: "is not able to deliver".

Dixit and Pindyck (1994) and Trigeorgis (1996) suggest uncertainty may be of different types and may arise from different underlying sources. One form of uncertainty that can be brought about by the use of temporary employment contracts is uncertainty of whether the employee will commit for the full tenure of the contract. For instance one interviewee mentioned the lack of security for someone on a temporary employment contract who may feel the institution is not fully committed to them. The employer interviewees provided examples of this. One described the loss of not just the individual employee but a research group which greatly reduced activity, while another recalled: "outstanding individuals", who walked away despite the permanent post being offered to them. The realisation was: "you have to take the hit". That is one of the risks for the institution in utilising temporary employment contracts. As the literature outlines, temporary employees may leave taking critical skills with them (Bhattacharya and Wright, 2005), a point reinforced by Jacobs (2007) who advises it is impossible to recover related costs (for example, training and development costs). In this context, the foundations for the introduction of the real options theory approach into the human resource management sphere were laid (Berk and Kaše, 2005) as when taking a real options theory approach to managing human assets, recognition that uncertainties can also arise from employees is essential because an organisation does not own its human assets (Alchian and Demstez, 1972).
The real key to offsetting uncertainty or dealing with the 'uncertainty dilemma' is as put by Drakos and Kallandranis (2006), Dator (2002) and Finn et al. (2007): realising the value of being able to wait for new information.

To complete this section on uncertainty the most intriguing statement in regard to uncertainty was from a human resource management interviewee who asked and answered a number of very poignant questions: "It is only uncertainty of how much and when, not is the [institution] going to close? Are we going to be sold? Are we going to be merged? So is there uncertainty? My view is there is no real uncertainty". The author, relying on experience across the private, public and semi-state sectors, feels such commentary reflects the nature of uncertainty within the public and semi-state sectors. To explain, the answers to the same questions with respect to the private sector would be entirely different as in: the organisation could close, it could be sold, it could be merged, and there is uncertainty. The reality is there is: "no real uncertainty", in the public or semi-state sectors which are the sectors in which third level academic institutions mainly sit.

10.6 Outsourcing

It is useful to relate the discussion on outsourcing with one of the core quotes underpinning this research, that of Foote and Folta (2002: 592): 'real options theory predicts that greater irreversibility and environmental uncertainty should lead to a greater propensity to outsource employment (i.e. hire temporary workers)'. It is also important to recall Williamson's (1991a) and Jacoby's (1999) advice that outsourcing employment can be used as a screening method in employee selection, an identical suggestion to the one made with respect to temporary employment contracts being effectively pseudo-probationary periods by Foote (2004).

Within the interviews, both employer and human resource management, the description of the utilisation of temporary employment contracts as a form of outsourcing was generally affirmed. Interviewees felt outsourcing was a good description and: "way of looking at it". At the same time there was a number of
interviewees who were somewhat sceptical of the description of temporary employment contracts as a form of outsourcing. It is fair to say, while the literature clearly links temporary employment contracts and outsourcing, the interviews do not really provide a definitive yes or no on the issue and it is probably a matter for further research.

10.7 Real Options Theory

Foote and Folta (2002) advise the applicability of real options theory to organisations choice of employment mode has largely been ignored. This is supported by Dixit and Pindyck (1994) who encouraged the use of real options theory in recruitment decisions.

During the employer interviews a number of the interviewees acknowledged the strong links between real options and resourcing with one admitting: "the options are there". Another interviewee recognised such options: "are business drivers", which is interesting as there should be strong interaction between an organisations business drivers and recruitment.

The human resource management interviewees were very clear on the use of real options within recruitment decisions. For instance, some remarked on the benefits of taking an employee in temporarily where things are unclear or uncertain. In this way, they are not left with a permanent fixture (or asset) should things not work out. They are buying time with which to decide on a longer term arrangement, or not, as the case may be. As remarked upon in the findings, this is very much the language and ethos of real options theory. The temporary employment contract allows for flexibility and reversibility until as such time as the uncertainty about the future of the programme has been clarified, after a period of time. The principle being: "to see how a programme flies", which is important for an institution looking to increase its presence. Until such time as they are confident of their investment, they will appoint on temporary employment contracts then: "move to permanent contracts", if all is going well as in new information dictates as such.
The key points supporting the use of real options theory within the recruitment process have already been mentioned a couple of times but again they are: an appropriate model or framework that precisely fits with an organisation's choice of employment contract mode does not appear to be utilised to answer related questions; there is a need for an appropriate framework for distinguishing between and/or analysing different types of employment arrangements and relationships. Within the literature reviews, reference was made to the fact the real options theory framework appears to fit precisely with the foregoing points and organisations strategic challenges by linking current actions to uncertain futures (Adner and Levinthal, 2004). In the third level academic context, it is clear, in utilising temporary employment contracts, a real option is being exercised. The author shares the view of Adner and Levinthal (2004), real options theory is the appropriate framework.

10.8 The 'Immediate Exit' Option
On the basis real options theory is the framework, the type of real option to which a temporary employment contract is attached is: Janney and Dess' (2004)'immediate exit' option. The option is defined as the benefit of making full commitments reversible as in the organisation can terminate the option or temporary employment contract if required when new information becomes available after a period of time. As Grinyer and Daing (1993) suggested, having the option to exit a project can be an important influence on the decision to adopt it in the first place. As mentioned when presenting the findings on this aspect, some of the employer interviewees were very direct when discussing this aspect with one outlining: "unambiguously", "there is no commitment", from the institution to the temporary employee. In other words, the 'immediate exit' as in the expiry of the temporary employment contract can occur without hesitation.

Musselin's (2005) premise that the third level academic sector is changing in terms of its approach to employment contracts is discernible, particularly references to increased staff management by third level academic institutions
and the increased flexibility temporary employment contracts provide these institutions with in staff management.

10.9 Concluding Remarks
Temporary employment contracts are widely utilised within the third level academic sector, despite its being a sector with relative certainty. In accordance with the literature, temporary employment contracts: are 'a source of flexibility', delay an 'irreversible decision' and offset 'uncertainty' by virtue of their shifting risk to the employee. On the basis of these points and others, for example: temporary employment contracts being a very effective employee screening mechanism, the fact they are a real option, in the form of the 'immediate exit' option being exercised, and their ability to factor in new information over time, temporary employment contracts can also be deemed a form of outsourcing.

These points and others are concluded upon further in the next chapter, the concluding chapter.
CHAPTER 11 - CONCLUSIONS

11.1 Introduction
This is the final chapter of this thesis and presents its overall conclusions. The chapter takes the following format: a review of the previous chapters; the main findings and contributions of the thesis; a general commentary on the research and related matters based upon the author's general, professional and academic experience; the research questions; implications for practice; revisiting alternative theories; with limitations of the research and some opportunities for further research bringing the chapter and the thesis to a close.

11.2 Review of Previous Chapters
In the introductory chapter, the scene was set for undertaking this thesis predominantly by way of discussion on the use of temporary employment contracts in the third level academic sector. This discussion was supported by a number of papers which referred to academic employees having to undertake temporary employment positions in the hope permanency will follow. From an institutional perspective, this is a useful screening mechanism or pseudo-probationary period and affords the institution flexibility while it avoids an irreversible decision and offsets uncertainty.

Chapter 2 looked at relevant theories of the firm: transaction cost economics, the resource-based view of the firm and real options theory, with similarities and differences between these theories discussed, before it was concluded real options theory was the most appropriate theory on which to base this research project.

Chapter 3 explored the different areas of real options theory including: the appeal and origins of the theory, definitions and logic, types of real options, real options models, examples of real options, entrepreneurship and experimentation, and shortcomings and criticism. The chapter concluded with a number of important points which effectively set out the main reasoning for undertaking this research. The key points were: the need for utilising an
appropriate framework, the lack of research combining real options with strategic interactions, and the remarks with respect to flexibility, irreversibility and uncertainty. Add to these points the consensus of a number of writers that research carried out in the area of temporary employment contracts is scarce and uncommon or generally focuses on comparing temporary employees with permanent employees, acknowledgment the applicability of real options theory to recruitment has been ignored, and the scene was set for a study of the use of temporary employment contracts as real options.

The three characteristics - flexibility, irreversibility and uncertainty - formed the basis for Chapter 4 which discussed temporary employment contracts in the context of their: being a source of flexibility, delaying an irreversible decision, and dealing with uncertainty, before looking at strategic elements such as: human assets, contracting, the role of temporary employment and outsourcing.

Chapter 5 identified and presented eleven research questions under a number of research categories identified in the literature reviews (temporary employment in the third level academic sector, flexibility, irreversibility, uncertainty, outsourcing, real options theory and the 'immediate exit' option) which underpin the research.

Chapter 6 looked at the methodology for undertaking the research. The chapter covered: literature relevant to research methodology, the appropriate approach to the research, and the undertaking of the research. The research methodology decided upon was qualitative case study research in the form of semi-structured interviews.

Because this is a relatively unexplored area of research, it was important for the author to initiate a real option of his own i.e. undertake the phase one research to ensure this was an area appropriate for undertaking further research. The phase one research was undertaken with nine employees in an Irish third level academic institution. Five were employed on temporary employment contracts while the other four had been employed on temporary employment contracts
but had since become permanent. Chapters 7 and 8 presented the phase one research findings, and analysis and discussion. Thankfully, from the author's point of view, it provided much confidence to undertake further research in the area.

Chapter 9 was a presentation of the findings of the phase two research which was undertaken from the organisation perspective. The findings were determined by interviews with the Deans of Faculty in an Irish third level academic institution and senior human resource management personnel in a number of other Irish third level academic institutions. The findings were segregated under the same categories mentioned in relation to Chapter 5, above.

The analysis and discussion on the phase two research was presented in Chapter 10 which concluded: Temporary employment contracts are widely utilised within the third level academic sector, despite its being a sector with relative certainty. Temporary employment contracts are 'a source of flexibility', delay an 'irreversible decision' and offset 'uncertainty' by virtue of their shifting risk to the employee. Temporary employment contracts are a very effective employee screening mechanism. Temporary employment contracts are: a real option, in the form of the 'immediate exit' option, can factor in new information over time, and also be deemed a form of outsourcing.

11.3 Main Findings

As mentioned above, chapters 7 and 9 presented the overall research findings and Chapters 8 and 10 presented the analysis and discussion of those findings. This section condenses the findings and presents them more thematically, specifically and broadly.

At a specific level the main findings are categorised under the three headings: Human Resource Management, Temporary Employment Contracts and Real Options Theory, and are presented in tabular form (Table 11.1).
Table 11.1 Specific Findings by Theme

<table>
<thead>
<tr>
<th>Human Resource Management</th>
<th>Temporary Employment Contracts</th>
<th>Real Options Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility, irreversibility and uncertainty are key determinants in deciding upon the most appropriate employment mode</td>
<td>Consideration of irreversibility and uncertainty can lead to the hire of temporary employees</td>
<td>Real options theory is an appropriate framework for which to discern the most appropriate employment contract mode</td>
</tr>
<tr>
<td>Human resource management approaches do not currently appear to reflect the need to manage uncertainty and deliver flexibility</td>
<td>Temporary employment contracts are both flexible and reversible and shift uncertainty from the institution to the employee</td>
<td>An 'immediate exit' option protects the institution from an irreversible decision</td>
</tr>
<tr>
<td></td>
<td>Temporary employment contracts offer an opportunity to assess the competence and fit of the employee</td>
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</table>

On a much broader basis, the main findings under each of the research categories are presented below.

11.3.1 Temporary Employment in the Third Level Academic Sector

Employees felt temporary employment contracts delayed a full contribution and therefore they (the employees) were not adding full value.

Employers advised of the tension that exists between the overall institution and the individual faculties, advising they are always trying to protect their resource base. They further advised: they require industry experts, the institution is vocationally driven, and seeks enrichment and experience unavailable within the permanent staff cohort, and specialist knowledge. Temporary employees provide these elements but because there is a lack of fully competent, capable people in the market, a time-limited contract will be provided to let the employee demonstrate or reach the required level of competence.

Human resource managers advised they never had a need for a flexible model before, acknowledging that such a model is now required so as to be able to respond to peaks and valleys. This has led to a build-up of fixed-term contracts
and a flexible staff cohort of 15-20%. One institution admitted to initiating a scheme of forty temporary posts for which faculties competed.

11.3.2 Flexibility, Irreversibility and Uncertainty

Employees felt the third level academic sector had little uncertainty and the balance of risk lay in favour of the institution which transferred any risk to the employee with the use of temporary employment contracts. In addition, they felt the institution maintains flexibility with such a strategy.

Employers advised of their 'mantra' being one of flexibility and adaption. They confirmed temporary employment contracts allow flexibility and management of uncertainty because the fixed-cost associated with permanent employees, that has to be covered, is not there. The fear is a business unit could discontinue and revenue dries up and there is then a lack of reversibility with permanent employees. Employers acknowledge the commitment is not what it needs to be to employees.

Human resource managers advised temporary employees offer flexibility and the preference is to transfer any risk to the temporary employee. This is confirmed further by way of reference to irreversibility not mattering as the contract simply will not be renewed. The reversibility associated with temporary employment contracts is fully endorsed: "it is easy to reverse". Again, there is an acknowledgement of little commitment to employees. In terms of uncertainty, it can relate primarily to funding and student levels but it is acknowledged, there is: "no real uncertainty". One of the most interesting admissions within the research was the admission in the human resource manager interviews to uncertainty in terms of: "being strategic in HR".

11.3.3 Outsourcing

All three interviewee categories offered mixed views on whether the use of temporary employment contracts could be viewed as outsourcing. As many felt it was as did not.
Some employees felt it could be considered as outsourcing advising it is: "exactly what it is", and: "you could typically call it outsourcing".

Employers felt it was: "a good way of describing it", or: "way of looking at it", or modelling it or: "a version of outsourcing". Some felt it was: "outsourcing in that classical sense - a flexible resource", while others felt it did not carry: "the risk of outsourcing".

Human resource managers were more sceptical than the employers suggesting there was scope for outsourcing but you do not: "outsource your key selling point".

**11.3.4 Real Options Theory**

Employees felt the utilisation of a real option allows for: "greater flexibility in terms of using people for the length you need, then disposing of them". They suggested such a strategy is a: "trade-off between the longer term investment in having the person". They also suggested academic institutions are run more as enterprises now rather than as educational institutions. This can be seen to be true with the utilisation of a real option as the institution is: "eliminating the risk", by making the shortest possible decision. The sense in utilising temporary employment contracts can be seen by those they most negatively impact upon: "It would make sense using the option of contract in labour".

Employers outlined: "your options are business drivers", and there should be: "very strong interactions between resourcing and the option you choose".

Human resource managers acknowledged the utilisation of a real option means the institution does: "not have a financial commitment beyond", the contract length while allowing the institution: "to see how a programme flies". Ultimately, utilisation of a real option: "allows flexibility to react to events we cannot foresee".
11.3.5 The 'Immediate Exit' Option

Employees could see the exercising of an 'immediate exit' option in the form of a temporary employment contract was: "eliminating the risk that they do not need the person in the future". That the institution has: "two, three or four years to see if they want to keep someone".

Employers out rightly stated: "No question and unambiguously - there is no commitment to [the employee] here, we will not commit anything to [them] in the long run". One of the reasons for such forthrightness was due to the: "blockage", in the system.

Human resource managers were almost as direct as the employers advising if temporary employees: "are not cutting it they are gone". Interestingly, human resource managers felt temporary employment contracts are making: "line managers lazy in terms of their responsibilities".

11.4 Contributions

There are a number of important contributions within this study. They are most appropriately presented in tabular form (Table 11.2) and are presented under the same headings as the Main Findings, above: Human Resource Management, Temporary Employment Contracts and Real Options Theory. In addition, they are also categorised by way of their relationship to the theory, the empirical research and practice.

In addition to the main contributions, this study highlighted a number of surprising elements such as: temporary employment contracts have the potential to make line managers lazy, as commented upon in the human resource management interviews. In other words, such contracts can be seen to distance the employee from the line manager or as Nollen and Axel (1996) and Pfieffer and Baron (1988) suggested: they can lead to less responsibility for direct management of employees. This bears strong similarities to a point made by the author in the introductory chapter: most line managers shudder at the thought of having to engage in performance management with their employees.
Two further surprising elements were: temporary employment contracts facilitate a very clear transfer of risk from the institution or organisation to the temporary employee. This point was acknowledged by the three interviewee categories. And, temporary employment contracts take skill formation and its related costs out of the organisation, a point made by Carnoy et al. (1997) and mentioned in the human resource management interviews.

### Table 11.2 Contributions

<table>
<thead>
<tr>
<th>Human Resource Management</th>
<th>Temporary Employment Contracts</th>
<th>Real Options Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It applies real options</td>
<td>It applies an appropriate</td>
<td>Other papers that</td>
</tr>
<tr>
<td>theory and its characteristics (flexibility, irreversibility, uncertainty) to H.R.M. and the recruitment and selection process, thereby adding a very tangible strategic element</td>
<td>framework to temporary employment contracts, a real options theory framework (McLean Parks et al.; Davis-Blake &amp; Uzzi; Wright &amp; McMahon)</td>
<td>touch on this area (Foote &amp; Folta; Malos &amp; Campion; Bhattacharya &amp; Wright; Badders et al.) are discussion papers or reviews, lacking empirical work</td>
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</table>

**Empirical Research**

It applies a 'theoretical model', 'to address why organisations choose different employment contract types', 'which does not appear to exist' (Kulkarni & Ramamoorthy)

<table>
<thead>
<tr>
<th>Temporary Employment Contracts</th>
<th>Real Options Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is research 'carried out in the area of temporary employment contracts' which is 'scarce and uncommon', 'and at an early stage' and 'neglected by the scientific community' (Mitlacher; Ellingson et al.; Burgess &amp; Connell; McLean Parks et al.; Davis-Blake &amp; Uzzi)</td>
<td>It applies one of Janney &amp; Dess' taxonomy of real options types - the 'immediate exit' option</td>
</tr>
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</table>

**Practice**

It suggests H.R.M. approaches need to manage uncertainty and deliver flexibility (Bryson & Blackwell), taking into account 'the effect uncertainty has on the employment contract mode has not been addressed' (Kulkarni & Ramamoorthy)

<table>
<thead>
<tr>
<th>Temporary Employment Contracts</th>
<th>Real Options Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>The undertaking of such research in the third level academic sector is novel</td>
<td>The applicability of real options theory to organisational recruitment processes has largely been ignored (Foote &amp; Folta)</td>
</tr>
</tbody>
</table>

(Weed based on Farndale, 2004)

### 11.5 General Commentary

Having worked within and across the different sectors (private, public, semi-state), the author has seen a lot of employee stagnation particularly within the
public and semi-state sectors with personnel occupying positions where there is quite clearly no longer a viable position. Until very recently, within these sectors, the (permanent) job was a job for life; therefore, to paraphrase one interviewee, while production may have declined, the employee levels did not which is a situation that cannot really be tolerated in any sector or organisation. On this basis, the author views the use of temporary employment contracts as appropriate. Further to this, it can enhance both the organisation (in terms of appropriate levels of turnover and enrichment, a point mentioned in interviews: "you are refreshing the expertise cadre on a regular basis") and the employee (in terms of new challenges and enrichment). Sullivan and Baruch (2009: 1543) advise: 'Increasingly, individuals are driven more by their own desires than by organisational career management practices'. They also avoid stagnation. This could only be a good thing for society in general as there would be less dependency on specific organisations. Unfortunately many regions in Ireland are very dependent on single organisations for employment. The stories of organisations withdrawing and the consequences on communities and regions are plentiful. While Ireland is very protective of its low corporation tax, which is very attractive for foreign direct investment, if it was ever to be realigned with other countries, the impact could potentially be very bad for certain parts of the country as organisations may withdraw to relocate elsewhere. Interestingly, in a similar context, Sullivan and Baruch (2009) make reference to employee layoffs resulting in what is termed: forced entrepreneurship. The meaning behind this is the increasing numbers of individuals finding work by using inexpensive resources like the internet to market products, find business partners and connect with suppliers.

Returning to the third level academic sector. The question of uncertainty, or lack thereof according to interviewees, is interesting as it is a sector undergoing change in a number of ways. For instance budgets are being cut and according to Finn et al (2007: 56): 'governments are seeking increased accountability and transparency'. There is massification of attendance at third level: Bryson (2004) quotes figures that state the ratio of UK students to staff has increased from 9:1 in 1980 to 17:1 in 2000. Technological change is having a major
impact on teaching approaches: Finn et al. (2007: 44) provide an overview of new technologies in teaching pre and post 1980. There is a growing requirement for international accreditation: position in international rankings lists is becoming increasingly important with world league rankings for universities becoming more common (Finn et al., 2007). Hazelkorn (2007) predicts a 'superleague' of institutions will form which will be in the best position to attract the best minds. Appropriately in respect of this thesis, new entrants are being presented with time-limited employment contracts i.e. temporary employment contracts. As put by Inayatullah and Gidley (2000: 1), the third level academic sector may appear: 'stable, looking back in history and forward to the future', but it is: 'far more malleable'.

The author recollects the interviewee who asked a number of pertinent questions in the context of uncertainty in relation to a third level academic institution: "Is the [institution] going to close? Are we going to be sold? Are we going to be merged? So is there uncertainty?". That interviewee postulated: "My view is there is no real uncertainty". The uncertainty suggested by the interviewees in the phase two research was referred to as: the possibility of a program or unit discontinuing, the funding model, and the external environment in the form of student levels fluctuating. While there is much changing in the sector, in comparison with say the private sector, there is relatively low uncertainty.

The author would view the shifting of any uncertainty from the institution to the employee, with the use of temporary employment contracts, as a useful strategy for exactly the reasons real options theory was chosen: the flexibility provided and the delaying of an irreversible decision. The obvious consequence of this is either party may have issues with the questions over a 'committed' relationship. This may appear harsher on the employee but the author would be encouraged in this regard by way of employees becoming more committed to their profession than an organisation. With such an approach they are taking care of their own future not depending on another entity to do so. As suggested by Finn et al. (2007: 17), in the context of the
academic sector: 'employees' skills and ability to be flexible in the workplace are seen as the key to reducing their chances of unemployment, and to improving economic performance'.

It would be remiss not to comment specifically on the Irish context. Ireland is a small country with, in reality, one major centre: Dublin, a point made in interviews in both research phases. From an employee perspective, the market is generally Dublin; outside of which there are limited options in the various sectors. In this context, an employment decision can also potentially impact on lifestyle. In a larger country, for example the US, UK or Germany, the choices would be more plentiful and one's lifestyle need not necessarily be impacted by employment location. From an organisational perspective, these 'limitations' will likely ensure the balance of power stays with organisations.

Throughout the course of the thesis several theoretical frameworks were used which were derived from the literature, for example: temporary employment, flexibility, irreversibility, uncertainty, outsourcing and real options theory. In the first instance, and as was commented in the Concluding Remarks of the Research Methodology chapter, the use of these frameworks was important in both framing the research questions and then undertaking the research and then categorising and analysing it. They were referred to as 'guiding principles' in Chapter 6. Some of the frameworks fall under the umbrella of real options theory i.e. flexibility, irreversibility and uncertainty. In the author's view, these three aspects should be the foremost headings in any discussion on strategy. Any organisation developing its vision for the future, as referred to by Luehrman (1998a), should include them as headlines for: 'creating a path from where they are now to where they want to be' (Luehrman, 1998a: 89). The author would suggest these three aspects could be very useful considerations in other aspects of life also. For example, there are probably many home owners in Ireland now that should have factored in flexibility, irreversibility and uncertainty when looking to get on the property ladder.
Lastly, in the context of this commentary, it is important to comment briefly on the research methodology used which was: qualitative case study research in the form of semi-structured interviews. The author feels there is very little that would have been undertaken differently. The point was made that a survey questionnaire was very seriously considered, but in utilising semi-structured interviews, the author became very much: 'an active agent in the process' (Rowley, 2002: 22). The data was rich and discursive and the interviewees appeared to take a genuine interest in the matters discussed, none of which would have been quite as attainable if a different methodology was utilised.

11.6 Implications for Practice

Having spent significant time mulling over the concept of real options theory, the author is of the opinion the utilisation of real options theory in everyday human resource management practice could be done effortlessly and seamlessly and add real strategic value to the position and profession. This study has demonstrated the utilisation of an 'immediate exit' real option in the form of temporary employment contracts, which are 'a source of flexibility', delay an 'irreversible decision' and offset 'uncertainty' by virtue of their shifting risk to the employee. There is also the added value of their being a very effective employee screening mechanism and their ability to factor in new information over time. There are very few apparent pitfalls. The lack of long-term commitment to the employee could potentially pose a risk in that another organisation could tempt them with a longer term or permanent contract but this is something that could as easily happen with a permanent employee. What was additionally interesting in this study was the employee cohort saw the advantages for the organisation in its utilising the option of temporary employment. Perhaps this should not be surprising as the literature suggests people are committing more to their profession than to organisations.

The consideration of uncertainty management and flexibility delivery could elevate human resource management approaches from being simply operational to something more strategic and dynamic. The author has found in human resource management positions, the proper approach at the beginning can offset
the fire-fighting that ends up having to be done due to poor decision making, which unfortunately more-often-than-not human resource management is synonymous with. The author would suggest there are few roles within organisations that generate the same level of (not always positive) curiosity as the appointment of a senior human resource management person. Employees will generally portray defensive attributes at first, while managers will usually be wondering how they can best utilise this individual for their own benefit in dealing with their employees. These are not meant to be critical comments, more observatory from experience.

The author would acknowledge the profession is probably still evolving somewhat, particularly in Ireland which tends to follow the lead of the US and UK, and the reactionary nature does not help the evolution. The addition of a real options type framework, both in human resource management academia and professionally, would greatly benefit human resource management and as mentioned in the introductory chapter, add a tangible strategic element to human resource management practice.

Having undertaken research such as this, the author suggests, like some of the literature, real options theory could be applied to many organisational scenarios. It is a very tangible and applicable framework, the benefits of which should be visible to academics, employers and employees. Sticking with the human resource management arena, the author could see it applying to another important aspect of human resource management practice: employee relations. To expand on this, take an example of an organisation attempting to negotiate a change programme with employee representatives. If both sides were to frame discussion and negotiation within a real options framework, it could be hugely beneficial. The option(s) (change programme elements) could be initiated by way of a pilot for a period of time after which the option(s) could be reconfigured as required. Both parties to the framework would have the benefit of seeing the programme in operation and the advantages and/or disadvantages could be identified and form the basis of smaller negotiations, if required. The real and tangible benefit to undertaking such a programme under the auspices
of a real options theory framework is either side can effectively propose reconfiguration of the option(s) at the end of the agreed timeframe. They can propose withdrawal, extension or establishment of options. In addition, this could prove an inexpensive and uncontentious methodology from an employee relations perspective which, if operated properly, should require little if any recourse to a third party for adjudication.

11.7 Revisiting Alternative Theories
Before addressing the research questions, it is important to revisit the alternative theories which were explored in Chapter 2 - transaction cost economics and the resource-based view of the firm - and examine the implications of the findings for these theories, bearing in mind a number of writers have utilised them to explain an organisation's choice of employment contract mode (transaction cost economics: Wachter and Wright, 1990; Williamson, 1975; the resource-based view of the firm: Conner and Prahalad, 1996; Grant, 1996; Prahalad and Hamel, 1990). The specific findings which come under: Human Resource Management, Temporary Employment Contracts and Real Options Theory (Table 11.1) will be examined. These findings also link closely to the conclusions to the research questions. In addressing the findings, it is important to recall Lepak and Snell's (1999) and Kulkarni and Ramamoorthy's (2005) advices: transaction cost economics and the resource-based view of the firm do not offer a defining logic for understanding how organisations should manage their employees, and only offer part of the explanation for an organisation's choice of employment contract.

11.7.1 Human Resource Management

Flexibility, irreversibility and uncertainty are key determinants in deciding upon the most appropriate employment mode.

With respect to transaction cost economics, two of Williamson's (1981) levels of analysis relate to this finding: the second level which questions which activities should be performed internally or externally, and the third level which concerns the manner in which human assets are organised. On flexibility,
irreversibility and uncertainty, Van de Vrande et al. (2006) suggest when uncertainty is high, flexibility and reversibility are important yet the transaction cost economics approach favours safeguarding contractual arrangements which reduces flexibility (Rese and Roemer, 2004) and would be largely irreversible. In addition, Leiblein (2003) outlined transaction cost economics is sceptical with regard to uncertainty, while others (for example, Slater and Spencer, 2000) advised it simply does not deal with uncertainty which can act as a catalyst for opportunism between contracting parties (Kulkarni and Ramamoorthy, 2005). Forde and Slater's (2007) advice is recalled whereby research in the area of employment contracts shows organisational practice does not fit with transaction cost economics. Koene et al. (2004) advised transaction cost economics has failed to explain the variation in the use of different employment contract modes in different European countries.

Regarding the resource-based view of the firm, the relevant 'classification' is human capital resources. Advocates of the resource-based view of the firm argue organisations should choose the most appropriate employment contract mode based upon the degree to which the employee's skills could contribute to the organisation (Quinn, 1992; Venkatesan, 1992). The fear, however, is as Mathews (2002) suggests, the resource-based view of the firm only focuses inwards, as does its 'offshoot' theories: core competence and dynamic capabilities. The theory is relatively silent on flexibility, irreversibility and uncertainty.

*Human resource management approaches do not currently appear to reflect the need to manage uncertainty and deliver flexibility.*

Pitelis and Pseiridis (1999) concluded transaction cost economics does not supply convincing answers on either the nature of or the running of organisations. Asset specificity is the relevant variable, human asset specificity. Willianson (1983) outlined human asset specificity relates to knowledge achieved through specialist training or learning-by-doing which could only realistically be achieved with a permanent employee cohort. This
would not be a human resource management approach conducive to managing uncertainty and delivering flexibility.

On the resource-based view of the firm, Wright et al. (2001) advised it has contributed to human resource management by emphasising people are strategically important to an organisation's success. Barney et al. (2001) attribute this to systems and routines that contribute to the creation of specific employee skills. As above with the transaction cost economics approach, this relates to a permanent employee cohort which would not be conducive to managing uncertainty and delivering flexibility.

11.7.2 Temporary Employment Contracts

Consideration of irreversibility and uncertainty can lead to the hire of temporary employees.

Koene et al. (2004) advised the factors transaction cost economics suggest would effect the choice of employment contract do not correlate with the increased use of temporary employment contracts. Further to this Van de Vrande et al. (2006) posit transaction cost economics assumes uncertainty is beyond the control of organisations. Transaction cost economics does not appear to consider irreversibility or its antonym reversibility therefore it is not an approach compatible with what this finding outlines.

As related earlier, Quinn (1992) and Venkatesan (1992) talked about the resource-based view of the firm suggesting organisations choose the most appropriate employment contract mode based upon the degree to which the employee's skills could contribute to the organisation which suggests compatibility with either temporary or permanent employment contracts. There is no suggestion, however, the resource-based view of the firm considers irreversibility or uncertainty with respect to hiring.
Temporary employment contracts are both flexible and reversible and shift uncertainty from the institution to the employee.

Van de Vrande et al. (2006) advise flexibility and reversibility are more important when uncertainty is high in a transaction cost economics context. However, as Williamson (1985) and Kulkarni and Ramamoorthy (2005) point out, uncertainty can be a catalyst for opportunism between contracting parties which will lead to increases in the costs of transactions and therefore to internalisation which means the organisation bears the risks related to uncertainty and they are not shifted to the (temporary) employee.

The focus of the resource-based view of the firm is to exploit unique resources, that are valuable, rare, difficult to imitate and non-substitutable (Barney, 1991; Conner, 1991; Schulze, 1992). The intention of this exploitation of resources is to gain competitive advantage (Wernerfelt, 1984; Barney, 1991; Peteraf, 1993). Such resources include assets, capabilities, processes or ways of working, and information and knowledge, all of which need to be controlled so as to enable the organisation to conceive of and implement strategies that improve its efficiency and effectiveness (Daft, 1983; Learned et al., 1969; Porter, 1981). Such thinking whereby resources and capabilities which must be supported (i.e. permaneney) to guide the organisation's strategy, is incompatible with a strategy of shifting risk to the employee by way of a flexible and reversible temporary employment contract.

Temporary employment contracts offer an opportunity to assess the competence and fit of the employee.

A strategy whereby a temporary employment contract is offered to an employee so as to assess their competence and fit does not appear compatible with the governance structure variable in transaction cost economics. Williamson (1991b: 79) described this governance structure as an attempt to: 'align transactions, which differ in their attributes'. A temporary employment
contract, the purpose of which is to assess the employees competence and fit, would not represent an aligning of transactions with differing attributes.

Grant (1991) advised the resource-based view of the firm regards the organisation as a set or bundle of resources and capabilities that are viewed as unique and therefore must be supported and guide the organisation's strategy. If one considers this carefully along with the premise the resource-based view of the firm is inward looking (as described previously), it could suggest the resource-based view of the firm is compatible with assessment of employee competence. However, the contradiction arises if an organisation were to employ an individual, which according to Barney (2001a) must have a number of elements to make them unique, on a temporary employment contract in order to assess their competence and fit.

11.7.3 Real Options Theory

An 'immediate exit' option protects the institution from an irreversible decision.

The literature outlined that future outcomes are influenced by choices made in the present (Dator, 2002; Finn et al., 2007); that organisations should strive to achieve a position whereby a decision can be amended to reflect new information that was not available at the time of making the decision. As advised by Vrande et al. (2006) in the context of Business Development, real options theory should be to the fore in the early stages of development. As new information becomes available, it will become clearer whether or not value will be created. Grinyer and Daing (1993) advised there is evidence having the option to exit a project can be an important influence on the decision to adopt the project in the first place. There is little to suggest either the transaction cost economics approach or the resource-based view of the firm approach would facilitate this, particularly the leverage to reverse a decision.
Real options theory is an appropriate framework for which to discern the most appropriate employment contract mode.

This research project clearly demonstrates this point. In the case of the transaction cost economics approach and the resource-based view of the firm approach, the arguments in favour do not stack up as evidenced in the previous paragraphs. With this in mind, it is useful to revisit the suggestions made by some writers regarding the theories resembling or complimenting each other.

Rese and Roemer (2004) suggested real options theory and transaction cost economics resemble each other to a certain degree, and Van de Vrande et al. (2006) concluded combining or integrating the two theories could lead to improved decision making under uncertain conditions. Yet, Barney and Lee (1998) advised transaction cost economics and real options theory are the converse of each other i.e. predictions associated with real options theory are the opposite of predictions associated with transaction cost economics. The author would be in agreement with Barney and Lee's (1998) thinking as the previous paragraphs demonstrate. There are virtually no similarities or complimentary elements between real options theory and transaction cost economics in the context of this discussion relating to: human resource management; temporary employment contracts; the third level academic sector; flexibility, irreversibility and uncertainty; and the benefits of being able to avail of new information over time.

The research questions will now be addressed.

11.8 The Research Questions
In three instances the conclusions to questions are combined due to common themes. Questions 2 and 3 are combined due to the references to flexibility, irreversibility and uncertainty in both. Questions 4 and 5 are combined due to the reference to uncertainty being shifted from the institution to the employee in both. And, Questions 9 and 10 are combined due to the references to both
irreversibility and uncertainty in both. A summary of the research questions conclusions is presented in Table 11.3 at the end of the chapter.

1. Do temporary employment contracts offer institutions the opportunity to assess the competence of temporary employees?

The answer to this question is a clear and unambiguous, yes; temporary employment contracts do offer institutions an opportunity to assess the competence and fit of employees. Such contracts are very clearly a highly appropriate screening mechanism as referred to by Van Emmerik and Sanders (2004) by virtue of the temporary employment contract being in essence a pseudo-probationary period as mentioned by Foote (2004).

From the phase two research, it was evident if a temporary employee was not competent, their contract would not be renewed. To apply Musselin's (2005) thinking, the institution avoids making any long-term decision about permanency when information on the employee's competency is limited. Justification for temporary employment contracts was set down as the employee not being fully competent when commencing which infers the temporary employee is afforded the opportunity, while temporary, to demonstrate what they are fully capable of.

From the employee perspective the research also demonstrated the probationary nature of temporary employment contracts. One interviewee referred specifically to institutions having: "two, three or four years to see if they want to keep someone". Attainment of permanency, following this pseudo-probationary period in the form of a temporary employment contract, gave employees: "affirmation in the best way possible", they were competent and a good fit and: "could contribute". The institution effectively gives the employee the opportunity to show their level of competence and what they can contribute and can then reward them with a permanent employment contract, a policy which should benefit the institution by way of the employee's long term commitment and: "full contribution".
2. Are flexibility, irreversibility and uncertainty key determinants in deciding upon the most appropriate employment mode type? 
   and,
3. Are temporary employment contracts a source of flexibility that enable the opportunity to delay an irreversible decision and, therefore offset uncertainty?

In the phase two research, it was commented that a permanent appointment means there is a fixed cost to be covered. It was suggested when production levels drop, employee levels should too. It was also commented that the permanent employment contract mode is inflexible as you have to have a retirement or an increase in headcount in order to have flexibility. This is largely down to the irreversibility of permanent employment contracts which leads to uncertainty about the employee's productivity according to Bonnal and Giret (2010). It is in this context Bonnal and Giret (2010) questioned whether the period of observation attached to a permanent contract, which is generally a six-month probation period but can in some instances be longer, is too short. Temporary employment contracts, because of the expiry date attached, get over this problem. Their utilisation for instance: "certainly allow flexibility", and protect the institution from the irreversibility of: "the fixed cost", of a permanent employee in a sector where: "there is no real uncertainty".

The employee interviewees felt all the risk was on their side with their being employed in a temporary capacity. From the organisational perspective, this suggests the institution is not incurring much, if any, risk.

It is clear therefore: flexibility, irreversibility and uncertainty are key determinants in deciding upon the most appropriate employment mode and temporary employment contracts are a source of flexibility that enables the delaying of an irreversible decision and offsetting of uncertainty.
4. Does the flexibility associated with temporary employment contracts shift uncertainty from the institution to the employee? and,

5. Does the reversibility associated with temporary employment contracts shift uncertainty from the institution to the employee?

There was no doubt in the phase two research the utilisation of temporary employment contracts shifts uncertainty from the institution to the employee. Within these interviews it was unequivocally stated temporary employees do offer flexibility and protect the institution from making an irreversible decision. In other words, the decision to utilise temporary employment contracts is due to their being flexible and reversible. Not alone that, they very clearly shift any risk or uncertainty from the institution to the employee.

The foregoing points were also very evident when relating these questions back to the employee perspective. As one interviewee highlighted, academia: "is definitely a seller's market". The institution being the 'seller' (of employment) shifting the uncertainty to the employee by obtaining their services with a temporary employment contract in a market where the supply (employees) greatly outweighs the demand (positions) (Robin and Cahuzac, 2003). As one interviewee commented in the context of the exercising of a real option in the form of temporary employment contracts: "it would make sense using the option of contract in labour".

6. Do human resource approaches reflect the need to manage uncertainty and deliver flexibility?

This question was derived from a reference by Bryson and Blackwell (2006) to human resource management approaches needing to manage uncertainty and deliver flexibility while influencing the employment relationship. The author recalls Miles and Snow's (1984) and Bhattacharya and Wright's (2005) references to human resource management approaches needing to take cognisance of the fact the management of human assets can be broken down
into 'make-or-buy' decisions: 'make' referring to permanent employees, while 'buy' refers to temporary or outsourced employees. In the author's experience, current human resource management approaches do not really consider uncertainty and flexibility. This goes back to a number of questions posed by the author at the start of the thesis: Has the 'strategic' element of human resource management properly evolved or is the profession heavily weighted in operational aspects? Is the reference to strategic human resource management more of a concept than a reality, in practice? The author, when presenting these questions at the start of the thesis, felt, from experience, the role had not really evolved strategically and is more weighted in operational aspects. This was borne out in the phase two research with the reference from the human resource management perspective: "I have no idea, in terms of trying to be strategic in HR". What the interviewee was referring to was their having to be reactive rather than proactive which was preventing them being able to plan and strategise and therefore consider managing uncertainty and delivering flexibility. Other interviewees outlined it is the "hiring manager" they have to manage in some respects in terms of expectations, which is an operational matter, while one interviewee referred to instances whereby an academic line manager simply advocated temporary employment contracts so as to: "avoid taking responsibility for managing the individual", a point also made in the literature by Nollen and Axel (1996) and Pfeffer and Baron (1988). From the author's perspective and experience this dereliction of responsibility is not at all uncommon and in many respects line managers will divest responsibility for employees if at all possible. The author would like to think a contributing aspect of this study would, in accordance with Bryson and Blackwell's (2006) reference, be that human resource management approaches begin to reflect the need to manage uncertainty and deliver flexibility.

7. Are outsourcing contracts used for assessing employees for permanent positions?

At the end of the analysis and discussion section on outsourcing in the phase two research, it was commented the interviews did not really provide a
definitive response on whether outsourcing, if the utilisation of temporary employment contracts could be referred to as such, was a mechanism for assessing temporary employees. While many interviewees felt the utilisation of temporary employment contracts could be referred to as outsourcing, many also felt the contrary.

The same can be said for the employees who also had mixed views as to whether the utilisation of temporary employment contracts was a form of outsourcing. Where the outsourcing reference seemed appropriate was where a temporarily employed academic was: "in an emerging academic area". Of interest in this context, however, was the interviewee who could not reconcile their temporary employment contract with outsourcing yet described their contract as the institution: "buying a service... on a temporary basis... for a year or whatever", which could describe most outsourcing arrangements. Getting back to the question posed, there was acknowledgement, in the context of the previous comments, the contract was: "an extended test and at the end you still may not get anything if you pass the test", which is essentially probation or assessment.

While the literature suggests outsourcing employment can be a useful screening mechanism, the research probably did not provide a clear enough view on this and it is therefore probably a matter best left to further research.

8. *Is real options theory an appropriate framework for which to discern the most appropriate employment contract mode?*

The research undertaken was clearly affirmative on this question both in the phase one research and in the phase two research.

In the phase two research, those interviewed immediately picked up on the value of real options theory in terms of its links with resourcing and as a framework for deciding upon the most appropriate employment mode type. The benefits of flexibility, particularly with the initiation of a real option in the
form of a temporary employment contract, was mentioned by the interviewees. In addition, the advantage of reserving the right to alter a decision when new information becomes available over time was referred to.

In the phase one research, the benefits of a real options theory approach, particularly in terms of the consideration of flexibility, irreversibility, and uncertainty, was appreciated. This was an area whereby the employee cohort could see where the employer strategy of utilising temporary employment contracts was advantageous for the organisation. For example, there was recognition of the institution's reluctance: "to commit to long-term commitment to a human resource". The employees also recognised the institution's: "trade-off between less costs now so they are not investing in the future of having permanent staff". Interestingly, employees also picked up on the advantage of the option of temporary employment contracts in the context of the difficulty of dealing with permanent employees who: "were not good enough", and the institution: "could not get rid of".

9. Does irreversibility and uncertainty lead to the hire of temporary employees?

and

10. Does irreversibility and uncertainty lead to the outsourcing of employment?

In the phase two research, it was remarked it is obvious temporary employees are 'a source of flexibility', providing the academic institution with an opportunity to delay an 'irreversible decision'. If one was to take this obvious remark and map it, so to speak, onto Foote and Folta's (2002: 592) argument that: 'greater irreversibility and environmental uncertainty should lead to a greater propensity to outsource employment (i.e. hire temporary workers)', then the answer to both questions is obviously, yes. And, if one was to apply further confirmations within the research that a real option is been exercised with all its related characteristics relating to flexibility, irreversibility and uncertainty, it can be taken as further confirmation the answer to both questions is, yes.
However, while the research indicates irreversibility and uncertainty do lead to the hire of temporary employees; because of the ambiguity with respect to the outsourcing conundrum (ref: Question 7, above), the author suggests the question of whether irreversibility and uncertainty lead to the outsourcing of employment could be deemed somewhat inconclusive and therefore would probably benefit from further research.

11. Does initiation of an 'immediate exit' option avoid an irreversible decision?

The phase two research suggested the 'immediate exit' option protects the institution from an irreversible decision. An 'immediate exit' option is the ability to seamlessly exit from an arrangement; in this scenario the expiry of or non-renewal of a temporary employment contract. With temporary employment contracts as the 'immediate exit' option prescribed by Janney and Dess (2004): "irreversibility does not really matter", to quote one interviewee. Another remarked there is no issue: "about being locked into an employee".

The employees recognised, as they did in relation to Question 8 on the use of real options theory, the 'immediate exit' option gave the institution: "two, three or four years to see if they want to keep someone". The interviewees saw the institution: "is eliminating the risk that they [might] not need the person in the future".

The last section discusses research limitations and possibilities for future research.

11.9 Limitations and Future Research
To bring this thesis to a close some limitations with the research carried out are highlighted and some thoughts on areas for future research are suggested.
Firstly, it is important to acknowledge there are limitations, like most such works. From a logistical perspective there were constraints in terms of word count and there is undoubtedly a lot more that could be done.

The author acknowledges the number of interviews undertaken for the research could perhaps be viewed as a limitation. While this was discussed and justified in the Research Methodology chapter, the findings demonstrate a good spread of responses from interviewees in the three categories and the author was satisfied a point of saturation had been reached with respect to the research. The reasoning also was to do with the fact this research is something of a litmus test of the applicability of a relatively little known theory (from the viewpoint of those interviewed), with all its 'bells and whistles' to what is an area that although common and every-day, receives very little strategic or research attention, yet is an area of major importance to any organisation. The area broadly being: recruitment and selection.

A further limitation is the research was undertaken in the third level academic sector in Ireland. While the Irish aspect was natural from the author's point of view, the sector is fairly novel with the opening chapter providing the rationale. It would be interesting to see further research carried out within the same sector and within other sectors. One other sector that comes to mind is the healthcare sector which also heavily utilises temporary employment contracts, for example junior doctors and/or nurses. It would be interesting to see research in the private sector also, particularly comparisons among different industries and types of organisations.
### Table 11.3 Summary of Research Questions Conclusions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Conclusion</th>
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<tr>
<td>1. Do temporary employment contracts offer institutions the opportunity to assess</td>
<td>Temporary employment contracts do offer an opportunity to assess the competence and fit of the employee. They are an appropriate screening mechanism.</td>
</tr>
<tr>
<td>the competence of temporary employees?</td>
<td></td>
</tr>
<tr>
<td>2. Are flexibility, irreversibility and uncertainty key determinants in deciding</td>
<td>The three characteristics are key determinants in deciding upon the most appropriate employment mode. Their utilisation allows flexibility and protects the institution from the irreversibility of a permanent contract in a sector where &quot;there is no real uncertainty&quot;.</td>
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<tr>
<td>the most appropriate employment mode type?</td>
<td></td>
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<tr>
<td>3. Are temporary employment contracts a source of flexibility that enable the</td>
<td></td>
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<tr>
<td>opportunity to delay an irreversible decision and, therefore offset uncertainty?</td>
<td></td>
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<tr>
<td>4. Does the flexibility associated with temporary employment contracts shift</td>
<td>Temporary employment contracts are both flexible and reversible. Because of these two advantages, they very clearly shift any risk or uncertainty from the institution to the employee. The question again arises as to what uncertainty is actually being shifted.</td>
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<td>uncertainty from the institution to the employee?</td>
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<td>5. Does the reversibility associated with temporary employment contracts shift</td>
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<td>uncertainty from the institution to the employee?</td>
<td></td>
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<tr>
<td>6. Do human resource approaches reflect the need to manage uncertainty and deliver</td>
<td>Currently human resource approaches do not appear to reflect the need to manage uncertainty and deliver flexibility.</td>
</tr>
<tr>
<td>flexibility?</td>
<td></td>
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<tr>
<td>7. Are outsourcing contracts used for assessing employees for permanent positions?</td>
<td>Research on this aspect was inconclusive and therefore, a matter for further research.</td>
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<tr>
<td>8. Is real options theory an appropriate framework for which to discern the most</td>
<td>Real options theory is clearly an appropriate framework for which to discern the most appropriate employment contract mode.</td>
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<tr>
<td>appropriate employment contract mode?</td>
<td></td>
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<tr>
<td>9. Does irreversibility and uncertainty lead to the hire of temporary employees?</td>
<td>It is clear that irreversibility and uncertainty lead to the hire of temporary employees, however, it is inconclusive whether they lead to the outsourcing of employment.</td>
</tr>
<tr>
<td>10. Does irreversibility and uncertainty lead to the outsourcing of employment?</td>
<td></td>
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<tr>
<td>11. Does initiation of an 'immediate exit' option avoid an irreversible decision?</td>
<td>The 'immediate exit' option protects the institution from an irreversible decision.</td>
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Department of Finance: www.finance.gov.ie
Appendix 1 - Email to Potential Interviewees

Dear,

My name is Anthony Briody and I am currently participating in the Professional Doctoral Programme (part-time) in DCU.

My research is in the area of outsourcing as strategy and in particular a related concept called real options. *(A real option is the right, but not the obligation, to undertake some business decision, typically the option to make a capital investment. For example, the opportunity to invest in the expansion of a firm’s manufacturing capacity is a real option or the hiring of an intern with the right to spend more later (e.g., hiring permanent staff). Joint ventures, alliances, acquisitions and outsourcing are all examples of real options).* Dr. Malcolm Brady is my supervisor.

I am carrying out a real options analysis of temporary workers. This will take the form of a case study of university lecturer contracts. This is due to the fact that many lecturer positions are filled on a temporary (for example, 3 year contract) basis.

I am planning on conducting some interviews with those currently employed on such an arrangement in addition to those who have at some time been employed in this manner, in order to get their views and opinions on this matter. I am also planning on interviewing some of the 'decision makers' (i.e. the employer). I am hoping you might assist me in the carrying out of this analysis by participating in such an interview. I would be most grateful if you would, but fully understand if you did not feel comfortable doing so. I would anticipate that interviews will take approximately 45 minutes and I can assure you that any information will be treated privately, confidentially and anonymously.

If you are interested in participating, you might let me know by return email. If you require any further clarification, please do not hesitate to contact me.

Best regards,

Anthony
Appendix 2 - Sample Transcript, Interviewee A

How long are you employed with (Ed. Org.)?
Just since September; so that's what six months ago.

Are you permanent or temporary?
Temporary – one year; just a one-year contract.

What type of contracts did you have before this?
This is the first time I have ever taken a temporary contract with any organisation. This is a new approach for me as well.

What are your thoughts on that? Would you prefer to be permanent or are you happy to be temporary?
No. I wouldn't even have accepted it normally but it was just the circumstances. What happened was last year I became involved with (Ed. Org.) in helping them to organise a new masters programme in (Discipline) but it was never my intention that I would become part of the delivery team then in August we went through validation and accreditation and then when they were putting the course team together the head of the (Ed. Org.) group called me at home to see if I would do some teaching so I said well do you mean a module he said no I was wondering if you would take a full load. But I had just started working for myself and had secured two very good contracts so I was a bit reluctant however it was always my long term plan and given that the masters in (Discipline) was going to be based in (Ed. Org.) it would have been my key place to work so I thought well I really cannot afford to not do this in some way because you would be less likely to get a full time post so even though the timing wasn't right for me I agreed that I would do it. To be honest the only reason that I took the one-year contract was because they didn't have time to advertise anything and that was the only one they were allowed to offer. It's as simple as that. Certainly my hope would be that I would be offered or manage to get a full-time post. I would be very reluctant to continue on temporary contracts.

My main concern is that because I stepped out of a consultancy role, to step back in after three or four years would be almost impossible. One year would
be fine so I need to make a decision am I going full time here or full time there but I don't think another temporary contract would suit my plan for myself.  

*Would you agree then that the risk is with you or with the college?*

I would see that as a very mixed risk because; the risk with me is that I have stepped out of something I was doing to take up a temporary contract however because I was self employed that's a little bit less risk for me than say many of my colleagues here who would have left a full time job. Now that is what I would call a high-risk strategy particularly if they leave or are taking a secondment or something like that. The university, it depends really because my area is a new area for (Ed. Org.), the risk is almost even in terms of well if I go, obviously they'd be able to replace me, but if there is a time lag and given that the students are here that would be a significant issue however having said that they have advertised new posts for next year so they have time to make sure somebody else can dovetail with me and certainly there are no guarantees at all.

*What would the next step be for you?*

I am going to apply for a permanent post.

*Will you have to reapply for the post you are in?*

Totally. You see I didn't have to apply for this one, that's the issue. So I am a little bit different than some. Just to be clear, what I had to do was submit a CV and I had to meet all the normal requirements but because it was a one-year contract I didn't have to go through the normal assessment in terms of teaching and then the normal interview panel. But what happened was I had to submit my CV, that then goes to HR and they grade you against certain criteria and place you on the lecturing scale. That I am impressed with because it was very points driven there wasn't a big issue about what point you should be on I think they did that very fairly I must admit. That may be significant.

*You weren't restricted in terms of your peers?*

Exactly.

*Sometimes temporary contracts are used to attract expertise where you take in someone who can mentor others.*

Yes. Although I would have thought in the education sector you may well pay people less. I think it would be cost cutting rather than gaining expertise that
you can afford to have long term. Your example probably suits a hi-tech
environment better.
That did give me a very favourable impression of (Ed. Org.) the fact that I was
on a one year contract they were prepared to get me on broadly speaking the
correct band of pay rather than only paying as a temporary at a level which
happens in other places.
_The risk is pretty much equalised for yourself and your employer?_
Unusually so.
_Would you be satisfied with your situation at the moment?_
Only very short term satisfaction. At the end of this year if I wasn't made
permanent I would just leave because I think it wouldn't be right for me and
then the risk would be totally on my side in my opinion.
_The long-term view would be that this would have a negative impact on you
as in your role?_
Absolutely. You see there are an awful lot of tasks associated with the nature
of academic work. There are certain elements of academic work that you
would not begin if you weren't in a more stable environment e.g. the
supervision of a PHD student; bidding for research money. If you didn't know
you were going to be here 4 years from now it would be terribly unfair to take
on a PHD student in my area so it would diminish my enjoyment of academic
life. It's not just about security and finance and all of those things although
they are important it's also about the value that you can add to the department.
That's a very significant thing for me. Because I'm not a new academic, you
see some people use temporary contracts to get their foot in to a new sector, but
that doesn't suit me.
_There would therefore be reluctance for you to take on a long-term project
like a PHD student?_
I would wonder if the university could even allow me to do that. Certainly on a
one-year contract you couldn't.
_Is the college then missing out particularly in terms of someone like you who
has great experience in different universities and in different sectors?_
Definitely. It would delay a full contribution in that one area.
So, therefore, is the college by employing you on a temporary contract probably not getting the full value out of what potential you can offer?

Long term, that is correct. I think the short-term gain is weighed up against the long-term gain and what happens is if you are on a one year contract you teach more because you are not supposed to have admin and research responsibilities. So you actually deliver the normal working load that is six modules.

So the college is not tapping into the wealth of knowledge and experience you have in terms of higher level or research tasks?

It delays me planning for say recruiting a PHD student or two or maybe trying to build up an expertise in the (Discipline) or (Discipline) within the (Ed.Org.) school. It means I would be reluctant to start that because it would be terribly embarrassing to go to a funder and say well sorry I'm not there anymore.

From your own point of view then are the real negatives ranging from terms and conditions to security to the uncertainty, the risk? What would the key risk areas be?

Uncertainty I really dislike. The thing of being secure this year and next year but the following year I will be back to square one again. That and not being able to plan long-term projects are the two things I would object most to.

Terms and conditions are reasonable?

To be fair I think (Ed.Org.) deal very fairly with one-year contracts. Maybe it depends on how much they need you or want you, I don't know, but certainly my experience has been very positive in that respect.

Compared with your permanent peers, do you think you are viewed in a different light because you are temporary?

I think I have been very lucky because I have a lot of experience in the academic world. I would imagine there is even almost an expectation that I will probably become permanent so perhaps I am viewed a little bit differently. I would say otherwise, probably because people would be less likely to e.g. engage in collaborative research with you or maybe even have you take on key roles within their programmes because they might think well they are only here for one year then I am going to be looking for somebody else next year to teach that module. But, no, people give you a lot of respect; it is a very pleasant place to work so from a 'soft' point of view, no.
So if I am a permanent colleague of yours do I come to you and say I would like you to take on, or work together, on a project, is there a risk there for me?

I would have thought for you, yes.

Do you feel that your role is or will become a core competence or function of the college?

It definitely is because not only is there a dedicated masters in the area of (Discipline) but there has been a move towards putting modules of (Course) or (Course) into other programmes as well so there is at least a full workload of a very specialist area and I think that could continue to develop so it is core; core of the (Discipline) portfolio of courses already.

Would you then agree that the college is essentially outsourcing a core competence?

Yes; but it is not a bad strategy to use in a new area because the timeline was very short between approving the course and the first cohort in and I think it was probably a very wise strategy to use for this year, for the initial year. But it would be perhaps an unsafe strategy to use in the future because there is risk on both sides and to have somebody who is delivering that number of specialist modules and then to go and have to replace them with a full-time person or maybe five or six or seven part-time, it would be difficult in an emerging academic area. There are lots of practitioners in Ireland but there would not be a lot of people who have studied this as an academic subject so it may be more high risk than maybe asking somebody to teach e.g. core management, HR or marketing, more main stream subjects. People may have studied those as part of an MBA programme or a specialist masters but the other subject, because it is new, is less likely – there wasn't a taught course in Ireland until (Ed. Org.)s so you see it is quite unusual.

That is very much linked in with the thinking on real options e.g. testing the water. If it doesn't work there is no huge amount of risk for the employer. It's a strategy they have used very much linked in with real options.

I think that the worst thing about a short-term contract is that it is de-motivating for anybody, and for me too, if there wasn't a move from temporary to permanent or at least the suggestion that even if it didn't happen at the end of
this year it wouldn't take very much longer. I think that is a major thing and I think if you over rely on it, it's ok having one or two but if you have too many people, it becomes almost like a trust issue and it is perceived risk and gain. There needs to be a balance between what (Ed. Org.) is gaining and what the individual is gaining. If that balance becomes 'out-of- kilter' I think there is a serious issue then because people are already motivated, they are looking outside, they are looking for another college or university or back into industry. It is a high-risk strategy if it is overused in an academic context.

*Do you have appropriate access to things like training?*

I think that is very well covered. I seem to have the same access as permanent staff because every day we are getting options to develop teaching or research or even admin elements of our job and also we each have a personal development fund and I get that attached to a temporary contract the same as permanent staff.

*It looks like the existence of an option is apparent here: the recognition, the exercise, or the abandonment of the option.*

Yes.

*Something else that is core to the real options language is irreversibility. To quote from the literature, "real options theory predicts that greater irreversibility and environmental uncertainty should lead to a greater propensity to outsource employment (i.e. hire temporary workers)". At a general level would you agree with that statement?*

To clarify, what you are saying is that it will allow greater flexibility in terms of using people for the length you need and then disposing of them in the way you would with other resources? Clearly, that seems to be the key reason; either that you need very high quality specialist staff for a short period of time and you are prepared to pay above the market rate for that, that is one way, but I don't think that is the norm. I think it is more likely that people don't want to commit to long-term commitment to a human resource. Therefore, they will make the shortest possible decision that they have to.

*Who would have made the decision? Is it the Dean or is it the Institution?*

It would be the Dean and Head of Group I would have thought. Head of Group is (Name). So it would have been between (Name) and the Dean.
Some of the literature would suggest that with temporary employees on board that at times it could actually motivate permanent employee to 'up their game' to an extent.

I would say that that is more evident in the private sector than in the public sector because there is tremendous job security or perceived job security in the public sector, which you would not get in a lot of companies. So I would say that is a spin off that I would expect to find in a private sector company or in a more competitive environment. I think that's less obvious here because there's a sense of 'we're here we're permanent'.

Maybe a competitive environment is the key thing because e.g. the health service is more volatile. What you describe, I think, would be more likely to happen in a public hospital than in a university. But that's down to the tradition of once you are in a permanent post and older contracts; people have tenure etc so there is a huge history to permanent academic posts that you wouldn't have in public sector.

I think it certainly could happen in the private sector where somebody is obviously really up with technology and coming into a department where people maybe have been stale or there for years, they could certainly shake it up.

The literature makes the comparison between real options and financial options. Real options are created on real assets. Real assets are described being acquired through investments of time effort and money. If your role was to be seen as a real asset for the college, you would expect that once your year is up or mid-way they will be saying to you that we see this as a long-term investment, we want to fund it and for you to put the effort into pursuing it. Would you see that as the right way to do this?

Totally. And that is exactly what happened which is why I probably have a high level of satisfaction on a one-year contract than most. Because it's a new area and there wasn't the option to go through the process to get a permanent member of staff in the time that was available it is justifiable and excusable to appoint on a one-year contract. However, lets us say that I was a lecture in (Discipline) or (Discipline), there would be no such excuse for a time line not allowing an appointment; then I would feel less content and certainly because
some people were saying to me that there is a move towards one year/three year/permanent, I don't accept that as a viable strategy either.

**If, when you got the phone call last summer and you were being told that it was to be a three-year contract what would your reaction have been?**

I would first of all have thought; surely they cannot do that legally. I haven't applied for the job or haven't been interviewed. Let's say that happens now, which is a very strong possibility, that I went through an open competition for the job, and that was offered I definitely would be very unhappy.

**If you weren't offered the option of permanency in a couple of month's time, would you leave?**

You can never say I absolutely wouldn't but I would be very, very unhappy with it and possibly or even probably would not take it because I would think in one year I have proven what I can do, I have delivered at short notice, high quality teaching. I am co-chair or actually in practice chair of a programme so I have put more in than you would expect of a one-year contract person.

**Obviously a real asset is a human asset, which is really what we are discussing here. Another quote in the literature is that a firm never really possesses human assets in the true sense because they have the option to move.**

I think it is a feature of modern business and modern employment that people are less wedded to their company because in some ways people also feel that the company are less wedded to them e.g. you are only as good as your last review type comments. When I first started in an academic post I think I was about (age) which would have been very young for appointment but I remember a guy who was in his fifty's saying to me, you have a job for life, you'll never have to go anywhere else, and I remember thinking, what? But that was the way that generation looked at things. To keep moving up to keep getting new experience, I think people do move; maybe a bit less so in academic life, I would have thought except to get e.g. you are a lecturer and you want to become a senior lecturer or you were a senior lecturer and you were looking to become a professor, that's when people tend to move; to obtain the big jump rather than within a lecturing post you would be less likely. E.g. there are no other universities at the moment in Ireland where I could have a
full role of (Discipline) or that exists. What tends to happen is you could go
into a general management post because you have an interest in a particular
area of research it evolves around you; a cluster of programmes or modules,
which is what has happened here already.

The academic world is funny because you come in as an asset and then you
almost build a product around you within a university setting.

If I design a programme or module then I go somewhere else then it remains
with (Ed. Org.). But at the same time the assets and the products are so
intrinsically linked that it could be very difficult even if somebody had my
material to deliver. So that is an interesting aspect.

*That's a dynamic capability or real option that you could provide to someone
else?*

It would have to fit within the strategy but it can happen. In my previous post
there was nobody working in this area then I started working on a (Course)
module then I started looking at (Course) and that snowballed so that by the
time I was leaving there were modules on (Course) within (Discipline) courses
so you do have a big impact; but more likely to have that impact as a permanent
rather than a contract employee because people will say no because you are
only on a three year contract or one year.

*Taking it from another angle – contractors, probably temporary employees to
an extent.*

There are several people who teach one module or two modules. Their
expertise is just bought in for one module. The other side of this is that the
university actually encourages you to do consultancy within (Discipline).

There is almost an expectation you would do that in certain areas e.g. when I
came in here from what I was doing I was allowed to finish off two contracts
with major clients because they also were key clients of (Ed. Org.). So it is
quite an intricate relationship.

If you wanted to maintain a consultancy business and you wanted to teach then
you would allow yourself to be contracted on a module rather than your time.
And a lot of people do that.
In your particular situation, both you and the university are developing a capability perhaps a dynamic capability because of the fact that no one else is doing this?

You are quite right. I am the incoming chair of (Discipline) and last year we wrote to several universities to see if it would fit within any of the strategic plans that they had to develop a masters postgraduate qualification in (Course) so it is exactly developing a capability. That for me flagged a potential area for development in (Discipline). It has evolved into something that we can both develop in harmony.

Because it is something no one else offers, it would link in very much with the dynamic capabilities or core competence literature, in particular dynamic capabilities. The college as a body is differentiating itself.

Absolutely. And it is a low risk strategy for doing so. As you quite correctly said because they haven't committed to buying in somebody like me that if the course doesn't run we are stuck with.

"The underlying logic of the real options framework is based on the realisation that future investment opportunities are contingent on prior investment commitments".

Absolutely. If you came in here on a one year contract and you were told you had no admin to do, have no research to do but you have to deliver an extra module then that is all some people would do because time wouldn't really allow you to do an awful lot more. The prep time on new modules is massive. It is a bit unusual for me because I have already done this at least I knew the systems for pulling the material together but if you genuinely were on a one year contract in a new area and maybe new to academic life as well, which would be the most common, then you would be unlikely to develop investment opportunities for the university whereas at the moment I am negotiating with (Ed. Org.) for about (no.) other new pieces of work. At the same time when I am at the negotiating table and I am saying, 'we can do this, we can do that and we can deliver that and we can design that' and I am thinking 'if I am here, if I am here, if I am here'! but you cannot say, 'if I am here we will be able to' because clearly the client would run a mile.

Is the client on the other side of the table conscious of that?
Not at all. I don't think it would ever cross their mind or they would think it is such a big place there must be somebody else that could do it. And there probably is! But in a new area, there is a high risk. That been said, anyone can leave. In this case there is a more obvious deadline.

To make a contract post work you have to behave and have the mindset of a permanent employee. Otherwise you would not be able to add the value that you should be able to add. Because, you would say well I can only commit to doing that until… or well I can only do this if we have the entire training package delivered by…. going out to the company. Often when I am talking to my boss, I am saying, "ok, next year we can do…” and then I think… there is almost this assumption that I will be reemployed. I think if you didn't think like that you would be blinkered and focused on simply delivering whatever was written down and that you had to deliver.

So if you were not thinking as a permanent employee, you would actually be negating against yourself. Somebody could look at you and say you are delivering but the 'bigger picture view' isn't really there? So you have to break out of your temporary role and act as permanent.

Absolutely. That is correct. You wouldn't enjoy it; you wouldn't get the richness that you get from an academic job. No expectation of admin and research doesn't mean you shouldn't do it.

(Ed. Org.), in my opinion, relies more heavily on temporary contracts than any other university that I am aware of.

Traditional outsourcing v Temporary contracts – new definition of outsourcing: outsourcing a person in the university setting?

If you said to the Dean are you outsourcing any of our academic work he would probably say we do it all ourselves. Because we are still (Ed. Org.) employees albeit on temporary contracts. He would probably think you mean is another college providing.
Appendix 3 - Employee Interview Findings

What follows is a synopsis of responses from the employee interviews by research category. Interviewee quotes are denoted by letters.

Temporary Employment in the Third Level Academic Sector

"I wouldn't even have accepted it normally but it was just the circumstances" (A). "Certainly my hope would be that I would be offered or manage to get a full-time post. I would be very reluctant to continue on temporary contracts" (A).

"I was delighted with it from the point of view that the nature of our job is that you constantly have to be proving yourself so there is a nature there where you are actually trying to increase your actual knowledge, trying to increase your expertise" (D). "Obviously what you are trying to pursue long-term is a permanent position" (D).

"I was a bit anxious particularly for the first six months. I firmly believe it takes six to eight months to get used to a job. And then suddenly I could be gone so I was very anxious then" (G).

"I was willing to take it but I wasn’t very excited about a [temporary] contract. To a certain degree it impacts on your commitment. You are committing to and putting so much work into something that you don’t know if there is anything for you next year" (H).

"Only very short term satisfaction" (A). "It is not just about security and finance. It is also about the value that you can add to the department - It would delay a full contribution" (A).

"If I want to grow a research programme [or] I need to take on a number of PhD students, I need to acquire external funding, then definitely it would be preventative from being able to move forward with that sort of work" (D).
"Is it worth me spending extra time enriching the course in that way knowing that I might not do it next year? I know the students appreciate it because they see the difference in the course but you don’t really know how much it is appreciated or regarded within the institution" (H).

"I am going to apply for a permanent post" (A).

"From my position, contract positions are fine for me at the moment. If it becomes permanent I would have the guarantee that it was permanent but I can walk away" (C).

"The initial thing for myself was, ok; I will look at it from the point of view of, it is a three-year contract, a great opportunity to effectively publish. Those were my initial thoughts. But, now when you are in the job you say well there is so much more I can do from here. And I think a permanent position definitely would afford you that security" (D).

"The wish would be a permanent role. If that was not the case I would have to go elsewhere" (G). "But permanency would be the ultimate goal" (G).

"People give you a lot of respect. It is a very pleasant place to work" (A).

"There is never the perception that you are different to anyone else. You are seen very much as part of the organisation" (F).

"I suppose there is an element of where people view the permanent position as [where] you can really build and you can really develop. There is always the issue I suppose with temporary in that it is a contract that is short-lived" (D).

"One thing about [the University] that I found was: I am treated as a permanent member of staff. There is no distinction going on so you feel part of the environment" (C).
"There is no difference. I probably have a bigger workload in terms of teaching than permanent staff but less administration workload" (G).

"In terms of respect from colleagues, cooperation, help etc, I don't think there is any difference" (H).

"It definitely is because not only is there a dedicated Masters in the area but there has been a move towards putting modules into other programmes as well. So, there is at least a full workload of a very specialist area and I think that could continue to develop so it is core; core of the Business Schools portfolio of courses already" (A).

"It would be both. Now this is interesting. I personally would describe it as core. When it comes to the college environment I am surprised that not always the students, particularly undergraduate or taught students, were seen as the important people in the college – the customers. There has been a move towards funding for research so research has become the 'be-all-and-end-all'. Now I am involved in teaching and I see it as the core competency but I think the college sees research as the core competency and the teaching as slightly secondary" (C).

"Yes, my particular role has two parts: teaching and teaching [my subject area] which is a subset. The teaching process is a key function that the college carries out" (B).

"I would say so because the strategy of [the University] is focusing on teaching and research and so I would be research active. I would be ticking the boxes in that sense in terms of trying to raise the profile of the University. So from that sense, that is a core competence; the fact that they want to be seen as a research driven university, being able to compete with [other universities] etc. Then from the other side you have the teaching, which is a core part of the job. It is an educational institution so you expect that teaching is a core
competence, adding value in that the money comes in comes from the students. So definitely it is a core competence" (F).

"Is the Business School a core function of [the University]? Yes. Is what I bring a core aspect of the Business School? I would like to think so" (D).

"To answer the question simply – yes. There is nobody else in the current group that has the knowledge or background to deliver [the module] which I do". "I can offer that as a core competence" (G).

"I think universities have only two core competences: (1) to gather knowledge, codify it – the research process and (2) to disseminate it – the teaching process. It is expected we do both activities. Then obviously there are specific competences / individual interests" (E). "I don't tend to see any [specific areas] as special competences of the university as such" (E). "Each PhD would be a type of competence" (E).

"In terms of delivering the core competences of teaching – yes; administration – yes; research – probably no – you are limited and it is not really expected of you" (H). "Most lecturers will try and tap into their PhD research because it is unique to them" (H).

"The academic world is funny because you come in as an asset and then you almost build a product around you within a university setting" (A). "If I design a programme or module then I go somewhere else, it remains with [the University]. But at the same time the assets and the products are so intrinsically linked that it could be very difficult, even if somebody had my material, to deliver" (A).

**Flexibility, Irreversibility and Uncertainty**

"The foremost thing was elimination of uncertainty" (B). "I got affirmation in the best way possible that I was making a contribution, that I was adding value" (B).
- "There is a huge difference. Being permanent you become more committed, more secure so I could fully concentrate on my job without thinking of what I am going to do for the next year" (I).

- "There isn't this Sword of Damocles hanging over your head going to fall in three years time. With temporary, you really have to gear everything just for the three years; anything that will help your case at the end is worth doing" (E). "I do see there is a difference in the way you are viewed by the institution. I think the institution is prepared more to invest in you when you are permanent" (E).

- "It depends really because my area is a new area, the risk is almost even in terms of well if I go, obviously they'd be able to replace me, but if there is a time lag and given that the students are here, that would be a significant issue" (A). "There needs to be a balance between what [the University] is gaining and what the individual is gaining". "It is a high-risk strategy if it is overused in an academic context" (A).

- "In terms of my weighting of the risk or uncertainty, I had certainty for [a time period] going forward, which was my objective" (B). "My judgement is [the University] took a greater risk in that I could let them down" (B).

- "I suppose my bias would say the employee incurs the risk" (F). "They might enjoy where they are working but a job might not come up when the contract is finished" (F). "You can see from the employer's perspective that they have two, three or four years to see if they want to keep someone" (F).

- "I understand that people are given temporary contracts but they should be told or informed of possibilities e.g. permanency. I think that minimises risk" (I).

- "The risk is with me I think more than the college" (D).
"If the right selection is made I believe the risks are quite equal" (G). "I think overall it weighs more favourably on the side of the employer" (G).

"I felt at the time, [the risk was] almost entirely on my side. The employer always has a risk that someone can leave anyway. Ironically, because it is a contract you feel more obliged to see it through to the end of the three years" (E).

"It is definitely a seller's market in terms of academia. Colleges do have the power. E.g. in 2006, there was 920 PhD graduates in Ireland and less than fifty [available] lecturing posts. Which means that colleges can afford to engage in short contracts. So the risk is definitely higher for an employee" (H).

"In terms of taking somebody in on contract rather than permanent, the college is eliminating the risk that they don't need the person in the future. So definitely the college is maintaining flexibility and the risk is transferred to the individual" (C).

"Uncertainty I really dislike. The thing of being secure this year and next year but the following year I will be back to square one again. That and not being able to plan long-term projects are the two things I would object most to" (A).

"It is definitely the insecurity, the fact that you do find it hard to plan ahead" (F). "It didn't feel secure and you were very uncertain about where you fit" (F).

"Obviously uncertainty was one of the key concerns. Another thing was in terms of teamwork. How easily can I be integrated into this new environment? How much commitment can you make yourself? Motivation was also effected" (I).
"I suppose the hardest thing... you can't just leave the job... I am on a contract here and I cannot leave in the middle of it because you cannot leave a class in the middle of a semester" (G).

"Personally I wanted to carry on, stay on. I would have been very disappointed if I either took up another job in academia or had to return to industry. I had come to like the academic life and was happy to stay with it. My real concern obviously the main one was income" (E). "The old rationale of the three-year contract (to see if people will research) doesn't hold up. It is more difficult to understand the rationale why the University is doing this other than to purely exploit the situation" (E).

"In terms of doing some of the core work e.g. supervising Masters’ theses, you have students coming in asking you to be their supervisor. I have to say I will come back to you because you have to ensure you are here" (H).

**Outsourcing**

"Yes; but it is not a bad strategy and I think it was probably a very wise strategy to use for the initial year. But it would be perhaps an unsafe strategy to use in the future because there is risk on both sides" (A). "There wasn’t a taught course [in the specialist area] in Ireland until [this University] so it is quite unusual" (A).

"I don’t think that, because they retain the management control, the key processes. I think they are buying a service. They are buying it on a temporary basis and they are buying it for a year or whatever" (B).

"I suppose it is the only way they can work around it. They wouldn’t be allowed to outsource in the traditional sense because the money isn't been given to them to create permanent positions. You could typically call it outsourcing. The rationale behind it is somewhat similar to outsourcing for the organisation" (F).
"If I was told, here is a two-year contract and you have to go after two years, I would consider that as outsourcing of a core competence" (I).

"Every lecturer is unique and each brings his or her own unique subject area so I wouldn't see it as outsourcing as such" (D). "I would see it as becoming an outsourced commodity [if my specialty area became a key aspect of the college offer e.g. delivery of a Masters programme]" (D).

"I think that is exactly what it is. They are not outsourcing to a company but to freelancers which may not be common practice in the industry" (H). "One reason you would outsource is that you would hope the person you outsource it to will give a better quality than you are able to provide internally" (H).

"I would agree with the statement. If you take the biggest building companies in Ireland, the number of permanent staff they have is minimal probably 20/30. They sub-contract which is outsourcing" (G).

**Real Options Theory**

"I don't see it as outsourcing. I do see it as an option. The company taking an option on a person where they have the most control of the option. When you take in someone as a full time member of staff, be they one year/three year/permanent, I don't see that as an outsource" (E).

"Clearly, that seems to be the key reason; that you need very high quality specialist staff for a short period of time and you are prepared to pay above the market rate for that" (A).

"The college's business is less unpredictable or less uncertain than other business" (I).

"Organisations cannot possess these but long-term commitment can guard against this" (I).
- "It is a question of intellectual property and who owns it" (H).

- "I don't think it can. Can a company or organisation ever own human capital? If an employee wants to leave the organisation they can leave. There is nothing an organisation can do about it. Can they invest in it? Yes – by ensuring those people don’t walk. Can they own them? No" (C).

**The 'Immediate Exit' Option**

- "The more the uncertainty, the more from an organisational point of view it would make sense using the option of contract in labour in this context" (C). "In this environment, from a risk point of view, contract work doesn't seem to add anything because they have certainty" (C). "That doesn't seem to make any sense to me; there is certainty in what there is going to be. So why is the risk been transferred there, I really don't see any reason for it" (C).

- "To a certain degree maybe they have an excuse for [using real options]. Maybe by having one to three year contracts they can make sure that it is the person they want and are going to keep. From a quality strategy to make sure they get the people they want, the individuals that would bring specific research topics or areas that would interest the college" (H). "It can be a way for them to filter, not just in terms of quality of people and in terms of knowledge, but their research area as well and they tend to go for people who will bring in research funding. In the last five years they tend to run colleges more as an enterprise rather than as an educational institution, which I don't think is right because our main purpose is to educate people not to make a profit" (H).
Appendix 4 - Employer Interview Findings

What follows is a synopsis of responses from the employer interviews by research category. Interviewee quotes are denoted by letters.

Temporary Employment in the Third Level Academic Sector

"The university doesn't like and usually doesn't allow a part-time member of staff to be the module coordinator even if they are teaching it for a couple of years, it has to be a full-time member of staff. That causes a bit of schizophrenia with regard to the part-time staff who feel it is their module but yet they are not in control and it is down to depending on budgets whether they can be taken on... there is always that type of precariousness about it" (J).

"The argument in the UK or America is that tenure takes at least five years whereas here if you are employed on a full-time contract for one year, you are tenured" (J).

"We are a vocationally driven university so they want to see staff who are industry experts but also we would argue, they have to be beyond that and that is where theory comes in and research etc" (J).

"The biggest thing here would be the post-doctoral researchers... the human capital there or the nature of business... Research contracts are by nature fixed-term so you are bringing people in" (M).

"There are projects where you bring in research assistants who have just a primary degree or masters or whatever but again it really depends on the project" (M).

"The natural progression in years gone by was do your degree, your PhD; ideally if you wanted to get an academic post you go off to do a post-Doc and you hoped then to build up a research career in terms of publications and whatever was competitive for an academic post. And that is fine, that model
works fine if you have got quite a lot of fluidity in the system but, Ireland – there is not a lot of people moving on; then you have basically got blockage which is blocked up by government grants, restricts the number of staff" (M).

-"There is the fixed-term workers act but it was certainly not helpful in terms of the university conducting its business as research" (M).

-"In any organisation you need new blood" (M).

-"Tenure after one year is absolutely ridiculous whereas it is 5 years in the US. If a permanent position is advertised and somebody comes in they have one year in which to prove themselves; for an academic position it is far too short" (M).

-"You wonder really; doing their teaching, you will not be able to assess their..." (M).

-"Enriching, bringing in [industry] experience you don't have on your staff..." (M).

-"The notion of the university as an employer is interesting as there is a tension between... within any hierarchical system like this one... between the objectives of the university say as the global employer and the faculty level manager as representative of an employer. There is a tension there which is interesting again and raises options which very clearly when they focus in difficult economic circumstances, because we are funded publicly so when public funding becomes scarce or there is pressure on it, then you get external missives coming in to the university which find their way down to us. We are always trying to protect our resource base, as the university does. We are all trying to do the same thing. It is not a lateral sort of thing unless the interim budget process makes it that it is actually a hierarchical thing. The HEA for example, as a state funded body, is under pressure from the Department of Education, the Department of Education is under pressure from the
Department of Finance, the universities come under pressure and receive documents from the HEA saying do not hire any more people unless we approve it and the university is telling the faculties you cannot do x, y and z; so everybody is moving within that approval hierarchy – it is a struggle thing" (L).

"The different faculties have different hiring practices. The interesting thing about this university is that it is still relatively new and the first ten years of the university, that growth period, hire practices were a little bit different than what they became eventually, things settled down so as we came up through the transient in establishment in hiring and so on, and reached a plateau, the nature of hiring changed away from the teaching only to very much teaching and research, very significant research" (L).

"If you draw a graph of time against establishment. In almost anything including activities; activities and resourcing... we started in (Year) at zero and we went very quickly very early. A typical almost first order system. We are where we are now say (Number) students and our resources trail that. The interesting thing about is the decision you make at a time are quite different to the decisions you make at a different time because you are under different levels of scrutiny but there is no such thing as a straight line (graph) which is your contention that when it comes to diversification for example, this (graph lines) goes up and down and this thing (resources) goes up and down as well – following it. Anywhere you get change like this, you get active decision making, active options to take on your resource-base and on your staff" (L).

"We went through in this faculty, in this school, we went through the entire 80's with about 50% of our establishment in places as permanent staff. We don't have the same approach to permanent v. temporary as the (Faculty) school. The (Faculty) school tend to look for niche expertise when hiring someone in (Discipline) or wherever. Their permanent positions were experts from industry. We do this to a far less extent; our practice channel is to get as many whole-time permanent high quality people as possible on the ground because we have an internal development role as well; we have laboratories,
research that requires a hands-on approach to things and so on; so we are developing resources at the same time. You can't do that if you have somebody coming in for 2 hours a week or 4 hours a week or 6 months – they don't have that responsibility so you can't build your house on contracts but you can do some things with it. You can protect yourself against the system to some extent and you can protect yourself against the fluctuations that happen" (L).

"The Irish system wasn't producing many PhDs; the best people were going to the States. We hired 4-5 people from the States who came back again. But (Institution), (Institution), (Institution), (Institution) who were the established (Faculty) schools at the time, their top people went to the States" (L).

"Until we really got the research underway, most of the research staff, post-docs maybe 20 of them, another 50 research students – those people are all temporary – universities are like that" (L).

"I would always have been cautious about going for significant numbers of part-time staff but we never really got into seriously recruiting part-time staff for the purposes of providing teaching services because there not that many really capable good people either willing or prepared to give the time with the qualifications in industry that would have the flexibility to come and do what we want them to do" (L).

"Our business model was being conditioned to an extent by the fact that we were predominantly permanent staff and a very small level of strategically deployed part-time input" (L).

"That is the nature of universities" (L).

"We have translated research students into permanent staff via contract positions – not exploiting recent legislation etc – in the past, believe it or not, there is a significant number of people in this department who were educated here at some level, PhD students or otherwise... some say that option is not the
best option but if it is the right option and the right option is the quality one” (L).

- On the research side, if the funding is not there on a long-term basis... we are not making decisions to put anybody on a long-term basis” (M).

- "Well you have got funded so...well you have got deliverables so any research contract has to do this, this, this... you have to deliver that to be competitive the next time you are going for a grant” (M).

- "I think it is a difficult thing in universities and I don’t think we have come anywhere near solving the problem of maintaining long-term high quality research because you need a level of permanency in your staff to do that and not just in the leader because if the leader is always in the hiring and firing business there is no stability. Yet above the academics, the people who teach on the ground, there just isn’t the facility to set up and run an operation like you would do a business. What needs to be over-laid in some of these things would be the productivity demands of the business and if you do that the thing will scale itself” (L).

- "We are given out a block grant and the university's financial model will buy a certain number of posts in any faculty and so one works to the complement. Lecturers are permanent so you cannot really bring a lot of other permanent staff” (M).

- "From a teaching point of view they would be ideal to take on, on a permanent basis but they don’t have the full set of core competence and that creates another angle from the employer’s point of view; people start to develop their academic career on the research side and then start to build up their teaching experience” (K).

- "In terms of an organisation filling posts on a temporary basis rather than a permanent basis, one of the ironies is that in recent years we have had strong
revenue streams in some areas but in those very areas it is very hard to get suitably qualified people to take on permanent posts... ...we would have given permanent positions if we had, had suitable candidates for them, but because we got those candidates with core competences but not the full set, those people would have been offered temporary posts and then I suppose you could say in an effort to balance the risk, we would have offered those people probably a three year contract, to give them time to start on a doctorate, and then if they were continuing to develop and our revenue streams were continuing to remain strong and this has happened over time, those people would then apply for the permanent post when it becomes publicly advertised and succeed and some of those people are here now as well established academics" (K).

-"I have been amazed in recent years; we have had somebody give up a permanent post elsewhere in business to come here for a fixed-term contract and didn't bat an eyelid" (K).

-"There is an advantage from the employees point of view, in some areas, it gives them an opportunity to put a foot in the water, to see if they like academic life and in that particular area we have had some cases of outstanding individuals who came here, completed a three year contract, had the permanent post for the taking and walked away - they had opportunities or options back in business, didn't want to stay in academia too long, cut at the best possible time when they said look, I have got three years of different experience on [my] CV... ... [I] have tested the water; don't like the research side so [I am] not going to stay here. They managed the risk from their point of view" (K).

-"There is the individual managing their career and us managing on behalf of the organisation. I suppose there has to be an overlap there. If you go out to create a permanent position, there has to be an overlap in that the person has to see that there is a good enough fit; we have to see that things are falling into place and then of course if a permanent post is created, then it is filled through a competitive process, publicly advertised etc. and that person may then have
worked their way in to a sufficient fit for the post to win out in a competitive situation" (K).

"Ultimately you have to have an open competition. If you exercise the open competition fairly that means you have to set it fairly for all and if somebody comes in from outside in those circumstances then the internal candidates are not going to get the job. We have had those situations. The test is there" (L).

"Clearly Ireland wishes to develop these younger researchers who can be competitive and the research fund obviously it builds into the spark, the economy etc etc... if they stop the funding clearly a lot of good people will have to leave again and that is very poor. And I think you will find a lot of frustrations amongst the contract researchers" (M).

"They are in the research funding and if they wish to continue... they see it as their life's job and they are building up families and obviously there are financial pressures or whatever..." (M).

"There should be a research track which offers permanent positions as opposed to the natural academic track... but they don't see that the universities are not funded in that way to permit that; that universities are funded by government. So, many positions are available and there is funding absolutely set against that, that is fine. In fact they are moving away from that as the economic situation worsens – research is one of the things they say they want to maintain but they are as you can clearly see holding back on the funding levels" (M).

"And there are quite a few people – I'm not going to mention any numbers or whatever – but there are quite a few people who would have worked over the four years or whatever on short-term contract on the research fund but... I think you will find a lot of frustration out there as well" (M).
"Our unique selling point has always been our close connection with industry, our real life experience, our ability to see through and cut through a lot of the academic stuff and make good entrepreneurs" (J).

"What we are arguing now is creating good entrepreneurs across a huge range of areas, being able to think outside the box, being able to think through things. That's where we would see ourselves as having some edge. What we endlessly say is the big universities have silos of research departments whereas we want to much more cross-fertilise, cross-connect. That is the future; Ireland is small so the smart economy argument, the real smart economy is thinking through paradigms in different areas" (J).

"I think that clarity of what the expectations are on each side is very important... ...so that the 'outsource' knows the 'game'. [They] need to know the game of what education is all about; what is expected, what students expect, what the administrative expects, what research expect... some may find that they are actually lured to the game and may want to move from industry into the 'game' of education. So that certainly can happen but if the relationship is clear and people know the boundaries and know what is expected; they need to know clearly what benefits they are getting" (J).

"They found the excitement of education being more reactive... an endless argument that is used for education is that you are renewed easier each year with new students coming in; you don't have the monotony of doing the same sort of things... some argue that" (J).

"The research, the ability and the wish to do research means that you are adding to valuing your own professional area and obviously people are enticed by that, that they can actually do stuff that interests them and that is the whole idea" (J).
"We have sometimes incidents of people playing the 'game' but then no results so we wait and see how they are progressing on their PhD and if they are not progressing then that is a signal that, that is not working" (J).

"Legislation is weighed in favour of the employee" (M).

"The exploitation argument is always one we are very worried about" (J).

"There is an issue going on that sometimes with some part-timers; they are doing so much teaching to live and to exist that they are making their career, they are not thinking long-term" (J).

"The part-time are always the manipulated element of the resource and that is very unfair and we know that and I think we have to be up front about it" (J).

"There have been several examples of people being absolutely superb, coming up with really good ideas to developing programmes and the irony of it is they would be coming with programmes, ideas to develop new programmes, generate revenue streams, but they were not positioning themselves to be able to take advantage of that by not developing into the research which is a fairly common kind of a deficiency" (K).

"Within certain schools we have a lot of part-time and they would be sometimes fairly long term for varying reasons. Sometime they are doing part-time here and part-time in other universities. So they are almost 'career part-time'. Some would keep applying for full-time posts and maybe not get it, and that could be because they haven't got the PhD yet or they haven't got the research" (J).

"If somebody is not going to be around... the relationship of a research student isn't only with the individual, it is with the department – the head or whoever sign it off. So there is a level of management scrutiny that is
which protects the student. So the supervisory arrangement would shift in those circumstances" (L).

-"There is a practice here where once people get three years behind them, the funding agencies will look better on them but the school has to come up with a guarantee to say that they will be around" (L).

Flexibility, Irreversibility and Uncertainty

-"You could argue that it is the employer managing the risk rather than transferring the risk. There is a risk that that employee will leave and that is another way of looking at it" (K).

-"Purely from the employee's point of view, the employer is transferring the risk" (K).

-"If you think about an employer managing different types of risk, one risk, for example, is that the business unit could discontinue and the revenue stream dries up so we have to cover the costs. Another risk is that if we make the person temporary, they may leave and another risk is that they may end up in a contract of indefinite duration in line with the legislation" (K).

-"We would run the risk there that our competitor institutions would poach because they would see that person who is a competent lecturer, starting off on a doctorate and getting into a position where they would then be able to put up a good case for a permanent post – then the risk is transferred back to us because at that point that person has been here for two years, got well down the road on a PhD, very well qualified in every other respect; that becomes a very attractive person to a competitor institution. So whereas initially it might appear from the employees point of view that the risk is being transferred onto them; that would shift over time as they become more qualified and competent, more attractive to competitor institutions so the risk from our point of view is that a competitor will advertise a position; they will go for it" (K).
"In terms of risk we would have to say from a business point of view, we can be confident, we have the entrepreneurial angle on things but you never know is that program going to fly? Is it going to produce a revenue stream?" (K).

"I think that the employee is much less secure in their continuation of their services if they are on a temporary contract because they will be looking around and be thinking of that particular horizon and that is the extra element of risk" (K).

"There is a reciprocal debate going on and that causes serious issues where some part-time staff can be seen as very effective and adding a lot of value and all the risk is on their part and yet they are not getting tenured after being apprenticed for years, they still don't get the full time post" (J).

"The risk is you employ the person who is not able to deliver" (M).

"You will lose people; it is a fact of life and it is a fear that people have. The stability that goes with contracts contributes to it" (L).

"I remember loosing someone and not only did we lose him, we lost a group; a research group and it dropped activity levels by maybe 10-15%. I remember trying to talk to someone in the university saying shouldn't we be intervening here? Isn't there something that should be done? And of course the answer is; what can you do? What you can do in terms of people walking away... they take their research students with them, you can make it difficult for them but they will end up leaving and you have to take the hit" (L).

"[It relates to] the issues around getting core competences but at the same time managing the risk" (K).

"I think if there is some form of a mentorship it could be a way of allowing them to add more value but it is a risk for them – they are doing more to try and add value but they may not be rewarded" (J).
"I would worry that they are being just used as pawns to over extend the flexibility. They do certainly allow flexibility and once you employ a permanent member of staff then you have the fixed-cost that has to be covered whereas the flexibility of part-timers allows that" (J).

"Our mantra is flexibility and adaptation...future proofing...transferable skills..." (J).

"On the academic side we would have very few contracts. We would work to a complement unless you get a retirement or you increase your complement you don't really have a lot of flexibility" (M).

"The example you are describing is one to do with diversification. Diversification is always a high-risk business and preserving your position...your flexibility in those circumstances" (L).

**Outsourcing**

"If they are the people that we outsource to in a sense, can they almost be called a permanent pool of people that different organisations will outsource to? In other words they sell their services and move on or stay a little longer or whatever but not to become put off by the notion of a temporary contract" (K).

"It is a form of contracting but I suppose I don't know how broad the outsourcing concept goes but some of the risks that I would associate with outsourcing would be for example quality control; we would have no concern about that at all because in addition to those people we would have on temporary contracts, we would have a lot of part time people and we have a lot of what we call adjunct people who would come in a deliver a module; they are not here all the time but we have all sorts of quality control mechanisms – student feedback is one of them and we have very strict controls over the standards of examinations and external examiners etc and also of course in terms of the people we hire; we generally get to know them, somebody knows
their background, we have a look at their qualifications, interview them if necessary" (K).

"I don't see that it carries the risk of outsourcing. Again like I say the person can walk away. In most cases though if they did walk away, we can attract equally qualified people" (K).

"They are consultants if they are coming in because they are bringing in specialist knowledge. Some of them want to do it because it gives them kudos in the sense that they are getting real life experience through teaching" (J).

"I think outsourcing is a good way of describing it and it is reciprocal, it is not seen as power" (J).

"Some may feel that they are being outsourced or whatever but the majority I think of the ones we want to get, tend to be the ones who are successful in their industry so they are doing it as just something to add value or develop their CV or something to give back, adding to their profile etc. Outsourcing is a way of looking at it" (J).

"The word outsourcing is a bit different than a business that is outsourcing or a local authority that is outsourcing something or other. If you think about it and take ….. , who is head of our research group, he has a research lab with a lot of resources and so on. His challenge is to maintain productivity and the competitiveness of his resource-base and so on. So, some things he can outsource and there is the opportunity within contract agreements to actually outsource expertise in certain ways and in fact it is encouraged not to be the person who does everything. So you will find a little bit of outsourcing in that classical sense there but when somebody goes to look for a post-doc in their research lab, they are looking for somebody who is… it is normal…the problem is using the language of outsourcing… it is outsourcing in the sense that the competency and the time available etc wouldn't be available within the permanent core of staff so you go looking for a flexible resource and you have
discretion over what that is in terms of qualification and their expertise and you can match that into the laboratory. Then the laboratory maintains its productivity through that so you are outsourcing in that sense, at post-doc level. The research student level is a bit different; there is a mixed function there – partly employee and partly education. In terms of research staff, it is outsourcing but it is not like a public authority divesting itself of a responsibility and getting another body or manufacturing company e.g. Intel or using a sub-contractor to do certain kinds of things” (L).

-“Now you can within the research contracts… in fact even here people have come back as sub-contractors in European projects etc... whether or not that fits in to the classic outsourcing model, you could put it under that construct... there is an implication though and this is where the dynamic comes in, this level of activity in the university department can go up and down, really, really swing very high and it depends very much on the resources that you have available. Whereas the local authorities will always want to empty the bins and the outsource will do that and that will be there for time in memoriam. In a research lab it only happens on the basis of competitive success so the resource isn't obliged to be there. It is only there...there are factors like leadership, securing the funding and ensuring it is at such a level and is relevant to... it is a version of outsourcing if you want to put it that way. You could actually model it that way. You could say, 'well what exactly is this?'” (L).

-“The parent group cannot afford to have this level of activity so it is not the classic term or definition of outsourcing and there is a lot to do with scaling, scaling up and down but I think the model, looking at it from the perspective of identifying a structural model for it, is no harm, whether or not you can cover it with a version of outsourcing... there are all kinds of different outsourcing models that are out there – the manufacturing industry has its version...you could use contract cleaners etc... local authorities have theirs when it comes to emptying bins etc, maintenance of parks, gardens... or they have direct labour depending on what it is” (L).
"The thing is you are not dealing with another organisation necessarily and you don't have a consultancy contract or.... You are actually employing somebody, so in fact, it is direct labour but temporary...it is worth looking at though and seeing where exactly it does fit in the hierarchy of HR" (L).

"The outsourcing model is an interesting one whether or not you can cover this sort of thing with it or not. I don't think the classic definition would allow it to cover it" (L).

**Real Options Theory**

"There is always the question for a company who is working on a short-term, e.g.10 months – 2 years, product development exercise and they do this for different reasons: one is to launch a new product, others to stay with the competition. The big question always is, do I buy in the technology? or do I develop the technology? So they are two big options that crop up all the time and they are always a bone of contention around the decision making table in terms of funding. To me that is another example that comes to my mind when I am thinking about real options and it is critical actually, critical in lots of ways" (L).

"Most people from the business sector itself don't tend to see these things always but would be very anxious to ensure the real option, the productive option, the competitive option is actually taken. Competitive options are another way of looking at it" (L).

"The choices are based as much on knowing who and what you are and what your capabilities are. They define a lot of the resource and there is probably very strong interaction between resourcing and your resource capabilities and the option that you actually choose" (L).

"The real issue I would have thought is getting it to the forefront of people's minds, that when they are in a position to actually make a decision about something that they are saying, they are actually doing what engineers do well;
engineers never run with single products; they look at alternatives and say well here are the alternatives, here are the benefits, which one will we go with?" (L).

"You have to think of what the real option is or what the real options are. The options are there, but options that can be exercised would be quite different. The options are always constrained" (L).

"Where it is simple is... if you have a business opportunity, let's say you want to sell St. Brigid's Crosses to the Americans and you know there is a market there for 10,000 a year, the advice that you would get is to go to China and get the Chinese to make it and you sell it. Not to do it at home. The options are to do it at home or go to China so that is very simple. Relatively speaking you are talking about two things – two ways of doing it. You could have others like Eastern Europe but it is the same one. Whereas the options here are constrained, there almost isn't a second in terms of scale so if the decision you are making is a business driver, your options are business drivers" (L).

The 'Immediate Exit' Option

"Your commitment to them is not what it needs to be to secure them so you can't think in terms of you having any expectation of a long-term hold on them. You just can't do that. What you hope for is that they will be there for 2 years or 3 years or if you extend it for another year that they will be there for another year. Ireland is a very small country so the full range of opportunities that might be in Germany or the US are just not available here" (L).

"I think that the employee is much less secure in their continuation of their services if they are on a temporary contract because they will be looking around and be thinking of that particular horizon and that is the extra element of risk" (K).

"That would be justification for us that we are taking on potential that the person doesn't yet have the full set of competencies" (K).
"From a management point of view, we would always have to ask the question is this a wise move to make, to go in to that area?" (K).

"No question and unambiguously – there is no commitment to you here, we will not commit anything to you in the long run" (L).
Appendix 5 - Human Resource Management Interview Findings

What follows is a synopsis of responses from the human resource management interviews by research category. Interviewee quotes are denoted by letters.

Temporary Employment in the Third Level Academic Sector

- Institutions "probably have never had a need to have a flexible model before. People were brought in and they were typically permanent and that is the way it was" (Q).

- "Right now the dynamic is we have taken on a huge number of temporary staff and it remains to be seen what may happen in two to three years" (Q).

- "We appointed people on fixed-term contracts and our rule of thumb was roughly this, if hitherto the position would have been appointed on a permanent basis then we will appoint on a five-year fixed-term basis and we will adopt the exact same processes associated with a permanent appointment" (O).

- "What happens is we just issue them with a contract that covers a defined period of time, a fixed-term contract" (N). "There is an argument to be able to respond to peaks and valleys" (N).

- "Do we want somebody to give us something new that we don't have, do we want someone to add to maybe an area we are trying to build some critical mass? So these are all the reasons why we might have a post filled temporarily" (R).

- "The people that have been hired into the [institution] in the last two years, say it could be less than ten percent would be permanent. And maybe even less than that but we are building up fixed-term [contracts]" (Q).

- "What you are looking for is a balance... you are looking for reasonable churn but you are not looking for wholesale churn" (O); we would want reasonable
churn, that you are bringing in, you are refreshing the expertise cadre in the organisation on a reasonably regular basis. So it is not a massive issue but it's one you would want to keep an eye on at the same time. I mean there are occasions you would wish there was churn" (O).

-"There may be a growing appreciation to have fifteen or twenty percent of your workforce that is on a flexible temporary model" (Q).

-"I think retention in the [third level academic institution] sector is generally not a problem. Clearly the retention levels are so good that it actually becomes a problem in other cases" (Q).

-One institution "looked at a 'new blood' scheme that [they] funded from private income" (R). "These people came through international competition; we got some brilliant people" (R).

-"Educational institutions are kind of unique operations" (O).

-"You bring somebody in, you have made a commitment to them for at least four years" (O).

-The "critical nature of the relationship between students and teaching staff" (O).

-The institution needs "to ensure that contractual supports are such that is going to foster and nurture those relationships" (O).

-Lecturers "provide a core competence in terms of the core objective of any educational institution [being] the transfer of knowledge" (N).

-"Some of them are on temporary contracts; they are actually performing a core competence" (N).
**Flexibility, Irreversibility and Uncertainty**

- "The model per-say makes sense in that strictly speaking temporary employees do offer you more flexibility" (O).

- "There would be a preference to transfer the risk to the hire, the person you are hiring" (Q).

- "There is no desire to transfer the risk to the person they are hiring; their desire would be to hire them on a permanent basis" (Q).

- "I think from the risk of losing staff, I don’t think it is a particular risk at the moment" (Q).

- "There is always a risk" (R).

- "If they are good, that is a real risk in the sector" (Q).

- "If somebody is good their loyalty, for a lot of academics, is to their subject area not to the institution. The recognition that they most crave is from their peers in the subject not their sector. Everybody knows everybody so if somebody's reputation is good in another [institution] or wherever then if they are good, they meet each other at conferences, and there is a risk that somebody is poached" (Q).

- Institutions "want the ability to hold onto people and permanency gives them that" (Q).

- "The level of people who leave or resign that we would anticipate is not high but it does happen. Academics are mobile generally and because there are faculties internationally there is always the risk of [loosing] people, they are actually mobile" (R).
"[Temporary employees] are in for two years and so the thing about being locked into an employee – the irreversibility – does not really matter" (Q).

"If the [temporary employee] does not work out for whatever reason, their contract is simply not renewed. In terms of irreversibility, there is no commitment to the employee" (P).

"If you had some reversibility then in terms of our model that would be good" (R).

"If you have this notion here [reversibility] then obviously you are more likely to be more innovative, a bit more risk taking" (R).

"It is probably very applicable in a [third level academic institution] because generally there aren't that many capital costs so the human cost is pretty easy to reverse out of" (Q).

"If somebody is offered something else we make invoke this mechanism which is essentially the individual consideration of a case for promotion" (R).

"I suppose the uncertainty is around the future funding model, the core fund that comes from the government and the funding that comes externally from [industry]; there is uncertainty there" (Q).

"The external environment is the uncertainty. I have no idea, in terms of trying to be strategic in HR, I have no idea what might come into the inbox tomorrow from the Department. Whether it be something ridiculous that restricts me on starting or whether it is another cap or another cut, that is the biggest uncertainty" (R).

"Where uncertainty comes in is each year we do not know what the level of student applications is going to be like, whether they are going to be up or down or even will certain programmes become unpopular all of a sudden and
what was once a 'cash-cow' is now no longer attracting people so that is where uncertainty comes in from year to year" (N).

-"If production drops then the number of people that you need should drop too. I think it would be probably fair to say that this economic situation that has arisen in Ireland in the last few years is the first time that the [institution] has ever had to respond significantly to a massive reduction in money and funding" (Q).

-"It is only uncertainty of how much and when, not is the [institution] going to close? Are we going to be sold? Are we going to be merged? So is there uncertainty? My view is there is no real uncertainty" (Q).

**Outsourcing**

-"An outsourcing situation" (P).

-"Agency staff as a variation of outsourcing because there is an arm's length relationship; you are paying the agent and they pay the individual" (Q).

-Outsourcing "could be conceivable but [could not] see it for a number of years" (R).

-"In the context of consolidation you actually would outsource something to another [institution]" (R).

-"Never really thought about outsourcing and the academic side of the employment" (Q).

-"There is a lot of scope for 'outsourcing' in the non-academic areas" (Q). "There is scope to have outsource support for... you could imagine that a lot of the IT activities supporting [institutions] could be genuinely outsourced" (Q).
"The closest we would have come to outsourcing and they would be kind of unique bespoke scenarios where we might compete to run certain types of training or certain types of development projects for companies and the companies say 'yeah we are going to award you the contract but there are two or three guys we would like you to work with' so in a sense we hire them because the company want them so that can arise" (O).

"There is no sense whatsoever we are outsourcing core competences or where we want to outsource core competences" (O).

"As a [third level academic institution] essentially what is going to make us stand out and why we continue to have a reputation is the quality of the faculty and I don't think you outsource [what] is your key selling point or your key strength, the quality of your faculty" (R).

**Real Options Theory**

"Situations where a school thinks a programme will generate income for the [institution] but they are not sure; they would take people in. It may be headed up by a current member of staff but they will take in people on a temporary basis and not have a financial commitment beyond three years to see what the revenue flows are and so they would typically hire them in on temporary contracts" (Q).

"Institutions "would hire people on temporary contracts to see how a programme flies" (Q).

"Likely to stress a number of factors, for continuing with the policy of fixed-term as opposed to permanent recruitment and one is obviously that it does allow flexibility to react to events we cannot foresee at this particular point in time which may require the organisation to take pretty quick steps" (O).

"Initially we will offer temporary employment contracts but our aim would be to move to permanent contracts if things work out" (P).
"[It] has it been of benefit in terms of ensuring that we only get good people into the system; now that is actually less of a problem today than it would have been two or three years ago. Two or three years ago if somebody came into the system they effectively were permanent on the first day" (O).

The 'Immediate Exit' Option

"We wouldn't have a philosophy of using fixed-term contracts to actually assess people" (N). "I suppose the way the academic may think about it and the way HR may think about it would be different. The academic might look at it that way as an opportunity, or the school, might" (N).

"Has its plusses and it has its minuses and it is a regular discussion that goes on between myself and the deans of school because in some respects they probably favour taking in somebody for three years and see how they work out but they also will acknowledge that while somebody is in that arrangement they can perform out of their skin and once you give them [permanency], the performance drops off" (N).

"It is a contract for two years and if they are not cutting it they are gone and they could take somebody else in on the same" (Q).

"I tend to find with the academics, if they find someone that they think is great at an interview they will go through walls to get them and they want them and they want them now and they want to pay them twice as much as they as they are paying themselves and they want to hire them forever. They think that everything is going to work out. I wouldn't say that is the case with every one of them. I have seen lots of examples in my four years here where these 'stars' did not turn out to be stars" (Q).

-Academics "push for five years rather than three whereas we in HR might like to take somebody on for three years to see what they are like" (Q).
"One could argue that probation, a properly done probationary period, should weed out a lot and in a sense not renewing contracts after three or four or five years is really a cheap tactic to avoid them taking responsibility for managing the individual in the first instance. I would have to say on balance I would not be in favour of it being used for that reason although it does have certain merits but I think the merits are outweighed by the disadvantage of just making line managers particularly academic line managers lazy in terms of their responsibilities" (O).

"If we contract somebody say on a fixed-term basis, we are talking about academics, whether they are permanent or fixed-term, they are expected to do the full range" (R).