

**University of Strathclyde**  
**Strathclyde Business School**

**Was Burns right?**  
**Leadership and Power in the Knowledge**  
**Economy**

**by**  
**Andrew Kelly**

**A thesis presented in fulfilment of the**  
**requirements for the degree of Doctor of**  
**Philosophy**

**2008**

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## ABSTRACT

Burns' (1978) book *Leadership* is held to be one of the most influential books in the leadership field in the last 50 years. Despite its pre-eminence the fundamental concepts behind Burns' analysis of leadership have remained empirically untested. Burns argues that '*to understand the nature of leadership requires understanding of the nature of power*' (p.3), but the concept of followers as power holders in the leadership relationship has been greatly understated in much of the extant leadership research. Power is regarded as a problematic and complex concept that does not always sit comfortably with the ideology and values espoused in much of the management literature. Many leadership models assume that power is the natural fiat of management and power derives from management's control of the main resources within the organisation and fail to recognise that power is dispersed across the various actors in the organisation. Burns argues that motives and resources are the two essentials of power, but whilst a review of the literature on transformational leadership (TL) will throw up many references to TL raising followers to higher level motives, there are scant references or discussion on the pivotal role the other essential, *resource*, plays in the leadership process.

Much of the TL literature fails to recognise the exchange aspects of the leader-follower relationships and the influence of power upon them. It also fails to recognise the influence of followers on the leadership style in the organisation, assuming a top-down model of unilateral activity where organisational agents select their behaviours whilst hermetically sealed from any external influence. Contrary to Burns' theory, these models proffer a simplistic model of leadership with a clear causality between leader behaviour and follower outcomes, rather than a series of complex, reciprocal relationships.

This research sought firstly to test Burns' theory that a demonstration of TL will result in a higher level of motivation amongst followers, and consequently a higher commitment of resources. Secondly, to explore in more detail the influence of resource in Burns' theory the research contrasted followers' perception of leadership levels, motivation and OCB between knowledge workers and non-knowledge workers. It is argued that if Burn's theory of transforming leadership is valid, the centrality of knowledge as a resource within knowledge-based organisations will have constructed a new leadership relationship between knowledge workers and leaders where the satisfaction of higher level motivators will be evident. Drawing on Crozier's Strategic Contingency Theory (1964) it is proposed that the knowledge workers will use their position as the main source of organisational uncertainty and will expect leaders within organisation to recognise their control over the key strategic resource and manifest that recognition in an enhanced content of the psychological contract.

The research used the psychological contract as a construct to measure the level of follower motivation and OCB to measure the level of personal resource commitment. Measures of the six TL behaviours in the Transformational Leadership Questionnaire (Alimo-Metcalfe and Alban-Metcalfe 2000), the Psychological Contract Inventory (Rousseau 2000) and three elements of OCB (Podsakoff et al 1997) were obtained from 426 employees from a range of organisations in Scotland including an electronics company, a bio-tech company and a government department. The research found that transformational leadership is strongly correlated to the higher level motivators in Maslow's (1954) hierarchy as encapsulated in the Balanced Psychological contract, but it is also strongly correlated to the mid-range motivators such as loyalty, security and belonging. The findings of the research also support Burns' claim of a correlation between a demonstration of transforming leadership and a high level of resource commitment, as represented in this research as OCB. This research suggests that where the higher level motivators are being addressed, in the forms of a fulfilled balanced and relational psychological contract, there is a greater commitment of resources in the form of a higher level of OCB.

This research supports Burns' assertion that power is the central factor in the leadership relationship and challenges the leadership theory that dependent followers exert little or no upward influence on the behaviour of the leader. The research has found that TL is more positively correlated with KWs than non-KWs, more positively correlated with a balanced and a relational psychological contract and is also more positively correlated with OCB with KWs than non-KWs. This would suggest that leaders in KBOs are responding to the shift in uncertainty and knowledge workers have greater expectations of their psychological contract. Leaders in KBOs are responding to the changes in the power balance and are demonstrating higher levels of TL to secure more OCB, the source of competitive advantage in KBOs.

## **DEDICATION**

**To my mother, Catherine Kelly, for instilling in me a love of education, and for pushing me to achieve much more than I deserve.**

## **ACKNOWLEDGEMENTS**

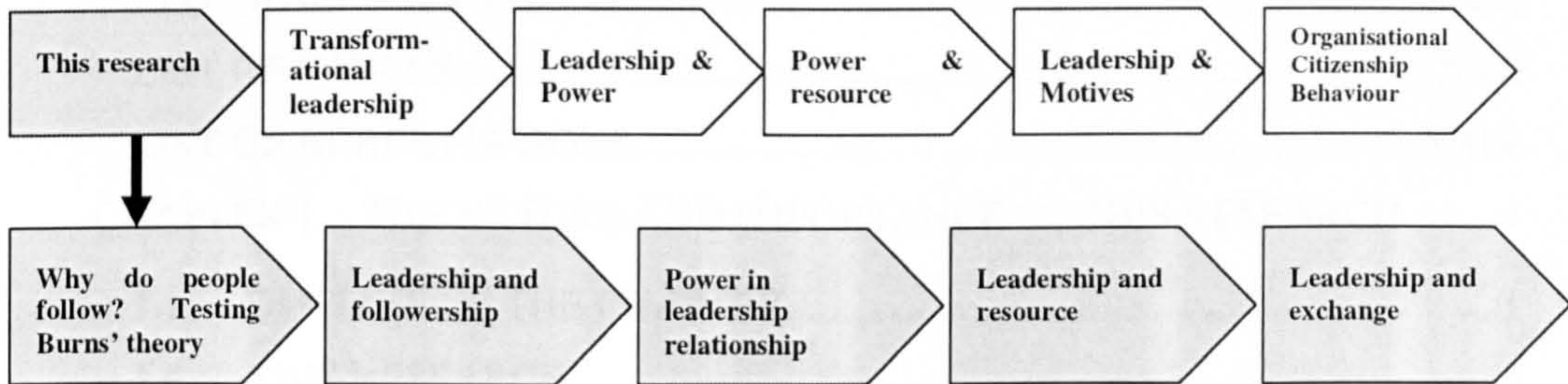
The PhD journey is a long and often challenging one. I would like to give thanks to all the staff and students at Strathclyde Business School for their support and patience over the course of this journey. In particular I would like to thank Dr Phyl Johnson for her guidance, support and wisdom.

## Introductory Model

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To facilitate the structure of the thesis a research model at the start of each chapter will set out the main topics covered by the chapter and how they link to the overall research.

### Example





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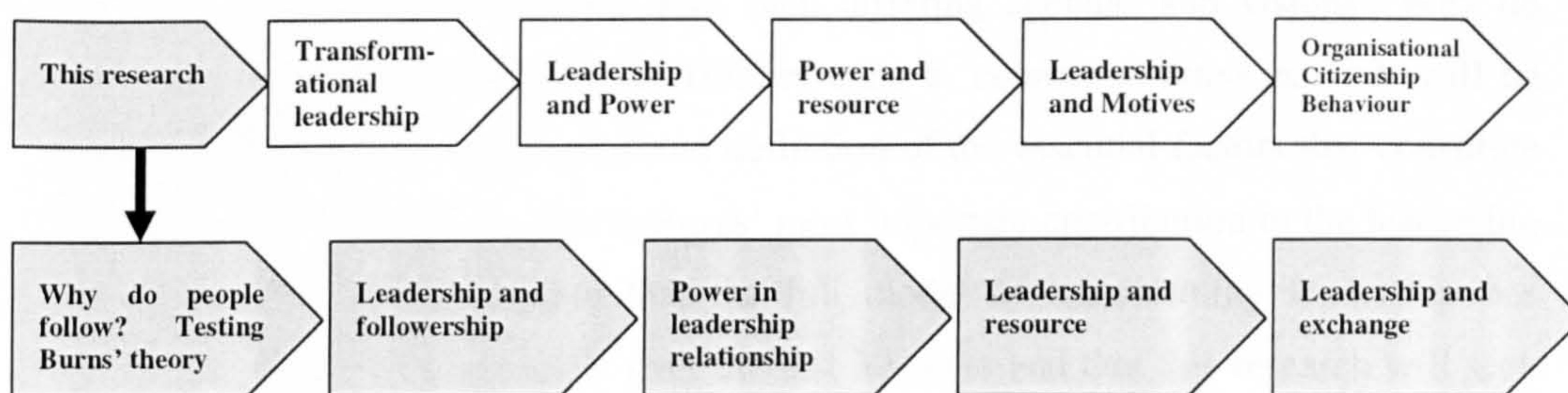
## **LIST OF ABBREVIATIONS**

<b>R and D</b>	<b>Research and Development</b>
<b>LMX</b>	<b>Leader-Member Exchange</b>
<b>MLQ</b>	<b>Multi-factor Leadership Questionnaire</b>
<b>OCB</b>	<b>Organisational Citizenship Behaviour</b>
<b>KBO</b>	<b>Knowledge Based Organisations</b>
<b>TL</b>	<b>Transformational Leadership</b>
<b>BAL PC</b>	<b>Balance Psychological Contract</b>
<b>R/T PC</b>	<b>Relational and Transactional Psychological Contract</b>
<b>RPC</b>	<b>Relational Psychological Contract</b>
<b>TPC</b>	<b>Transactional Psychological Contract</b>
<b>PCI</b>	<b>Psychological Contract Inventory</b>
<b>CMV</b>	<b>Common Method Variance</b>
<b>SD</b>	<b>Standard Deviation</b>

# CHAPTER 1 THE NATURE AND IMPORTANCE OF THIS RESEARCH

## 1.1 Outline of the Chapter

This chapter summarises the background to this research and offers a case for the relevance of this research to both academics and to practitioners in organisations. It also provides a guide to the rest of the thesis by providing an outline of the research structure and the content of the subsequent chapters.



## 1.2 Introduction to the Research

*'Power wielders draw from their power bases resources relevant to their own motives and the motives and resources of others upon whom they exercise power...But all these resources must have this in common: they must be relevant to the motivations of the power recipients.'* (Burns, 1978, p.3)

There are researchers who claim that Burns' book *Leadership* (1978) saved the leadership field from irrelevance and ossification (Bass, 1993; Hunt, 1999). Burns' role in the field of leadership often nears apotheosis and consequently his influence on the field is generally lauded, or simply accepted, but rarely criticised across the extant transformational leadership literature. Sorenson (2000) states that *'perhaps no other individual has energised leadership research and influenced the emergence of leadership studies as an academic discipline more than James MacGregor*

*Burns.*'(p.1) Bass (1999), the architect of the popularisation, operationalisation and organisational application of transforming leadership, states that on reading *Leadership* in 1978 he was '*never the same again*' (p.466). Bass (1999) credits the work as the catalyst that inspired a new field of leadership research with empirical studies of attributes, behaviours and influence.

What this research will argue is that one of the key, but significantly overlooked, contributions of Burns' work is that he has been one of the most prominent leadership scholars to ask the much-sidestepped fundamental question of '*why do people follow leaders?*' Why do people follow and commit resources to leaders as varied as Roosevelt, Hitler, Kennedy, Milosevic or Mugabe? Why would seemingly rational people follow leaders with such differing agendas and visions? Why do people follow and commit what Hobbes calls a '*counter-intuitive act*'? It will be argued that it is his exploration and definition of the essential factors that constitute the concept of leadership that is Burns' most important contribution to the leadership literature. It will also argue that the full model of transforming leadership has remained untested empirically over the last 30 years and that this research will seek to address this.

### **1.3 Background to this research**

It is ironic that Burns (1978) stated that one of his primary motivations for writing *Leadership* was that whilst '*we know a lot about leaders we know too little about leadership*' (p.3). Despite claims to the contrary, much of the extant literature on transformational leadership is still dominated by the '*great man*' paradigm that supposes that the control of information, power and resources lie with the leader (Meindl et al, 1985; Gronn, 1997; Yukl, 1999; Collinson, 2005). Although Burns (1978) emphasises transforming leadership as a process of engagement with followers on the basis of mutually held motives, values and goals (p.36), much of the work on transformational leadership is still leader-centric, in many cases highlighting concepts such as '*charisma*' or '*inspirational*' and ignoring any exchange dimension to leadership (Barker, 1996; Yukl, 1999; Gronn, 2002). Burns rejects the arguments

of the elite theorists such as Pareto (1991) and the automatic assumption that power lies solely with leaders (p.22). Despite this much of the transformational leadership literature continues to operate with the same leader focus as other leadership theories such as Path-Goal theory (House, 1971) or Situational Leadership theory (Hersey and Blanchard, 1996), fails to recognise or explore the influence of followers on the leadership style in the organisation (Meindl, 1995), or reduces followers to '*static and objectified categories*' that can be manipulated in order to control (Collinson, 2005, p.1421). It assumes a top-down model of unilateral activity where organisational agents select their behaviours whilst hermetically sealed from any external influence such as power or any negotiated exchange or reciprocity. Contrary to Burns' theory, these models proffer a simplistic model of leadership with a clear causality between leader behaviour and follower outcomes, rather than as '*complex, reciprocal relationships of people and institutions*' (Barker, 2001, p.473). Leadership is also perceived to exist within a stable environment with stable relationships that allow a reductionist analysis of leadership components such as traits, behaviours or activities (Yukl, 1999). Leadership is regarded as an outcome of the behaviours and activities of the leader rather than as the process of dynamic exchange, and followers regarded as predictable, passive and susceptible to manipulation by a range of leadership styles (Goffee and Jones, 2001).

#### **1.4 This Research**

Burns (1978) states that his work is based on a number of assumptions, such as the centrality of an understanding of power to an understanding of leadership and that motives and resources are the two essentials of power, but to date there are no studies that seek to challenge or confirm the main assumptions on which he builds his theory. It is perhaps surprising that little, if any, research has been undertaken that challenges or seeks to prove such a basic premise of Burns' (1978) work: '*the processes of leadership must be seen as part of the dynamics of conflict and of power...and by the satisfaction of human needs and expectations*' (p.3). In particular, the leadership literature insufficiently addresses the issue and role of power in transformational leadership (Gordon, 2002). Much of the extant transformational

leadership literature from 1978 onwards has been focused on the behaviours and attributes of leaders, but the basic concept of transformational leadership as a dynamic exchange process based on motives and resources has been largely neglected (Barker, 1997). A review of the literature on transformational leadership will throw up many references to transformational leadership raising followers to higher level motives but there are scant references or discussion on the pivotal role the other essential, resource, plays in the leadership process.

Given the claims made for Burns' work and its influence on the transformational leadership field it is surprising to say the least that no empirical study has sought to support or disprove his basic assumptions about the transforming leadership model, particularly as the work itself is a constructionist text in what is a field dominated by positivist-leaning psychologists. Yukl (1999) states that the underlying influencing processes involved in transformational leadership '*have not been studied in a systematic way*' (p.304). Even dedicated Burns-ites such as Sorenson (2000) acknowledge that '*Burns has been criticised for his lack of operationalisation of key variables and the abstractness of his constructs*'. Bass (1999), largely responsible for the operationalisation of Burns' model, states that '*there has been relatively little basic research testing of the many models of linkages proposed by Bass (1985) to explain how transformational leadership works.*' (p.9). Similarly Bass (1995) complains that he has been particularly disappointed by the overabundance of applied research in transformational leadership and the undersupply of basic research particularly when Bass's (1991) own Full Range Leadership model of transformational leadership has undergone a number of significant modifications in the last twenty years (Gronn, 1995).

**The primary objective of this research is to empirically test validity of the fundamental assumptions of Burns' theory, namely that leadership is a relationship based on power and that the two essential elements of power are motive and resource.**

Thibaut and Kelley (1959) argue that leadership can perhaps be explained in terms of other more basic concepts of social psychology involved in the phenomenon, particularly motivation and power. Similarly Burns (1978) argues that reference to other sciences, particularly humanistic psychology, enables a better analysis and understanding of leadership. This research will seek to test the definition of leadership that provides the theoretical basis for transformational leadership research, namely that leadership is not a property but a relationship (Burns, 1978; Holland and Offermann, 1990; Collinson, 2005), and power, and its two essentials resource and motive, is central to the concept. It will seek to test Burn's claim that there is a correlation between leadership behaviour, follower motives and the commitment of resources in a leadership relationship. In particular it will focus on the role of power and resource in the leadership relationship by contrasting situations where the level of resource controlled by followers is significantly different: knowledge workers and non-knowledge workers. In the knowledge-driven economy the generation and the exploitation of knowledge has come to play the predominant part in the creation of wealth (DTI, 1998). This has given knowledge workers are much greater control over the strategic resources within an organisation, and consequently, it will be argued, greater power in the leader-follower relationship.

**The secondary objectives of this research are:**

- **To explore the contribution of the followers to the leadership dynamic**
- **To define the centrality of power in the leadership relationship**
- **To highlight the importance of motive and resource in the leadership relationship**

## **1.5 Leaders and Followers**

Burns (1978) states that '*the leadership approach tends often unconsciously to be elitist; it projects heroic figures against the shadowy background of drab, powerless masses*' (p.5). The dominant view of leadership is based on the model of classical

elitism which assumes followers' powerlessness, and emphasises the centrality of powerful individuals, the 'great men', who unilaterally manage, plan and organise (Clegg, 1979; Gronn, 1995; Collinson, 2005). Collinson (2005) highlights that the inherent dualism in much of the leadership literature seeks to reduce the complexity of the dynamic relationship to simplified binary opposites, and that the leadership side of the binary is privileged at the expense of the followers.

Collinson (2005) states that leadership can only be understood as:

*'...fundamentally characterised by interdependencies and power asymmetries. Since asymmetrical power relations are always two-way, leaders will remain dependent to some extent on the led, while followers retain a degree of autonomy and discretion. In addition, if we re-think followers as knowledgeable agents, we can begin to see them as proactive, self-aware and knowing subjects who have at their disposal a repertoire of possible agencies within the workplace. Accordingly, dialectical power relations between leaders and followers are likely to be interdependent as well as asymmetrical, potentially contradictory and contested. (P 1422)'*

Gronn (2002) highlights the binaries of '*leader-follower*' and '*leadership-follower*' that remain '*sacrosanct*' in the leadership literature, dividing the actors in the leadership relationship into powerful leaders and dependent actors (p.425). Others criticise the leadership literature for its inherent dichotomy and the division of leaders and followers into active and passive actors in the relationship, and the underplaying of the interactive dynamic between players (Ray et al, 2004). Meindl (1995) suggests that this romanticisation of leaders and of leadership offers a simplified and misleading analysis of what is a complex and dynamic set of organisational processes. The role of followers in the leadership dynamic is receiving a growing level of interest and it can be argued that economic and organisational pressures for changes now require a wider analysis of the leadership dynamic (Meindl, 1995; Goffee and Jones, 2001; Kelley, 2004).

This research will seek to establish the influence of followers to the concept of transforming leadership and the contribution followers make to the dynamic.

## **1.6 Leadership and Power**

Burn's (1978) emphasises that power, like leadership, is a relationship amongst people (p.13) but much of the extant leadership literature assumes that power is the property of leaders and fails to recognise that in a pluralistic organisation power is dispersed across the various actors (Molm, Peterson and Takahashi, 1999). The assumption that leaders hold the position of power in the exchange relationship has led to the virtual exclusion of the influence of followers, and much of the transformational leadership literature fails to recognise the exchange aspects of the leader-follower relationships and in particular the influence of power upon them (Gordon, 2002; Collinson, 2005 and 2006). Power is usually treated as a property that can be held by an individual or group of individuals rather than as a process (O'Byrne and Leavy, 1997). In much of the extant literature it is assumed that power is the natural fiat of management and that the power derives from management's control of the main resources within the organisation (Pfeffer, 1981; Clegg, 1990). Despite the central position Burns' gives to power in his analysis of leadership, most of the literature ignores or avoids discussing its role in transforming leadership, preferring to focus on behaviours.

Why should researchers ignore such a fundamental element of Burns' theory? Bass (1999) in an overview of two decades of research and development in transformational leadership research deals with culture, gender, diversity, motivation and measurement but does not mention power once. A review of some of the main works of Bass on transformational leadership (1985; 1990; 1993; 1995; 1997; 1999) finds few mentions of the word '*power*' or any discussion of its role in transformational leadership. Barker (2001) highlights that where power is discussed in leadership literature it is how individual leaders handle and direct the power they



are assumed to control, and the literature generally ignores power as a contextual issue.

One possible answer is that power itself is regarded as a problematic and complex concept and one that does not always sit comfortably with the ideology and values espoused in much of the management literature which is replete with leadership examples such as Kennedy, Churchill or Roosevelt who to a great extent personify the '*great man*' model of leadership in a liberal democracy. Burns (1978) examines the concept of power and leadership by studying a less '*selective*' group of leaders and includes more negative leadership models such as Hitler or Lenin as a genuine attempt to understand the dynamics of leadership and followership, regardless of how uncomfortable the conclusions are to liberal democratic sensibilities. It could also be argued that the convenient dualism that dominates the literature and the subsequent legitimisation of leaders as the source of power and influence in the exchange relationship has enabled much of the extant research to side-step the role of power in the relationship, despite its centrality in Burns' theory (Pfeffer, 1981; Gronn, 2002; Krishnan, 2004). An open recognition that power is an element of a dynamic relationship between leader and follower challenges the traditional model of the leader who is superior due to natural abilities, position or technical expertise (Gordon, 2002).

To gain a greater understanding of leadership it must be analysed in terms of power and relationships (Burns, 1978). Burns argues that '*the two essentials of power are motive and resource*' (p.10). This research will seek to analyse the importance of the role of motive and resource in the leadership/power relationship through a comparison of the motives and resources of knowledge and non-knowledge workers.

## **1.7 Leadership and Resource**

Burns (1978) argues that one of the two essentials of power is resource (p.12), but again this is an area greatly neglected by the leadership literature. Resource is

typically viewed as something that is managed, such as information, materials or even people, rather than as a bargaining factor in a dynamic relationship. Leaders and followers in a relationship tap into each others' motivational bases to bring together the resources each are willing to contribute to achieve the common goal (Burns, 1978). Actors draw on their own power resource relevant to their own motives and importantly to the motivations of the other actors in the relationship. Followers in a leadership relationship can withhold or contribute their resources as a form of power depending on their bargaining position in the power balance or the level of motivation they need, want or believe will be satisfied. Mechanic (1962) states that even when they apparently lack formal authority or power lower level workers still hold and use considerable informal power in their ability to manage their resource input through withdrawing cooperation or resisting change. Resource can take many forms: knowledge, commitment or skill. Collinson (1992) states that workers can resist formal power in organisations by distancing themselves from the leadership, restricting output and adopting a strictly transactional relationship.

Crozier's (1967) much neglected strategic contingency theory posits, like Burns, that power is the property of a social relationship rather than the property of an individual actor and is based on the level of strategically important resource controlled by the different players in the relationship (O'Byrne and Leavy, 1997). Crozier (1967) argues that within the relationships there is dynamic game playing, and that power rests with the actors who have the resources that can best cope with uncertainty in the organisational environment: *'those who get the upper hand in the game are those who control most of the crucial uncertainties'* (p.8). Crozier (1967) argues that dependency is the reverse of power. Organisations are open systems that have to cope with uncertainty but are designed on a rational model that requires certainty. As uncertainty is a source of power in organisations then the power of a team or individual is determined by the level to which it manages uncertainty on behalf of others and to what extent it holds a central position within the organisation. The possession of key organisational resources is key to the level of power held within the exchange relationship. Power is not the preserve or property of the leader as

*'power will tend to be closely related to the kind of uncertainty upon which depends the life of the organisation'* (Crozier, 1967, p.9). Like Burns, Crozier identifies that motives and resources are interdependent within the exchange relationship, and argues that the needs and wants of individuals are dynamic and may alter depending on their level of power within the relationship.

The concept of resource is central to Burns' theory of leadership (p.3) but its role and influence within the theory of transforming leadership is largely unexplored. In the power asymmetries of the leader-follower relationship the mutual dependency on resources will be central to the development of the relationship. Burns (1978) claims that the demonstration of a high level of transforming leadership will result in a high level of commitment of resource from the follower. This research will seek to establish a correlation between demonstrations of transforming leadership and higher levels of resource commitment amongst followers. It will also seek to demonstrate the importance of resource as a factor in the leadership dynamic.

## **1.8 Leadership and Exchange**

Burns (1978) emphasises that leadership is a special form of power, and that the source of the power lies in engaging with the needs and wants of the followers (p.15), and that leaders *'serve as an independent force in changing the makeup of the followers' motive base through gratifying their motives'* (p.20). Underpinning the leadership process is a social exchange relationship based on reciprocity. Blau's Social Exchange Theory (1964) has been found to be useful in analysing the correlation between leadership relationships (Pillai, 1999). Social exchange theory argues that social exchange relationships in organisations can be distinguished from economic transactional relationships by the absence of overt negotiation. Classical microeconomic theory assumes independent transactions and short term-relationships between parties, whilst social exchange theory assumes more enduring relationships

between the parties based on trust and mutual benefit. This correlates with Burns' concepts of transactional leadership and transforming leadership relationships.

The interdependence built up over time between the parties is key to the social exchange theory (Molm, Peterson and Takahashi, 1999). Central to social exchange theory is reciprocity, the mutual satisfaction of needs and motives that encourage individuals to work together over the medium to long term, and to build a relationship. The exchange includes not only tangible products or services but also outcomes valued socially or psychologically: status, self-esteem, or friendship. Burns (1978) argues that leadership, unlike naked power-wielding, is inseparable from followers' needs and wants (p.19). As a process it involves individuals establishing a social exchange relationship where both parties believe the other will help them meet their goals and needs (p.19). The more leaders can align themselves with the needs and wants of the followers the greater their resource commitment will be to the relationship, as they will perceive that a greater commitment will lead to a greater satisfaction of these needs. The more resources committed by the followers, the more the power of the leader will be increased (p.17).

Burns argues that transforming leadership is ensuring that goals and needs of both followers and leader are aligned and that an exchange relationship of reciprocity and mutuality exists. This research will seek to establish a correlation between demonstrations of transforming leadership and higher levels of motivation amongst followers.

## **1.9 Testing Burns' theory – Knowledge workers**

To test Burns' theory empirically it was decided to choose two sample groups where the control of strategically important resource would be significant. The two groups selected were knowledge workers and non-knowledge workers. The emergence of

the knowledge economy towards the last quarter of the 20<sup>th</sup> century has witnessed tacit knowledge emerging as the key strategic resource of organisations (DTI, 1998; Stiglitz, 1999; Atkinson and Court, 1998; Chan Kim and Mauborgne, 1998; Ridderstrale and Engstrom, 2003; Tymon and Stumpf, 2003). The knowledge-based theory of the firm posits that it is a firm's ability to generate knowledge that determines its competitiveness (Nonaka and Takeuchi, 1995; Grant, 1996; Coff, 1997). This dependence on tacit knowledge causes the knowledge-based organisation to be highly dependent on the intellectual capacity of its individual employees to create competitive advantage and to be reliant on the co-operation and commitment of the workers to apply their knowledge for the benefit of the firm's objectives (Von Krogh, 1998; Teece, 1998; Empson, 2001).

A knowledge company is one where the creative and innovative use of knowledge is the key competitive advantage, as in businesses such as bio-tech, software, management consultancy, electronic engineering and design (Grant, 1997). It can be argued that the centrality of knowledge or expert power within knowledge-based organisations has constructed a new organisational relationship (Guest and Patch, 2001; Thompson and Heron, 2001). Although much has been written on the emergence of knowledge firms and to a lesser extent knowledge workers there has been little research carried out on the consequences for structures and relationships within the organisations where knowledge is the main strategic resource.

Central to this research is Burn's (1978) claim that power lies in motives and resources. Burns (1978) argues that the power process is one in which '*the power holder (P), possessing certain motives and goals, has the capacity to secure changes in the behaviour of a respondent (R),..., and in the environment, by utilising the resources in their power base, including factors of skill, relative to the targets of their power-wielding and necessary to secure such changes.*' (p.9) From a pluralist theory standpoint it will be posited that knowledge has become the central resource within knowledge-based organisations and the ownership of the resource has created a power adjustment in the exchange relationship between the main actors, namely leaders and workers. The conflicting strategies of the individual actors are integrated

through the playing of structured games involving bargaining to secure greater satisfaction of motives and needs, and inherent in bargaining is the balancing of power relationships through the control of strategically important resources. On this basis it will be argued that, if Burn's theory of transforming leadership is valid, the centrality of knowledge as a resource within knowledge-based organisations will have constructed a new leadership relationship between knowledge workers and leaders where the satisfaction of higher level motivators will be higher than amongst non-knowledge workers.

Knowledge workers are aware of their strategic importance to the organisation and will expect that their contribution and importance to the organisation are recognised through enhanced explicit and implicit aspects of the psychological contract (Flood et al, 2001; Sparrow, 2000). Sveiby and Lloyd (1986) define a knowledge worker as someone whose job is characterised by the following: produces a non-standardised product or service; has a high requirement for creativity; has a key individual role to play within the team; is involved in complex problem-solving. The cerebral and creative nature of knowledge work makes task definition and effective supervision difficult (Teece, 1998). It will be argued that in addition to a commensurate reward package they will have expectations that higher order motivational factors such as belonging, recognition and development will be provided by the organisation and its agents (Sparrow and Cooper, 1998; Bunderson, 2001). The psychological contract will be used as a construct to compare and contrast the motives and expectations of workers in both knowledge-based and non-knowledge based organisations.

A demonstration of the effects of resource control in the leadership relationship should be demonstrated in the psychological contract through the expectations of knowledge workers and their perceived obligations within the organisation. The heuristic construct of the psychological contract enables examination of the changing nature of the employment contract, particularly the 'individualising' of the employment relationship and the distribution of power between the individual and

the organisation (Rousseau and Schalk, 2001; Guest, 2001). In the case of knowledge workers this enables a study of whether the issue of intellectual capital ownership has constructed a new employment relationship (Guest and Patch, 2000; Thompson and Heron, 2001; Guest, 2004). The radical changes in the nature of work and the relationship between the individual and the organisation has led to a renewed interest in the concept of the psychological contract as a means to analysing and increasing understanding of organisational behaviour. *'In a world of rapid organisational change and loss of confidence in some of the traditional certainties of organisational life, the psychological contract appears to provide a useful integrative concept around which to focus an emerging set of concerns'* (Guest, 1998 p. 650).

Burns' theory argues that to meet the higher expectations of the knowledge workers the leaders will need to demonstrate a higher level of transformational leadership behaviour, which will be measured through the assessment of the perceptions of the workers. According to Burns' exchange model, the transforming leadership will address the higher level motivators and induce the followers to contribute more of their resource to the common aim and goals. Burns (1978) argues that *'power and leadership are measured by the degree of production of intended effects'* (p.22). The intended effect will be examined by measuring the level of organisational citizenship behaviour (OCB) demonstrated by the workers in both the knowledge based organisations (KBOs) and the non-knowledge based organisations. KBOs require a high level of OCB from their knowledge workers to secure a competitive level of creativity and innovation (Flood et al, 2001; Tsoukas and Mylonopoulos, 2004; Mumford et al, 2004; Mumford and Licuanan, 2004). This has direct consequences for the structural power model within the organisation as leaders do not have direct control or even ownership of the main strategic resource of the organisation. In terms of strategic contingency theory the structure of the game has altered significantly and knowledge workers will adopt a strategy to maximise the advantages they have within the organisation. In turn management need to change their own strategy to meet the dynamics of the game and this will be evidenced in the nature of the psychological contract established with knowledge workers.

If, as Burns (1978) argues, leadership is inseparable from followers' needs, motives and resources there will be a significant difference between the leadership exchange relationship between knowledge workers and their leaders and non-knowledge workers and their leaders. This research will seek to test Burns' theory by comparing and contrasting measures of motivation, resource commitment and leadership style between knowledge workers and their leaders and non-knowledge workers and their leaders.

### **1.10 Importance of this Research**

Given the plethora of published works on transformational leadership it is difficult to explain why no testing of the basic premise of Burns' theory has been undertaken. It would appear that to many leadership scholars the internal and external consistency of the theory has been obvious and that its face validity has been sufficient to use it as the basis of applied research (Sorenson, 2000). The absence of any rigorous exploration of Burns' theory may have contributed to questions about the validity of leadership research in general and claims that the field is more focussed on the accumulation of studies rather than the accumulation of knowledge on the processes and concepts that underpin leadership (Barker, 1996; House and Aditya, 1997). Barker (1997) states that much of the extant leadership literature has been trait or behaviour focussed and the study of leadership as an exchange process based on reciprocity that occurs in a context of conflict has been neglected. Yukl (1999) lists amongst his conceptual weaknesses in transformational leadership theory the insufficient description of explanatory processes. Bass (1995) requests more research on why transformational leadership generates follower commitment and states that much more explanation is needed about the workings of transformational leadership.

In terms of practical application Elkins and Keller (2003) argue that there is a significant lack of leadership research carried out in knowledge-based organisations. This research will argue that leadership behaviour in organisations is contingent on



the power structure within the exchange relationship. As leaders in knowledge-based organisations recognise the power shift in the exchange relationship with the knowledge worker they will make efforts to address and meet the altered expectations of the individuals and this will be manifested in the demonstration of a transformational leadership style.

The research will examine Burn's model of transforming leadership by measuring the central variables and examining their inter-relationships. The research will focus on the three major factors of resource, motivation and leadership style, contributing to the emergence of a transformational leadership relationship.

### **1.11 Structure of this Thesis**

This research will use the 'hourglass' model framework as a structure (see Figure 1 - Hourglass Model Framework). Chapter Two reviews the literature concerning transformational leadership. Chapter Three discusses the extant literature around leadership and power, and Chapter Four reviews the literature on power and resource. Chapter Five explores the issue of motives in leadership and social exchange, and the psychological contract as a heuristic construct in the analysis of exchange. Chapter Six reviews the literature on organisational citizenship behaviour. Chapter Seven sets out the background to this research in a discussion of the knowledge economy and the emergence of knowledge workers.

Chapters Eight and Nine deal with the research aims and objectives, and the research methodology employed. The pilot study undertaken to evaluate the methodology and data collection instruments is set out in chapter ten. The data analysis and results are found in chapter eleven. The research results are discussed in chapter twelve, and chapter thirteen covers the specific findings and implications of the research. The

final chapter covers conclusions, limitations of the research and recommendations for further research.

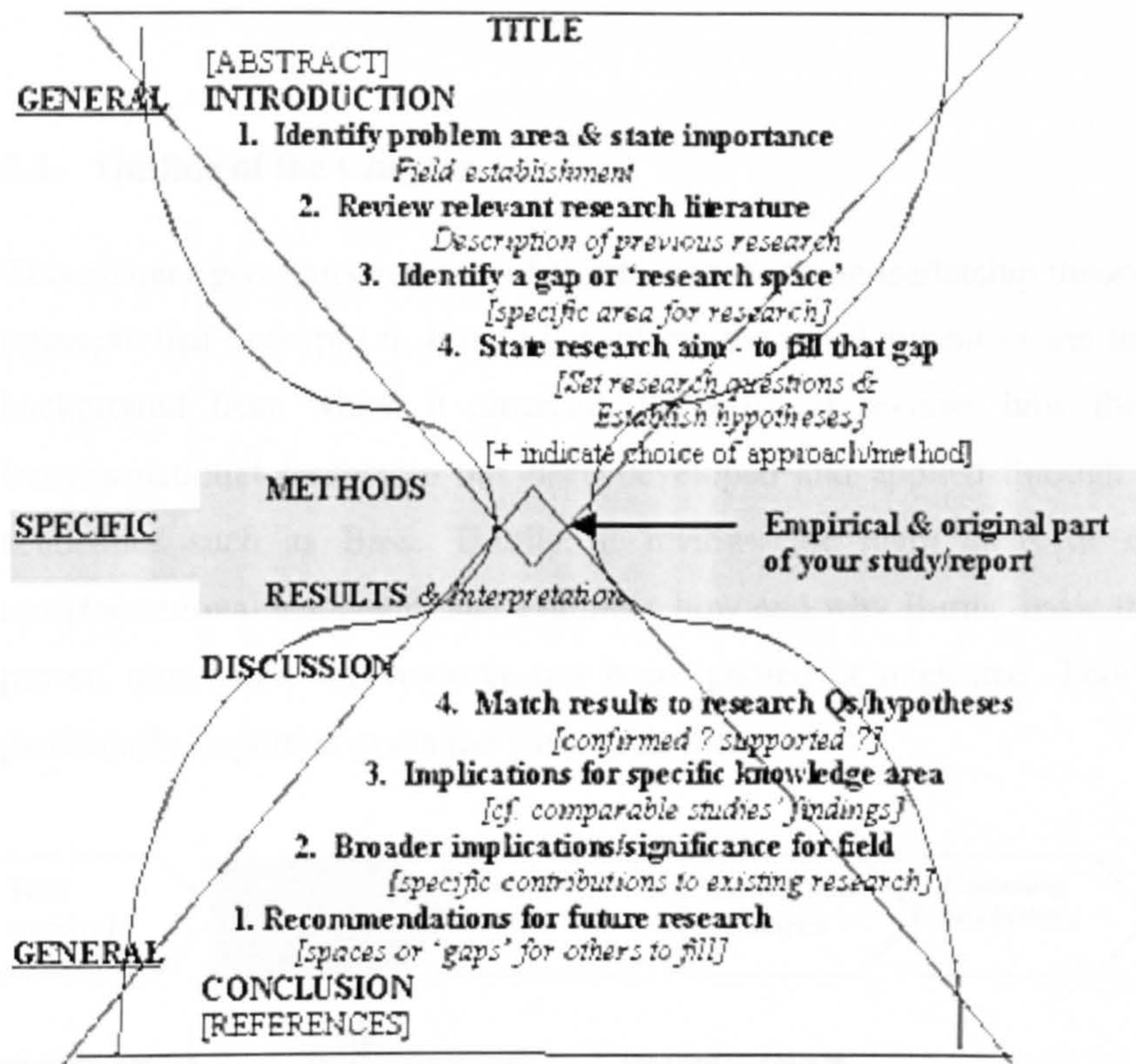


Figure 1 - Hourglass Model Framework

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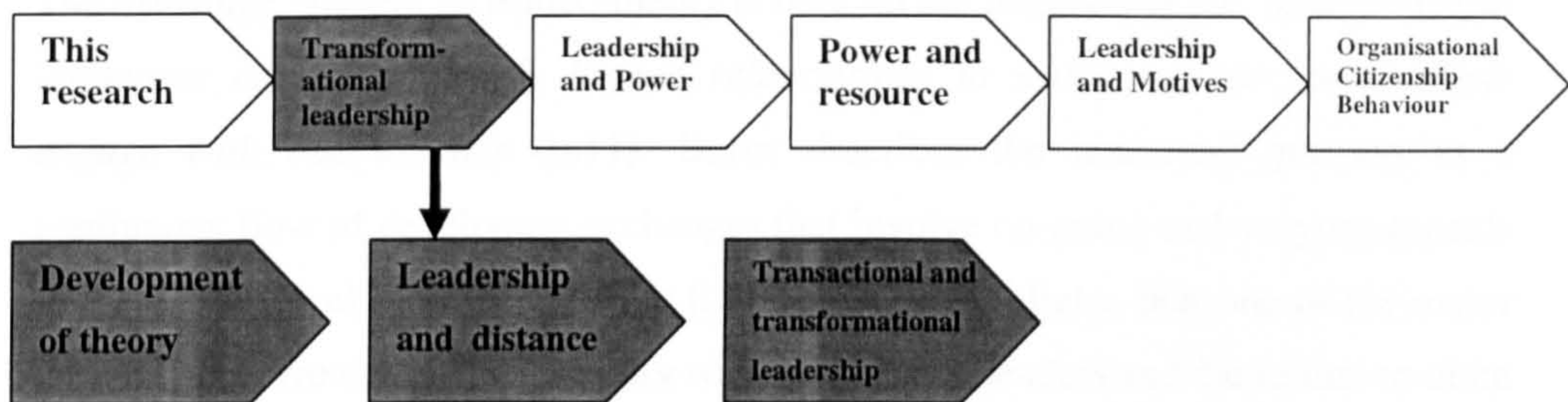
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<http://ec.hku.hk/acadgrammar/general/organize/frame4.htm?hourglas.htm>

## CHAPTER 2 TRANSFORMING LEADERSHIP THEORY: BACKGROUND TO THE RESEARCH

### 2.1 Outline of the Chapter

This chapter gives an overview of Burns' transforming leadership theory and the key concepts that underpin it. Firstly it explores the development of the theory and the background from which it emerged. Secondly, it reviews how the concept of transformational leadership has been developed and applied through the work of academics such as Bass. Thirdly, it reviews the main areas of research into transformational leadership and examines how and why Burns' basic theory linking power, motivation and resource has been ignored or neglected. This last point is particularly important given the aim of this thesis.



### 2.2 The Development of Transforming Leadership Theory

Burns' book *Leadership* was first published in 1978. Although an analysis of political leadership it was quickly adopted by organisational leadership practitioners and researchers as a model with application in organisations (Bass, 1985). His main motivation for the book was his frustration at the apparent fixation with the 'great man' theory of leadership that has dominated leadership research since its earliest days. Burns (1978) argues that the focus on individual leaders rather than the process of leadership had led to a position where much was known about leaders but too little about the actual underlying process of leadership (p.1). He argued that leadership,

despite the wealth of research, was still the least understood phenomenon on earth. In developing the analysis of transformational and transactional leadership Burns' argued that he had made an *'intellectual breakthrough'* that would allow a clear general theory of leadership to emerge (p.3). Burns' emphasis on leadership rather than leaders focuses on the complexity of interchange between the follower and leader that enables an analysis of the main forces and processes involved. He expresses frustration with the on-going fixation of leadership research with the *'great man'* theory and argues that this focus is taken because it is easier to *'look for heroes and scapegoats than to probe for complex and obscure causal forces'* (p.51). He posits that leadership theorists eschew a pluralistic analysis and assume that the leader is a heroic figure who is contrasted to a powerless mass of obedient followers and that any social, political or organisational change is a result of their unilateral action (p.3) rather than a dynamic interplay of forces.

The exchange element of Burns' theory is built on the insight that the *'most powerful influences consist of deeply human relationships in which two or more people engage with one another'* (p.11). Burns describes the leadership process as a continuous flow of developing exchanges that involve on-going and varying appeals to the higher level motivators of the followers. He highlights that one of the major failures in previous leadership theory was the focus on leaders and the failure to unite leaders and followers in a single process (p.3). Transforming leaders attempt to raise the consciousness of followers by appealing to potentially unconscious higher level motivators such as higher ideals and morals (Yukl, 1989). Transforming leadership can be identified in dyadic situations but also at a macro level in social movements or political change.

Burns emphasises that leadership is a process which exists within the dynamic of power and conflict and can only be understood when the needs and motivations of both followers and leaders in the relationship are examined. Power and conflict have a central role in the leadership relationship, and contrary to much of the charismatic

leadership literature, Burns argues that *'leadership as conceptualised here is grounded in the seedbed of conflict'* (p.38). He also uses a direct quote from James Madison to express his Hobbesian conviction that conflict is inherent in the nature of man, and therefore is an ineluctable aspect of leadership that requires confronting and addressing rather than being ignored. In this Burns differs greatly from many other leadership theories where the influences of power and conflict are minimised or omitted altogether (Janda, 1960). To Burns a genuine understanding of leadership is derived from an analysis of power in relationships, and the role of motives and resources in the power balance within relationships. Through this power and leadership can be regarded as parts of a system of social causation (p.13).

Burns' argument is based on a number of assumptions. Firstly that power is a relationship and not a property. Secondly, it involves the intentions and purposes of both the power holder and the power recipient. Thirdly, it is part of a pluralistic, collective process and not the behaviour of one individual. The process involves the motives and resources of the power holders, the motives and resources of the power recipients and the relationship amongst these various actors in the leadership exchange. Burns defines power *'not as a property or entity or possession but as a relationship in which two or more persons tap motivational bases in one another and bring varying resources to bear in the process'* (p.15).

### **2.3 Transforming and Transactional Leadership**

Burns identified two basic types of leadership: transforming and transactional. Burns argues that most leadership is transactional: leaders enter into relationships with followers on the basis of exchanging one thing for another, such as money for labour, or jobs for votes. In transactional exchanges the actors are satisfying each others' needs without any consideration of the medium to longer term consequences (p.258). Both sides to the bargain are seeking to maximise their short term return on investment. Burns goes as far to state that the exchange may be a *'superficial and*

*trivial one*' (P.258). The focus in transactional leadership is on the immediate gratification of needs and wants, and each actor within the relationship sees the other as a means to achieve their desired end.

## 2.4 Transactional Leadership

It can be argued that the dominant model of leadership theory is transactional (House, 1971; Popper and Zakkai, 1994). The situational leadership model of Hersey and Blanchard (1972), the contingency model of Fielder (1967), the Path-Goal theory of House and Mitchell (1974) and the decision based theory of Vroom and Yetton (1973) can be argued to be essentially transactional. Burns' (1978) concept of transactional leadership is essentially a process of contingent reinforcement based on an economic arrangement of exchange between leader and follower where the power balance is significantly in favour of management. It is essentially undertaken for '*the purpose of an exchange of valued things*' (p.19). This exchange can be economic, psychological or political in nature, but both sides to the exchange are aware of the power, resources and attitudes of the other. Burns (1978) stresses the level to which the relationship goes: the two parties have '*no enduring purpose that holds them together*' (p.21), and although a leadership act may have taken place it is not one that unites the follower and leader in a mutual pursuit of a higher purpose. In terms of motivation transactional leadership is aimed at satisfying hygiene factors<sup>1</sup> rather than higher-order needs. There are values within the transactional leadership relationships but these are designed to support the transaction, such as honesty or fairness (Yukl, 1989).

Bass (1985) describes the transactional leader as one who operates within a stable structure, is process-orientated and is risk averse. The transactional leader is most skilled in monitoring performance against targets and planning incremental change.

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<sup>1</sup> Herzberg (1966)

This leadership style is consistent with the leader-member exchange where leaders set targets or objectives and reward followers on achievement of these.

## 2.5 Transforming Leadership

Transforming leaders, like transactional leaders identify and exploit a motive or need in followers but they also look beyond to potential higher-level motives and appeal to these. Burns argues that transforming leadership is a process *'that changes both leader and follower,'* and transforming leadership *'occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality'* (p.20). The emphasis on the two-way influence inherent in the transformational process recognises that power is located in both sides of the exchange relationship. Their separate goals become unified and their resources are combined in a common purpose. The outcome of this relationship is a long term exchange that is mutually beneficial and develops and elevates both leader and follower to focus on satisfying higher level motivations. The socio-emotional emphasis of transforming leadership is contrasted with the rational model of traditional leadership theories (Yukl, 1999). The relationship between leaders and follower is not based on formal contracts, rewards or punishment but on mutual confidence and trust (Podsakoff et al, 1990; Yammarino et al, 1997; Pillai, 1999).

Burns (1978) posits that a common goal emerges from a reciprocal exchange between organisational actors with conflicting needs, wants and objectives. The model of leadership as a process is mutual, reciprocal and dynamic. Burns views leadership *'act as an inciting and triggering force in the conversion of conflicting demands, values, and goals into significant behaviour.'* (p.10). He contrasts the transactional political leader with the transforming one and argues that a transforming leader can have a much greater influence on followers, inspiring them to realise their own potential and to align their own goals with that of the organisation.

It is emphasised that although the follower and leader have a common purpose they have distinct roles within the relationship. The leader is more proactive in initiating the relationship, evaluating and anticipating followers' motives and in the maintenance of the leadership relationship. Most importantly, leaders identify and address followers' needs, wants and motivations and serve as an '*independent force in changing the makeup of the followers' motive base through gratifying their motives*' (p.20).

## **2.6 Development and Application of Transforming Leadership**

It was Weber (1947) who first described a form of leadership authority as *charismatic* and ascribed it to leaders who appear to have a natural gift for authority or attraction that encourages people to follow them. Initially the concept of charismatic leadership was the preserve of the study of political, religious and social leaders. Since the 1970s there have been a number of transformational or charismatic leadership theories including House (1977), Burns (1978), Bass (1985), Tichy and Devanna (1986), Bennis and Nanus (1985), Conger and Kanungo (1987) and House and Shamir (1993). Hunt (1999) goes so far as to argue that it was the emergence of the charismatic and transformational leadership schools that saved leadership as an academic topic from ossification and irrelevance. The influence of Bass's transformational model on leadership thinking has been significant (Lowe et al, 1996).

It is Bass (1985; 1990) who must be credited with the operationalisation and application of transforming leadership (Bycio, Hackett and Allen, 1995). On encountering Burns' concept of transforming leadership Bass immediately set out to collect data to identify what behaviours constituted transforming leadership. On accepting the basic premise of Burns' theory, Bass focussed on operationalising the concept, and moved to identifying attributes and behaviours that constitute



transforming leadership. Bass (1995) describes how his initial study involving the development of the transformational leadership model encompassed reviews of the charisma literature, reflections on great historical figures and finally quantitative studies to define the behaviours of transactional and transformational leaders.

In adapting Burn's political concept of transforming leadership to organisations Bass (1985) developed the Multifactor Leadership Theory and claimed that transformational leadership led to '*performance beyond expectations*', but he emphasised that both parties to the leadership process are changed through the dynamic exchange process. His main focus was on how leaders affect followers, and little consideration was given to followers' part in the mutual influencing process. The emphasis in much of Bass's work is on how leaders engender trust, admiration and loyalty in followers to inspire them to transcend their own self interests for the sake of the greater goal (Yukl, 1989). Little consideration is given to the followers' influence or participation in the exchange. The research inspired by Bass's model of transformational leadership is defined mainly in terms of leadership behaviour and its effect on followers (Yukl, 1999).

There are a number of fundamental changes that Bass made to Burns' concept of the transforming leader. Firstly, Bass changed the label from transforming to transformational, shifting the emphasis from the actual process to the outcome. It can be argued that this subtle change does demonstrate a significant difference in focus between the concepts of Burns and Bass (Gronn, 1995). Whereas Burns focuses on the actual leadership relationship and how it is transforming the participants, Bass focuses on the end changes the leader can effect in the people or the organisation. Followers move from contributing actors in an exchange relationship to objects of the leaders' activities. Secondly, Burns argued that transactional and transforming leadership were distinct and mutually exclusive whereas Bass regards transactional and transformational leadership as different but mutually reinforcing. Bass (1997) argues that a leader can demonstrate both transformational and transactional

behaviours and cites Roosevelt's political manoeuvring with his inspirational speeches. In this sense an effective transformational leader is both transformational and transactional (Lowe, Kroeck and Sivasubramaniam, 1996).

In Bass's (1985) model transformational leaders seek to change and shape the environment and the organisation, intellectually stimulating followers to challenge the status quo and to identify a new *modus operandi*. They are proactive rather than reactive and encourage followers to be aware of the importance of the collective goals. They also invest time and energy in considering and addressing individual needs and motives. Their primary aim is to enable a group of followers to recognise that they can achieve their own individual motives by contributing to the collective vision or goal (Bass, 1985). In transformational leadership followers are not leader-dependents; rather individual actors choose to follow the leader because they believe that their own objectives will be best served through collaboration. The leader seeks to encourage followers to raise their own awareness and decision-making capabilities and to reduce their dependence on a leader who prescribes one set approach or outcome. The emphasis in transactional leadership is on control of followers; in transformational leadership it is on mutual development and satisfaction of needs through a process of reciprocal exchange (Burns, 1978).

## **2.7 Bass – Transactional leadership**

In transferring the theory to organisations, Bass (1985) identified the transactional leader as working within an existing structure or culture, preferring risk avoidance, emphasising efficiency and time management and focusing on process and system over content in order to control the performance and behaviours of the followers. The transactional leader is more effective in stable environments where output is predictable and improvement against prior performance is the most effective strategy (Lowe et al, 1996). Bass (1985) argued that the transactional construct incorporates a number of leadership behaviours including contingent reward and management by

exception. Transactional leadership behaviour seeks to secure follower agreement to perform work-based tasks that contribute to the leader's goals through a social exchange mechanism (Tejeda et al, 2001). In management by exception (passive), a manager sets objectives or targets for an employee but only intervenes when something is not working. In management by exception (active) the leader proactively looks for errors to ensure compliance with specified performance. All of these approaches are criticised as essentially economic transactions (Bass, 1985). They are forms of reward and punishment to reinforce conformism and to ensure that the goals of the leader are met, and not enough consideration is given to people's socio-emotional needs (Gill, Levine and Pitt, 1998). The emphasis is on the control of followers to complete the leader's task through the promise of reward and the threat of punishment, with little or no consideration of development.

## **2.8 Bass – Transformational leadership**

Bass's (1985) Multi-factor Leadership Questionnaire (MLQ) questionnaire was developed and validated to demonstrate the complementary dimensions of transformational and transactional leadership behaviours with sub-scales to further distinguish between the leadership behaviours. An initial set of 142 items were collected from a literature review and the results of an open-ended survey involving 70 executives who were required to offer a description of the characteristics and competencies of transactional and transformational leaders. These items were then assessed and categorised by 11 graduate students under transactional or transformational labels and these formed the basis of the 73-item MLQ questionnaire that was administered to a selected group of 177 U.S. military officers who were asked to rate their immediate superior using a five-point Likert scale where zero denotes a complete absence of the behaviour to five where the behaviour is displayed consistently. Principal component factor analysis of the 73 items in the questionnaire resulted in two transactional factors, three transformational factors and a passive-avoidance laissez-faire factor that were proven to have acceptable internal consistency reliability. The transformational factors were:

- *Charismatic leadership* (leader can identify what is important; communicates an inspiring vision; instils a sense of pride and faith)
- *Individual consideration* (leader seeks opportunities to develop individuals through delegation, coaching and training; treats followers as individuals with their own needs and wants)
- *Intellectual stimulation* (leader encourages individuals to challenge accepted ways of thinking; problem solving is delegated to the appropriate level in the organisation)

The transactional factors were:

- *Contingent reward* (leader rewards followers if they meet agreed objectives/targets or display appropriate behaviour)
- *Management by exception* (leader communicates performance/ behaviour expectations and intervenes only when these are not being met)

A number of MLQ studies identified that the correlations of effectiveness and satisfaction are higher for charismatic leadership than all the other factors, including consideration and initiation of structure. A factor analysis carried out on a revised version of the MLQ (Form 4R) split management by exception into active and passive, and charisma and inspirational leadership were scored as two components of the same factor (Hater and Bass, 1988). There are concerns expressed that charisma is not a leadership behaviour but is rather an attribute followers make of their leader. (Carless, Wearing and Mann, 2000)

Bass (1985) characterises transformational leaders as seeking new approaches to work, to intellectually stimulating their followers and promulgating common goals and values. They try to shape and influence the environment within which they operate. Transformational leaders seek to encourage followers to transcend their own needs for the wider needs of the group organisation or nation. Bass's definition of transformational leadership requires the empowerment of the follower, enabling followers to take responsibility for their own activities (Lowe et al, 1996). Avolio and Bass (1993) posited that transformational leadership is a combination of a series of leadership factors comprising the following:

- Individual consideration – *each employee is considered as an individual with his or her own unique feelings and motives, and the leader provides coaching, mentoring and growth opportunities*
- Intellectual stimulation – *the leader creates opportunities for followers to become more involved in their role, question assumptions and generate creative solutions to problems*
- Inspirational motivation – *the leader seeks to inspire followers to surpass previous levels of performance and sets out a vision for the organisation to which all employees can relate*
- Idealised influence – *the leader demonstrates the behaviours and values of the organisation and acts as a role model for followers*

Bass (1997) argues that, whilst other transactional leadership theories are based on economic and task control, the psychological contract between leader and follower in transformational theory is based primarily on trust: '*Trust is the biggest single most important variable moderating the effects of transformational leadership on the performance, attitudes and satisfaction of the followers*' (p.4). Transformational leadership builds on the concept of transaction as it must ensure that the hygiene

factors in motivation are in place before it moves to develop higher-order motivators. In motivational terms transformational leadership focuses on the higher order needs, seeking to engage, involve and develop followers (Bass, 1985). The exchange relationship between leader and follower is based on a shared vision and goals where each is meeting his and her needs through collaboration. The transformational leader goes beyond the task focus and concentrates on the needs, both performance and socio-emotional, of the followers. Compliance is replaced by commitment to a shared vision and values, and leaders proactively support and develop the followers to attain performance beyond expectations (Bass, 1997).

Yukl (1999) highlights a number of conceptual weaknesses in the transformational leadership literature. The transformational leadership literature is found to contain ambiguous constructs, focussed too narrowly on dyads, lacking in consideration of contextual variables and heavily biased towards the '*great man*' concepts of leadership. Yukl (1999) does concede that there is evidence that transformational leadership is effective in achieving various desirable outcomes generally linked with leadership. A meta-analysis of 39 studies identified that transformational leadership is positively correlated with outcomes of leadership behaviour including improved performance, increased motivation and employee satisfaction (Lowe, Kroeck and Sivasubramaniam, 1996). A meta-analysis of leadership in Research and Development (R and D) organisations also found that the display of transformational leadership behaviours was positively correlated to R and D project success (Elkins and Keller, 2003). Another by Mumford et al. (2002) highlighted the correlation between transformational leadership behaviours such as intellectual stimulation and a high level of creativity in knowledge-based organisations.

## **2.9 Summary**

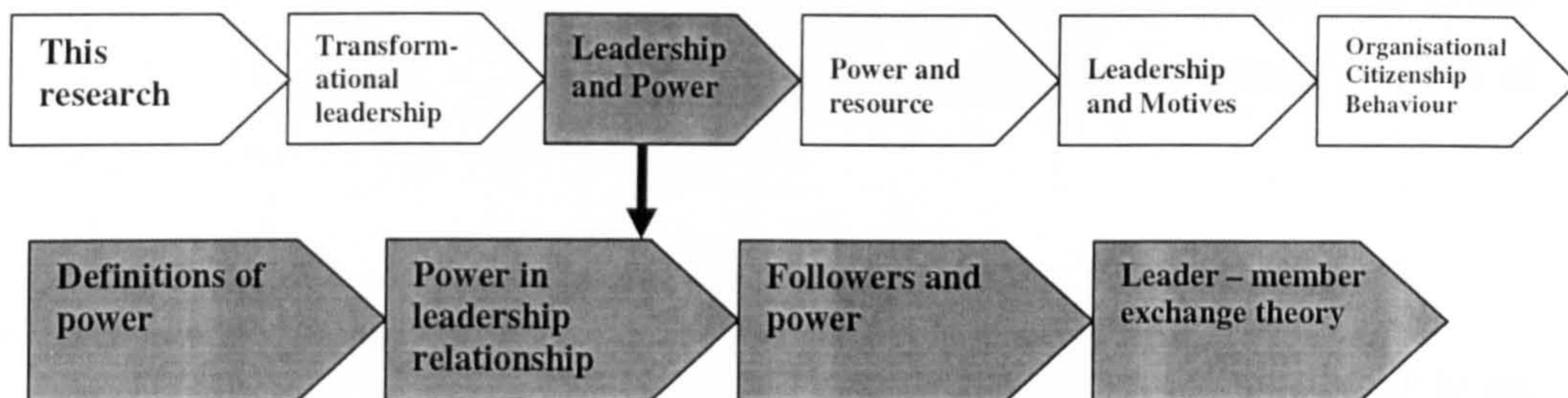
It can be argued that Bass (1985) significantly changed Burns' concept of transforming leadership through the semantics of altering the name to

transformational leadership. The subtle change shifted the emphasis from a relationship based on mutuality to one where followers are objectified and power assumed to be the preserve of leaders. Although Burns and Bass have differing views of the distinctions between transactional and transformational leadership, both argue that the two styles should engender different responses from the followers in terms of motivation and resource commitment. The transactional leader will seek to engage with the follower on a limited-time basis, with a focus on a specific economic exchange of reward for activity. The transformational leader will seek to establish a more socio-emotional relationship with the individual follower, where the exchange is longer-term and less well defined. This research will focus on testing Burns' theory that the leadership relationship is based on mutuality and reciprocity through contrasting situations where followers have greater or lesser power in the relationship. The next chapter examines the concept of power and its role in Burns' theory and in leadership research at large.

## CHAPTER 3 LEADERSHIP AND POWER

### 3.1 Outline of the Chapter

This chapter examines the central role of power in Burns' general theory of leadership. It discusses the different definitions of power and also reviews the literature on leadership and power in organisations. It highlights that power is a much neglected topic in the canon of leadership research and argues that an understanding of power in the leadership relationship is essential for any analysis of leader-follower relations.



### 3.2 Definitions of Power

In organisational literature the bulk of the work on power can be divided into two main camps: the functionalist managerial-based school, who accept the model where power is distributed in formal organisations, and the radical structuralists, who look to politics for their models and who regard power as domination of one section of the workforce by another (Hardy and Clegg, 1996). The radical school challenges the accepted functionalist organisational model and examines how power in organisations is designed to protect the interests of certain groups to the disadvantage of others, and identify power within a society-wide institutionalisation of power in technology, economics and social control ((Lukes, 1974; Clegg, 1979; Foucault 1980). In contrast the functionalist model offers a description of managerial power where the underlying hierarchy power is rarely articulated or challenged. Managerial



power is referred to as *'legitimate'*, follower power is regarded as *'resistance'*, and within this model it is generally accepted that in organisations power is hierarchical (Collinson, 2005). This model neglects the power of followers in shaping relationships and social dynamics in organisations.

One of the main issues with the concept of power is its pervasiveness (Pfeffer, 1981). Dahl (1957) highlights how a concept that can be labelled or interpreted in a plethora of different ways is probably *'not a Thing at all but many Things'*(p.203). It is argued that power is essentially a relationship between social actors who need to interact but who possess different levels of power within that relationship. Power is contextual, and actors' power is contingent on the situation they are in and the other actors they relate to (Pfeffer, 1981). A clear, operationalised definition of power remains elusive, but the concept continues to be central to any critical analysis of organisations (Kearins,1996; Lukes, 1974).

Power in organisations has traditionally been viewed as the ability or authority to get someone to do something that you want them to do, whether they want to or not (Weber, 1948; Dahl, 1957; Emerson, 1962; Hardy and Clegg, 1996). Handy (1999) states that power enables one individual to change the attitudes or behaviours of another. Russell (1986), like Burns, defines power as the production of intended effects. Hickson et al. (1971) posit that power is the determination of the behaviour of one social group by another, whilst Bacharach and Baratz (1962) state that power is the ability to control the premise of the action and to determine the issues at stake. Others state that these views are too individualistic and behaviourally focussed and that power is in the ability to actually, overtly and covertly, manage the meaning and form of cultural issues, concepts and values in an ideological way (Lukes, 1979; Foucault, 1979; Hardy, 1996). It can be argued that such a wide structural interpretation of power offers little insight into how one individual can produce changes in another's behaviour.

Organisations are essentially a series of intertwined dependent power-relationships that create a dynamic, complex environment of shifting levels of power, and power itself can be defined as the ability to induce change in the behaviour of other actors (Blau 1964; Crozier 1967; Kahn 1964; Pfeffer 1981; Molm 1997). In a mechanical and behaviourist view of the world power is measured through responses, as these are an indication of power as the cause of a measured reaction (Dahl 1957). Dahl defines power as the determination of the behaviour of one social unit by another. He emphasises that power is a property of social relations and focuses on the behaviour actually involved in the making of decisions involving important or contentious issues (Lukes, 1979). Empirical exactitude is achieved by setting clear boundaries on the definition of the application of power and observing its effects. In this pluralistic viewpoint power within an organisation is interscursive and no individual or group has a monopoly on organisational power (Burrell and Morgan, 1989). Pluralist theory argues that power is dispersed and shared across an organisation and is contingent within organisations. Within this context power can be seen as the property of a social relationship, not of the actor, and that power as a concept refers to a relationship and not a thing (Emerson, 1962).

Burns (1978) concurs with Dahl's definition of power and argues that power lies in the motives of the people involved in a relationship and that by appealing to these motives a leader can convince others to commit their resources to achieving a common goal. His view of power has three central elements: *'the motives and resources of power holders; the motives and resources of power recipients; and the relationship among all these'* (p.13). The behavioural conception of power consists of a focus on the individual and the demonstration of power in their actual behaviours.

### 3.3 Power – Enactment or Potential

There is an on-going debate on the basis of power, on whether it lies in enactment or in potential, and this argument extends to whether power is structural or behavioural. Does power lie in the capacity of a group or an individual to cause or effect a change or in the actual production of the change itself? (Lukes, 1986) There are a number of conflicting viewpoints. Wrong (1979) argues that power can be located in a set of capacities and highlights the differences between potential and actual power, whilst Weber (1947) defines power as the capacity to carry out one's will despite resistance from others. Similarly Parsons (1967) states that power is the ability to get things done, a combination of potential power and the ability to use it effectively. The argument that power is a structural phenomenon is based on a macro analysis of organisations where structure is based on socially shared patterns of behaviour and interpretation (Brass and Burkhardt, 1993). Taylor (2002) highlights the existence of '*deep structures*' within organisations that restrict the transfer of power from one group to another. These structures are less easily identifiable than overt structures such as job descriptions, organisational charts or systems. Deep structures differentiate people on the basis of power and influence how relationships develop within organisations. Organisational structures have been designed to reflect the allocation of power with some positions given positional authority to make others carry out orders. Structural power is regarded by functionalists as the latent legitimate power that comes from position or status in the organisation.

These macro-analyses offer little insight into power in the dyadic context, particularly into why a group of individuals, in a context of choice and no coercion, allow their behaviour to be shaped by another individual. The micro-analysis of organisations argues that power is behavioural and that power is only observable in actions rather than in potential actions (Mintzberg, 1983). It is behaviour, however, that turns structure into power, and it is in behaviour that power is observable (Brass and Burkhardt, 1993).

Hobbes and Locke regard power as directly observable and measurable, and Hobbes' descriptions of power make extensive use of scientific and mechanistic metaphors (Tuck, 1989). Hobbes (1962) postulates that *'the power of a man...is his present means, to obtain some future apparent good (p.262).'* Man is motivated by appetites or desires and directs his activities either towards the achievement of these through his means of powers or away from detested objects. To satisfy these needs or desires requires the individual to use power as the means of securing possession, and as such power is causal: *'Power and Cause are the same thing. Correspondent to cause and effect, are Power and Act; nay, those and these are the same thing.'* (Hobbes, 1962 pP.264). Clegg (1979) argues that Hobbes theorises actors as *'self-possessedly contained atoms impelled by mechanistic, causal and competing subjectivities'* (p.157). Hobbes focuses on what power is and offers a rational description of the state and its power based on the agency model. In Hobbes, individuals are at the centre of the analysis; power is held by individuals rather than by organisations and is observed in its application rather than in its potential. Participation in an organisation is counter-intuitive; a human construct created to solve problems requiring collective action, but the participation in the collective activities is motivated by personal wants and needs.

Recognising this diversity of individual and group interests within an organisation, pluralist theory argues that individuals and groups are concerned with the wider purpose of the organisation only in how far it helps to achieve their own individual/group interests (Burrell and Morgan, 1989). Clegg (1979) states that pluralists regard power as:

*'...most likely to be dispersed among many rather than fewer people; to be visible in instances of concrete decision making rather than through reputation; to be competitively bargained for rather than structurally pervasive; to be best viewed through relatively formal instances of voting and to be more widely dispersed than narrowly concentrated in communities.'*  
(p.9)

Within the organisation individuals will cooperate for mutual advantage rather than for the benefit of an abstract organisation. The organisation consists of a collection of autonomous actors pursuing diverse and often conflicting interests whilst cooperating in achieving a common good. The pluralist view of the organisation regards conflict as inevitable within an organisation consisting of stakeholders each with their own agendas. As conflict cannot be eradicated the leadership of the organisation must seek structures and processes to minimise it and seek areas of commonality that allow cooperation. The pluralist standpoint does not recognise the legitimised right of leaders to move the organisation towards set goals; rather it identifies power as the means to resolve conflicts. Crozier and Friedberg (1977) argue that power is introduced into a relationship when two or more actors enter into it to achieve a common objective that modifies their personal objectives. It develops through an exchange amongst the actors, and can be a balanced relationship based on reciprocity, but where there is an inequity in contribution or possession of resources there is a relationship of power. Consequently power can be defined as *'a relation of exchange, hence a reciprocal relation, but one in which the terms of exchange favour one of the parties involved'* (Crozier and Friedberg, 1977, p.43).

The argument that power is a dynamic relationship between individual actors is premised on the belief that all actors possess an element of power, even if that is the withdrawal of their co-operation. Mechanic (1962) argues that no individual in a relationship is entirely powerless. Braverman (1974) highlighted the struggle within organisations between the management's need for control and the workers' resistance to the use of coercive power. Similarly, Collinson's excellent work on control and resistance in organisations has explored the perceived power asymmetries in organisations and has argued that resistance is a response to managerial control. Giddens (1987; 1991) challenges the inherent dualism in social theory and highlights the dynamic relationship between power and agency in all social relations, and stresses that individuals are knowledgeable social actors who have the potential to influence any situation in which they find themselves. Power relations, regardless of balance, are always contingent and interdependent: *'In all*

*social systems there is a dialectic of control, such that there are normally continually shifting balances of resources, altering the overall distribution of power.*' (1982, P.32) Similarly Mann (1986) any analysis of power and control should be based on *'multiple overlapping and intersecting power networks.'* (P.2) The opinions that power is based on a dialectic of control challenges the conception underpinning much of leadership theory that social power is hierarchical, with an individual or group having power *over* others: *'this is power as domination.'* (Giddens 1982; P.111) In terms of much of the great man based leadership theory, power over others seeks to promote the pursuit of dominance, control and compliance, rather than mutuality.

### **3.4 Leadership and Power**

Janda (1960) stated that a comparative review of the extant literature on leadership and on power highlighted no overlap between the two, and in the 46 plus years since that paper there has been little research done on the linkage. The bulk of leadership research continues to correlate the needs and aims of the leader with those of the organisation and assumes the leader is the controller and dispenser of power rather than involved in an exchange relationship where power can shift between worker and leader (Clegg, 1990). The bulk of the leadership literature neglects power as a concept as the terms power and politics are regarded as pejorative and contrary to the assumed context of ostensibly rational, bureaucratic organisations, particularly in US-based management and organisational theory. Pfeffer (1981) argues that in much of the management writing contentious issues such as power and politics are basically incompatible with the values and ideology being developed; therefore it is reasonable if not theoretically useful, to ignore topics which detract from the functions being served by the writing, and this includes tending to ignore or downplay the topics of power and politics. It can be argued that the ideology of the Bass's (1985) model of transformational leadership in particular, with its focus on a more consensual and emotional approach to leadership, is one of the main reason for the absence of power as a concept within the relevant literature.

Much of the extant literature on leadership assumes, consciously or not, an almost classical elite model of power (Mosca, 1939; Pareto, 1991). It focuses on a dominant leadership elite, on whose planning, organisation and management the rest of society are dependent. This school of leadership theory assumes an elite group with legitimised position power operating in a bureaucratic, hierarchical situation dominating a group of dependent followers who exert little or no upward influence on the behaviour of the leader (Burns, 1978; Pfeffer, 1981; Yukl, 1999; Gronn 1995; Gronn 2002; Collinson 2005). In the dominant leadership models, as exemplified by LMX theory (Dansereau et al., 1975), Contingency Leadership model Fiedler (1967), Path-Goal theory (House, 1971) or Situational Leadership theory (Hersey and Blanchard, 1996), the control of the key resources and consequently uncertainty lies with the leadership. As a result the majority of leadership theories have concentrated on the leader, giving the impression that leadership is fundamentally manipulative, something that is *done to* followers by an individual or group of individuals from a position of power to coerce, bribe or persuade them to do something they otherwise would not want to do. The traditional leader-centred approach to leadership study neglects the important role of followers in defining and shaping the scope of a leader's action (Hollander, 1997), and also neglects to recognise that power in organisations is pluralist, a structural phenomenon created by functionalisation and the division of labour.

Although Burns' model of leadership emphasises an exchange process between followers and leader stresses the importance and influence of followers on both the style and content of leadership, the concept of leadership in a pluralist context is greatly under-researched. Despite Burn's (1978) emphasis on transforming leadership as a mutually developmental process, discussions of power in much of the charismatic leadership theory continues to be focussed on a leadership elite modelling or communicating the behaviours desired from employees. Again this presumes that the interests of the leader are identical to the interests of the workforce, that the source of power lies with the leadership and is underpinned by a

leader/follower dualism (Clegg, 1990). Leaders are differentiated from followers by their superior power and a legitimised position that followers will recognise and respect, and this hierarchy is embedded in the deep structures of the organisation and in the power relationships between followers and leaders (Collinson, 2005).

In organisations structural power comes not from hierarchical position but from the structural attributes of exchange relationships (Molm, 1990). Traditionally the analysis of power in organisations has been heavily biased in favour of management because management have controlled the main sources of uncertainty, namely information and capital (Clegg, 1990). The agency concept of power has been regarded as central to the discussion of power within organisations, and the majority of leadership/power theories (trait/behaviour/charismatic) share an adherence to the more orthodox structures and control models of organisation, with leaders having power *over* followers, controlling their activities and their expectations (Gordon, 2002). Leaders are given structural power through a position of privilege and considered to be superior to followers through either innate traits or learnt abilities: the argument being that if leaders were not superior people would not follow them (Clegg, 1990). In much of the traditional leadership theory the superiority of leaders is inherent and assumed whilst followers are marginalized. Hardy and Clegg (1996) highlight the use of semantics in management literature to bias the power relationship towards the management. When leaders use power it is called influencing or directing, but when employees use power it is called resistance, or illegitimate power, emphasising the inherent assumption that the power of leaders is legitimate and that of the workers' illegitimate. French and Raven (1960) stated that the management literature often makes legitimate power synonymous with office (position) and see the interest of the leadership and the organisation as identical.

Haugaard (1997) argues that leadership roles have acquired a form of social capital over the years, and the need for leadership and the power inherent in the title or concept has become a reified truth and consequently no longer open to debate. People who hold these roles are accepted as '*legitimate carriers of meaning*' and '*producers of the truth.*' The possibility that leaders may act in their own interests



rather than in the interests of the organisation is not contemplated (Gordon, 2002). Clegg and Hardy (1996) argue that concepts of dominance such as leadership, culture and structure are regarded in leadership theory as neutral or objective rather than conferring or reinforcing power in any group. Much of leadership theory fails to recognise that leaders are autonomous individuals with their own motives to operate not only as agents of the organisation but also in their own interests. Mainstream management literature appears to endow leaders with an unquestionable functional superiority and assumes that they always act in a rational manner, regardless of their own interests.

### **3.5 Followers and Power**

The legitimisation of power into authority enables management in organisations to access power that is no longer dependent on the resources that initiated the power relationship (Pfeffer, 1981). Mechanic (1962) highlights that, whilst employees at subordinate levels in organisations have a great amount of power available, in terms of refusing to follow instructions or withholding their technical expertise, they rarely use it. Additionally the powers of the management to punish non-conformity are also rarely used. Social pressures and norms legitimise power into authority, often regardless of the actual power balance within the relationship (Pfeffer, 1981).

There is little recognition in leadership theory of the pluralistic standpoint that leaders and their behaviours are subject to influence from the workforce and that power within the leader-follower relationship is dynamic. Graen and Uhl-Bien (1995) argue that, whilst much of leadership research has focused on the leader, the other two main domains of leadership theory, namely followers and the dyadic relationship between the follower and leader, have been neglected. Leader-based studies have concentrated primarily on the traits and behaviours a leader requires to achieve desired outcomes, and they have presupposed the power in the exchange relationship as being mainly on the side of the leader. The relationship approach

concentrates on the dyadic relationship between the leader and follower and the relational characteristics required to be effective.

The Leader-Member Exchange theory (LMX) is an example of a leadership theory that ostensibly promotes an exchange model but is underpinned by an assumption that power is the preserve of leaders in an organisation. LMX adopts a relationship-based approach to the study of leadership founded on the principles of social exchange (Graen and Uhl-Bien, 1995; Schriesheim, Castro and Cogliser, 1999). Central to the theory is the principle that effective leadership relationships are established when there is a perception of equitable reciprocity within the social exchange between the leader and the follower. Initially LMX theory posited that leaders do not use a uniform leadership style with all their people; rather they establish differentiated dyadic relationships with each member of the group (Dansereau et al., 1975). It was argued that leaders establish high-quality relationships with some group members (the in-group), based on trust, mutual respect and obligation, and a more transactional relationship with others (the out-group) where the exchange focussed on economic factors and direct supervision. As the theory developed research identified a significant positive relationship between the quality of the social exchange and specific outcome variables (Graen and Uhl-Bien, 1995). LMX theory has evolved and more recent research has moved from the discriminatory process of establishing an in-group and an out-group to the dyadic relationship the leader has with each member of the group (Keller and Dansereau, 1995).

LMX theory concurs with Blau (1964) that the social exchange inherent in the leader-follower relationship is not an explicit contract but an implicit social exchange. The theory proposes that leaders make an investment in their subordinates of support, development and empowerment, and subordinates reciprocate with increased commitment to the organisation (Keller and Dansereau, 1995). Although there is an emphasis on an exchange process, the authors' model of LMX

presupposes that the power in the dyadic relationship lies mainly with the manager, and it is accepted a priori that giving an employee latitude to make decisions and support their self esteem is the most effective form of leadership. It also is structured on the leader '*empowering*' the employee, a process where the leader willingly gives up power to the employee. It is argued that the employee can initiate the exchange by demonstrating behaviours that the supervisor will '*solicit negotiating latitude and support for self-worth from superiors*' (Graen and Uhl-Bien, 1995). The failure to reciprocate by superiors will result in the withdrawal of the organisational citizenship behaviours. The emphasis is on the superiors granting latitude and support, not being forced to respond to a power imbalance in favour of the worker. In the LMX model the power imbalance is assumed to be firmly on the side of the supervisors who are dispensing power rather than negotiating it or reacting to it. Power is a property that leaders can decide to retain or share with employees and little is said about how followers influence the leader-member relationship (Howell and Shamir, 2005).

LMX is based on the social exchange principle of reciprocity but it fails to recognise the centrality of power within that theory. It does not envisage a situation where the exchange is dictated by a power imbalance in favour of the follower. The emphasis within LMX theory is on the superiors granting latitude and support, not being part of a relationship where either actor can be subject to a power imbalance in favour of the other (Collinson, 2005). There are undoubted circumstances where leaders may choose to adopt a more transformational leadership style and establish positive partnership relationships with followers on a dyadic level through a commitment to a set of leadership values, but in a leadership relationship based on a power dynamic as argued by Burns the influence must be bi-directional.

### **3.6 Transforming Leadership and Power**

Russell (1938) states that power is the fundamental concept in the social sciences, and Burns (1978) insists that '*to understand the nature of leadership requires*

*understanding of the essence of power, for leadership is a special form of power'* (p.12). Despite this it is difficult to find any transformational research papers that address or incorporate the concept of power in any detail or assumes a leader-centric interpretation of power (Collinson, 2005; Molm, Peterson and Takahashi, 1999; Pfeffer, 1981). Gordon (2002) refers to the '*lacuna in the leadership literature – the insufficient coverage of power.*'(P.151)

Burns (1978) argues that much of the leadership research analyses power as resources and tries to calculate them into a definition of the leader's power base. Burns (1978) argues that leadership research makes this assumption to the extent that the followers are considered as objects rather than participating actors. He states that such an analysis ignores the role of motive in the equation; people may have power but they must be motivated to use it. Burns' theory assumes a pluralistic standpoint, where power is distributed across organisations and all actors have a degree of power that they must be motivated to contribute or apply. The role of the leader is to appeal to the higher-level motives to secure the highest commitment of resources from the followers.

Burns argues that the two essentials of power are in motive and resource and that the two are inter-related. Without motive resource is unused, whilst without resource motive is unfulfilled. No power exists unless both are present. Power is a relationship amongst actors, and the desire and commitment to work together are based on the desire to address and meet the needs and wants of the participants in the relationship. Burns (1978) argues that 'power and leadership are measured by the degree of production of intended effects' (p.22). In the leadership relationship, the more effective the leadership is in addressing higher level motives the greater the level of intended behaviour change evidenced.

### **3.7 Summary**

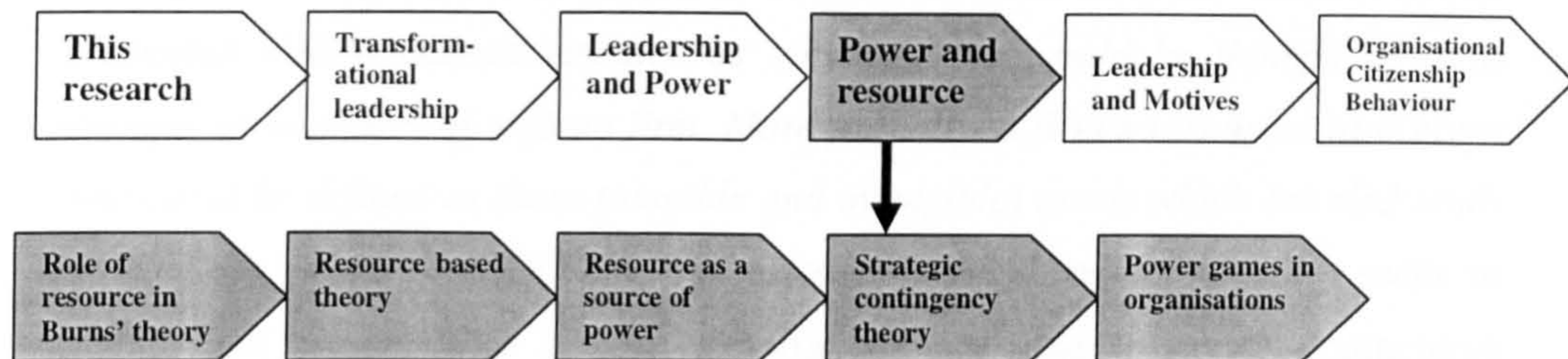
The traditional model of leadership assumes a significant imbalance in power in favour of the leader. The transforming leadership theory proposes that the leadership

recognises that power is dispersed across the actors and that the role of the leader is to access and direct these resources by securing the commitment of the followers. Burns states that to secure a proper understanding of leadership, it must be recognised that power and leadership are '*not things, but relationships.*' The next chapter will explore in more detail the how resources can be the source of power and how different actors can use their resources to satisfy their motives, needs and wants.

## CHAPTER 4 POWER AND RESOURCE

### 4.1 Outline of the Chapter

This chapter highlights Burns' emphasis on resource as one of two essentials of power. It examines the extant literature of the sources of power in organisations and highlights its continuing focus on the elite concept of leadership. It explores Burns' idea that power lies in resources and discusses resource based theory and knowledge based theory in detail. It also introduces Crozier's strategic contingency theory as a means of analysing resources and power as part of a dynamic exchange relationship between actors.



### 4.2 Power and Resource in Transforming Leadership

Yukl (1999) states that '*one essential leadership function is to help the organisation adapt to its environment and acquire resources needed to survive*' (P.287). The concept of resources and their strategic importance in leadership relationships is a central element of Burns' theory. Burns emphasises that whilst he contends that power is a relationship, resource in either an abstract or concrete form, '*plays an indispensable part*' (p.19). He argues that power per se over other actors in a relationship is activated when one actor commits certain of their power base resources to achieve specific motives that enable them to influence the behaviour of others to activate their resources relevant to achieving those motives: '*persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, psychological, and other resources so as to arouse, engage,*

*and satisfy the motives of followers* (p.18). Within the leadership relationship the followers and the leader seek to realise mutually held goals, but this process exists within a condition of conflict and competition where the followers have a choice to commit their resources to the leader's goals or to withhold or redirect their resources elsewhere. The leader's role is in unifying the different resource contributions to achieve a common purpose.

### **4.3 Resource Based Theory**

Resource based theory proposes the analysis of organisations in terms of resources, such as land, capital, labour and knowledge (Wernerfelt, 1984). It is argued that the role of company strategy is establishing equilibrium between the exploitation of existing resources and the development of new resources (Hax and Majluf, 1991). Wernerfelt (1984) defines resource as *'anything that could be thought of as a strength or weakness of a given firm. More formally, a firm's resources at a given time could be defined as those (tangible and intangible) assets which are tied semi-permanently to the firm'* (p.171). The resource-based theory of the firm seeks to explain and predict why certain organisations are able to create competitive advantage and secure enhanced returns (Grant, 1996). The theory proposes that as organisational capabilities are scarce in the market place and are difficult to replicate they have the potential to be a source of competitive advantage to the firm. Resource theory argues that it is the main role of the leadership within an organisation is to identify its unique resource base and to exploit these to the optimum, but simultaneously seeking to extend and develop the firm's future resources. The knowledge of an organisation is recognised a key source of differentiation between firms (Teece, 1996; Alvesson, 2001; Tsoukas, 2002; Ridderstrale and Engstrom, 2003).

Resource based theory highlights the influence external factors have on the organisations and argues that the analysis of dependencies between an organisation

and the providers or sources of resource can assist leaders to understand the dynamics of power relationships (Pfeffer and Salancik, 1978). Every organisation is dependent on resources based in its external environment, such as materials, knowledge, capital or equipment, and this dependency creates a power imbalance with which managers must seek to cope. The level of dependency enables the organisation and the source of the resources to set a value on the various resources the organisation requires and the level of rent they will generate (Coff, 1999). Within an open systems model the organisation can identify and source its resources but it will have to compete for access with others in its own sector. Organisations will focus on sourcing the resources most critical to their competitive advantage and the scarcer these resources are in the environment the greater the influence they will have on the organisation's operation and the greater the level of power the sources of these resources will have in their relationships with the organisation (Barney, 1991).

#### 4.4 Sources of Power

Attempts to identify the sources of power have been made by a number of pluralistic theorists (French and Raven, 1959; Blau, 1964; Crozier, 1967; Hickson et al., 1971; Yukl, 1989). Weber (1947) states that power is derived from controlling the key means of production in any organisation. This includes knowledge of how the operation works and not simply ownership of the means of production as argued by Marx. Weber (1947) argues that rather than power being concentrated in the hands of a few managers with legitimised authority, power is more widely spread across organisations in the social relationships within the organisations and these can be influenced by the individuals involved. Individuals in the workplace are not powerless to influence activities and their outcomes and the balance of power in the employment relationship is much less one sided than the Marxist view will often maintain. Hardy and Clegg (1996) highlight that ultimately labour '*retain ultimate discretion over themselves, what they do and how they do it.*' Individuals can display, overtly or covertly, resistance to management power and managers in turn seek out new methods of overcoming resistance to maximise the input of employees.



French and Raven (1959) argue that power is the force an actor exerts on another to induce a change in attitude or behaviour. They propose five main sources of organisational power: reward, coercion, legitimacy, expertise and reference. Reward and coercive power rely on individuals believing that the other actor has the resources and authority to either award or withhold rewards or punishment depending on the individual meeting the requirements of the agent actor. Legitimate power is structural and based on recognition amongst the actors that an individual, through position or authority, has the legitimate right to exercise power over others due to accepted social or organisational customs, norms and laws. The concept of referent power is based on the individual identifying with the actor and accepting their authority on the basis of a mutually beneficial relationship. Expert power relies on the target individual acknowledging that the other actor has a useful and relevant knowledge or skills set upon which they are dependent, and therefore will accept their direction in the belief that they are better informed.

#### **4.5 Strategic contingency theory**

Strategic contingency theory argues that individuals and groups in organisations acquire power through the control of strategically important resources (Hickson et al. 1971; Crozier 1967; Pfeffer and Salancik 1978; Dahl 1986). Crozier (1967) states that the source of power in any relationship is not the actual strength of each actor, but the possibilities to activate these strengths and oblige the other actor in the exchange to carry out specific actions or behaviours that will allow the achievement of pre-determined objectives. Power also lies in the actor's level of choice or freedom to avoid dependency and to resist the strengths of the other party in the exchange. Within a resource dependency model that power is the inverse of dependency and lies with individuals who are in central positions of controlling or influencing the strategic means of production within the organisation (Emerson, 1962). An employee's centrality in the intra-organisational network is related to their level of power within the organisation (Brass and Burkhardt, 1993). Individuals acquire power by having access to a scarce resource that others require or desire. The level of power of a group or individual will depend on its level of control of the

resource, its scarcity and the centrality of the resource to the overall operation of the organisation. Individuals and groups will seek to control their relationships with other stakeholders by maximising their dependency on their resources and thereby increasing their own power levels and influence within the organisation. The key to organisational power is the ability to acquire and manage scarce resources (Pfeffer and Salancik, 1978). All organisations must manage strategic contingencies that are inherent in the dynamic environments in which they operate.

The analysis of power in a relationship is based on two main issues:

- a) The level of resource available to an actor and how they use them to increase their margin of freedom from dependency; and
- b) The structural constraints on the actors when they are using their advantages.

The first issue concerns the strategic capacities of an individual to move the situation into a position that enables them to achieve their motives. Although an understanding of the different strategic capabilities of each actor gives an insight into the balance within the relationship the crucial aspect is the individual's ability or willingness to apply their advantages in the exchange. Key factors in the equation are the structural constraints within which the relationship exists. Actors within an organisation collaborate to achieve a collective objective and this over-riding concern directly conditions their exchange relationship. Organisations have rules, systems and procedures that are designed to restrict individuals' ability to activate their resource advantages to the maximum. Organisations seek to actively reduce their level of dependency on any external resource (Pfeffer and Salancik, 1978).

Crozier (1967) developed strategic contingency theory from his study of maintenance workers in French tobacco monopoly in the 1960s. In a centrally planned and managed plant the only major source of uncertainty was machine breakdown. The machine stoppages could not be predicted and this was the crucial uncertainty in the midst of a predictable routinised bureaucracy. The maintenance engineers operated a craft system where knowledge of machine repair was passed on through word of mouth and refused to make their tacit knowledge explicit: no written guidelines, no annotated blueprints, no sharing of information. Supervisors could not inspect or understand their work and consequently were unable to manage their performance. Faced with this situation both production workers and management deferred to the maintenance workers and created a significant power imbalance in the plant. Crozier states that *'the situation, in which certain individuals control variables unpredictable to other people...is the indirect result of the power struggle within the organisation.'* (p.162)

Hickson et al. (1971) raise the strategic contingency theory from the dyadic to the group level and argue that organisations are interdependent systems, each contributing an element of the overall task through division of labour, in which the main factor is coping with uncertainty. The interdependency between departments or sub units is created by dividing a task, which in turn engenders power relations and imbalances. Within an organisation each department or team must recognise and accept a limit on its autonomy caused by their dependency on the other parts of the business. There are three contributing variables to intra-organisational dependency:

- a) The level to which a unit/team is central in the management of uncertainty for others;
- b) The level to which the unit's activities are substitutable; and
- c) The level of interdependency between the units.

Hickson et al. (1971) propose that the uncertainty itself is not the source of advantage and power but the ability to cope with it. Dependency is the converse of power. As uncertainty is the source of power in organisations then the power of a team or unit is determined by the level to which it manages uncertainty on behalf of others and to what extent it holds a monopolistic position within the organisation. The centrality of the group coping with uncertainty can be operationalised into immediacy and pervasiveness (Hinings et al., 1974). A group may be central in solving technical problems in an organisation but have very little power to influence others whereas a team or department such as finance can influence all departments and therefore have a high degree of power.

Crozier and Friedberg (1977) argue that power in organisations is more dispersed than structural and propose that organisations are based on four main elements: collective action, games, uncertainty and power. They posit that organisations are not '*natural*': they are human constructs to solve problems of collective action. To secure the co-operation of relatively autonomous social actors pursuing diverse and conflicting interests to work together toward a common goal people must be either coerced or bargained with. Organisations and the organised systems of which they consist have the benefits of providing a reliable and useful means of structuring the relationships between the various contributing stakeholders. Crozier and Friedberg (1977) concur with Hobbes in that the effects of organisation are counter-intuitive: individuals must sacrifice and compromise their own individual objectives and goals to work towards a common goal. Each individual will intuitively try to achieve his own priorities and to counter these instincts actors must rely on their ability to trust each other. This in turn creates other non-rational social constructs such as loyalty, responsibility, commitment, etc.

Although these emotions and constructs allow people to cooperate and interact they do not dictate behaviour. The conflicting strategies of individuals are integrated through the playing of structured games involving bargaining, and inherent in

bargaining is the balancing of power relationships and the consideration of consequences (Molm, 1999). Bargaining by its very nature involves risk so individuals develop protective devices to enable them to participate in bargaining such as morality, contracts or the law. The best structure for a bargain is a win-win situation where a problem is defined so that actors can achieve their ends without loss. In this situation cooperation is achieved without any loss of freedom. If the actors are unable to strike a bargain then they will not pursue the issue any further, but if a bargain is pursued it will develop according to the structure of the problem and the strengths and capacities of the individual actors. *'Those who get the upper hand in the game are those who control most of the crucial uncertainties'* (Crozier and Friedberg, 1977, p.8).

#### 4.6 Resource and Uncertainty

Crozier (1967) concurs with Weber that individual employees in the workplace are not powerless and argues that dynamic exchange relationships in the workplace are focused on power, and it lies with those who can control the relevant sources of uncertainty. The concept of uncertainty is central to the theory: *'Uncertainty is the basic resource in any kind of bargaining'* (Crozier and Friedberg, 1977, p.8). The actor(s) in an organisation who can cope with the most strategic elements of uncertainty will have a high degree of power and be in a strong bargaining position to shape their contract with the organisation. All organisational situations have an element of uncertainty that allows actors to choose a strategy, and play the game according to their perceived position of power against the other actor(s). Crozier and Friedberg (1977) state *'what is uncertainty in the logic of the "objective" problem is also power from the point of view of the actors and for the organisation. Organisation as a human construct deals basically with power'* (p.9).

One of the main sources of power in an organisation is the control of a resource that creates a significant source of uncertainty (Bacharach and Lawler, 1980). Whatever

the source of an imbalance of power, the other actors in the relationship will strive to establish equilibrium by creating artificial uncertainties. *'The more complex and dynamic the system of power relationships and of bargaining, the more likely are social controls to be directly and consciously enforced by management'* (Crozier 1967, p. 171). Crozier (1967) argues that actors will seek to control the ultimate strategic sources of uncertainty, and recognise that their ability to control these will dictate the level of benefit or advantage they will gain from the exchange. Although managers will seek to communicate collective goals or objectives that will offer benefit to all the actors, each actor has their own individual objectives and they will devise ways of improving their position in the power struggle within the organisation. Managers themselves are invested with legitimate power by the organisation to control areas of uncertainty such as reward, promotion or punishment that allow them to gain an advantage in exchanges with the workforce, but this advantage can be threatened by any group of workers who can gain control of a source of organisational uncertainty. The result of this power imbalance is a dynamic exchange where the various actors play their advantages and seek to minimise their obligations.

Crozier and Friedberg (1977) state that there are four broad sources of power in an organisation, each corresponding to a different source of uncertainty. The first is based on expertise or functional specialisation that holds a monopolistic position within an organisation over a strategically vital task or process. Power also arises from the uncertainties connected with an organisation's relationship with its environment. Individuals within an organisation who can control the uncertainty caused by the environment, such as sales, recruitment, client management, etc, will have an advantage in relationships. The flow of communication and information is a source of uncertainty that different actors will attempt to influence others through the presentation and content of communication. The final source of power is the utilisation of organisational rules. Rules are designed to reduce uncertainty but their application can lead to other areas of uncertainty appearing, and this limits management's action by applying the rule as much as the actors whose behaviour the

rule is meant to constrain. It is possible for a group of individuals such as knowledge workers to have at least the first three of these sources of power: expertise or functional specialisation, strategically important resources and controlling the flow of information. This could provide them with a significant level of power in the organisation and in the leader-employee relationship.

In this resource-based conceptualisation *'power is exercised by actors to influence decision outcomes and bring about the desired behaviour through the deployment of key resources on which others depend'* (Hardy, 1990, p.4). Organisations will seek to build control of resources into their structures to ensure that the derived power is concentrated in the hands of the leadership and can be controlled through various mechanisms such as reward and punishment. Kahn (1964) states that power in organisations is demonstrated through a process where the control of resources and the control of people happen sequentially. The less the control of resource, and consequently power, out with the control of the leadership, the more uncertainty will affect the planning and management of the organisation's operations. Access to greater resources, such as financial rewards, training, overtime or information, enables a leader to influence the behaviour of followers to meet the needs of the leaders and/or the organisation.

The uncertainty caused by the control of strategic contingencies must be managed, and those in the organisation who are most effective or best placed to control the resources required to manage the uncertainty will have a commensurate high level of organisational power. The leadership can seek to minimise the impact of the uncertainty through prevention, forecasting and planning, or through absorption where the uncertainty is addressed or managed. Where control of resource is out with the control of management they will seek ways to reduce their level of dependency or will create alternative levels of uncertainty designed to restore the balance of power (Hickson et al., 1971).

Crozier's Strategic Contingency Theory (1967, 1977) offers both an explorative and prescriptive analysis of the role of power in the exchange process. The behaviour of an actor in the exchange relationship must be viewed as a rational strategy aimed at maximising the return from their investment in the exchange. The actor will adopt two simultaneous strategies in the exchange: an offensive strategy that will seek to maximise the return they can secure from the other parties in the relationship and a defensive strategy that seeks to minimise their level of investment. Again from a pluralist theory standpoint Crozier (1964) argues that power is the central issue in the exchange relationship, as a relation of the exchange and reciprocal adaptation between the parties. Crozier and Friedberg (1977) posit that power is contextual, and that it is a relation and not a trait of the actors involved. It emerges from an exchange between the actors and is '*a relation of exchange and therefore negotiation*' (p.9). Crozier argues that relationships are based on reciprocity, but in most cases the relationship will be unbalanced leading to an inequality of exchange and a power differential. One party to the exchange will have more power than the other and be able to obtain more from the relationship, yet neither of the actors is defenceless. Power is a property of a social exchange relationship rather than the property of an individual actor (O'Byrne and Leavy, 1996), but the power struggle within the organisation is limited by a range of shared interests such as the survival of the organisation (Burrell and Morgan, 1989). Crozier's pluralistic view of the organisation highlights the role of conflict as the outcome of an on-going power struggle between conflicting interests.

#### **4.7 Power Games in Organisations**

From a pluralist standpoint organisational life is a power-play between individuals and groups who draw upon their various sources of power in order to control their work situations and to achieve the objectives they value (Burrell and Morgan, 1989). The organisation consists of a range of stakeholders who have varying levels of power derived from a variety of sources and who undertake a process of exchange and bargaining to achieve mutually beneficial goals. Crozier and Friedberg (1977) argue that this is the '*game*' that organisational actors must play. The agents of the



organisation must create a game where individuals they have negotiated with to participate in achieving a common objective still believe that they are simultaneously satisfying their own objectives. In terms of Burns' transforming leadership model the actors controlling a strategic resource should seek to commit the most resources when they perceive they will secure the greatest returns.

Crozier (1967) stresses the importance of game playing within the reciprocal exchange relationship in organisations. Games within organisations have evolved to allow the structuring of power relations that will enable cooperation whilst allowing a degree of liberty to individuals to pursue their own goals. An actor within the organisation adopts a rational strategy to use their power to maximise their '*winnings*' in their exchanges with others. Each actor seeks to modify their role within the organisation to increase their margin of liberty through avoiding predictability in their relations with others. Within the game individual actors must choose their strategies: as long as individuals wish to participate in the game they must adopt a strategy whereby they can contribute to the game and to the collective good. If they only pursue their own ends and ignore the collective goals they are in danger of being excluded from the game or bringing an end to the game itself. Each player in the game will understand that the game is dynamic, and each actor will select a strategy that will recognise the current environment and the game itself, to best realise their own objectives.

Games in organisations are not based solely on power but are structured by law or other forces to limit possible gains and losses to acceptable levels with artificial uncertainties created to balance the objective uncertainties (e.g. law, distribution of authority). A number of restraints are accepted by players to enable all the actors to participate. A player in a game who can see no benefit or possibility of realising some of their own ends will quickly withdraw from the game and take their investment with them. The main source of uncertainty that restrains players is the ultimate survival of the organisation, and consequently the game. This uncertainty is

the key source of power for all organisational agents. Ultimately they have the ability to terminate the game. It is the aim of the leaders in organisations to use this level of uncertainty to gain control over the abstract uncertainties within the organisation and create structures and rules that seek to retain the power and uncertainty within the control of the organisational agents.

To the actor within an organisation uncertainty is a source of power to be used as a bargaining chip and a source of advantage within the conflicts of interest between the various power holders in the organisation. When an individual actor has freedom of choice they will bargain differently because the existence of real alternatives allows an individual to take risks. They create an uncertainty for the agents of the organisations who realise they cannot rely on the individual actor to behave the way that they want. Traditional authority disintegrates not so much because of value change as because of the changing structure of the conventional game. The older traditional games change and there is a trend towards more complex and open kinds of collective action.

#### **4.8 Summary**

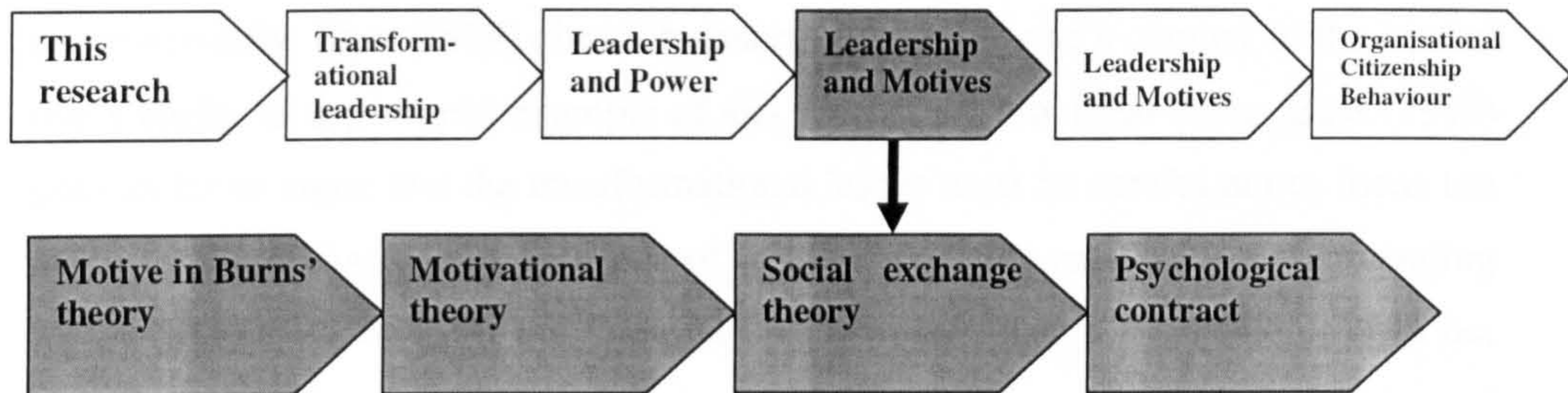
Actors who can choose amongst several games are much less predictable and therefore much more difficult to lead (Crozier and Friedberg, 1977; Molm, 1990). Leaders must invent new games that recognise that a high degree of uncertainty and therefore power has shifted to the individual actors. These changes force an increasing level of complexity onto organisations and leaders. According to Burns' model, leadership is the ability to secure resources from followers by appealing to their higher level motives. Burns' theory recognises that leaders are operating in a *'condition of conflict or competition in which leaders contend in appealing to the motive bases of potential followers'* (p.18). The transforming leadership model is dynamic and leadership involves recognising the variations in resource control and

adjusting the appeal to motives accordingly. The next chapter will set out how motives and resource commitment are linked.

## CHAPTER 5 LEADERSHIP AND MOTIVES

### 5.1 Outline of the Chapter

This chapter examines the central role of motive in Burns' general theory of leadership. It discusses the different definitions of motive and also reviews the literature on leadership and motive in organisations. It proposes the psychological contract as a heuristic construct to examine motive satisfaction in the leader-follower relationship. It also examines in detail Blau's theory of social exchange and develops the concept of reciprocity and mutuality in the dynamic leadership relationship.



### 5.2 Motive in Burns' Leadership Model

Burns (1978) argues that *'the original sources of leadership and follower-ship lie in vast pools of human wants and in the transformation of want into needs, social aspirations, collective expectations and political demands'* (p.61). The concept of motivation is key to Burns' theory of transforming leadership. It is inter-related with resource, and without motive, resource commitment is diminished and power collapses (p.12). In the leadership relationship the leader seeks to identify and address the motives of the followers to gain the commitment of their resources to a common end. The leadership relationship exists per se because the actors involved believe that they will gain satisfaction of certain motives through participation. Leadership that does not consider or address follower motivation ceases to be leadership and becomes coercion (p.18).

The issue of motivation does not always sit comfortably with transformational leadership theory, and it can be argued that a number of leading Transformational Leadership figures reject or ignore the motivational issues at the core of Burns' (1978) theory if it does not fit with a more idealised view of leadership and indeed humanity. Handy (1994) questions the '*bitter aftertaste*' of Maslow's theory, despite acknowledging its experiential validity, and proposes the need for a higher level of idealised motivation. Bass (1999), in his overview of two decades of research in TL, attempts to side step the awkward issues of self-interest at the heart of Maslow's (1970) model by arguing, with little reference to studies or theory, that the hierarchy of needs must be developed and elevated beyond self-orientation to a higher level of motivation characterised by '*selfless ideal causes*'. Interestingly and perhaps controversially, Bass (1999) cites the concept of serving one's country to the best of one's ability as a powerful example of this type of selfless ideal cause. Bass (1999) goes as far to argue that the transformational leader must be careful not to focus too much on the self-actualisation needs of followers or they may neglect transcending their own self interests for the interests of the wider society. Bass (1999) does not elaborate on what these wider interests would be, who determines what they are and why individuals may want to transcend their own needs to meet them. It could be argued that these vague value-laden statements are typical of much of the TL research and offer little in the way of challenging or supporting Burns' exhortation that we need to know more about leadership and how it functions.

Burns stresses the need for a distinction between needs and wants and offers a separation on the basis of objectivity and subjectivity. Needs can be regarded as a requirement that others would also identify, whereas wants are individualistic. Burns also states that a key element in understanding the concept of transforming leadership is in recognising that subjective wants can become, through social influence, perceptions of need that remove or erode the underlying volition and purpose to activity. Burns recognises that the process of identifying and addressing needs and wants is dynamic and that '*followers' definitions of wants and needs will*

*also change in the continuing interplay with leadership'* (p.69). The frustration of a lower need increases the follower's desire and motivation to realise it, but the gratification of the needs places pressure on their leaders to raise their own objectives as the followers seek to address their higher-level needs. The leadership relationship that fails to meet these needs will find a withdrawal of resources by the followers who will look elsewhere to gratify their needs.

### **5.3 Motivational Theory**

*'Human beings find it profitable to live in communities, but their desires, unlike those of bees in a hive, remain largely individual.'* Bertrand Russell – *Power, 2006*

Motivational theory is based on the principle that behaviour is determined by goals that an individual or group seeks to attain. Hersey and Blanchard (1988) define a motivator as *'something defined as needs, wants, drives, or impulses within the individual. Motives are the 'whys' of behaviour'* (p.230). Burns' model of transforming leadership draws heavily on Maslow's proposed hierarchy of needs. Maslow (1970) states that when a need is satisfied it is no longer a motivator of behaviour and consequently proposed a hierarchy of needs, ranging from physiological needs to safety needs, the need for affection and belonging, to the need for esteem and ultimately to the need for self actualisation. Each motive has strength and this strength will grow if it is not satisfied, but once it is met another need will arise. Maslow argues that a person is never fully satisfied and that the satisfaction of one need will encourage another to appear. If a need continues to be blocked the individual can resort to *'coping behaviour'* where they reduce the level of need and amend their behaviour accordingly. In the workplace if a desire for learning is continually thwarted by the organisation an individual can choose to seek the opportunities elsewhere or alternatively give up their interest in self-development

and the resulting frustration can manifest itself in resignation or in other less constructive or even aggressive activities.

Once an individual, consciously or unconsciously, has set on a goal they will involve themselves in goal-directed activity to achieve the desired end result, but they may never actually reach the goal and satisfy the motivation. Once the goal is attained its power to motivate is diminished and a new motivator can emerge. A key area of motivational theory is expectancy. Expectancy is the perceived probability of satisfying a particular need of an individual based on past experience that shapes their expectations in terms of needs and motivations (Vroom, 1964).

#### **5.4 Social Exchange Theory**

Social exchange theory (Blau, 1964) argues that exchange is the central process in social life and that the complex processes witnessed in modern organisations are derived from simpler processes based on exchange between individual actors. Two conditions must be in place for social exchange:

- a) It must be directed towards ends that can only be achieved through cooperation with others; and
- b) It must seek to adapt the means to further the achievement of the ends.

Social exchange is limited to actions that are contingent on rewarding reactions from others and stops when these reactions do not happen. The acknowledgement of a service in the form of recognition or gratitude gives an inducement to the giver to offer further support or assistance. This is not simply reinforcement as the exchange relationship is the joint product of both individuals with the actions of each being

interdependent. Social exchange describes voluntary actions motivated by the returns they expect from others, either short or long term. (Molm, 1990) In social exchange the crucial aspect is use value; obligations are non-specified.

Whilst classical microeconomic theory assumes independent transactions and short term-relationships between parties, social exchange theory assumes more enduring relationships between the actors that are built on interdependence over time. Actors can do favours not for explicit reward but to demonstrate commitment to the relationship and to encourage the other's commitment. Social exchange is differentiated from purely economic exchange by the unspecified obligations inherent in the process and the level of trust required. The return for the service is not stipulated but is expected in the future. The nature of the return cannot be bargained about but must be left to the discretion of the obligated. Blau (1964) emphasises that social exchange based on comparability creates social bonds between participants whereas unequal or unreciprocated exchange produces a differentiation in status and a power imbalance.

Emerson (1962) postulates that reciprocity is central to social exchange theory, and that in the exchange process benefits obtained are contingent on benefits provided in exchange. Simmel (1908) stated that *'all contacts among men rest on the schema of giving and returning the equivalence.'* Malinowski (1922) carried out a number of anthropological studies and argued that the concept of *'give and take'* pervades the lives of primitive peoples. Homans (1961) described social behaviour as an exchange of activity that is tangible or intangible, rewarding or costly between two or more people. The concept of social contracts based on exchange between individuals can be traced back to Hobbes and Rousseau. Rousseau (1998) states that the aim of the social contract is to *'find a form of association which will defend and protect with the whole common force the person and goods of each associate, and in which each, while uniting himself with all, may still obey himself alone, and remain as free as before'*. The principle of altruistic reciprocity as the central force of organisation in



many different parts of nature can be found in evolutionary theory where informal contracts entailing expectations and obligations exist between a range of creatures, including people (Trivers, 1971; Dawkins, 1989). Altruism functions when:

- a) The relationship is longitudinal enough to allow reciprocation;
- b) The altruism operates within a group small enough to allow recall of obligation; and
- c) The parties are mutually dependent.

A failure by one party to honour their obligation results in sanctions from the other. Transactions between actors can be negotiated or reciprocal. In negotiated exchanges actors discuss and make an explicit agreement on the terms of the exchange, but in reciprocal exchanges the actors' contributions can be performed separately and not explicitly negotiated. These actions can be performed without any guarantee that they will be reciprocated or to what extent, and the services or goods exchanged do not have to be of same value. Blau (1964) and Homans (1961) both argue that the absence of negotiated exchange is what distinguishes the economic transaction from the social exchange.

Social exchange theory is based on a number of assumptions (Molm, 1990). Firstly it adopts a rational-economic standpoint in that it assumes that actors' behaviour tend to maximise rewards and minimizes costs and select exchange partners and behaviours based upon expected rewards and costs that the relationships are expected to produce Secondly in an exchange relationship choice behaviour is demonstrated through actors selecting relationships from a number of alternatives and electing from a number of opportunities within relationships. Thirdly, actors enter into relationships without any formal contracts or negotiations and without any clear agreement or definition of what rewards the other actor will reciprocate. And fourthly, reciprocal relationships evolve depending on a series of exchanges over a period of time where the returns on investment are undefined and uncertain.

## 5.5 Social Exchange Theory and Power

Strategic contingency theory predicts that the relationships that emerge in organisations are dynamic, predicated on power and aimed at satisfying motivations of individuals involved (Crozier, 1967). The theory itself, whilst prescriptive, does not describe the actual mechanics of how the interaction between the players develops. Blau (1964) states that *'exchange transactions and power relations, in particular, constitute social forces that must be investigated in their own right, not merely in terms of the norms that limit and the values that reinforce them, to arrive at an understanding of the dynamics of social structures'* (p.13). The concept of power is central to Blau's integrationist analysis of social structures. Drawing on pluralist theory he argues that consensus is not automatic in social relationships and describes a society consisting of a series of conflicts between different stakeholders. Power differentials emerge as individuals engage in the process of dyadic exchange (Brass and Burkhardt, 1993). His model of social relationships is dynamic and he emphasises the dialectical nature of the cross cutting conflicts inherent in complex society where each new issue and its resolution has repercussions that stimulate new conflicts. The cross-dependency between groups and stakeholders prevents major divisions arising that would prevent cooperation. The model describes a society that fluctuates due to ongoing conflicts between different social forces (Burrell and Morgan, 1989).

Molm (1997) states *'the heart of the [social exchange] theory is its analysis of power'*. As in strategic contingency theory, power is a central variable in the social exchange model and is a significant factor in his analysis of control and integration (Burrell and Morgan, 1989). The conflicts in the social exchange theory are both caused by power imbalances and, dialectically, are the creators of power imbalances. The model of social interaction identifies the ways in which power in relationships is differentiated and recognises that the exercise of power within relationships is not always legitimate. Social Exchange Theory provides a description of the dialectical

process that demonstrates how dynamism is maintained in the exchange process and the actual mechanics of how the actors create and respond to the power differences within the relationship. Rumelt et al. (1991) argue that the view of man as a rational, economic agent has dominated the analysis of organisations, and whilst this view provides a model to explain economic interests of individuals, it does not effectively explain behaviour that exceeds self interest. This is particularly relevant where '*the coordination and accumulation of knowledge is key*' (Rumelt et al., 1991). Social Exchange Theory provides a model that enables an analysis of the exchange process within the knowledge organisations and an understanding of the worker-leader relationships that develop.

## 5.6 Psychological Contract

The concept of the psychological contract was first introduced by Argyris (1960) in a description of the working relationship that existed between foremen and the employees in a case study organisation. The '*psychological work contract*' was based on mutual expectations between foremen and workers, namely that in return for high production and low grievances the foremen guaranteed an informal work culture that gave employees a degree of autonomy, delivered adequate wages and ensured job security. The contract is founded on a combination of both explicit promises and agreement (e.g. wages, attendance, employment rights) and implicit promises and expectations. (e.g. promotion, development, job security) (Levinson et al., 1962). The concept of contract implies an exchange of understanding and obligations between two parties, in this case the organisation and the individual worker: '*An implicit contract between an individual and his organisation which specifies what each expects to give and receive from each other in the relationship*' (Kotter, 1973). Schein (1980) states that the notion of a psychological contract implies that there is an unwritten set of expectations operating at all times between every individual in an organisation and the various leaders in that organisation. He emphasises that the unwritten nature of the contract does not reduce its impact on the behaviour and responses of people within an organisation. Guest and Conway (2002) define a psychological contract as consisting of '*the perceptions of both parties to the*

*employment relationship – organisational and individual – of the reciprocal promises and obligations implied in that relationship’.*

The institutional theory-based view of psychological contracts argues that they are the result of coercive, normative and mimetic institutional pressures that have been repeated and given meaning by individuals leading to a shared sense of perception (Powell and Di Maggio, 1991). Coercive institutional pressures shaping the psychological contract may be legislative or political influences such as health and safety legislation where the employer has a statutory duty to provide a safe working environment. Normative institutional pressure on the contract may come from cultural pressures such as in certain societies workers expect to be involved or consulted about decision making whilst in others the employees are more tolerant of a authoritarian, centralised leadership style. Mimetic institutional pressures affect the psychological contract in the tendency of companies or organisations in a sector to copy each other’s work practices or benefits packages so that certain reward structures or management approaches can become established as the norm.

Originally the concept of the psychological contract was based on an implicit agreement between the individual and the organisation involving promises, obligations and expectations (Argyris, 1960; Schein, 1978). It can be argued that in the post-war years the apparent contract between organisation and employee was able to be more clearly and narrowly defined (Guest, 2001). Whyte (1958) could describe the Organisational Man and articulate the expectations of the employer such as security of employment, decent salary and conditions and a decent working environment. Trade unions could undertake collective bargaining with an organisation on behalf of employees in an explicit organisational structure built on grading systems, job descriptions and qualification or time-based promotion. In this approach there is an assumption that there is a common set of expectations and understanding of obligations on both sides in the contract that relies on an anthropomorphisation of the organisation with a collective understanding of expectations and obligations (Guest, 1998). Where the two-sided concept of the psychological contract is challenged is that it can be argued that in reality

organisations do not exist per se, rather the 'organisational' perception of the obligations are an amalgam of individual values, opinions and interpretations (Kotter, 1973; Rousseau, 1998). The organisation is a collection of individuals who do not necessarily share a uniform definition of expectations in terms of values or even in terms of performance. The unarticulated obligations or expectations are open to interpretation by as many individuals as are party to the contract. Rousseau (1990) assessed the implicit expectations of the contract and questioned whether there is any effective exchange of obligations or understanding that would constitute a contract in the legally or socially defined sense. Rousseau (1998) states that *'it is the perception of mutability, not necessarily mutability in fact is the heart of the psychological contract'*. Rousseau (1990) argues against the anthropomorphisation of the organisation and its allocation of a role in the formulation of a contract and challenges the classic definition of the contract as a perceived agreement between the individual and the organisation, claiming that the contract exists only in the mind of the employee.

The main criticism of this approach is that effectively there is no contract between the individual and the organisation as there is no longer a two-way agreement (Guest, 1998). The supporters of the bi-lateral psychological contract (Schein, 1980; Argyris, 1960; Guest and Conway, 2002; Guest, 2004) argue that the organisation's perceptions of the contract are equally important as the individual employee's, and that the exclusion of the organisational perception on the grounds of avoiding the anthropomorphisation of the organisation neglects a key party to the agreement and negates the exchange nature of the contract. What should be argued is that the organisation is represented in the psychological contract by its agents, the leaders, and the dyadic relationship each leader has with the individual worker may constitute the other party in the psychological contract with the individual. Much of the research into the psychological contract is taken from the employee's outlook and the perspective of the employer, or the organisational agents, has received significantly less attention. Research including the organisational perspective has identified the importance of the organisation's actions in shaping the expectations and obligations

of employees (Tsui et al., 1997; Guest and Conway, 2002; Coyle-Shapiro and Kessler, 2002; Coyle-Shapiro and Kessler, 2000). Even the excellent work by Coyle-Shapiro and Kessler (2000) tends to focus on the fulfilment and breach of obligations rather than on the role of individual leaders in establishing and developing the relationship with the individual worker. The extant literature does not sufficiently explore the perspective of individual leaders and the influence of leadership styles in shaping the psychological contract.

It is not possible to remove the perception of the organisation, or its agents, from the psychological equation. Employees' perception of the organisation's fulfilment of its obligations under the psychological contract will determine their level of commitment to the organisation, above the basic requirements necessary to maintain employment. Rousseau (1990) states that the worker's expectations '*formed during interactions regarding future patterns of reciprocity can constitute a psychological contract*'. The expectations of the individual must therefore be shaped by the expectations of the organisational agent expressed or demonstrated during those interactions. In turn the content and direction of those interactions will be affected by the power that each party has, how they wish to influence the other actors and what type of relationship they wish to establish with the other party.

### **5.7 Psychological Contract – Balanced, Relational and Transactional**

The state of the psychological contract has a direct impact on the behaviour of employees, primarily in terms of their demonstration of organisational commitment and organisational citizenship behaviours (Guest and Patch, 2000; Sparrow, 2000; Thompson and Heron, 2001; Flood et al., 2001; Hui et al., 2004). Individuals who perceive that the organisation has failed to deliver on its obligations are less likely to demonstrate OCBs (Robinson and Wolfe-Morrison, 1995; Turnley and Feldman, 1999). The psychological contract is essentially subjective and consists of the individual's perceptions, expectations and beliefs regarding reciprocal obligations in

the workplace and is based on the premise that both sides in the employment relationship have undertaken to deliver certain obligations (Rousseau, 1990; Anderson and Schalk, 1998). The concept of the psychological contract seeks to define the content and terms of the social exchange relationship between the individual and the leader as a representative of the organisation (Robinson and Morrison, 1995).

An organisation can address and promulgate the transactional aspects of the contract such as salary, terms and conditions and can set these out in an employee handbook where they can be confidently referred to by both workers and management as statements of policy or organisational intent. This significantly reduces ambiguity and also forms the basis for negotiation when necessary (McLean-Parks et al., 1998). Whereas the transactional aspects of the employment relationship are usually made explicit, or even required by law to form the basis of an employment contract, the socio-emotional factors, such as loyalty, commitment or development are implicit or undefined. The explicit contract is also less likely to be breached (Morrison and Robinson, 1997) as both parties are aware of a clear obligation, but the less explicit the contract the more scope for the employee or employer to perceive that that the other party has failed to meet an obligation. The fact that key aspects of the psychological contract are not articulated does not prevent the individual nor the agents of the organisation from considering them valid as a basis of the employment contract (Rousseau, 1998).

MacNeil (1985) sets out a continuum of contractual relationships, with exchange or transactional relationships at one end and relational contracts at the other. The transactional contracts are economic based, with specific rewards agreed in return for defined tasks or outcomes. The relational contract is more covenantal than contractual, in that a covenant is a relationship of mutual commitment in which the expected behaviours from both parties in the relationship are not specifiable in advance (Van Dyne, Graham and Dienesch 1994). The more deeply individuals feel

connected to the relationship, the less they will resort to legislation, rules or regulations to resolve issues and the more they will contribute proactively towards developing the relationship. Rousseau (1995; 2000) offers a typology of four distinct forms of psychological contracts: balanced, relational, transactional and transitional contracts. The balanced contract is an open-ended relationship with specific, agreed performance outcomes that are mutable over time. It blends features of both relational and transactional contracts, maintaining involvement and the long-term time frame that characterises relational contracts but also allows for greater flexibility and performance changes. The balanced contract also includes dynamic performance requirements, personal development and career development. Rousseau (1995) states that emergence of the balanced contract has resulted from the growing need for higher levels of involvement and creativity typical of knowledge companies.

The relational contract is similarly open-ended but the performance outcomes are unspecified. Relational contracts are described by Dabos and Rousseau (2004) as contracts with *'high affective commitment, strong-member-organisation integration, and stability built on the traditions and the history of the relationship...Relational obligations include mutual loyalty and long term stability, often in the form of job security'*. The transactional contract is of limited duration and with clearly defined outputs or activities. The transitional contract describes a relationship where there is no commitment to a time frame and there are no defined outcomes or tasks (Rousseau 2000). They have low levels of organisational commitment and weak integration into the organisation. Dabos and Rousseau (2004) state that the transactional contract has two main dimensions:

- a) Narrow involvement in the organisation, limited to a few defined tasks; and
- b) Short term duration.



## 5.8 Psychological Contract and Social Exchange Theory

A number of researchers highlight the psychological contract as an exchange relationship based on reciprocity that focuses on employee perceptions of mutual obligations between employer and employee. They use Blau's (1964) social exchange theory as a basis for understanding the dynamics of the relationship (Robinson, Kraatz and Rousseau, 1994; Shore and Barksdale, 1998; Turnley and Feldman, 1999; Coyle-Shapiro and Kessler, 2002). The construct of the psychological contract can be used as a heuristic construct to describe the bi-directionality of the social exchange process of unspecified obligations and expectations that form the basis of a contract between two actors within an organisation. One party to this contract is the leader as an agent of the organisation, the other party the individual worker. The psychological contract is based on social exchange theory and defines the concept of exchange as being longitudinal; it describes an on-going reciprocal relationship, not simply a one-off economic transaction. The concept of reciprocity is central to the exchange concept of the psychological contract, based on the principle that the parties to the contract will commit to fulfilling their obligations to each other to a level of perceived equality. The exchange will be reciprocal, although it does not need to be articulated or negotiated. Rousseau (1998) states that *'by definition, a psychological contract must be based upon a belief that a reciprocal exchange exists which is mutually understood'*. Rousseau (1998) applies two main boundaries to the concept of the psychological contract:

- a) A psychological contract exists at an individual level in terms of the individual's understandings and perceptions of the relationship with the other party; and
- b) The contract involves reciprocity, in that both parties must believe they have committed themselves to certain obligations.

Social exchange theory directs that in a psychological contract the individual and the organisation will both seek to maintain a balance between the costs and benefits of the relationship and that both will react if they perceive the other to be gaining power or not fulfilling their obligations. Shore and Barksdale (1998) demonstrated that a relationship characterised by mutual high obligations showed higher levels of affective commitment, perceived organisational support and lower levels of turnover than transactional relationships marked by mutual lower level obligations. The unspecified nature of the psychological contract is problematic as actors lack an agreed, structured approach to comparing and contrasting the expectations of both sides to the contract. The content of this contract is problematic as it is essentially indexical and reflexical, (Burrell and Morgan, 1989) with no clear definition or agreement defining obligations, promises or expectations, what the content of these may be and whether these are consistent across an organisation. (Guest, 1998) Despite this, the lack of explicit expectations and obligations may be strengths of the psychological contract rather than weaknesses. Hampton (1986) states that there is no literal contract in any successful social contract theory. Both sides also have perceptions about not only what their own expectations are but also the obligations of the other party. Research demonstrates that unmet obligations generate a more intensely negative response than an unfulfilled expectation. (Turnley and Feldman, 2000). Individuals who believe that their commitment to the organisation is not being reciprocated will consider this a violation of the contract and will reduce or withdraw a corresponding contribution. It has been identified that psychological contracts become more transactional after a violation as the worker perceives that the contract has been broken or suspended and consequently withdraws all or an appropriate degree of commitment and focuses on explicit aspects. (Robinson and Rousseau, 1994) Research identified that violations to the psychological contract were significantly related to employee retention, job performance and the withdrawal of organisational citizenship behaviours. (Turnley and Feldman, 2000).

Molm (1997) states that in social exchange theory actors can be individuals or groups acting collectively. Social exchange relationships are dependent on mutual attraction

and mutual dependence. The process of social exchange requires an initial process of social attraction. An individual is attracted to another if they have an expectation that the association will have benefits, and the specific psychological needs and attitudes of individuals will determine which rewards are particularly relevant and therefore to whom they will be attracted. Exchange can include not only tangible products or services but also outcomes valued socially or psychologically such as status, self-esteem, or friendship. Social exchange theory does not make assumptions about the values chosen by the actors; rather it accepts that exchange decisions will be based primarily on individual values and not on the basis of a simple economic transaction. Actors will use the exchange process to maximise positively valued outcomes and minimise negatively valued outcomes, and the choices involved in participating in the exchange process may be made rationally or through habit without considering any alternatives. The successful relationship requires initial attraction and on-going provision of rewards to maintain that mutual attraction. If an exchange is successful and secures or produces value then the level of repetition of the exchange will increase whilst those that do not will decline, and if the value to one actor declines to zero (or close to) the relationship will be terminated. As parties participate in an increasing level of exchange their needs may be satisfied and the level of exchange may drop or be terminated. It can be argued that in many relationships the needs will decline more quickly for one party than the other and the dependent party may feel aggrieved or neglected and this may lead to conflict or a breakdown of the relationship and be a source of tension and conflict.

By its very abstract nature the exchange is uniquely interpreted by each individual actor, so no one universal contract exists even within one organisation. This allows both sides a degree of flexibility that enables successful exchange to occur without the difficult process of operationalising abstract concepts or establishing benchmarks of reciprocity. McLean-Parks, Kidder and Gallagher (1998) argue that the focus of the psychological contract is the '*relative emphasis*' between economic and socio-emotional resources. The perceptions of both employer and employee on where along the *economic v socio-emotional* continuum the psychological contract is

situated will have a direct impact on the levels of commitment and ownership on both sides of an employment relationship. (Shore and Barksdale, 1998) In terms of the organisation its commitment to a reciprocal relationship is demonstrated in the behaviours of its agents, namely its leaders and the way they manage the workers. Their commitment to establishing and developing an exchange relationship will be manifested in the leadership behaviours they demonstrate. The workers demonstrate their commitment to the exchange relationship through the level of their organisational citizenship behaviours (Podsakoff et al., 1990; Podsakoff et al., 2000). The behaviours demonstrated by the two parties to the contracts are shaped by the balance within the exchange relationship.

## 5.9 Content

Rousseau (1998) claims that transactional contracts are '*positively related*' to careerism, lack of trust in the employer and greater resistance to change, whilst relational contracts are '*negatively related*' to careerism and positively related to trust and acceptance of change. Relational and transactional contracts differ from each other on five key dimensions:

1. *Focus*: what is the key aspect of the contract – economic or socio-emotional?
2. *Time-frame*: is the contract of a defined or undefined length?
3. *Stability*: is the agreed task defined and stable or is it dynamic?
4. *Scope*: is the work transactional or does it impact on the self-esteem of the worker?
5. *Tangibility*: is the task clearly demarcated or is it flexible?

Given these criteria it can be argued that knowledge work requires leaders to establish balanced or relational contracts with their knowledge workers. The psychological contract that used to bond employees to the company for a significant period of time is in decline and employment relations are increasingly contingent and as a result, employees may direct their skill and knowledge development towards the external labour market (Sparrow and Cooper, 1998; Sparrow, 2000; Y.M.Tam, Korczynski and Frenkel, 2002; Guest, 2004). To secure the cooperation and retention of knowledge workers it will be necessary for organisations to establish relational contracts with their key workers that recognise and fulfil their socio-emotional needs. Transactional contracts are likely to result in a high level of employee turnover and a low level of commitment to the organisation, with possible withholding of tacit knowledge.

Considering the short time focus of the contract worker or the employee in a project-driven environment the contract will tend to be more static as there will be an expectation on both sides that transactional arrangements, particularly economic, will be clarified before commitment can be made (Guest, 2004). Individuals with open-ended contracts will be required to accept that the environment is dynamic and consequently so must be their psychological contracts with the organisation. The change in contract can be renegotiated through discussion and communication whereby individuals will retain some trust of the organisation through an understanding of the economic necessities of change. If the contract is seen to be unstable and changed arbitrarily by the organisation there will be an absence of trust and a commensurate withdrawal of commitment on the part of the individual (McLean-Parks et al., 1998).

The scope of the psychological contract defines the level to which the job spills over into the personal life of the individual and the level of commitment demonstrated. The more transactional the relationship between employee and organisation the narrower the scope of the contract as the individual regards the task simply as an

economic activity, commitment to which ends as soon as the task finishes. A major issue for the KBOs is that their size demands that they are responsive and flexible to customer requirements in what is mainly a bespoke activity (Teece, 1998). An inability to engage the worker on a socio-emotional level will impact on the organisation's capacity to react to crisis and meet deadlines. Consequently the economic advantages to knowledge organisations of contract or limited duration employees may undermine their operational competitiveness as the transactional relationship reduces the level of psychological ownership (Rousseau, 1990).

It is generally agreed that it is difficult to define all the expectations of a psychological contract and that the expectations vary greatly across different groups and age profiles. (Guest, 1998; Anderson and Shalk, 1998; Robinson, Kraatz and Rousseau, 1994) A study by Rousseau (1990) focussing on the employee perceptions of the contract from both their own and the organisation's point of view, identified the key component factors of the contract as:

<b>Organisational Obligations</b>	<b>Employee Obligations</b>
• Advancement	• Overtime
• High pay	• Loyalty
• Performance-based pay	• Extra role behaviours
• Training	• Notice
• Job Security	• Transfers
• Support	• Proprietary
• Development	• No competition
	• Minimum stay

Table 1 - Content of Psychological Contract (Rousseau, 1990)

Research by Herriot, Manning and Kidd (1997) identifies twelve categories of organisational obligations and seven categories of employee obligations (Table 2 - Categories of Obligations), as defined by both leaders and employees. The categories are as follows:

Organisational Obligations	Employee Obligations
• Training	• Hours
• Fairness	• Work
• Needs	• Honesty
• Consult	• Loyalty
• Discretion	• Property
• Humanity	• Self-presentation
• Recognition	• Flexibility
• Environment	
• Justice	
• Pay	
• Benefits	
• Security	

Table 2 - Categories of Obligations

The second survey, similar to Rousseau's, highlights a 'very traditional view of work values' with both management and employees citing the employee's obligation in the contract as working the contracted hours, doing a good job and being honest. The authors state that these factors have not been highlighted in previous research into psychological contracts but that may be because they are assumed, rightly or wrongly, as the fundamental basis of any contract. It is difficult to imagine a contractual relationship where, for example, one party does not feel the other is

obliged to be honest, fulfilling their agreed duties and delivering a reasonable standard of performance. The examples in the study by Herriot et al. (1997) cited for both pay and honesty focus exclusively on violations of these three core areas, emphasising that employees and leaders perceive these as givens rather than opportunities for exhibiting organisational citizenship.

There is a greater disparity of priority between management and employees on the obligations of the organisation, with leaders stressing humanity and recognition, whilst employees identified fair pay, safe hours and conditions, and a degree of job security. Herriot, Manning and Kidd (1997) suggest that the research demonstrates that organisations may wish to establish a relational contract but that the majority of employees want a transactional contract, focussing on pay, hours and job security. The sample taken as the basis of the study is very general and includes a wide range of sectors, size of organisations and age profile of workers. This approach supposes a uniform perception of the psychological contract content and neglects to explore possible idiosyncratic differences between various sectors. How relevant the figures in the study are to the knowledge sector is questionable as 77% of respondees are from organisations of more than 100 people, and only 8% from organisations of less than 20. The authors state that the focus on the transactional contract may be due to the impact of downsizing and the resultant insecurity. This may also be emphasised by the survey sample with an imbalance towards larger organisations where a more bureaucratic, transactional relationship may dominate.

The studies by Rousseau and Herriot et al were taken across a range of industry sectors. The key question is whether the content of a psychological contract would be different in knowledge companies. A number of studies of the psychological contract amongst knowledge workers or highly educated individuals reinforce the importance of relational factors in the demonstration of OCBs and innovative behaviour amongst knowledge workers (Robinson and Rousseau, 1994; Flood et al., 2001). Thompson



and Heron's (2001) study of six R and D-intensive high technology companies based their research on 24 aspects clustered under six key contract factors:

1. Creative autonomy
2. Work-life balance
3. Job security
4. Financial incentives
5. Good job design
6. Symbolic recognition

The authors state that what knowledge workers most value in a psychological contract are primarily balanced/relational aspects: working on challenging assignments; a work-life balance; job security; opportunities to develop new skills; and promotion on the basis of technical skills. The areas identified as exhibiting the main breaches or gaps in the fulfilment of the contracts were financial incentives, good job design and work/life balance. The study also identified that organisational citizenship behaviour was positively correlated to good job design, and that OCB was positively correlated with higher levels of innovation. What is missing from the study is consideration of leadership style as a central element in the psychological contract between employee and organisation. The survey is worded in terms of an anthropomorphised organisation with the psychological contract positioned as an agreement between the individual and the organisation rather than between the individual and a leader.

A study by Lester and Kickul (2001) of 268 part-time MBA students offered the students a choice of 38 items that the organisation had promised them and asked them to rate these in terms of importance and the effectiveness of the organisation on delivering its promises on each one. The Lester and Kickul study sample focussed on workers in knowledge-based professions including finance, banking, sales and

marketing, computer science, human resources, accounting, engineering and organisational consulting whereas the studies by Rousseau, and by Herriot et al were from a much wider organisational base. The study identified that eight out of the ten items most highly rated by the students were intrinsic rather than extrinsic outcomes, including items such as leadership support, challenging and interesting work, and open and honest communication. Lester and Kickul (2001) state that this implies *'that employees take the socio-emotional aspects of the psychological contract very seriously.'* The study also identified that the areas of discrepancy between perceived importance of a factor and the ability of the organisation to deliver were primarily in the intrinsic issues such as open and honest communication, opportunities for growth and creative freedom. It was found that there is a direct link between organisational failure to deliver on the intrinsic factors and performance outcomes such as intention to leave, job satisfaction and organisational citizenship behaviours.

A comparison of the surveys over the last 12 years highlights the changes in the content factors used for the various studies. The studies have identified the content factors from interviews with workers and organisational agents within participating companies but there are evident differences in the factors within each area. The studies of knowledge workers include balanced psychological factors such as creativity and autonomy whilst the more general research focuses more on transactional factors such as pay and benefits. What has not been clearly established in research on the psychological contract is the influence of leadership styles on the emergence of a balanced psychological contract in a knowledge organisation and the impact on increased levels of OCB amongst the knowledge workers.

### **5.10 Psychological Contracts and Knowledge Workers**

The major factor in the development of economies towards an era of post-industrialisation is the strategic importance of intellectual capital as the source of innovation and differentiation (Flood et al., 2001; Stiglitz, 1999; Lowendhal et al.,

2001). Nahapiet and Ghoshal (1998) highlight the importance of social relationships in knowledge creation. Basing their arguments on social network theory the authors argued that social capital enables the development of intellectual capital through the creation of the conditions in which knowledge can originate and be exchanged. It is posited that the relational aspects of social capital define the assets created via relationships developed over a series of interactions rather than through structures or procedures. As a generator of intellectual capital, social capital is a source of competitive advantage that cannot be bought or traded and is time consuming and expensive to replicate. In addition the high degree of trust involved in social capital reduces the need for supervision, the probability of opportunism and consequently reduces costs. It is also essential in encouraging innovation amongst knowledge workers (Thompson and Heron, 2001). Relationships are the key source of social capital and consequently intellectual capital.

The increased complexity of the leader-employee relationship is described as a nexus of contracts, a model in which the knowledge assets are tied to the organisation through '*implicit contracts*' (Spender, 1996; Coff, 1999). Coff's model of the firm is a series of individuals each adding value to a transformation of resources and co-operating through explicit and implicit contracts that determine how their relationships operate and how the rent from the process is appropriated. In the absence of clear hierarchical structures organisation have to contract with the owners of tacit knowledge to gain access to the actual knowledge and reward them in line with their centrality to the source of competitive advantage. The level of control or influence over strategic resources shapes the content of the contracts between the leadership and the employee.

From a pluralist theory viewpoint the organisation is a complex and dynamic interaction of relationships (Clegg, 1979). A key element in the analysis of the knowledge-based organisation is the relationship between the leader and the knowledge worker. As knowledge-based theory proposes, the source of competitive

advantage in a KBO will be the ability of an organisation to maximise its assets, the knowledge workers. Consequently the quality of the relationship between the leader and the knowledge worker will be the key determinant as to whether the organisation can secure access to and optimise the source of its competitive advantage (Thompson and Heron, 2001; Flood et al., 2001; Mir et al., 2002). The employment relationship between the knowledge worker and the KBO can be examined in terms of the psychological contract that exists between the two parties. The heuristic construct of the psychological contract enables examination of the changing nature of the employment contract, particularly the *'individualising'* of the employment relationship and the distribution of power between the individual and the organisation. In the case of knowledge workers this enables a study of whether the issue of intellectual capital ownership has constructed a new employment relationship (Guest and Patch, 2000; Thompson and Heron, 2001). The radical changes in the nature of work and the relationship between the individual and the organisation have led to a renewed interest in the concept of the 'psychological contract' as a means of analysing and increasing understanding of organisational behaviour. *'In a world of rapid organisational change and loss of confidence in some of the traditional certainties of organisational life, the psychological contract appears to provide a useful integrative concept around which to focus an emerging set of concerns'* (Guest, 1998 )

The predominance of knowledge as the competitive resource within KBOs enables knowledge workers to hold a position of strategic importance within the organisation (Grant, 1997; Chan Kim and Mauborgne, 1998). From a social exchange viewpoint the shift in the exchange relationship between the knowledge worker and the leader as agent of the organisation will lead to a power imbalance in the favour of the worker by creating a dependency for the leader. From the perspective of the strategic contingency theory, when the knowledge workers recognise that they have gained an increased level of influence within the organisation due to the strategic importance of their expert power, they will adopt a game plan to maximise the benefits to themselves. Knowledge workers in a knowledge-based company will recognise that

they have the prime role in coping with the strategic uncertainty in the organisation and that their specialist knowledge causes them to be difficult and costly to replace. This change in the structure of the game in knowledge organisations requires the organisational agents to alter their game plan and to respond to the new dynamics.

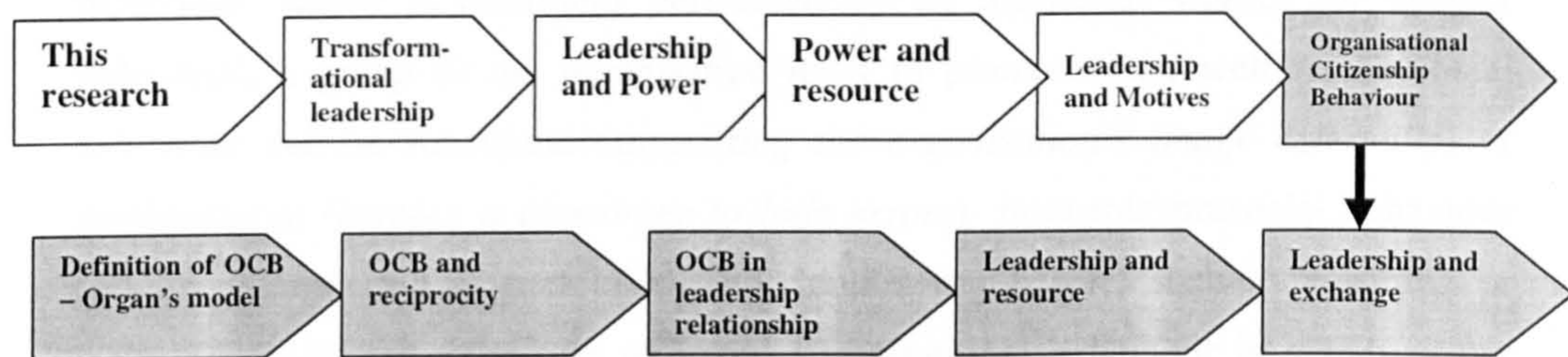
### **5.11 Summary**

It is argued that the emergence of knowledge as the main competitive advantage in the western economies has led to knowledge workers holding a stronger position in the leader-follower relationship. The outcomes of the new relationship will be seen in the content of the psychological contract where knowledge workers will have expectations of a more transformational leadership style that focuses on development, career development and challenging work assignments. As part of the reciprocity inherent in the psychological contract the KWs will demonstrate higher levels of OCB in return for the satisfaction of the higher level motivators of the balanced psychological contract. The next chapter examines OCB and how it can be used as a measure of motivation and organisational commitment within a leadership relationship.

# CHAPTER 6 ORGANISATIONAL CITIZENSHIP BEHAVIOUR

## 6.1 Outline of the Chapter

Burns' theory proposes that in a leadership relationship the level of resource commitment by followers is affected by the satisfaction of motives. A demonstration of a transforming leadership style should result in a higher commitment of resource. Gronn (1997) states that demonstrating measurable effects has proven a headache for transformational theorists. For the purposes of this research it was decided to use organisational citizenship behaviour as a means of measuring an individual's resource commitment to the leader-follower exchange. This chapter explores the concept of organisational citizenship behaviour and discusses the development of the theory from Organ's (1985) original concepts through to the work of Podsakoff et al. (2000). It also sets out why it has been chosen to measure resource commitment in the leadership relationship.



## 6.2 Background

A number of researchers have identified the importance of extra-role behaviours to organisational effectiveness. Barnard (1938) proposed the concept of a worker's '*willingness to cooperate*' as a significant factor in organisational relationships, and proposed that it was a constructive gesture designed to establish a relationship with another individual. Katz (1964) identified five behaviours as the dimensions of '*innovative and spontaneous behaviour*' amongst employees: cooperating with

others; protecting the organisation; volunteering constructive ideas; self-training; and maintaining a favourable attitude towards the company. Katz (1964) stated that '*an organisation which depends solely upon its blue-prints of prescribed behaviour is a very fragile social system*'. Katz and Kahn (1966) argue that all organisations have an '*inevitable and unending*' need for innovative, spontaneous behaviours that are not specified in job descriptions or task profiles but which are essential to the achievement of organisational goals. They highlight the differences between *dependable role performance and innovative and spontaneous behaviour* that includes behaviours such as co-operation, actions protective of the system, creative suggestions for organisational improvement, self-development and promotion of the organisational image. The unplanned problems or situations that can arise from the range of environmental factors are out with the scope of any management planning process, and therefore '*the resources of people for innovation, for spontaneous co-operation, for protective and creative behaviour are thus vital to organisational survival and effectiveness*' (Katz and Kahn , 1966, p.338).

Brief and Motowidlo (1986) introduced the concept of prosocial organisational behaviour, which is behaviour performed by an individual worker for another individual, a group or the organisation itself to promote their welfare. Prosocial behaviour can be functional (*supporting the organisation's image externally*) or dysfunctional (*helping a co-worker to hide errors*). Intra-role prosocial behaviour can be incorporated as part of an individual's in-job role, such as coaching or mentoring, whereas extra-role prosocial organisational behaviour is activities out with the designated job role carried out voluntarily by individuals. Puffer (1987) highlights the difference between prosocial behaviour (*spontaneous extra-role behaviour that benefits the organisation*) and noncompliant behaviours (*spontaneous extra-role behaviour that has a negative impact on the organisation*). Schnake (1991) defines organisational citizenship as functional, extra-role, prosocial organisational behaviours, directed at individuals, groups or an organisation. The behaviours are not prescribed by the organisation and are indirectly related to existing reward systems.

### 6.3 Organisational Citizenship Behaviour

The principle of performance beyond the requirements of the job role was defined by Organ (1988) as the concept of organisational citizenship behaviour (OCB):

*'individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and in the aggregate promotes the effective functioning of the organisation. By discretionary, we mean that the behaviour is not an enforceable requirement of the role or the job description, that is, the clearly specifiable terms of the person's employment contract with the organisation; the behaviour is rather a matter of personal choice, such that its omission is not generally understood as punishable.'*

*Organ (1988)*

OCB consists of behaviours that have a direct impact on the functioning and success of the organisation out with the traditional structures and processes for defining and measuring job performance. As OCBs are defined as extra-job roles it is difficult for managers to coerce individuals into demonstrating them. In addition OCBs are difficult to specify and are therefore difficult to manage via reward schemes because the behaviour is problematic to measure and helping behaviour may be more directed towards improving the performance of others rather than the individual (Smith, Organ and Near, 1983). Given the difficulty of linking OCB and reward systems it is argued that OCB is located within the principles of social exchange theory and is based on reciprocity rather than direct reward. Employees can choose to reciprocate a benefit from a leader through the demonstration of OCB depending on the perceived level of mutual commitment (Coyle-Shapiro, Kessler and Purcell, 2004). They may decide to increase OCB rather than increased in-job activities as they have less control over the constraining factors within the designated role such as planning,



scheduling or design and the opportunities to make a significant impact in the in-job roles may be limited. OCBs provide immediate and controllable activities for employees to undertake to demonstrate reciprocated commitment to the leader.

Organ (1988) outlines five behaviour types in the concept: altruism, courtesy, sportsmanship, conscientiousness and civic virtue.

- *Altruism*: this is broadly defined as voluntary actions that help another person with a work-related problem. It can include assisting with the induction of new people or offering to support a colleague with a heavy workload.
- *Courtesy*: behaviour that helps prevent conflict or problems arising in the workplace such as checking with colleagues before taking action that may affect them or sharing information that may be relevant to the activities of others.
- *Sportsmanship*: a willingness to tolerate the inevitable inconveniences and impositions of work without complaining, and being prepared to fully contribute in difficult circumstances.
- *Conscientiousness*: going well beyond the minimal required standards in areas such as attendance, time keeping, use of resources, etc.
- *Civic virtue*: constructive and responsible involvement in the political processes of the organisation including attending meetings, reading information on the organisation and seeking to make a contribution to internal discussions in the organisation.

The concept of OCB is based on the principles of social exchange theory that in given circumstances individuals will seek to reciprocate those who have given them

a benefit or service (Blau, 1964; Konovsky and Pugh, 1994; Coyle-Shapiro, Kessler and Purcell, 2004). Behavioural strategies such as reciprocity evolve when the long-term benefits outweigh the immediate costs (Pinker, 2002). The individual will sacrifice some of their resources either to reciprocate a service or with the intention of provoking an act of reciprocity from the other actor. In terms of social exchange the reciprocity is relational and not transactional as it seeks to create or deepen a mutually beneficial longer-term relationship. The in-role behaviours are an intrinsic part of the transactional contract based on an economic exchange, whereas the extra-role behaviours are part of a balanced/relational contract based on a social exchange where reciprocation is not directly measurable and is discretionary. Contracts, or covenants, are *'relationships of mutual commitment in which specific behaviours required to maintain the relationship or pursue common ends are not specifiable in advance'* (Van Dyne, Graham and Dienesch, 1994). Organ (1990) posits that OCB is a worker's means and opportunity to reciprocate the positive actions for a leader as apart of a social exchange relationship, or alternatively to withhold OCB is retaliation for perceived injustice. From the social exchange theory stance employees are motivated to demonstrate OC behaviours when they believe that it is an integral part of a balanced or relational psychological contract founded on reciprocity (Bateman and Organ, 1983; Organ, 1990; Moorman, 1991). Konovsky and Pugh (1994) state that *'organisational citizenship behaviours occur in a context in which social exchange characterises the quality of superior-subordinate relationships.'* The OCB behaviours displayed will be mainly in the areas over which the individual employee has control or are particularly relevant to their contribution to the organisation.

#### **6.4 Use of OCB in Research**

An increasing amount of use highlights the growing importance of OCB as a construct in a number of fields of research, but some caution that there is a danger that without a clear theoretical definition of OCB itself it will remain a heuristic construct of little value to organisational research in the long term (Van Dyne et al., 1994). Graham (1991) sought a definition of OCB from a review of the concept of

active citizenship in classical philosophy and political theory. In political philosophy the concept of citizenship is based on a contracted relationship between the individual and the state, founded on shared values and open-ended commitment (Hobbes, 1962; J.J. Rousseau, 1998). Using this model Graham (1991) highlights two different possible interpretations of OCB in an organisational context. The first interpretation defines OCB as extra-role behaviour and discrete from in-role tasks and traditional definitions of job roles and performance. This definition highlights the issue of distinguishing both in a research and in a managerial context between what is extra-role behaviour and what is an inherent part of a job profile as research has demonstrated that employees and leaders differ in their perceptions of what is defined as in-role or extra-role behaviour (Morrison, 1994; Van Dyne et al., 1994). Morrison (1994) argues that the distinction between in-role and extra-role is based on an individual subjective judgement and that OCB is a function of how workers define their job responsibilities. A key factor in the subjective definition process is the level of perceived mutual commitment that shapes how an individual defines the boundaries of the in-role behaviours (Coyle-Shapiro, Kessler and Purcell, 2004).

Graham (1991) posits a second view of OCB based on the wider concept of citizenship in philosophy and political science that includes in-job performance behaviours, extra-role behaviours and political behaviours such as organisational participation. Graham (1991) argues that OCB is a global concept with three main categories:

- *Organisational obedience* which reflects the acceptance of organisational regulations, demonstrated by an adherence to the rules and instructions of the organisation;
- *Organisational loyalty* which is the identification with the organisation and its leadership and a commitment to working towards the organisation's goals,

manifested in behaviours such as co-operation and defending the organisation against external threat;

- *Organisational participation* which is a commitment to participate fully in the life and success of the organisation, demonstrated in behaviours such as sharing ideas, seeking opinions and advocating unpopular views to counter group think. Where the relationship is based on a relational contract the parameters of the job will become increasingly wide and vague, and individuals who perceive that they are given trust and a degree of latitude will reciprocate by cognitively adjusting their obligations to the organisation.

(Coyle-Shapiro and Kessler, 2002)

Schnake (1991) highlights the question of whether OCB is a generic construct applicable across all situations or whether it is context specific. It can be argued that the targets of OCB define their causes (Moorman, 1991). Barr and Pawar (1995) posit that OCB is context specific and propose an additional dimension to the OCB concept by focussing on the intended target of the OCB: OCB directed at the leader, the organisation and the co-worker. Barr and Pawar (1995) distinguish the intra-individual processes involved in each dimension. The authors argue that the process of displaying OCBs to a co-worker will be primarily affect-driven and that empathy is the main motivator of helping behaviour displayed to co-workers. Empathy is a direct emotional response to another person's emotions (Gleitman, 1992). An individual worker will display helping behaviour to a peer with whom they identify, and their actions will increase group cohesion reflected in an enhanced positive relationship between the actors. The OCBs directed at co-workers are manifested in a range of social support behaviour such as expressing consideration for others, taking an interest in their problems and sharing work. The development of empathetic relationships between workers may be accepted or encouraged by organisation but they may also be inhibited by organisational rules or procedures aimed at minimising supportive behaviour.

## **6.5 OCB and Leadership**

It can be argued that OCB directed at leaders or supervisors is an expression of reciprocity (Moorman, 1991). The level of OCB demonstrated by followers is in response to the perceived satisfaction of motives achieved in the leadership relationship. Measurable performance indicators such as productivity or efficiencies can be affected by a myriad of factors out with the control of the individual in an organisation, and consequently may be unreliable measures of resource commitment. A demonstration of OCB is the preserve of the individual and therefore can be argued to be a more reliable measure of resource commitment. The relationship between leader and followers in organisations can be determined by a reward based structure of agreed tasks, but leaders can develop the role of an individual worker with a commensurate broadening of the exchange relationship. The extent and depth of the dyadic exchange relationship depends on the cognitive processing of the perceived value of the exchanges, an assessment of the benefactor's intent and the cost to the individual actor of reciprocation. Barr and Pawar (1995) emphasise that whilst the reciprocity is integral to the social exchange model of OCB, it is target-specific and can only be applied to the relationship between the leader and the individual. In the leader worker exchange the behaviour is intended to benefit a specific actor rather than the organisation and is part of a long-term relationship where the exchanges are non-specific. The leader has an initiating role in the development of the exchange relationship and inducing OCBs through the act of setting the expected in-job role and contribution for the individual employee.

Katz and Kahn (1966) argue that value expression and self-idealisation lead to the internalisation of organisational goals where group values are incorporated into an individual's own value system, and as a result the individual obtains satisfaction from expressing the behaviours (p.345). These shared values are the result of a normative process where the values represent congruence in organisational and extant personal values, or can be internalised via a combination of socialisation,

reward reinforcement, enhancement of status or indoctrination. Van Dyne et al (1994) posit that these shared values form the basis of a covenantal contract between the individual and the organisation.

## **6.6 OCB and Organisational Effectiveness**

The display of OCB in the workplace is particularly desirable to leaders as they are '*supra-role*' (Katz and Kahn, 1966) and are discretionary behaviours that cannot be enforced or demanded by leaders (Bateman and Organ, 1983). OCBs represent a high degree of individual commitment to the leader, group or organisation and have a positive influence on the organisational culture. It has been argued that in addition to influencing the culture, cohesion and morale of an organisation OCBs also have a direct impact on performance over a period of time (Katz and Kahn, 1966; Organ, 1988). A meta-analysis (Podsakoff et al., 2000) suggests that the impact of OCBs on organisational effectiveness is due to a number of factors:

- Co-operation between employees reduces conflict and spreads best practice
- Employees involved in the organisation will propose improvements and ideas to enhance effectiveness
- Conscientious workers require less direct supervision, thereby freeing leader time to focus on more strategic issues
- Proactive employees are more likely to accept delegated tasks
- Co-operating employees improve communication and coordinate effort
- Sportsmanship behaviour reduces the level of leader time dealing with petty complaints
- Employees committed to the organisation will enhance group effectiveness and cohesion which will improve the attraction and retention of staff

- Committed employees prepared to accept change will enable the organisation to be more responsive and flexible
- Conscientious employees will maintain a more consistent level and quality of output
- Sportsmanship behaviour encourages loyalty and commitment to the organisation

Surprisingly there has been little research done on the measurable impacts of OCBs on organisational performance and much of the literature around the benefits of OCB is based on assumption rather than empirical evidence (Hui et al., 2004). A meta-analysis of the extant research demonstrates general support that OCBs are related organisational effectiveness and impact on financial efficiency, customer service and performance quantity (Podsakoff et al., 2000).

Meta-analysis of OCB highlights a number of reasons why OCBs are valued by leaders in organisations and why they influence performance ratings in appraisals (Podsakoff et al., 2000). A significant reason is within the social exchange model in that leaders will seek to recognise and reciprocate OCBs demonstrated by employees. Other reasons include that when the individual demonstrates OCBs they fit in with an existing schema of a '*good employee*', or that OCBs are readily recallable because they are distinct from the in-job roles expected by the leader. The meta-analysis demonstrates that OCBs account for significantly more variance in performance evaluations than objective definitions of performance, particularly altruism. OCBs are found to have a significant influence on a number of important personnel decisions within organisations including promotions, salary recommendations and performance evaluations. These findings indicate that leaders highlight, value and respond to the demonstration of OCBs in the workplace and that the impact of OCB is often, if not always, as great as in-role performance.

## 6.7 Summary

OCB is a suitable means to measure resource commitment in the leadership relationship because the commitment of the resource is an act of reciprocity aimed specifically at the leader and not at the organisation (Barr and Pawar, 1995). It is also a resource which is primarily in the control of the individual follower and less dependent on other actors and contextual factors than performance measures such as productivity or sales. Consequently OCB is an accurate means of measuring reciprocal resource commitment in a leadership relationship.

Chapters Four to Six have explored the importance of power, resource and motive in Burns' theory of leadership. Three hypotheses will be used to empirically test the role and contribution of each of the three elements to the theory:

**H1 = The demonstration of transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract.**

**H2 = The demonstration of transformational leadership behaviour is negatively correlated with the emergence of a transactional or relational psychological contract.**

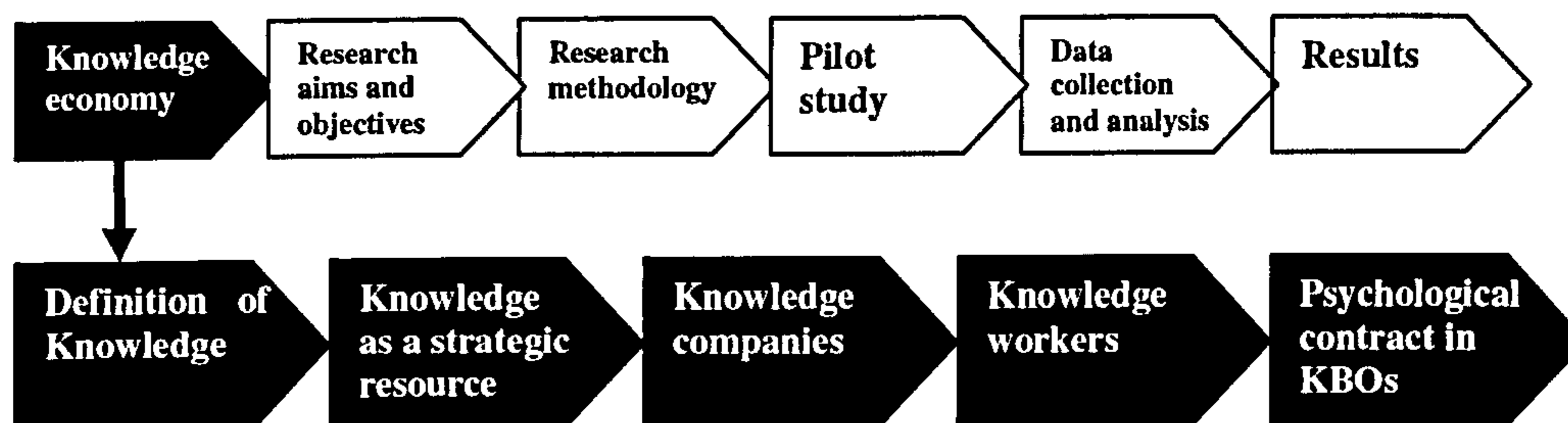
**H3 = A balanced psychological contract is more positively correlated with a demonstration of OCB than a relational or transactional psychological contract.**



# CHAPTER 7 KNOWLEDGE ECONOMY: BACKGROUND TO THE RESEARCH

## 7.1 Outline of the Chapter

Given the importance of resource in Burns' theory (1978), this chapter will explore a context where the follower has control over a strategically important resource in the form of knowledge. This chapter gives an overview of knowledge economy and the key concepts that underpin it. Firstly it explores the development of the new economy and the background from which it emerged. Secondly, it reviews how the concept of knowledge based organisations (KBOs) and knowledge workers. Thirdly, it sets out the areas of potential difference in the leadership relationships between knowledge workers and non-knowledge workers.



## 7.2 Knowledge Economy

*"It is not possible for power to be exercised without knowledge, it is impossible for knowledge not to engender power" (Foucault, 1977:52).*

In the Industrial Revolution the critical resources of the economy were land, labour, capital and technology but there has been a growing recognition of importance of knowledge as a source of strategic advantage in organisations (DTI, 1998; Stiglitz, 1999; Atkinson and Court, 1998; Chan Kim and Mauborgne, 1998; Ridderstrale and Engstrom, 2003; Tymon and Stumpf, 2003). It is argued that there is a shift occurring

in the structure of the developed world from economies based on manufacturing to one where knowledge is the key factor of production (Blackler, 1995; Reich, 1999; Teece, 1998; Ridderstrale and Egstrom, 2000; Empson, 2001; Winch G. and Schneider E., 1993). A knowledge-driven economy is described as one in which *'the generation and the exploitation of knowledge has come to play the predominant part in the creation of wealth'* (DTI, 1998). As early as 1996 it was estimated that 50% of the GDP in major OECD countries was knowledge based (World Bank, 1998; OECD, 1996). Economic reports outline an economy where innovation and creativity are the key sources of competitive advantage and economic value is found in ideas, research and knowledge built into products, as companies in the developed world continue to establish a temporary monopoly in their market niche through differentiation (DTI, 1998; World Bank, 1998; OECD, 1996). Bell (1973) predicted a fundamental shift from a social order based on empirical, knowledge and practical expertise to one based on theoretical knowledge and technical expertise, and an industrial economic change paralleled by increasing cultural and ideological diversity and fragmentation which would undermine the structures of the dominant bureaucracy and technocracy.

There is a significant degree of evidence that there has been a radical shift in the structure of the economy. High technology industries accounted for 24% share of value added in manufacturing in the US in 1999, as opposed to 18% in 1970, and their share of US GDP has increased from 5.5% in 1990 to 6.2% in 1996 (Atkinson and Court, 1998). It is proposed that in the developed world there is an ineluctable change in the economic landscape with the declining importance of the traditional physical economy, and the knowledge-based companies, enabled by continuing leaps in Information Technology, becoming the dominant drivers of the economies (Chan Kim and Mauborgne, 1998; Ridderstrale and Egstrom, 2000; Flood e al., 2001; Tsoukas and Mylonopoulos, 2004). The changes in the economy can be identified in company valuations, namely the co-relation between net worth and market value. In 1984 the ten largest firms by value quoted on the LSE were:

1. BP;
2. Shell;
3. GEC;
4. ICI;
5. BAT;
6. Glaxo;
7. Marks and Spencers;
8. Grand Met;
9. BTR and
10. Beechams.

All but one (Marks and Spencers) were industrial giants, in primary extraction, manufacturing or pharmaceuticals. They had a combined market value of £40 billion, the same as their net value. In 1999 the top ten were BP-Amoco; Shell; Vodaphone; BT; Glaxo-Wellcome; HSBC; Lloyds-TSB; Smithkline-Beecham; Diageo and AstraZeneca who had a combined net worth of £90 billion but a market value of £340 billion. This change is repeated in the USA where the list of top companies by market value is dominated by companies such as Cisco, Sun, Microsoft, Disney and Intel, all valued on their intellectual property rights and knowledge-content rather than on asset base (Atkinson and Court, 1999).

Reich (1991) argues that globalisation is leading to a global split between low-cost economies dominated by the manufacture of standardised products and the high-cost economies that focus on high-added value problem solving and product design. In the developed economy competitive advantage lies in an organisation's ability to innovate and establish a temporary monopoly and consequently, in these

organisations the development, management and exploitation of knowledge and creativity are the key activities of leaders (Mumford and Licuanan, 2004). In the knowledge-based companies distinctive strategic capabilities are in the intangibles such as patents, customer relationship structures, brands or designs (Kay, 2000). Atkinson and Court (1998) claim that the major change in the New Economy '*is the degree to which dynamism, constant innovation, and adaptation have become the norm.*' Organisations require developing adaptive efficiency namely the ability to innovate, learn and productively change.

The globalisation of the world economy from a series of local industries in closed national economies to an integrated global market increases the importance and the tradability of knowledge based products and services (OECD, 1996). Particularly in the intangible knowledge-based markets geography, location and distance increasingly mean little, mainly due to improvements in technology. Many traditional industries such as banking have found that the Internet exposes them to new competition from low cost locations (Brown and Eisenhardt, 2000). The low barriers to entry in some knowledge-based industries enable new firms to enter the market without major capital investment and at comparatively low risk. The growth of Information Technology also has a direct impact on competitiveness in the global economy. Whereas in an industrial economy developing countries had to invest substantially in their physical infrastructure such as factories the emphasis can now move from the weighty economy to the weightless economy (Stiglitz, 1999). Another indicator of increased importance of innovation in the economy is the increasing number of trademarks filed by business. In 1989 there were 80,000 trademarks filed in the US; by 1995 that figure had jumped to 180,000 (Atkinson and Court, 1998). Overall it is currently estimated that 50,000 new products are announced every year in the US, compared to a few thousand in 1970 (Potter, 1998). The growing strategic importance of knowledge has led to the strengthening of intellectual property laws in many developed countries in recent years to protect knowledge-based companies (Teece, 1998).

The changes in the economic structure towards a knowledge-based economy are also evident in the employment profile of the developed nations. It is now estimated that more than half of GDP in the major OECD countries is based on the production and distribution of knowledge (World Bank Development Report, 1998-99). In the US 80% of workers are now employed in jobs dealing with intangibles, processing or generating information or providing services, and in the last thirty years almost all jobs lost in manufacturing have been replaced by office jobs (Reich, 2001). In 1960 there were 5,000 computer programmers in America; there are now over 1.3 million, whilst managerial and professional jobs in the US increased as a share of total employment from 22% in 1979 to 28.4% in 1995 (Atkinson and Court, 1998). The changes in the nature of the economy are witnessed in a bifurcation in employment. There is a high degree of instability within the workforce and a commensurate high level of skill and knowledge redundancy. There is an on-going growth in the numbers of knowledge-based jobs, defined as jobs requiring higher education, as a percentage of total employment in all economies (DTI, 1998). In the new economy the generation and the exploitation of knowledge has secured a predominant part in the creation of wealth, and knowledge is the most strategically important resource for a large number of the growth businesses in the economy.

Intangible capital has become at least as important as tangible capital in the modern economy, and the most strategically important intangible is knowledge. Innovation and creativity are the key sources of competitive advantage in the knowledge-based economy (Scotland Europa, 2000; Lowendahl, Revang and Fosstenlokken, 2001; Von Krogh, 1998; DTI, 1998; Tsoukas, 2002; Tymon and Stumpf, 2003). Economic value is found in ideas, research and knowledge built into products that allow companies to establish a temporary monopoly in their market niche through differentiation (Mumford and Licuanan, 2004). In much of the economy the ability of an organisation to produce intellectual capital that will generate innovation has become the key competitive advantage (Flood et al., 2001; Mumford et al., 2002; Tsoukas and Mylonopoulos, 2004). The intellectual capital or knowledge base of the

firm will be located in the human or social capital of the firm (Grant, 1997; Nahapiet and Ghoshal, 1998; Tsoukas and Mylonopoulos, 2004).

### 7.3 Defining Knowledge

*'What is distinctive about the post-industrial society is the change in the character of knowledge itself. What has become decisive for the organisation of decisions and the direction of change is the centrality of theoretical knowledge – the primacy of theory over empiricism and the codification of knowledge into abstract systems of symbols that, as in any axiomatic system, can be used to illuminate many different and varied areas of experience.'*

*(Bell, 1973)*

Knowledge-based theory proposes that knowledge resides in the human assets of the firm as human capital under limited organisational control that has the potential to create economic rent and focuses on the problems of co-operation and how employees transfer, integrate and create tacit knowledge (Coff, 1997). Nahapiet and Ghoshal (1998) label knowledge and capability to create knowledge as intellectual capital. Key to the knowledge-based theory of the firm is a definition of what knowledge is and how it is generated (Levina, 1999). Bell (1973) offers a continuum from data through information to knowledge, with the location on the continuum dependent on the level of judgement involved. Tsoukas (2002) argues that knowledge arises from the ability of the individual to draw new distinctions from applying sets of generalisations based on abstract knowledge to a situation or problem. Brown and Duguid (1998) posit that knowledge is created within a community of practice as individuals cooperate and network whilst focussing on common or interrelated tasks. Nonaka and Takeuchi (1995) highlight that the process of knowledge creation involves a conversion from explicit to tacit knowledge through human interactions amongst individuals. They highlight four different types of interactions:

1. Socialisation (tacit to tacit);
2. Explication (tacit to explicit);
3. Combination (explicit to explicit); and
4. Internalisation (explicit to tacit).

Tsoukas (1996) argues that explicit and tacit knowledge cannot be regarded as discrete and stable, rather they mutually constituted. The firm's role is primarily in the organisation and application of knowledge through the commercialisation of its resource as a competitive advantage. Knowledge can be held by both an individual and an organisation and offers a 'pluralistic epistemology' that argues that knowledge is defined by its level of abstraction (Spender, 1995). What all of the perspectives concur on is that the individual is the source of or is a significant factor in the generation of new knowledge within the organisation. Blackler (1995) identifies a taxonomy of five types of knowledge:

1. Embrained knowledge that is reliant on cognitive skills and abstract thought;
2. Embodied knowledge which is action orientated and only partly explicit;
3. Encultured knowledge which is based on a shared understanding through the process of socialisation;
4. Embedded knowledge that exists within recognised and embedded routines and procedures within an organisation; and
5. Encoded knowledge is information conveyed through symbol and signs. The knowledge-based theory of the firm, whilst recognising the influence of all of these, emphasises embrained knowledge as the main source of competitive advantage, and the source of this is primarily the individual (Coff, 1999).

#### 7.4 Knowledge as a Strategic Resource

Resource-based theory argues that the very resources, skills and capabilities that give an organisation competitive advantage must be scarce and of value (Barney, 1991; Spender, 1996a). Given that the source of the resources lie out with the organisation the source of competitive advantage is likely to reside in the in-house knowledge which the company applies in the transformation of the resources into a higher added value product or service. Spender (1996a) states that in the resource-based approach to the firm it is *'the firm's knowledge, and its ability to generate knowledge, that lies at the core of a more epistemologically sound theory of the firm.'* The knowledge-based view of the firm develops out of resource-based theory in that it identifies knowledge as the most important resource within an organisation (Nonaka and Takeuchi, 1995; Grant, 1996; Coff, 1997; Von Krogh, 1998; Teece, 1998; Empson, 2001). This perspective regards knowledge as a discrete, objective resource that is created by individuals (Grant, 1997).

The knowledge-based theory of the firm regards the organisation as a nexus of contracts where the various resources are merged and transformed to add value and consequently rent for the firm (Spender, 1996; Coff, 1999). It is argued that the shift from a resource-based view to a knowledge-based view of the firm extends beyond simply strategic management and competitive advantage into the other fundamentals of organisational theory such as the role of leadership, organisational structure, intra-organisational co-ordination and innovation (Spender, 1996). In the changed model firms exist as institutions where individuals can co-operate to exploit their specialised knowledge for the benefit of themselves and others in a co-ordinated effort that integrates the different expertise in the process of transforming resources (Grant, 1997).

The knowledge-based theory of the firm is based on the assumption that knowledge has a tacit dimension and that individuals are primary sources of the knowledge



(Polanyi, 1962; Nonaka and Takeuchi, 1995; Grant, 1997; Levina, 1999). Within resource-based theory the transferability of resources is central to an organisation's level of sustainable competitive advantage. Tacit knowledge is experiential, theoretical and abstract, and the dissemination of tacit knowledge, through its conversion into concepts and the building of an archetype, is usually difficult, costly and time-intensive. It is also difficult to replicate. Explicit knowledge is fact-based and instructional and can be transferred reasonably economically through teaching or training. Tacit knowledge is revealed in its application, explicit knowledge in its communication. (Grant, 1996)

On this basis tacit knowledge allows an organisation a source of competitive advantage as its transferability is difficult and imitation is problematic (Spender, 1996; Teece, 1998 Coff, 1999). Stiglitz (1999) states that *'it is precisely the difficulties in transferring a company's tacit knowledge base embedded in its staff that can be a basis for the company's competitive advantage.'* Knowledge based assets are difficult to replicate as they are asset specific, socially complex and causally ambiguous (Coff, 1997). Knowledge can be asset specific as it has been developed for specialized purposes within a firm and its value externally is limited. Knowledge and its application in a process is part of a socially complex system within a company and its value may be diminished if it is removed from that context. Tacit knowledge also proves problematical to accumulate compared to fact-based explicit knowledge. To transfer tacit knowledge from one individual to a group to enable its benefits to be exploited requires the development of a common language or code that allows communication and exchange. The tacit nature of knowledge creation prohibits a clear mapping of cause and effect in the process and it is difficult to determine exactly the origins or impact of knowledge on the process outcomes. This causes difficulties in terms of replication but also in the management of the creative process (Mumford and Licuanan, 2004). Spender (1996) argues that knowledge has become the most important factor of production and leaders must focus on its *'production, acquisition, movement, retention and application.'*

## 7.5 Knowledge Firms

Knowledge firms are companies whose intellectual capital value exceeds their asset base, as measured through traditional accounting forms. Brown and Duguid (1998) posit that although the definition '*knowledge company*' is applied mainly to companies in sectors such as software or biotech all companies are essentially knowledge-based companies and that all organisations require knowledge to function and to continually outperform the competition. This approach fails to recognise the primary importance of knowledge as the main resource in KBOs and not as one of a number of resources making a contribution to final product or service. Not all intangible product companies are knowledge or know-how companies In a KBO the organisation's central processes are the co-ordination of knowledge creation and its internal transfer (Lowendahl et al., 2001).

A review of the literature offers a range of definitions. Sveiby and Lloyd (1987) define a know-how company as one with four distinguishing features: non-standardisation of product/service; creativity; high dependence on individual employees; and complex problem-solving. Similarly Huseman and Goodman (1991) identify a knowledge organisation as one that: values and acknowledge knowledge as its primary competitive advantage; encourages continual learning; and actively manages its intellectual capital. Nonaka and Takeuchi (1995) propose a taxonomy of five features that distinguish the knowledge company: having a flat structure; assumes a constant dynamic rather than static structure; supports empowerment of people; emphasises the importance of competencies; recognises intellect and knowledge as key assets of company.

Alvesson (2001) defines a knowledge-intensive company as one where most of the work is of an intellectual nature and where '*well-educated, qualified employees form the major part of the workforce.*' Starbuck (1992) highlights the importance of esoteric knowledge over common knowledge in the knowledge company. Tsoukas

and Mylonopoulos (2004) argue that businesses are *'bundles of knowledge assets, the effective management of which affords firms competitive advantage.'* Perhaps one of the most concise definitions of a KBO is by Winch and Schneider (1993) who state that the knowledge based organisation has *'only have the expertise of their staff as assets with which to trade.'* Winch and Schneider (1993) propose three different types of KBO:

1. Based on distinctive competence (accountants/ lawyers/ quantity surveyor);
2. Based on creativity (architects/ advertisers/ management consultants); and
3. Based on technology (software/ engineers).

All of these definitions argue that a KBO deploys its assets in a distinctive way, in that it sells its capacity to produce, rather than a product. Its product is sufficiently intangible to prevent it from being traded as a commodity yet sufficiently standardised to allow it to be differentiated from services provided by others.

## **7.6 Knowledge Workers**

A knowledge-driven economy is defined as one in which the generation and the exploitation of knowledge have come to play the predominant part in the creation of wealth, and in the emerging economic model variously labelled the New Economy or the Knowledge Economy it is proposed that the salient unit of production is the creative individual (Potter, 1998; Reich, 2000). As knowledge becomes the main source of competitive advantage in a significant part of the economy the relationship between the organisation and individual knowledge workers will increase in importance.

The concept of a knowledge worker and their central role in post-industrial society was proposed as early as the 1960s (Drucker, 1967; Galbraith, 1967). Bell (1973) defined the knowledge worker as an individual who is required to be initiated into, and is able to draw upon, a recognised abstract body of knowledge to enable them to carry out their role. He foresaw the economic rise of knowledge workers who would

base their growing power and control upon a theoretical knowledge that can only be acquired and utilised through an extended period of education and socialisation. Bell predicted a fundamental shift from a social order based on empirical, knowledge and practical expertise to one based on theoretical knowledge and technical expertise.

Reich (1991) refers to knowledge workers as Symbolic Analysts, individuals such as journalists, consultants, academics and software designers whose source of power and wealth is knowledge. Reich estimates that around 20% of the workforce in the new economy are symbolic analysts. The symbolic analysts are distinguished by their level of embrained knowledge, that is, knowledge that is '*dependent on conceptual skills and cognitive abilities.*' (Blackler, 1995). In a KBO the knowledge workers are the human assets of the company and as knowledge is created in the minds of individuals this endows knowledge workers with a position of strategic importance within the organisation (Coff, 1997; Teece, 1998; O'Donoghue et al., 2007).

One of the major issues for management is its inability to specify in detail the task requirements in knowledge work and supervise their implementation. Knowledge work cannot be easily proceduralised and a leader is highly reliant on the interpretation and fulfilment of the job role by the individual. Similarly the dynamic nature of the task prevents demarcation of roles and inputs, particularly where the knowledge creation process relies on a community of knowledge workers seeking to identify innovative approaches and solutions.

## **7.7 Psychological Contract in Knowledge Based Organisations**

Much of the research into the content of the psychological contract has focussed on the 'traditional' scenario where employee and organisation have a relationship built on the expectation of permanent or long-term employment (McLean-Parks, Kidder and Gallagher, 1998). There are still surprisingly few studies of the psychological contract in knowledge-based organisations and research into whether contracts in KBOs have any distinguishing characteristics (Thompson and Heron, 2001; Flood et

al., 2001; O'Donaghue et al., 2007). Guest (1998) states that the increasing prominence of the psychological contract as a focus of study has been caused by '*the widespread belief that the nature of the employment relationship is changing and also a view that organisational changes have resulted in a breakdown of traditional relationships*'. Although there has been a growth in research into the psychological contract as a concept much of the extant literature presumes an employment relationship where dependency rests primarily with the employee and power to influence the psychological contract rests with the organisational leadership.

In the knowledge-based organisations the model of employee contract that dominated in the post-war era is being replaced by relationships where expectations are markedly different (Hall, 1996; Guest and Patch, 2000; Martin, Staines and Pate, 1998; Sparrow, 2000; Coyle-Shapiro and Kessler, 2000). Under traditional employment contract employees expected the organisation to adopt a parental role that included providing acceptable wage and a guaranteed lifetime of employment. The dynamic nature of the post-industrial economy has undermined concept of the long-term psychological contract and reduced it to a framework to analyse the individual's expectations and beliefs about the organisational relationship (Guest, 2002; Rousseau, 1998). Individuals have radically different expectations of the organisation and, in the case of knowledge professionals, regard employment as a contract between equals rather than a parent-child relationship. In some knowledge sectors, such as software, a significant proportion of the available employment may be contingent and again this will have a direct influence on the employee's perceptions of expectations and obligations within the psychological contract (McLean-Parks, Kidder and Gallagher, 1998).

It is argued that there has been a range of factors cited as being responsible for undermining the traditional transactional employment relationship (Reich, 1991; McLean Parks and Kidder, 1994; Alvesson and Karreman, 2001; Hull, 2000). The downsizings of the 1980s and 1990s, the increased use of temporary contracts, organisational restructuring and the emergence of global competition have all served to test both the transactional and the socio-emotional relationship between the

organisation and the individual. The impact of the economic and social upheaval of recent decades has had an impact on the perceptions of many younger workers who have experienced redundancy or downsizing vicariously via their family members, with their expectations of the psychological contract based on others' experience of contract breach or violation (Rousseau, 1990). The traditional job promotional structures have been affected by the flattening of organisational structures and few, if any organisations can deliver the job-for-life guarantee that was the backbone of the post-war psychological contract (Sparrow and Cooper, 1998). There is an emphasis on employability rather than employment and individuals are conscious that the relationship between the individual and the organisation has become more temporary and the exchange of skills and knowledge for development opportunities to maintain '*employability*' is a significant factor in the relationship (Ghoshal, Bartlett and Moran, 1999). Much of the personal development necessary for individuals to keep skills and knowledge up to date will be carried out by individuals themselves, and will be seen as an investment in their own future careers (Sparrow, 2000; Tam, Korczynski and Frenkel, 2002). The predominantly young workforce will not expect to spend their entire career with one employer and will be mobile (Lester and Kickul, 2001; Sparrow, 2000).

## **7.8 Psychological Contract and Knowledge Workers**

From a pluralist theory viewpoint the organisation is a complex and dynamic interaction of relationships. A key element in the analysis of the knowledge-based organisation is the relationship between the leader and the knowledge worker. A knowledge-based theory proposes the source of competitive advantage in a KBO will be the ability of the organisation to maximise its assets, the knowledge workers. Consequently the quality of the relationship between a leader and a knowledge worker will be the key determinant as to whether the organisation can secure access to and optimise the source of its competitive advantage (Thompson and Heron, 2001; Flood et al., 2001; Mir et al., 2002). The employment relationship between the knowledge worker and the KBO can be examined in terms of the psychological contract that exists between the two parties. The heuristic construct of the

psychological contract enables examination of the changing nature of the employment contract, particularly the *'individualising'* of the employment relationship and the distribution of power between the individual and the organisation. In the case of knowledge workers this enables a study of whether the issue of intellectual capital ownership has constructed a new employment relationship (Guest and Patch, 2000; Thompson and Heron, 2001). The radical changes in the nature of work and the relationship between the individual and the organisation has led to a renewed interest in the concept of the psychological contract as a means to analysing and increasing understanding of organisational behaviour. *'In a world of rapid organisational change and loss of confidence in some of the traditional certainties of organisational life, the psychological contract appears to provide a useful integrative concept around which to focus an emerging set of concerns'* (Guest, 1998).

The predominance of knowledge as the competitive resource within KBOs enables knowledge workers to hold a position of strategic importance within the organisation (Grant, 1997; Chan Kim and Mauborgne, 1998). From a social exchange viewpoint the shift in the exchange relationship between the knowledge worker and the leader as agent of the organisation will lead to a power imbalance in the favour of the worker by creating a dependency for the leader. From the perspective of the strategic contingency theory, when the knowledge workers recognise that they have gained an increased level of influence within the organisation due to the strategic importance of their expert power, they will adopt a game plan to maximise the benefits to themselves. Knowledge workers in a knowledge-based company will recognise that they have the prime role in coping with the strategic uncertainty in the organisation and that their specialist knowledge causes them to be difficult and costly to replace. This change in the structure of the game in knowledge organisations requires the organisational agents to alter their game plan and to respond to the new dynamics.

The increased complexity of the leader-employee relationship is described as a nexus of contracts, a model in which the knowledge assets are tied to the organisation through 'implicit contracts' (Spender, 1996; Coff, 1999). Coff's model of the firm is a series of individuals each adding value to a transformation of resources and co-operating through explicit and implicit contracts that determine how their relationships operate and how the rent from the process is appropriated. In the absence of clear hierarchical structures organisations have to contract with the owners of tacit knowledge to gain access to the actual knowledge and reward them in line with their centrality to the source of competitive advantage (O'Donaghue et al., 2007). The level of control or influence over strategic resources shapes the content of the contracts between the leadership and the employee.

In the case of workers in knowledge-based organisations the dimensions of the psychological contract will be impacted by the worker's perception that economic dependency on the organisation has been eroded, and both the psychological and economic bases of their relationship with the organisation have been negotiated equitably (Rousseau, 1996). The motivational impact of job security is limited in that the individual is aware that in most cases the organisation cannot, and will not, make the promise of continuous employment nor a career path that delivers regular incremental promotion up a clearly defined hierarchy (Sparrow, 2000). In perceiving the employment relationship to be transient the worker may have an expectation of an explicit transactional contract and have little expectation beyond the terms and conditions set out in that agreement (Guest, 2004). The difficulty will be with the organisation that wishes to retain the services of a highly employable knowledge worker who can secure at least similar rewards in another company. The organisation must try to engage the individual on the more intangible elements of the psychological contract, tying the individual to the organisation emotionally as well as financially (O'Donaghue et al., 2007). Within the traditional organisational paradigm with power concentrated in the hands of leadership the employee to a great extent is dependent on the largesse of the organisation and its agents for economic reward and socio-emotional support. In the knowledge organisation paradigm the individual is



not totally dependent on the organisation and is both employable and mobile, and may also have a set of skills and knowledge the organisation needs. This power shift will alter expectations and obligations between leaders and workers in the knowledge-based organisations.

In terms of extrinsic factors the knowledge worker has expectations of hygiene factors commensurate with their skills and knowledge, and will expect to work in an environment that is conducive to cerebral work. Most knowledge workers will be aware of their employability and have a lower expectation of, or even desire for, long-term job security. (Smithson and Lewis, 2000) The perception of knowledge workers is that they no longer have jobs: they have projects and do not fear temporary contracts (Guest and Patch, 2001; Stewart, 1997). Careers are no longer measured solely by promotion or reward but by the level of responsibility held in a project or by the individual's level of expertise. In such a fluid environment it is difficult to design a career ladder and in many cases the concept of leader is also fluid. The leader of a team in a project can be rotated to match a particular expertise with a particular client or subject. The idea of becoming a team leader or manager as a permanent career step may no longer apply in a knowledge company. The idea of being 'promoted' in the traditional sense may also be actively avoided by the knowledge worker because to become a full time manager may move the worker away from the area of expertise where they excel and undermine their employability in the market.

To ensure their employability is maintained they have an expectation of opportunities for training and personal development to maintain their employability and market value. (Smithson and Lewis, 2000; Schein, 1996) Formal training is less relevant to the knowledge worker and there is a greater emphasis on on-job learning experiences where new knowledge is gained. The complexity or challenge of a particular task or project is a major factor for the knowledge worker and the inherent creativity and complex problem-solving of knowledge work encourages workers to seek out

interesting and often leading edge work that is intellectually stimulating and beneficial to their employability. (Hall, 1996) The psychological contract between a knowledge worker and the organisation could make this factor explicit through the communication of the profile of current and future projects and the individual's level of involvement and autonomy. The complexity or challenge of a particular task or project is a major motivator for the knowledge worker. The inherent creativity and complex problem-solving of knowledge work encourages workers to seek out interesting and often leading edge work that is intellectually stimulating and beneficial to their employability. Recognition is a need for knowledge workers and the nature of the work enables them as individuals or members of a small team to gain recognition for the achievement of a task. Knowledge work requires the active input of individuals in the design, production and delivery of the service or product.

Much of the research on the psychological contract has focussed on the contents of the contracts and the impacts of breach of obligation. Less attention has been paid to the form and dynamic nature of the relationship within the contract (Shore and Barksdale, 1998). The exchange relationship within a psychological contract is dynamic as the levels of obligation between the two parties in the contract vary according to circumstances, environmental influences and the power balance within the relationship. The expectations and obligations of each party in the contract will depend on the perceived balance within the exchange, not only on the transactional factors but also in the socio-emotional factors. Securing the organisational citizenship behaviour required for creativity requires a socio-emotional relationship where there is ownership and commitment. This cannot be secured through a contract based exclusively on transactional factors (Bryant, 2003). How leaders in knowledge based organisations create balanced contracts with their knowledge workers relies on an understanding of the mechanics of how psychological contracts evolve and the fundamental role of reciprocity (Coyle-Shapiro and Kessler, 2002).

Knowledge workers can justify that their contribution to the collective task is of an increased strategic importance and that they deserve a concomitant increase in the response from the organisation. It is argued that knowledge workers place greater value on the intrinsic aspects of the psychological contract than traditional workers (Lester and Kickul, 2001; Thompson and Heron, 2001) The altered expectations can be evident in explicit exchanges such as reward packages but the non-articulated expectations and obligations will also be altered in recognition of the changed balance in the exchange. The unspecified aspects of the exchange will be based on the higher level motives and include the opportunities to develop, an expectation of challenging work assignments, and greater consultation on the design of the task (Thompson and Heron, 2001). There has been little research carried out on the implications of knowledge on the leaders of organisations (Bryant, 2003). In KBOs the strategic role of knowledge has created a power shift to which leaders must respond to ensure that they retain and optimise the resource for the organisation.

## **7.9 Leadership in Knowledge Companies**

Considering its strategic importance to the organisation it is one of the key aims of leadership in organisations to convert tacit knowledge into explicit knowledge to reduce the uncertainty around its access to its main competitive resource. The principles of tacit knowledge create significant issues for leadership in terms of ownership within the firm. The issues of ownership and decision-making are central to the knowledge-based view of the firm. If the knowledge is produced by the individuals then *'it is the employees who own the bulk of the firm's resources. The firm contracts with the employees for the use of these knowledge resources'* (Grant, 1996). Productivity in knowledge-based organisations is dependent on the contributions of its knowledge workers (Donaldson, 2001; Blackler, 1995).

The recognition that employees are the main source of knowledge and therefore competitive advantage in KBOs has focussed leadership attention on the workers who create the knowledge (Grant, 1997; Tsoukas and Mylonopoulos, 2004).

The significant difference between resource-based theory and knowledge-based theory of the firm is the management of the assets (Grant, 1997). Coff (1997) highlights that knowledge assets differ from other strategic assets in that they have independent freedom of movement, and can withdraw or reduce co-operation or demand an increased share of the economic rent they produce. The creative processes inherent in innovation cannot be supervised or made explicit and this removes a significant element of control from management and bestows a corresponding increase in power and control to the individual workers. The aim of innovation is by definition the development of uniqueness and this consequently prohibits the standardisation and systemisation applied by management to ensure consistency and control. This limit's management's attempts to balance the power equation by introducing artificial uncertainties of their own. (Crozier, 1967) Knowledge work is also information-based and therefore reduces management's attempts to counter the power imbalance by restricting the information flow to the worker; to do so may adversely affect the product or service. Management in a knowledge-based organisation must also consider the issue of motivation and retention. Attempts at manipulating knowledge workers may lead to the workers withholding organisational commitment or seeking employment in a more congenial environment and leaving management with a major knowledge gap to fill.

If the competitive advantage of the company rests in the tacit knowledge of its workforce then the resource management issue is how managers in the firm optimise that advantage, but unlike physical assets human assets have autonomy over their assets and cannot, in a democratic society, be coerced to produce them on behalf of the company. (Handy, 1995; Drucker, 1999; Ghoshal, Bartlett and Moran, 1999) Knowledge workers derive power from their specialised knowledge or expertise and

will actively cultivate the perception within the organisation of the strategic importance of the specialised knowledge they possess (Pfeffer, 1981). In any business access to resources is vital and consequently in a knowledge-based organisation the turnover of employees is critical to the continuing performance of the business. Consequently firms that seek to maximise their tacit competitive advantage must have the leadership capability to optimise the human asset they employ (Grant, 1997; Coff, 1997; Mumford et al., 2002). To secure the tacit knowledge they require leaders must reflect on what motivations they are releasing in exchange.

### **7.10 Leadership Strategies in Knowledge Companies**

Burns (1978) argues that effective leadership lies in the alignment of individual and organisational goals. In the knowledge organisation the key resource of the business is mainly controlled by the knowledge worker and as Burns (1978) argues, the leader must recognise that power in the relationship lies in the resources and motives of the workers. In the KBO leaders must seek to establish relationships that enable all individuals to cooperate effectively to pursue both personal and organisational motives (Grant, 1997; Johannessen, Olaisen, Johannessen and Olson, 1999). Burns (1978) states that the premise of transforming leadership *'is that, whatever the separate interests persons might hold, they are presently or potentially united in the pursuit of "higher" goals, the realization of which is tested by the achievement of significant change that represents the collective or pooled interests of leaders and followers'*.. If power rests in the motives of the individuals, then the more individuals perceive they can realise their motives through the leadership relationship the more resource they will commit to the exchange. To maintain and develop the quality of the exchange relationship and secure a high input of OCB the leader will proactively seek to address the higher levels of motivational needs of the knowledge workers, thereby increasing creativity and productivity (Winch and Schneider, 1993).

The main role of leaders in the knowledge-based company should then be to establish an exchange relationship where individuals commit high levels of their knowledge resource to the organisation (Von Krogh, 1998; Mumford et al., 2002). Elkins and Keller (2003) highlight the need for transformational leadership behaviours in the early stages of R and D based projects to create intellectual stimulation. To achieve the social capital required in the knowledge business and to secure and sustain a high level of OCB from the knowledge workers the leader will be required to exemplify in their behaviours a commitment to establishing an exchange relationship with the individual worker (Bryant, 2003).

Recognising the autonomy and mobility of their key assets, KBOs require developing effective leadership strategies that will appeal to the higher level motivators to ensure the maximum commitment of resources. Organisations can choose to address the transactional factors and offer knowledge workers exceptional reward packages intended to reduce the possibility of staff being poached by competitors. A motivational strategy based on a rational-economic assumption of the pre-eminence of financial reward can expose the organisation to a price war and may not be addressing the full psychological expectations of the workers (Schein, 1970). Organisations can also seek to influence individual career decisions through balanced/relational factors such as job satisfaction, organisational culture, leadership or personal development. Coff (1997) highlights the nature of the work itself as a major source of job satisfaction. Knowledge workers seek stimulation in their roles and consider the level of challenge and the opportunities for achievement in a job as a key factor in attraction to an employer (Robinson and Rousseau, 1999; Flood et al., 2001; Thompson and Heron, 2001). Creative individuals locate a high degree of their identity in their work and consciously seek opportunities for professional recognition and achievement (Mumford et al., 2002).

## 7.11 Knowledge is Power

Commentators as discrete as Bacon and Foucault have both argued that knowledge is power. The actual process of creating knowledge as a source of competitive advantage within an organisation must recognise the power relationships that are inevitably involved in the context (Tsoukas and Mylonopoulos, 2004). In an era where intellectual capital is central to the competitive strategy of many firms individuals with a level of expertise or specialisation in their own field become the key source of advantage to organisations (Coff, 1997; Kay, 2000; Alvesson, 2001; Donaldson, 2001; Flood et al., 2001; Mumford et al., 2002). Resource-based theory and knowledge-based theory emphasise the influence the holders or controllers of the organisation's strategic resources have within the firm. Crozier's (1964) strategic contingency theory posits that individuals in organisations acquire power through the control of strategically important resources. In the knowledge based organisation where the key competitive resource is knowledge the individual employee has a significant level of control over the application or retention of the strategic resource and consequently holds a significant degree of power within the organisation.

Atkinson and Court (1998) describe the new economy as one where 'risk, uncertainty and constant change are the rule, rather than the exception.' In knowledge companies the source of uncertainty is the production of innovation, and the controllers of this source of uncertainty are the knowledge workers. The centrality of abstract knowledge in the strategy of knowledge-based organisations ensures that the most significant factor influencing the power games within knowledge-based organisations is expert power (French and Raven, 1959). Expert power is based on a '*knowledge differential*' between leader and worker (Schein 1970; Yukl 1989). In the traditional organisation knowledge is hierarchical but in a knowledge business the relationship based on expert power is inverted with the knowledge advantage lying with the workers rather than with the leaders. Hickson et al. (1971) highlight unique expertise as one of the three main factors affecting power allocation within organisations. Hollander (1979) proposes that power is gained or lost as expertise shifts between workers and leaders. It can be argued, that as Bacon stated many

centuries ago, that in the current KBO knowledge is power and that it will influence the psychological contract between leaders and followers.

## **7.12 Summary**

The question of power is central to the study of knowledge workers and their relationships within the organisation. The area that still requires greater research is how the increased power from control of a strategic resource affects the leadership relationship. In a knowledge-based organisation it is not possible for the organisation's management to control or own resources in the way that they do with land or capital (Coff, 1999; Drucker, 1999; Ghoshal, Bartlett and Moran, 1999). The change in the structure of ownership and control of resources and the challenging of structural power within organisation has significant consequences for leadership structures and practices (Grant, 1997). According to Burns' theory, to secure the commitment of the knowledge resources, leaders will have to appeal to the higher level motivators of the knowledge workers. If power is central to the leadership relationship there should be evidenced a higher level of motivation satisfaction amongst the knowledge workers than non-knowledge workers.

To examine Burns' theory in a context where resource is a strategically significant factor the research will seek to test the theory with nine hypotheses:

**H4 = The impact of transformational leadership behaviour is more evident amongst knowledge workers than with non-knowledge workers.**

**H5 = The existence of a balanced psychological contract is more evident amongst knowledge workers than non-knowledge workers.**

**H6 = The existence of a relational or transactional psychological contract is more evident amongst non-knowledge workers than knowledge workers.**

**H7 = The impact of transformational leadership behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**



**H8 = The impact of transformational leadership behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers**

**H9 = Organisational citizenship behaviour is more evident amongst knowledge workers than non-knowledge workers.**

**H10 = Organisational citizenship behaviour is more positively correlated with the impact of transformational leadership amongst knowledge workers than non-knowledge workers.**

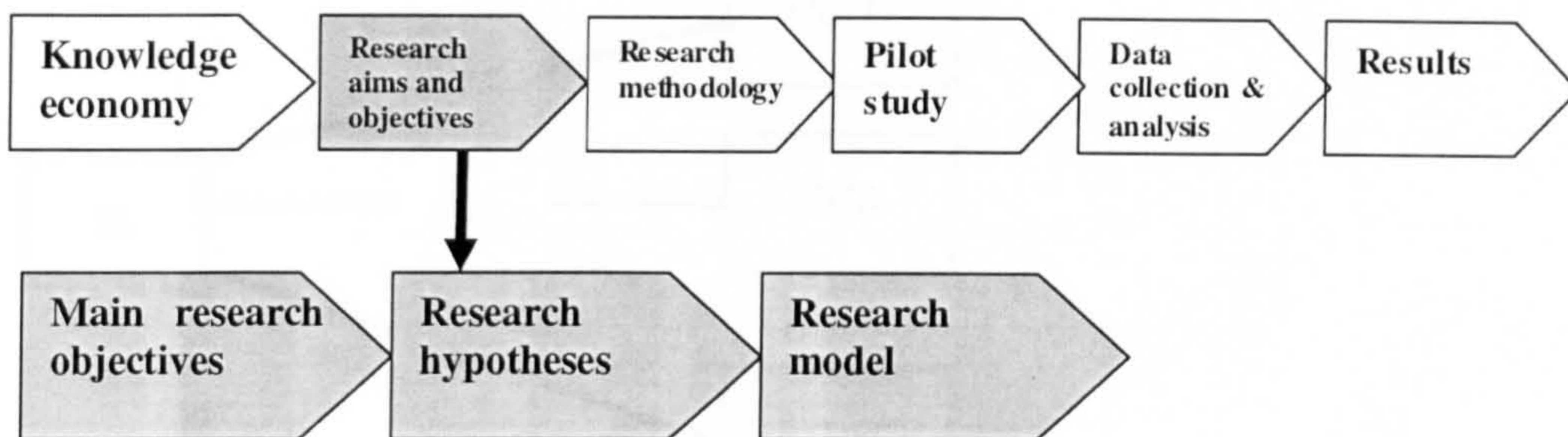
**H11 = Organisational citizenship behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**

**H12 = Organisational citizenship behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers.**

## CHAPTER 8 RESEARCH AIMS AND OBJECTIVES

### 8.1 Outline of the Chapter

This chapter gives an overview of the main aims and objectives of the research. It sets out the two contributions to knowledge that this research aims to achieve. It also states the twelve hypotheses that the research will test.



### 8.2 Aims and Objectives of the Research

Burns (1978) states that to gain a greater understanding of leadership it must be analysed in terms of power and relationships. He argues that *'the two essentials of power are motive and resource'*. Burns argues that transforming leadership is ensuring that goals and needs of both followers and leader are aligned and that an exchange relationship of reciprocity and mutuality exists. Therefore there should be a correlation between demonstrations of transforming leadership and higher levels of motivation and commitment of resources amongst followers. Despite the centrality of the theory to the extant literature on transformational leadership little research testing the core theory has been carried out (Bass, 1995 and 1999; Sorenson, 2000; Dvir, Eden, Avolio and Shamir, 2002). Lowe et al. (1996) argue that although the MLQ (Bass, 1985) has been used in a wide number of research studies the relationships between transformational constructs and leader effectiveness in different contexts are still not well understood. House and Aditya (1997) state that *'there is little evidence that charismatic, transformational, or visionary leadership does indeed transform*

*individuals, groups, large divisions of organisations, or total organisations, despite claims that they do so’.*

The first objective of this research (Figure 2) is to empirically test Burns’ theory that there is a causal link between the demonstration of transformational leadership behaviour (TL) and higher level motivation and resource commitment from followers.

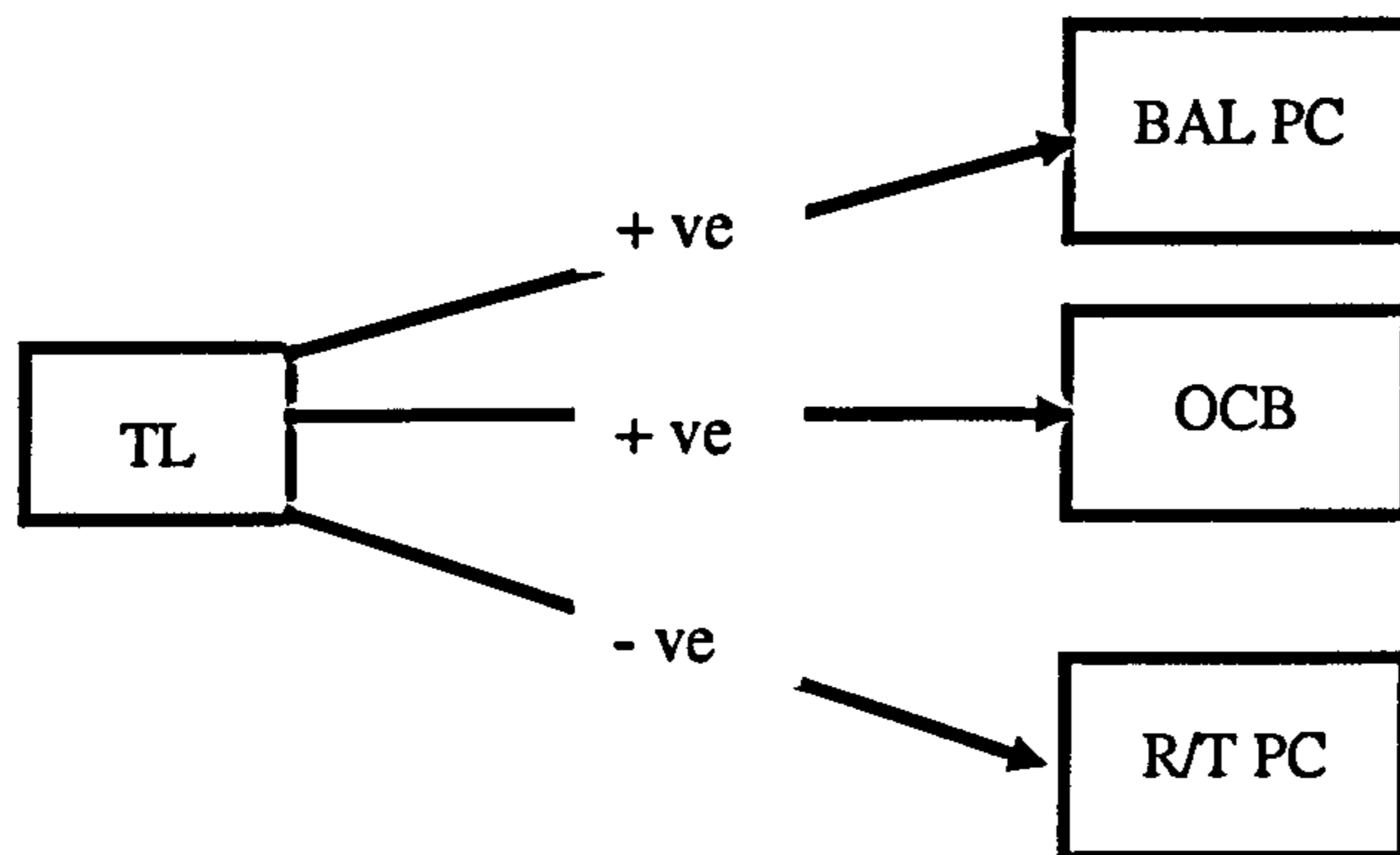


Figure 2 - Research Objective One

The second objective of the research (

Figure 3) is to focus on the resource element of Burns’ theory and its influence on the other elements, namely leadership style and motivation. This will be researched within a knowledge-based theory view of the firm. The research will test Burns’ theory with specific groups of employee controlling differing levels of strategic resource, in this case knowledge workers and non-knowledge workers. If Burns’ theory is valid there should be a significant difference between the correlations of resource commitment, motivation and leadership style across knowledge workers and non-knowledge workers.

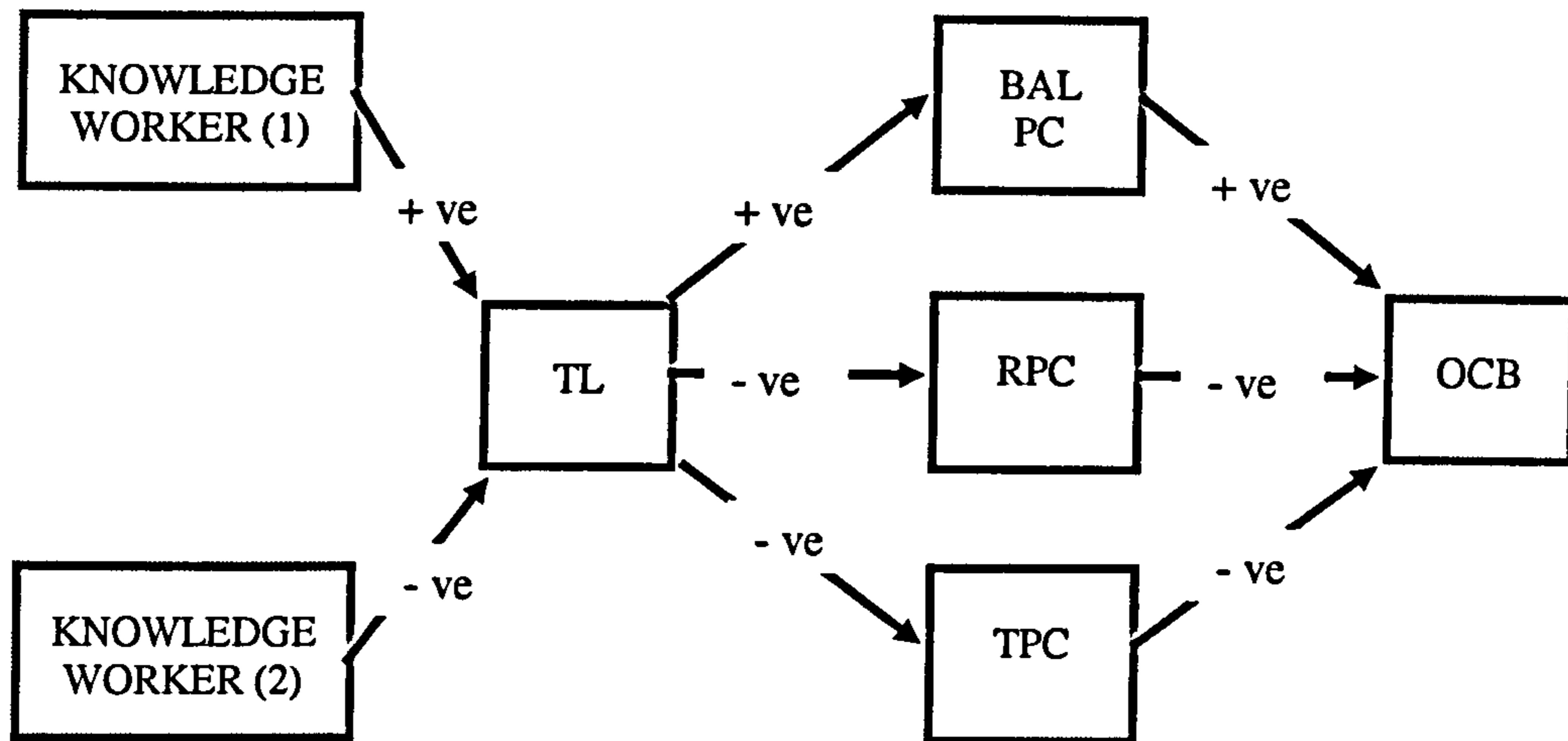


Figure 3 - Second Research Objective

### 8.3 Research Hypotheses – First Research Objective

The hypotheses proposed in this research were developed from a review of the extant literature set out above and an analysis of Burns' (1978) theory. The research will test the theoretical framework of Burns' leadership model by measuring the central variables and examining their inter-relationships. From a deductive standpoint the research will seek to test Burns' theory that a causal relationship exists amongst the demonstration of transformational leadership behaviours, the meeting of higher level motivations of followers and the level of resource committed to the common goals.

### **8.3.1 Leadership & the Psychological Contract**

Burn's (1978) emphasises that leadership is a special form of power, and that the source of the power lies in engaging with the needs and wants of the followers (p.15). Transformational leaders seek to expand and address the higher level self actualisation motivators of followers outlined in Maslow's hierarchy (1960) to secure a greater commitment of resources. The psychological contract as a heuristic construct has been found to be useful in analysing the motivations and obligations in the relationships between leaders and followers in organisations (Rousseau, 2001; Guest, 2004). Rousseau (2000) argues that social relationships are defined by the expectations and perceived obligations of followers demonstrated in their psychological contracts. Rousseau (1995) offers a typology of three distinct forms of psychological contracts: balanced, relational and transactional contracts. The balanced contract is a dynamic and open-ended relationship with specific, agreed performance outcomes that are mutable over time. Both follower and leader contribute highly to each other's learning and development and seek to address the higher level motivators. The leader is committed to continuously developing the follower to reach new levels of performance and learning, and the follower feels obligated to successfully perform new and more demanding goals. This contract most closely fits with Burns' concept of a transforming relationship.

The relational contract is based on trust and loyalty but the performance outcomes are unspecified. Security and belonging are strong motivators in the relational contract. The transactional contract is of limited duration and with clearly defined outputs or activities. The transactional contracts are economic based and aimed at the lower level hygiene factors, with specific rewards agreed in return for defined tasks or outcomes. These contracts fit Burns' definition of a transactional relationship. According to Burns' theory there should be a clear correlation between the demonstration of transformational and transactional leadership and the level of motivation in followers. In this research the level of motivation will be measured through an assessment of followers' psychological contracts. The first two hypotheses therefore are:

**H1 = The demonstration of transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract**

**H2 = The demonstration of transformational leadership behaviour is negatively correlated with the emergence of a transactional or relational psychological contract**

### **8.3.2 Leadership and OCB**

Burns (1978) states that one of the two essentials of power is resource (p12), and argues that *'power and leadership are measured by the degree of production of intended effects'* (p.22). Similarly Bass (1985) states that the *'extra effort'* demonstrated by followers reveals how successful the leader is in transforming followers and motivating them to perform beyond expectations. In a transforming relationship leaders and followers tap into each others' motivational bases to bring together the resources each is willing to contribute to achieve the common goal. Each actor draws on their own power resource relevant to their own motives and importantly to the motivations of the other actors in the relationship.

According to Burns' theory a demonstration of transformational leadership should stimulate the higher level motivators of followers who will consequently commit higher levels of their resources to the common goal. A demonstration of transactional leadership should address the lower level motivators and consequently followers commit a lower level of resources to the common goal. In this research the level of resource commitment will be measured through the level of Organisational Citizenship Behaviour amongst followers. Organ (1988) posits that OCB is a worker's means and opportunity to reciprocate the positive actions for a leader as apart of a social exchange relationship, or alternatively to withhold OCB in retaliation for perceived injustice (Bateman and Organ, 1983; Organ, 1988; Moorman, 1991). Konovsky and Pugh (1994) state that *'organisational citizenship behaviours occur in a context in which social exchange characterises the quality of*

*superior-subordinate relationships*'. Unlike other measures of response to leadership styles, such as productivity or satisfaction which can have a number of contributory or influencing factors, OCB behaviours are largely in the control of the individual employee. The next hypothesis therefore is:

**H3 = Transformational leadership behaviour is positively correlated with a demonstration of OCB.**

#### **8.4 Second Research Objective - Knowledge Workers**

In the post-industrial era intellectual capital as a resource is the main source of competitive advantage (Reich, 1992; OECD, 1996; Potter, 1999; Flood et al., 2001; Donaldson, 2001). It will be proposed in this research that there has been a shift in power initiated by the competitive importance of knowledge in the organisation that has led to knowledge workers exercising an upward influence on the leadership relationship (Kickul, 2001; Mumford et al., 2002; Bryant, 2003). The leadership behaviours demonstrated in these organisations will correspond to the leadership factors in Alimo-Metcalfe and Alban-Metcalfe's (2000) model of Transformational Leadership (*Genuine Concern; Networking & Achieving; Enabling; Being Honest & Transparent; Being Accessible; Being Decisive*). Knowledge workers who are aware of their strategic importance to the organisation will expect that their position is recognised through the enhanced explicit and implicit motivational aspects of the psychological contract.

Anderson and Schalk (1998) propose that the emergent psychological contract contrasts with the traditional contract that emphasised job security, predictability, career path and an obligation to conform. The emergent contract is balanced and is characterised by expectations that higher order motivational factors such as belonging, recognition and development will be provided by the organisation and its agents. In the emergent psychological contract obligation to conform is replaced by obligation to contribute (Flood et al., 2001). In knowledge-based organisations

leaders will acknowledge the strategic importance of the knowledge workers and will recognise their own role in attracting, motivating and retaining the knowledge workers within the business. To achieve this end the leaders will be required to adopt a transformational leadership style that seeks to address the issues of individual motivation and intellectual stimulation expected by the knowledge workers. A transactional leadership style that ignores the higher level motivational needs will fail to address the expectations of the knowledge workers and lead to a withdrawal of organisational citizenship behaviour, with implications for the competitiveness of the organisation. This thesis will argue that a transformational leadership style is a core element of balanced psychological contract between the leader and the knowledge worker.

This research will seek to test the causal relationships between the three main variables in the context of knowledge-based organisations and non-knowledge based organisations. Knowledge workers are aware of their strategic significance within knowledge-based organisations and understand the value of the tacit knowledge to the organisation. Drawing on Crozier's Strategic Contingency Theory (1967) it proposed that the knowledge workers will use their position as the main source of organisational uncertainty and will expect leaders within organisation to recognise their control over the key strategic resource and manifest that recognition in an enhanced content of the psychological contract. Given their control over resources knowledge workers may have expectations that their leaders will meet their higher level motivational needs more than non-knowledge workers. Leaders may also seek to establish a balanced psychological contract between themselves and their individual knowledge workers to secure a high degree of resource commitment to the organisation in the form of OCB. It will be argued that an integral expectation of a balanced psychological contract of knowledge workers is that their line manager will demonstrate leadership behaviours that will support the achievement of their higher level motivators.



## 8.5 Research Model and Methodology

It is proposed that the research will seek to establish the relationships between the main constructs set out below.

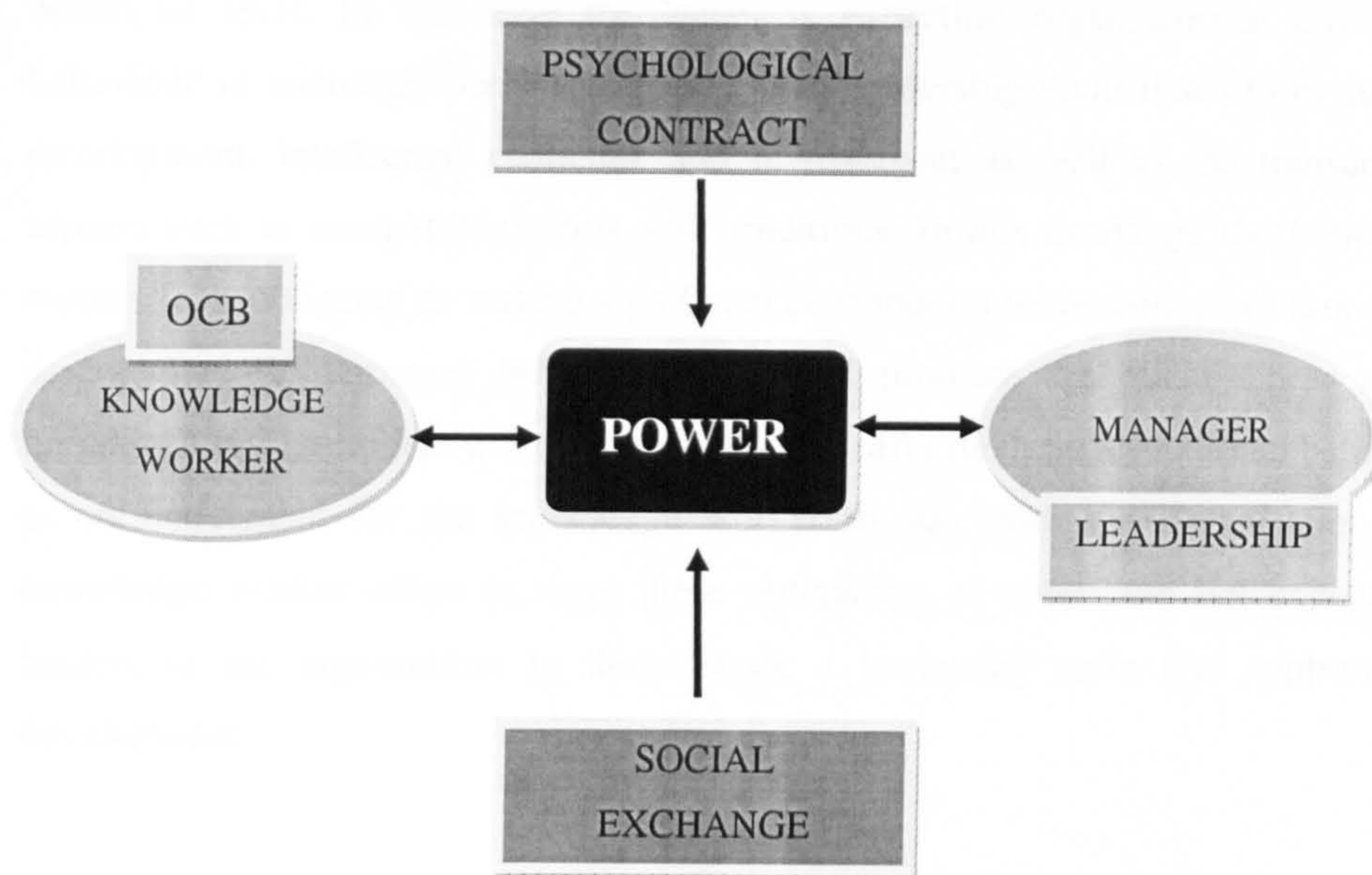


Figure 4 - Research Model

The above model is based on the Molm's (1997) assertion that '*the heart of the (social exchange) theory is its analysis of power*'. The model integrates Crozier's (1967) Strategic Contingency Theory into the exchange process and highlights the centrality of power as the arbiter of the exchange relationship. Power within the dyadic exchange relationship lies with the individual who is able to cope with the strategically important source of uncertainty. It is proposed in this case that the power advantage rests with the knowledge workers but, in accordance with Crozier's theory, leaders in knowledge businesses will seek to create uncertainties that will rebalance power in the organisation in their own favour. This central exchange is dynamic and contingent on the perceived level of reciprocity.

The model builds on the reciprocity of the Blau's (1964) exchange theory that recognises that both parties to the exchange have expectation of the other and each feels obligated to make a contribution to maintain the relationship at a mutually beneficial level. In this case the leader is expecting organisational citizenship behaviour in exchange for a transformational leadership style that offers support, development, intellectual challenge and involvement as well as the transactional aspects such as competitive terms and conditions. In this exchange the knowledge worker feels obligated to make a significant contribution to the collective task and to demonstrate discretionary behaviours that will promote the effectiveness of the organisation. The leaders will also be seeking to offer the transformational behaviour as an enticement for the knowledge worker to stay with the organisation. The knowledge worker offers to meet these obligations to contribute but expects the leaders in the organisation to demonstrate a leadership style that supports the development.

#### **8.5.1 *Transformational Leadership and Knowledge/ non-Knowledge Workers***

Burns' theory, and to a greater extent the development of the transformational leadership model by Bass (1985), is established on the premise that leaders unilaterally adopt transforming behaviours to secure the commitment and resources of followers to achieve a common goal. To test the universality of Burns' basic theory this research will seek to examine whether a high degree of resource control amongst followers engenders a higher demonstration of transformational leadership behaviour than in a situation where followers have less resource control. The research will seek to test whether there is any significant difference in the level of transformational leadership demonstrated between knowledge workers, who have greater control over strategic resource, and non-knowledge workers. The next hypothesis is:

**H4 = The impact of transformational leadership behaviour is more evident amongst knowledge workers than amongst non-knowledge workers.**

#### ***8.5.2 Transformational Leadership and the Psychological Contract with Knowledge/ non-Knowledge Workers***

If there is a greater demonstration of transformational leadership behaviours amongst leaders of knowledge workers, Burns' theory would predict a higher emergence of balanced psychological contracts amongst knowledge workers. As leaders of knowledge workers recognise the power shift in the exchange relationship with the knowledge worker they will make efforts to address and meet the higher level motives of the individuals. Additionally there should be more evidence of relational or transactional psychological contracts amongst non-knowledge workers who have less control of strategic resources. Therefore the next hypotheses are:

**H5 = The existence of a balanced psychological contract is more evident amongst knowledge workers than non-knowledge workers.**

**H6 = The existence of a relational or transactional psychological contract is more evident amongst non-knowledge workers than knowledge workers.**

**H7 = The impact of transformational leadership behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**

**H8 = The impact of transformational leadership behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers**

### *8.5.3 Transformational Leadership, Organisational Citizenship Behaviour and the Psychological Contract with Knowledge/ non-Knowledge Workers*

Chan Kim and Mauborgne (1998) argue that the primary resource in the modern economy is knowledge and that securing access to this resource requires the co-operation of the resource holder, namely the workforce. Maximising return on the resource requires organisations to gain the voluntary participation of the workforce in the development and exploitation of the knowledge, not through the enforcement of rules or systems but by securing the commitment of the workers to contributing to the goals of the business. Chan Kim & Mauborgne (1998) state that the behaviour required for knowledge development involves the subordination of self interest, mutual support and a willingness to work towards the objectives of the organisation. Burns' theory posits that where the higher level motivators are being achieved there should also be a high level of resource commitment amongst followers. As the leaders address the higher level motivators of followers in knowledge workers there should be a commensurate increase in resource commitment demonstrated in the level of organisational citizenship behaviours.

This research will seek to test whether there is a correlation between a demonstration of transformational leadership, the achievement of higher level motivators and high levels of organisational citizenship behaviours amongst knowledge workers than non-knowledge workers. It will seek to test the relationship between transformational leadership and low levels of resource commitment in non-knowledge based organisations. The next hypotheses therefore are:

**H9 = Organisational citizenship behaviour is more evident amongst knowledge workers than non-knowledge workers.**

**H10 = Organisational citizenship behaviour is more positively correlated with the impact of transformational leadership amongst knowledge workers than non-knowledge workers.**

**H11 = Organisational citizenship behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**

**H12 = Organisational citizenship behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers.**

## **8.6 Summary**

This research seeks to test the basic premise of Burns' theory of transforming leadership and the co-relationship between the three main elements of leadership: power, motive and resource. It will seek to address a lack of research into the basic concepts behind Burns' theory (Bass, 1995). It will in particular examine the importance of resource control in his theory by comparing and contrasting samples from knowledge workers and non-knowledge based organisations. Elkins and Keller (2003) argue that there is a significant lack of leadership research carried out in knowledge workers. This research seeks to examine whether leadership behaviour in organisations is contingent on the power structure within the relationship, in particular resource control.

## CHAPTER 9 RESEARCH METHODOLOGY

### 9.1 Outline of the Chapter

This chapter will outline the research methodology choices of this thesis and will establish the ontological and epistemological standpoints of the research. It will explore the use of surveys in leadership research and argue why a quantitative approach, in particular surveys, has been used for this research. It will also present the three main instruments to be used in this research and outline the justification for their selection.



### 9.2 Introduction

*'One of the chief goals of the scientist, social or other, is to explain why things are the way they are. Typically, we do that by specifying the causes for the way things are: some things are caused by other things.'* (Babbie 1979)

Popper (1972) highlights the need for the 'testing of the theory by way of empirical applications of the conclusions which can be derived from it.' The research is a quantitative study, that is 'an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true.' (Creswell, 1994) This research uses a nomothetic approach to empirically examine the relationship between leadership style, motivation and the demonstration of Organisational Citizenship Behaviour in knowledge-based and non-knowledge-based organisations.

### 9.3 Choice of Methodology

Researchers in choosing and framing their work must make a choice between focussing on idiosyncratic issues specific to individuals or organisations, or to focus on more generalisable phenomena across different scenarios (Rousseau and Tijoriwala, 1998). Morey and Luthans (1984) describe qualitative research that focuses on the individual, such as an ethnographic study of a single team or organisation, as emic. Morey and Luthans (1984) contrast this approach with etic research that seeks to measure general constructs derived from theory across a range of contexts. Rather than focussing on gaining a comprehensive understanding of the individual or organisation under study, the etic approach relies on standardised categories that are researched across varying scenarios to assess the generalisability of the theory. In the etic approach theory testing and hypothesis confirmation are the main focus (Rousseau and Tijoriwala, 1998). This research adopts the etic approach.

Each of the three main areas to be explored in this research can be claimed to be based on mental models or schema which could be explored in close detail through qualitative methodologies such as interviews or observation. It could be argued that this would enable access to a greater richness of detail, with a more distinctive and specific understanding of the interpretations of the individuals involved (Parry, 1998). The choice of any research methodologies is based on a researcher's ontological and epistemological standpoint. Within a paradigm the researcher has to make a judgment on what methodology to use, the applicability of the methodology in their study, and make a compromise between the strengths and weaknesses inherent in each. This research is within a functionalist paradigm, as defined by Burrell & Morgan (1994) as a perspective '*firmly rooted in the sociology of regulation*' and is characterised by a concern for explaining need satisfaction, social order and approaches the subject from an objectivist standpoint, seeking to establish an explanation of the status quo. The functionalist paradigm has been chosen because the nature of the subject matter chosen is situated further along the continuum

towards knowledge-creation Mode Two than Mode One, (Starkey and Madan, 2001) with the testing of a theory using empirical research, but which will meet the criteria set out by Hodgkinson, Herriot and Anderson (2001) as pragmatic science, i.e. *'research that is simultaneously academically rigorous and engaged with the concerns of wider stakeholder groups.'* The motivation for the research came from practical difficulties encountered in the motivation and leadership of knowledge workers within organisational development projects, and the research is intended to have a practical application that will inform and direct future practice. This standpoint meets the criteria of the functionalist paradigm as described by Burrell and Morgan (1994):

- It seeks to provide essentially rational explanations of social affairs
- It is a perspective which is highly pragmatic in orientation
- It is concerned to understand society in a way that can be put to use
- It is problem-orientated in approach, concerned to provide practical solutions to practical problems
- It is firmly committed to a philosophy of social engineering as a basis for social change

The ontological position of the research is realist, and consequently the subjects to be researched exist in a reality that is *'objective and singular, apart from the researcher'* (Creswell, 1994). The ontological viewpoint, as Durkheim (1982) would define it, is that the external world exists independently of the individuals who exist within it and the aim of the research is to understand the relationship between the different actors and the order, or disorder, they produce. Within the functionalist paradigm this research may sit most comfortably in the post-Hawthorne objectivist school where the main focus is the studying of relationships between work, satisfaction and performance. A number of studies within this paradigm have attempted to identify and empirically test a range of different models of socio-economic man (Maslow, 1943; Whyte, 1948; Herzberg et al., 1959), based on the



assumption that the nature of man can be revealed through empirical investigation (Burrell and Morgan, 1994). This research, founded on the same assumption, will seek to explain the relationship between the leaders and followers in specific contexts, namely knowledge-based and non knowledge-based organisations.

The epistemological position is positivist in that it seeks *'to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements.'* (Burrell and Morgan, 1994) This research will seek to identify a causal relationship between leadership styles, follower motivation and resource commitment to common goals. From an objectivist standpoint the view of human nature within this research is essentially deterministic and will seek to prove a generalised theory of human socio-economic behaviour, although contingent on specific industrial sectors.

The hypothetico-deductive method is a quintessential factor in realism (Gill and Johnson, 1991). From the deductive stance the source of the theory is incidental: what is important is the *'logic of deduction and the operationalization process, and how this involves the consequent testing of the theory by its confrontation with the empirical world'* (Gill and Johnson, 1991). To operationalise the concepts of transformational and transactional leadership, motivation and resource commitment, it will be essential to establish a clear definition of the terms and how they are represented empirically. Additionally it will be necessary to clarify definitions of the terms knowledge and non-knowledge workers for, although much has been written about knowledge workers, there is no accepted definitive description of the concept (Blackler, 1995; Alvesson, 2001). The definition of a knowledge worker to be used in this research is based on Bell (1973): *'an individual who is required to be initiated into, and is able to draw upon, a recognised abstract body of knowledge to enable them to carry out their role.'* The study will use established models and constructs as part of the conceptualisation process:

- a) The concept of transforming and transactional leadership will be operationalised via the model set out in the Transformational Leadership

Questionnaire by Alimo-Metcalfe and Alban-Metcalfe (2000) which is based on the leadership constructs of UK managers;

- b) The concept of follower motivation will be operationalised via the construct of the transactional, relational and balanced psychological contracts in the Psychological Contract Inventory (Rousseau 2000); and
- c) The concept of resource commitment will be operationalised via the model of organisational citizenship behaviour set out by Podsakoff et al. (1997).

The operationalisation process is fundamental to the functionalist paradigm and the objectivist standpoint. As Popper (1972) argues a scientific theory cannot be proved true, only falsified. By establishing clear and specific observable phenomena and behaviour it allows empirical testing, and corroboration or contradiction of the findings by others using the same methodology. It not only creates the clear and consistent instructions about what and how to observe but also allows comparisons with findings amongst the existing body of literature (Herriot et al., 1994; Rousseau, 1990). The operationalisation process must provide constructs based on the quantification of key factors that enable valid, consistent and reliable measurement across different contexts (Dess et al., 1993).

All three areas of this research are dominated by quantitative research methodologies and consequently enable not only comparison with existing research but a further test of the reliability and generalisability of research instruments. Leadership research has been dominated for much of its history by the US-led, psychologist-based positivist school that almost exclusively relies on questionnaires as the primary means of data gathering and the subsequent quantitative analysis of quantitative data (Conger, 1998; Parry, 1998; Hunt and Ropo, 1995; Yukl, 1994; House and Aditya, 1997; Yukl, 1999). The leadership research field has been dominated by the use of surveys in the last 50 years and despite landmark work by Mintzberg (1973) and others there is no sign that the positivist, quantitative methodology dominance of the field is

abating (Bass, 1990; Jung and Avolio, 1999; Carless, 1997; Shamir, 1995; Den Hartog et al., 1999; Antonakis, Avolio and Sivasubramaniam, 2003; Alimo-Metcalfe and Alban-Metcalfe, 2000).

Alimo-Metcalfe and Alban-Metcalfe (2001) state that in the leadership field there has been a *'relative paucity of studies that adopt qualitative techniques,'* which is surprising given the complex, dynamic and multi-level nature of the subject. Similarly, the evolving field of research into the psychological contract, whilst originating from qualitative work (Argyris, 1962; Levinson, 1962; Schein, 1970) has increasingly been subject to a quantitative hegemony (Rousseau, 1989; Rousseau, 1990; Robinson, Kraatz and Rousseau, 1994; Robinson and Wolfe Morrison, 1997; Turnley and Feldman, 2000; Guest and Conway, 2002; Guest et al., 1996; Guest, McKenzie and Patch, 1998; Thompson and Heron, 2001; Hui et al., 2004; Dabos and Rousseau, 2004). The field of Organisational Citizenship Behaviour, like the psychological contract, is an emerging construct dominated by a growing body of quantitative studies (Organ, 1997; Organ and Konovsky 1989; Podsakoff et al., 1990; Podsakoff et al., 1996; Podsakoff et al., 1997; Niehoff and Moorman, 1993; Moorman, 1991; Robinson and Morrison, 1995; Van Dyne, Graham and Dienesch, 1994; Turnley et al., 2002).

#### **9.4 The Purpose of Surveys in Quantitative Research**

The dominant quantitative methodology in each of the three areas of leadership, psychological contracts and OCB is survey instruments. The purpose of the survey is to generalise from a sample to a population so that inferences can be drawn about the general population, in this case knowledge workers, non-knowledge-workers and their leaders (Creswell, 1994). The main purpose of a survey is to obtain information about a specific group or community (Moser and Kalton, 1975). Although surveys are primarily descriptive, designed by researchers to elicit information about the attitudes, behaviours or opinions of a group, they are a means to determine, test or

explain social phenomena. Quantitative survey methodologies are not simply a more complex form of information gathering where the researcher will seek to collect data for its own sake. Quantitative research must involve theory as well as methodology. The research should be initiated by '*a set of facts that are puzzling to the investigator*' (Bulmer, 1977) that leads to a proposed explanation, assumptions and hypotheses. The hypotheses require to be tested and the testing will possibly raise new problems for investigation.

## **9.5 Survey Instruments – This Research**

The choice of survey instruments is critical to any research. The next section will set out the following:

- A review of the use of survey instruments in the extant literature for psychological contracts, organisational citizenship behaviour and transformational leadership.
- The choice of survey instruments for each of the three main areas of research.
- The background into the development of the instrument and its use in the extant literature.
- How the instrument will be used.

## **9.6 The Use of Surveys in Leadership Research**

It is surprising given the scope and quantity of leadership research that there has been a '*relative paucity of studies that adopt qualitative techniques*' (Alimo-Metcalfe and Alban-Metcalfe, 2001), especially given the complex, dynamic and multi-level nature of the subject. The vast majority of leadership studies appear to be focussed on testing out existing hypotheses rather than developing new theories, despite the fact that there still does not appear to be any comprehensive, unifying and integrative

theory of leadership (Yukl, 1994; Parry, 1998). The choice of methodology for the study of leadership is dependent on the researcher's view on the nature of leadership itself and what requires researching. Despite Burn's (1978) initial insistence that transforming leadership was a process, the majority of transformational leadership research has focussed on what a leader does, assessing the actions, competencies and personal attributes of the leader as an individual. Parry (1998) states that *'the emphasis in mainstream leadership research is on leaders and not on the process of leadership as such'*.

Although the topic of leadership could be described as mature in research terms there is still a lack of any consensual definition of either the conception of leadership or a precise vocabulary describing its content (Barker, 1996; Barker, 2001; Alvesson, 1996; Yukl, 1999; Alvesson and Sveningsson, 2003). The topic of leadership annually accumulates more research papers and books but on most occasions a definition of leadership is either avoided or reduced to platitudes such as *'managers do things right; leaders do the right things'*. Alvesson and Sveningsson (2003) quote Luthans (1979) who argues that *'too often theorists forget that leadership or 'influence' are merely labels that are attached to hypothetical constructs. Too often the hypothetical construct is treated as the empirical reality'*.

Leadership research has been dominated for much of its history by the US-led, psychologist-based positivist school that almost exclusively relies on questionnaires as the primary means of data gathering and the subsequent quantitative analysis of quantitative data (Conger, 1998; Parry, 1998; Hunt and Ropo, 1995). There is ample evidence of the wide use of questionnaires in studies of leadership styles (Bass, 1985, 1990 and 1997; Jung and Avolio, 1999; Antonakis, Avolio. and Sivasubramaniam, 2003; Shamir, 1995; Yagil, 1998). The study of transformational leadership in particular has been virtually the preserve of quantitative research paradigm, with researchers relying heavily on the Multifactor Leadership Questionnaires in a range of formats (Bass, 1985, 1990 and 1997; Den Hartog, Muijen and Koopman, 1997; Hunt, 1999). Yukl (1998) highlights the concern that the emphasis on quantitative research methods in leadership research has led to the mergence of two-factor

theories where leadership style X is compared and contrasted with leadership style Y. In terms of the charismatic field it is now transactional versus transformational, and Yukl argues that this black or white approach is obscuring important underlying notions within the factors.

### **9.7 Issues with the Survey Methodology in Leadership Research**

There has been a growing body of leadership research that is based more in sociology and anthropology than the psychologically discipline. Glaser and Strauss (1967) argue that central to grounded theory is the identification of a basic social process. The commentators who regard leadership as a social influencing process (Alvesson, 1996; Hunt and Ropo, 1995; Meindl, 1995; Parry, 1998) argue that process can only be investigated using a qualitative methodology such as grounded theory as it can accommodate a range of variables in a longitudinal study. Glaser and Strauss (1967) stress the iterative interaction between data collection, data analysis and theory generation in the process of '*constant comparative method of analysis*' where theory development emerges from an on-going data gathering and analysis. Yukl (1989) argues that experiments in which leadership behaviour is manipulated is the most effective method to determine causality. Avolio, Bass and Jung (1999), two of whom have been instrumental in the development of the Multifactor Leadership Questionnaire that dominates leadership research, have argued that researchers and practitioners ought to use '*methodologies other than surveys to examine leadership*'.

A criticism of the positivist approach of survey questionnaires in leadership research is that they focus primarily on formal relationships between leaders and workers and neglect informal relationships. Conger (1998) claims that quantitative methodologies are unable to explain leadership outcomes and events across multiple levels and that most studies have focussed on a single level of analysis and pay insufficient attention to contextual factors. Quantitative studies are also accused of being poor at

measuring interaction and tend to adopt a narrow frame of investigation that *'reinforces the notion that leadership is principally the product of a single individual'* (Conger, 1998). In addition any formal methodology is prone to impression management where leaders will complete the questionnaires based on social desirability concerns, of how either they want to be perceived or on how they believe they lead rather than actual performance.

Yukl (1989) claims that leadership researchers have *'relied too heavily on behaviour description questionnaires'* and criticises the use of questionnaires in leadership research for the following reasons:

- The use of ambiguous items that different respondents can interpret in different ways;
- Many questionnaires require respondents to reflect over long periods of time and to recall whether and how a certain leadership behaviour was exhibited;
- There are issues with response bias as a subordinate's like or dislike of a leader may influence their response;
- The responses can also be influenced by individually held stereotypes of leadership and the effects it has;
- Effective leadership behaviour can be attributed to a leader although the leadership has not been observed.

Yukl (1989) also highlights problems in determining causality when using a survey methodology. An identified correlation between behaviour and outcome can be down to a range of variables not only those under examination. Most leadership research assumes that causality leads from behaviour to outcome but the process may be operating in reverse. Research can claim that a leader displaying individual consideration behaviour can lead to or contribute to an outcome of higher performing employees. Alternatively it can be argued that the leader treats higher performing

employees better precisely because they are the best performers. Yukl (1989) also criticises questionnaires where the assessment of the behaviours and the outcomes variables are obtained from the same respondent as any correlation will be influenced by extraneous variables such as the personal relationship between the respondent and the leader. This can be ameliorated by measuring performance outcomes separately from the leadership behaviours.

From the social constructionist viewpoint Meindl (1995) argues that the assessments of the leaders are not relevant to the actual leaders themselves but an insight into the construction process of the followers themselves. Correlations and variations highlighted by research reveal the constructs employed by followers in their description of leadership behaviour. Consequently the use of surveys focussing on leadership behaviours disclose less about the actual behaviours of leaders and more about the variance of constructions used by followers and how they are influenced by contexts and social factors.

Despite these valid concerns the limited amount of leadership research using qualitative methods have also not been issue free. Major qualitative studies, such as Mintzberg's landmark study *The Nature of Managerial Work* (1973), can be criticised on the grounds of applicability and universality. Whilst the use of a qualitative methodology such as observation may offer a comprehensive and intensive methodology it severely restricts the sample size. Mintzberg's original thesis, on which his book is based, was a study of only five Chief Executives, all white males working in American companies. Additionally the adoption of a qualitative method such as observation or interview is open to the possibility of bias due to demand characteristics (Nachmias and Nachmias, 1997). It can be argued that by using participant observation Mintzberg created an expectation in the CEOs that as they were being observed a certain type of behaviour was required. Rather than obtaining descriptions of managerial behaviours and activities Mintzberg obtained the CEO's interpretations of the behaviours they believed he expected to see. Van Maanen (1979) claims that in using observation the observer must be aware that they need to distinguish between *operational data* that reflects actual, spontaneous



behaviour and presentational data: *'data in this category are often ideological, normative, and abstract, dealing far more with a manufactured image of idealised doing rather than with the routinised practical activities actually engaged in by the members of the studied organisation'*.

The choice of any research methodologies is based on a researcher's ontological and epistemological standpoint. Within a paradigm the researcher has to make a judgment on what methodology to use, the applicability of the methodology in their study, and make a compromise between the strengths and weaknesses inherent in each. In leadership research the most obvious choice is between depth and breadth of analysis. In Mintzberg's (1973) case the generalisability of his findings is questionable as he achieved an in-depth description of the activities of a manager but the sample was limited to a very small, specific set of individuals in a homogeneous group operating in a similar economic environment within one culture. He also managed to get close to the managers by declaring his study but this may have allowed the managers to consciously or unconsciously create a false image of themselves as leaders. The use of surveys enables a much wider, and arguably, representative sample that permit replication and falsification, as well as comparison with extant research.

## **9.8 Hegemony of Leadership Research – Multifactor Leadership Questionnaire**

The leadership research field has been dominated by the use of surveys in the last 50 years and despite landmark work by Mintzberg (1973) and others there is no sign that the positivist, quantitative methodology dominance of the field is abating. To carry out any objectivist study of transformational leadership it is essential to operationalise the concepts into constructs, as the operationalisation process is fundamental to the functionalist paradigm and the objectivist standpoint. Establishing clear constructs enables the survey to be applied across a range of organisations and

draw generalisations from the results. The field has seen the development of a number of other leadership questionnaires but the Multifactor Leadership Questionnaire (Bass, 1985) in its various forms remains the dominant instrument for leadership researchers adopting a survey methodology. Hunt (1999) in his historical analysis of transformational/charismatic leadership highlighted that despite the growing call for an increase use of qualitative methods, leadership research *'continues to be conducted by surveys (and most of the surveys tend to rely on Bass' MLQ)*'. Yukl (1994) commented on transformational leadership that *'most of the research on the theory (Multifactor Leadership Theory) has involved the use of a questionnaire called the Multifactor Leadership Questionnaire (MLQ) to measure various aspects of transformational and transactional leadership'*. The MLQ has been used in a plethora of dissertations, studies, doctoral research, technical reports and has been used to study leadership in a wide range of organisational and national settings such as the military, religious establishments and manufacturing. (Lowe et al., 1996) Many of the studies of Transformational Leadership using the MLQ, particularly in the 1980 when Bass developed the model and tool, relied heavily on specific organisations such as the military and religious organisations (Bass, 1985; Onnen, 1987; Yammarino and Bass, 1989; Colby and Zak, 1988). An indication of the dominance of the MLQ in leadership theory is that this research has to argue why it has not been used on this occasion!

### **9.9 Time for a Change? UK Transformational Leadership Model**

The argument of some non-US researchers is that the hegemony of the MLQ has led to the imposition of the US transformational leadership model as a universally valid and applicable model of leadership. A review of the leadership literature over the last 50 years demonstrates that the majority of the leadership research is US-based, and questions about the generalisability of the US models to leadership research in other regions have been raised by a number of academic commentators (Hunt and Peterson, 1997; Triandis, 1990; Alban-Metcalfe and Alimo-Metcalfe, 2002). Hunt (1999) stated *'many scholars outside of the USA saw (leadership research) as a virtual US hegemony'*. Initial studies by Alimo-Metcalfe and Alban-Metcalfe (2000

and 2001) identifies that much of the research into transformational leadership is US dominated and questions the transferability of all aspects of the model to other cultures, primarily the UK. In addition they highlight that the dominant transformational models are the result of studies done amongst senior executives in US companies, and that much of the data is obtained directly from senior managers rather than from their direct reports. As a result the US models of leadership, and the factors and constructs they employ, are often more reflective of '*distant*' leaders (Bass, 1985; Conger and Kanungo, 1987).

To date there has been little done in the UK on the development of leadership questionnaires that are based on significant research in UK organisations. In 2000 Beverly Alimo-Metcalfe and Robert Alban Metcalfe of University of Leeds developed the Transformational Leadership questionnaire (TLQ – Local Government Version) designed through the use of grounded theory. Details of the questionnaire were published in the Journal of Occupational and Organisational Psychology (2000) and in The Leadership & Organisation Development Journal (2001). Alimo-Metcalfe and Alban-Metcalfe (2000) sought to establish whether the dimensions of transformational leadership underpinning the US model proposed by Bass and Avolio (1990) are similar to those found in UK organisations. The development of the TLQ (Alban-Metcalfe and Alimo-Metcalfe, 2000) represents an attempt by UK researchers to develop a model that they believe will be more effective in measuring the effectiveness of leadership behaviour in a UK setting. The initial study by Alimo-Metcalfe and Alban-Metcalfe (2000) claims that the TLQ (LGV) demonstrates significant difference between UK and US perceptions of transformational leadership. They also argue that the UK approach to transformational leadership resembles Greenleaf's (1996) concept of servant-leadership and that the TLQ reveals that leadership in the UK is regarded more as a social influence process.

Alimo-Metcalfe and Alban-Metcalfe (2000) also argue that previous leadership research was not only US-dominated but focussed, almost exclusively, on men.

Consequently they question whether the constructs of leadership integral to transformational leadership are representative of all leaders as they have excluded any real input from women. To counter this they attempted to ensure that an equal proportion of women were included in the study, apparently the first gender-inclusive national research study of its kind.

### **9.10 A UK Transformational Leadership Model – TLQ**

The differences in the cultural dimensions of transformational leadership between the UK and the US are central to the study by Alimo-Metcalfe and Alban-Metcalfe (2001). Although they sought to highlight the differences in the leadership prototypes between the UK and the USA it identified areas of similarity between the factors of the TLQ and the MLQ in the two leadership models. Whilst recognising the immense contribution of the US to leadership research Alimo-Metcalfe and Alban-Metcalfe (2000) sought to design a transformational leadership questionnaire that would be based on the leadership constructs of UK managers. On reviewing the extant literature and the available survey instruments the researchers identified three areas where they believed there were gaps in the existing models:

- *Culture* – the models were developed from almost exclusively US samples.
- *Gender* – similarly, most models were developed from almost exclusively male samples.
- *Distance* – most models have emerged from studies of top-level leaders and do not recognise the leadership behaviours required for close or nearby leadership.

## 9.11 Cultural Models, Gender and Distance

The researchers acknowledge that the Full Range Leadership (FRL) model of Bass (1985) and the MLQ as an instrument had both made significant contributions to the development of leadership research, but highlighted that two of the most critical studies of the MLQ and its factoring came from researchers working out with the US (Den Hartog et al., 1997; Carless, 1998). Both of these studies argued that confirmatory factor analysis had indicated that the various subscales of the MLQ were highly correlated and that a high proportion of the variance of subscales could be explained by a single higher-order construct of charisma.

Given these findings Alimo-Metcalfe and Alban-Metcalfe (2000) sought to establish a transformational leadership questionnaire based on the leadership constructs identified through a grounded theory approach with UK managers, particularly in the public sector. This approach, they argued, would offer a more representative set of dimensions and sub scales to the model of leadership. Alimo-Metcalfe and Alban-Metcalfe (2001) argue that the UK approach to transformational leadership has a greater sense of *'proximity and openness, humility, vulnerability and organisational embeddedness'* compared to the US model. They stress that the UK model they have developed is more akin to Greenleaf's concept of *'servant-leadership'* than the dominant US prototype.

Alimo-Metcalfe and Alban-Metcalfe (2000) argue that previous leadership research was almost an exclusively male preserve. The heavy bias towards men in the research undermines many of the claims that transformational leadership models such as the Multifactor Leadership Theory are invariant across genders. The researchers highlight the importance of an inclusive approach to transformational leadership research for the following reasons: women are in general more likely to describe their leadership style in transformational terms, whereas men are more likely to describe their leadership style in transactional terms (Rosener, 1990); direct

reports are significantly more likely to describe their female managers in transformational terms (regardless of the sex of the direct report); men are more likely to have their leadership styles described as transactional, laissez faire or as management by exception (Bass, 1985; Druskat, 1994); and women are more likely to construe leadership in transformational terms compared to men who describe it in transactional terms (Alimo-Metcalfe, 1995).

There are concerns that much of the US-led leadership literature is derived from the '*great man*' school that uses famous figures from politics, history and business as leadership role models and that there is an assumption that only high level figures operating with a high degree of physical distance can be attributed with charisma or idealised influence (Etzioni, 1961). Alimo-Metcalfe and Alban-Metcalfe (2000) highlight that Bass's (1985) transformational model was a result of studies done amongst senior executives in US companies, and that much of the data is obtained directly from senior managers rather than from their direct reports. As a result the US models of leadership, and the factors and constructs they employ, are often more reflective of 'distant' leaders (Bass, 1985; Conger and Kanungo, 1987). Inherent in the transformational paradigm are the concepts of charisma, vision and inspirational and much of the literature is replete with references to 'great men' figures such as Kennedy, Ghandi and Roosevelt. It is also argued that the centrality of charisma as the dominant construct in US models of transformational leadership relies heavily on a significant degree of social distance between the follower and leader. Without this element of distance the leader's fallibility and idiosyncrasies would be revealed in any close contact between the leader and follower (Shamir, 1995). The close leader is attributed with more individualistic and inter-personal characteristics such as good humour, listening, approachable and considerate.

Alimo-Metcalfe & Alban-Metcalfe (2001) stress that it is important to distinguish between models derived from studies based on '*close*' leaders and those of '*distant*' leaders, as by confusing the focus and methodology of the research there is a danger

of producing a confused description of leadership that is only relevant to specific cultures or levels within organisations. The aim of their initial research was to *'develop a questionnaire based on constructs of leadership of immediate line managers'*, and to investigate what characterises the leaders who can motivate and inspire the followers with whom they work closely.

### **9.12 Development of the TLQ**

A key factor in their development of the TLQ (Alimo-Metcalfe and Alban-Metcalfe, 2000) was the adoption of a complementary approach of both qualitative and quantitative methodologies as recommended by Parry (1998). This approach was argued to have the advantage of offering a greater insight into the leadership as a social influence process. In developing a new transformational leadership questionnaire (TLQ) Alban-Metcalfe and Alimo-Metcalfe (2000 and 2001) adopted a grounded approach to elicit the construct of leadership that would form the basis of the questionnaire rather than using preconceived constructs. It was argued that the use of a grounded theory approach to developing the constructs of the leadership model would ensure that it was representative of UK leaders of both genders. The authors claim that *'the richness and complexity of the model of transformational leadership emerging from this study may have been the result of basing it on Grounded Theory'*.

The total sample comprised 99 managers from two public sectors in the UK: local authorities and the National Health Service. The local authority sample included managers from both middle and senior levels from eleven local authorities in the UK who were interviewed and their constructs on leadership were elicited. The sample was spread geographically across England and Wales and the sample varied in size and type of authority. The sample included the Chief Executive Officer (CEO) and a manager from each of the next three levels in the authority. In total the sample contained 21 male and 22 female managers. The authors used a 'purposive' sampling

technique, selecting authorities where the CEO was considered by the Local Government Management Board Advisory Steering Group to have a transformational leadership style and was recognised as being innovative and successful in managing change and delivering high quality services. In the National Health Service sample a similar interview structure was conducted with 56 managers at different levels (top, senior, middle).

All participating managers were interviewed using a Repertory Grid technique. The elements of the interview comprised:

- Individuals with whom they had worked or were currently working that they considered as possessing leadership qualities that had a significant impact on their motivation, self-confidence and performance;
- Individuals who didn't have these qualities;
- Individuals who were between the two ends of the leadership continuum;
- Themselves.

Two independent psychologists reviewed the constructs that emerged from the interviews and agreed an initial 48 groups of constructs. The psychologist then devised a series of statements that represented the constructs in each grouping that were then crafted into a series of items that exclusively described an observable leadership behaviour rather than leadership outcomes. The initial questionnaire used a six-point Likert-type scale. After a pilot study the TLQ was sent out to named local government managers with a response rate of 46% ( $n= 1464$ ). Application of a scree test to the initial results suggested that eleven factors should be rotated. A confirmatory principal components analysis indicated that for nine of the factors the coefficients exceeded 0.90 and the two remaining factors that did not load above 0.30 were eliminated. The nine factors are:



1. Genuine concern for others
2. Political sensitivity and skills
3. Decisiveness, determination, self-confidence
4. Integrity, trustworthy, honest, open.
5. Empowers, develops potential
6. Inspirational networker and promoter
7. Accessible, approachable
8. Clarifies boundaries, involves others in decisions
9. Encourages critical and strategic thinking

Five criterion variables were used by Alimo-Metcalfe and Alban-Metcalfe (2001) to ascertain the convergent validity of the pilot questionnaire, measure the impact of the leadership behaviour on the performance of the individual and to determine the external validity of the TLQ. The criteria are:

1. *Achievement* - 'designed to measure the perceived effect of the manager on the individual's achievement.'
2. *Job satisfaction* – 'behaves in ways that increase my job satisfaction.'
3. *Motivation* – 'increases my motivation to achieve'.
4. *Satisfaction with leadership style* – 'leads in a way that I find satisfying.'
5. *Stress* – 'leads in a way which reduces my job-related stress.'

The authors chose the first four of these variables as they had also been used to test the convergent validity of the MLQ (Bass and Avolio, 1990). The convergent and discriminant study of the TLQ carried out by Alimo-Metcalfe and Alban-Metcalfe (2001) claimed that the results supported the hypotheses that each scale of the TLQ-LGV is a predictor of each of the five criterion variables, and that each of the nine scales in the instrument measure different aspects of leadership.

### 9.13 TLQ and MLQ

In their study Alimo-Metcalfe and Alban-Metcalfe (2001) highlight similarities between the structure of the TLQ and the MLQ, with the greatest area of similarity being between the MLQ factor *Individualised Consideration* and the TLQ's *Genuine Concern for Others*. Despite the similarity between the two factors, in the MLQ *Individualised Consideration* emerged as the last transformational factor in analyses of the MLQ whilst the dimension *Genuine Concern for Others* emerged as the single and by far the most important factor in the study of the TLQ, accounting for twice as much variance as the other eight factors combined. The authors believe that this is a particularly salient point in highlighting the difference between their model of transformational leadership and the US model supported by the MLQ. Alimo-Metcalfe and Alban-Metcalfe (2001) claim that *Genuine Concern for Others* is a *richer* factor than *Individualised Consideration* as it comprises of the following:

- A genuine interest in and a sensitivity to the needs and feelings of others
- Giving personal job-related support
- Actively supporting development
- Communicating positive expectations
- Taking time to develop the team

The predominance of *Genuine Concern for Others* also emphasises the difference between the UK and US approaches, in that in the UK leadership is perceived as what the leader does for the individual whereas the US model stresses the leader acting as a role model that inspires followers to emulate them. The primacy of the charismatic factor in the MLQ demonstrates that the US model presents a model of leadership where the leader offers a vision, articulates how it can be achieved and then lives out the values that they purport will take the group to their common end goal. Alimo-Metcalfe and Alban-Metcalfe (2001) state that this emphasis on ‘*fellowship*’ with which the US leadership model is imbued is largely absent from the UK and from the factors of the TLQ. The TLQ is similar to the MLQ in that it shares a factor that describes behaviours encouraging creativity, challenging the status quo and innovation. In the TLQ-LGV the factor is *Encourages Critical and Strategic Thinking* relating to Intellectual Stimulation in the MLQ. The TLQ-LGV factor of *Accessible and Approachable* relates in part to the MLQ factor of *Individualised Consideration*.

There are four leadership factors in the TLQ that do not directly correspond to any factors in the MLQ:

1. Political sensitivity and skills;
2. Decisiveness, determination and self-confidence (may correspond in part to the MLQ factor *Idealised Influence*);
3. Inspirational networker and promoter, and
4. Clarifies boundaries, involves others in decisions.

The political sensitivity factor is perhaps a result of the grounded theory-based development of the questionnaire being carried out exclusively in public sector organisations where, due to democratic requirements, a degree of political skills may be regarded as a key skill in a leader. Yukl (1999) criticises the MLQ for the absence of any reference to networking or political behaviour concerning interaction with peers or co-operation with external bodies that can influence or support the achievement of the group mission.

The research version of the TLQ has six main factors comprising 32 items:

*1. Showing Genuine Concern*

This factor was measured using six items. These items were 'my manager':

- Is sensitive to my needs/aspirations
- Takes time to find out how I feel about being and working in the organisation/department
- Is active in supporting my development through coaching/mentoring
- Is active in developing my strengths
- Uses knowledge and understanding of what motivates me to achieve goals
- Sustains my efforts by demonstrating a genuine interest in me and what I do

*2. Networking and Achieving*

This factor was measured using six items. These items were 'my manager':

- Is able to communicate effectively to the public/community the vision of the Organisation/ department
- Has established a wide network of links with the external environment
- Inspires *internal* and/ or *external* stakeholders by their passion and determination
- Gains confidence of the public/community by achieving the organisation's goals
- Is able to articulate a vision for the organisation/department in a way that *internal* and/or *external* stakeholders can identify with it
- Is politically skilled in obtaining support from 'key players' *within* and/or *outside* the organisation to achieve organisational/departmental goals

### 3. *Enabling*

This factor was measured using six items. These items were 'my manager':

- Empowers me by trusting me take decisions/initiatives on important matters
- Delegates effectively because s/he has knowledge of my competence or potential
- Empowers me by enabling me to use discretion in how I perform my job
- Allows me to lead when the situation requires
- Encourages me to develop by taking on increased responsibilities
- Involves me in the process of setting my objectives

#### *4. Being Honest & Consistent*

This factor was measured using four items. These items were 'my manager':

- Is consistent in what s/he says in what s/he does
- Is honest and open in the way s/he behaves
- Is consistent in her/his behaviour, rather than moody or unpredictable
- Regards the good of the organisation as more important than satisfying her/his own personal ambition

#### *5. Being Accessible*

This factor was measured using five items. These items were 'my manager':

- Is approachable, rather than intimidating or status conscious
- Uses face to face, rather than indirect communication, as and when appropriate
- Is prepared to modify decisions/courses of action as circumstances change, rather than being rigidly rule bound
- Is accessible to staff at different levels
- Is committed to developing her/his competence as a leader

#### *6. Being Decisive*

This factor was measured using five items. These items were 'my manager':

- Is decisive when required to be so
- Is prepared to take difficult decisions
- Is prepared to take calculated risks in order to make things happen to achieve important outcomes
- Shows determination to make things happen
- Can think laterally/ imaginatively

#### **9.14 Using the TLQ – This Research**

Despite the dominance of the MLQ in the extant leadership research it was decided to use the TLQ in this research for a number of reasons. Firstly, there are a number of concerns about the validity and transferability of a US-developed leadership model into a UK setting. There is a general agreement across the research that different cultures generate different leadership prototypes (Bass, 1997; Den Hartog et al., 1999; Gerstner and Day, 1994). The TLQ was chosen to measure the transformational leadership aspect of this research because, as an instrument developed by grounded theory from an exclusively UK sample, its constructs will be more representative of the intended sample population than the MLQ.

Secondly, it has been highlighted that Bass's (1985) transformational model was a result of studies done amongst senior executives in US companies, and that much of the data is obtained directly from the senior managers rather than in the form of upward assessment from their direct reports (Alimo-Metcalfe and Alban-Metcalfe, 2000). It is argued that this has led to a model of leadership that is more representative of 'distant' leadership rather than close (Bass, 1985; Conger and Kanungo, 1987; Shamir, 1995). Charisma is often identified as the dominant construct in US models of transformational leadership and its importance is

supported by reference to great men figures such as Roosevelt or Churchill rather than examples of close leadership.

Alimo-Metcalfe and Alban-Metcalfe (2001) stress that it is important to distinguish between models derived from studies based on '*close*' leaders and those of '*distant*' leaders, as by confusing the focus and methodology of the research there is a danger of producing a confused description of leadership that is only relevant to specific cultures or levels within organisations. The aim of their initial research was to '*develop a questionnaire based on constructs of leadership of immediate line managers*', and to investigate what characterises the leaders who can motivate and inspire the followers with whom they work closely. This study seeks to focus on close/nearby leaders within both the knowledge and non-knowledge-based sectors who are managing direct reports. Efforts have been made to ensure that the sample was equally representative of senior, middle and front line managers across all the different participating organisations.

Thirdly, Alimo-Metcalfe and Alban-Metcalfe have ensured in the development of the TLQ that a gender balance was designed into the instrument. Any tool that claims to be measuring a universally applicable concept must be based on an equal gender input or any results can be challenged on the basis of distortion of weighting towards men. The instrument must be defensible or its findings can be dismissed, regardless of interest. This research has sought to ensure that the questionnaires were sent out to an equal division of male and female managers at all levels, not an easy task given the paucity of women at senior levels in most Scottish organisations.

Contact was made with Professor Alimo-Metcalfe and Dr. Alban-Metcalfe to use the TLQ for this study and permission was given to use the TLQ (Research version – 2001) [Appendix 1]. This version has only six scales and a total of 32 items, compared to nine scales and 103 items in the full instrument version. The limited size



of the research version was a cause for concern in terms of the validity of the results that this study might produce but the TLQ authors provided reliability data for the shorter questionnaire that facilitated comparison [Appendix 1]. The questionnaire used a Likert scoring scale (5=strongly agree; 1= strongly disagree) [Appendix 1].

### **9.15 The Use of Quantitative Research Methods in Psychological Contract Research**

The early work on psychological contracts (Argyris, 1960; Levinson et al., 1962; Schein, 1970) was based primarily on qualitative methodologies, mainly using interviews. Although there have been some notable studies using qualitative methods in more recent times (Herriot et al., 1997) the use of quantitative methods and in particular surveys dominates much of the extant literature on psychological contracts (Rousseau, 1990; Guest and Conway, 2002; Robinson and Rousseau, 1994; Guest, McKenzie and Patch, 1998; Flood et al., 2001; Thompson and Heron, 2001; Turnley and Feldman, 1999; Hui et al., 2004; Dabos and Rousseau, 2004). Roehling's (1997) historical overview of the origins of the psychological contract identifies earlier quantitative studies (Jurek, 1968; Kotter, 1973; Portwood and Miller, 1976) but accepts that the quantitative approach now dominates the field.

It can be argued that as a construct still in its early stages of evolution the psychological contract has suffered from a proliferation of attempts to define it, and with little effort made by a number of researchers to consider the alternative definitions (Roehling, 1997). It is also claimed that the academic integrity of the psychological contract is in danger of being undermined by its wide scale acceptance in the more popular areas of management and organisational writing (Roehling, 1997; Guest, 1998). The broad interpretations of the construct and its apparent applicability to a number of employment scenarios has caused some concerns that the operationalisation of the construct has suffered from a myriad of interpretations and has obstructed moving the research on psychological contracts onto a more

rigorous and testable theoretical basis (Anderson and Schalk, 1998; Guest, 1998). There has been a growing body of empirical research (Rousseau, 1989 and 1990; Robinson S.L, Kraatz M. and Rousseau D., 1994; Robinson S.L and Wolfe Morrison E., 1997; Turnley W. and Feldman D., 2000) but, as with many emerging areas of research, there has been no clear, agreed or accepted model or construct that has focussed research. The high face validity of the concept has led to a varying combination of terms such as expectations, obligations and promises with no generally accepted consensus on its definition (Anderson and Schalk, 1998).

In terms of a single focus or influence emerging to shape and direct the operationalisation process it is claimed that Rousseau (1990; 1994; 1998; 2000; 2001) is the major influence in the development of the psychological contract construct since the work of Schein (Roehling, 1997; Guest, 1998). Her seminal article in 1989 has had a major influence on the work of other researchers in the field and can be seen as a landmark in terms of moving the study of the psychological contract onto a new level. The development of the Psychological Contract Inventory by Rousseau (2000) is designed to move the research onto another stage by offering an instrument that would enable research *'into the generalisability of the psychological contract in organisational research.'*

### **9.16 Operationalisation**

The operationalisation of any construct is a major challenge. The validity of a construct, the extent to which 'an operationalisation measures the concept it is supposed to measure, has been singled out as a central issue in organisational research (Bagozzi and Yi, 1991). To quantitatively research a construct and ensure that it has scientific relevance it is essential that it is operationalised with indicators that ensure it has construct validity (Rousseau, 1998). Guest (1998) has highlighted that the achievement of a robust testable construct is a stepping stone to the development of a theory. A major issue is that a psychological contract instrument

must be relevant and meaningful to the individual and also provide constructs that are generalisable across a range of contexts (Robinson and Wolfe Morrison, 1997). The argument that each individual has an idiosyncratic interpretation of their psychological contract does make the adoption of a constructivist approach attractive, but there is a requirement that such a widely referenced construct is more quantitatively researched (Guest, 1998).

Rousseau (1998) argues that construct validity has been supported for a range of operationalisations of the psychological contract (Robinson, Kratz and Rousseau 1994; Robinson 1996; Morrison and Robinson 1997). Construct validity is also found in the differentiating responses to balanced, relational and transactional contracts (Rousseau, 1990; Hui, Lee and Rousseau, 2004). There have been consistent findings that a relational contract is positively related to acceptance of change, trust and negatively related to careerism, and the opposite is valid for transactional contracts (Shore and Barksdale, 1998).

Research into psychological contracts has been dominated by etic frameworks (Rousseau and Tijoriwala, 1998). During the last decade there has been a growing body of research into psychological contracts but there has been an absence of a generally accepted standardised instrument for measuring psychological contracts and that this has prevented meaningful comparisons across studies (Robinson and Wolfe Morrison, 1997; Turnley and Feldman, 1999). It was argued that the myriad of available measures was highly confusing to researchers and at this stage in the evolution of psychological contract research there was a need for an accepted assessment structure (Rousseau and Tijoriwala, 1998). An early analysis of the extant literature (Robinson and Wolfe Morrison, 1997) proposed a seven dimension model that included the main common themes: sufficient resources/tools, opportunities for growth, fair pay, enriched job, advancement, attractive benefits, and supportive work environment. Factor analysis confirmed the seven factors for measuring employer

obligations. Despite this work the seven dimension model was not widely established or accepted with the research field.

Early work by MacNeil (1985) identified that all contracts are essentially psychological and categorised contracts into transactional and relational. The categorisation of the contracts into types allowed researchers to distinguish between the different forms of employment relationship (Rousseau, 1998; Wade-Benzoni and Rousseau, 1997). There is a wide acceptance across the various research strands of the distinction between the balanced, relational and transactional contracts. The development of a typology for contracts into balanced, relational and transactional has enabled the operationalisation of the concepts and informed the development of instruments (Rousseau and Tijoriwala, 1998).

### **9.17 Psychological Contract Inventory**

Rousseau (2000) states that one of the two basic aims of developing the Psychological Contract Inventory (PCI) was to provide a *'psychometrically sound tool for assessing the generalisable content of the psychological contract in use in organisational research'*. To assess the state of psychological contracts in both knowledge-based organisations and non-knowledge-based organisations it is proposed to use the PCI questionnaire developed by Rousseau (2000). The PCI has been used previously in research into the psychological contract (Rousseau, 2000; Hui et al., 2004; Dabos and Rousseau, 2004).

Rousseau (2000) states that psychological contracts can be operationalised from a number of perspectives. The first decision on operationalisation depends on whether the research is from an emic or etic viewpoint (Morey and Luthans, 1984). Secondly the operationalisation will also be dependent on whether the focus of the research is on content, features or evaluations. The content includes the elements of the contract

such as career development or general descriptions such as whether the contract is relational or balanced (Rousseau, 2000). The features of the contract focus on a specific attribute such as stable or unstable. Evaluations refer to research into the level of contract fulfilment or violation. Rousseau (2000) claims that the PCI contains both content and evaluation measures in that it contains items on a number of specific areas of content and also on the level of fulfilment of the content measures. Lastly, Rousseau argues that the PCI offers a tool that can be used from both the employee and employer/manager side, enabling a comparative study or alternatively studies adopting a unilateral approach.

The PCI incorporates and operationalises two elements that enable the differentiation of psychological contracts: time frame and performance requirements. Time frame focuses on the time aspects of the contracts and whether they are short-term contracts or longer-term, more stable contracts. The performance requirements element measures the relationship between reward and performance expectations. Depending on their positions against these two main dimensions, psychological contracts are separated into four different categories:

1. Transactional,
2. Relational,
3. Balanced, and
4. Transitional.

The two main dimensions of the PCI reflect the distinctions made by Blau's (1964) social exchange theory that contrasts the economic-based transaction with the longer term, reciprocity of longer-term relationships. Previous use of the PCI has confirmed its generalisability in different national contexts including Singapore, China and

South America (Hui et al., 2004; Dabos and Rousseau, 2004). The use of the PCI in a previously unexplored geographical area, the UK, and using it to compare psychological contracts across two distinct sectors may provide significant theoretical findings.

The PCI incorporates ten dimensions that represent the four main types of psychological contract: balanced, relational, transactional and transitional. The structure of the dimensions and factors are as follows:

<b>Factor</b>	<b>Structure</b>	<b>Dimensions</b>
Balanced contract	3 dimensions/ 12 items	internal development external development dynamic performance
Relational contract	2 dimensions/ 8 items	loyalty/stability
Transactional	2 dimensions/ 8 items	short/ narrow
Transitional	3 dimensions/ 12 items	Mistrust/ uncertainty erosion

Table 3 – PCI Structure

Rousseau (2000) validated the instrument with two separate samples of employees in Singapore (n=138) and the US (n=492). The exploratory factor analysis of the PCI in these initial samples returned acceptable results in terms of convergent and discriminant validity, and also in terms of internal consistency. Further confirmation of the generalisability of the instrument was provided by Dabos and Rousseau (2004)

with their study of research scientists in South America, and by Hui et al. (2004) with their study of employees and managers in China.

It was decided for the purposes of this research to use only three dimensions of the PCI (balanced/ transactional/ relational) and omit the transitional dimension as it does not effectively represent a contract per se but a breakdown of the contract relationship. A similar approach was adopted by Hui et al., (2004) and the confirmatory factor analysis returned acceptable fit indices and a clean three-factor structure demonstrating three distinct forms of contract. The three factor model was also used by Dabos and Rousseau (2004) in their study of research scientists in South America. Exploratory factor analysis on this sample also returned the three distinct forms of contract.

The PCI uses a five-point Likert scale ranging from '*strongly agree*' to '*strongly disagree*.' Employees are asked to '*read each of the following statements and consider your relationship with your current employer*' and to rate the extent to which they believe their leader is obligated to provide a range of items including good career prospects, personal development, pay increases and support with personal problems. The questionnaire also measure stipulations about obligations to the organisation after leaving their employ such as giving adequate notice and giving all ideas developed during the time with the employer. The questionnaire was used to measure leaders' perceptions of the worker's expectations. Managers were asked to '*read each of the following statements and mark each according to how it reflects your relationship with the team/department you manage*' and to rate the extent to which they believe their organisation is obligated to provide the employees in the team with a same range of items as above.

### **9.18 The use of the PCI in this Research**

There were several reasons why it was decided to use the PCI in this research [Appendix 1]. Firstly, it is the most widely accepted instrument within the relatively

immature field of psychological contract research. Secondly, research has demonstrated that the PCI is generalisable across different cultures has consequently allows comparison with extant research. Thirdly, this research has focussed on two different sectors, knowledge and non-knowledge based organisations, in an exclusively UK setting and therefore can argue to be making a contribution to the generalisability of the PCI. Contact was made with Professor Rousseau at Carnegie Mellon University and she kindly offered encouragement, reliability data and a technical report (2000) to support the research.

### **9.19 The Use of Surveys in Organisational Citizenship Behaviour Research**

The societal and economic changes that have initiated the demise of rigid hierarchies and system-driven approaches to operational management have led to an increased focus on the social aspects of organisations, and consequently the level of research on OCB has grown in recent years (Organ, 1997; Organ D. and Konovsky M., 1989; Podsakoff et al., 1990; Podsakoff et al., 1996; Podsakoff et al., 1997; Niehoff B.P. and Moorman R.H., 1993; Moorman R.H., 1991). The majority of research on OCB has explored the different predictors of the behaviours (Van Dyne and Le Pine 1998). Unlike the psychological contract field, Organ's (1988) five-dimension model has dominated the research on OCB since its initial inception. The five elements of sportsmanship, altruism, civic virtue, courtesy and conscientiousness have been used as the main bass for the vast majority of empirical studies and consequently the dimensions are measured in similar ways across the different research. Despite the emergence of alternative taxonomies for OCB, LePine, Erez and Johnson (2002) suggest three reasons for the dominance of Organ's (1988) model. Firstly it is the most established taxonomy that has been supported by a significant amount of published research by Organ and colleagues. Secondly the development by Podsakoff et al (1990) of a robust scale of items for each of the five dimensions that were again supported by a number of published empirical studies. Lastly, the behavioural dimensions have been found to be generalisable and as a result there is a body of extant literature that enables comparison.



The majority of studies into OCB use scales developed by Podsakoff et al. (1990) to measure the main dimensions (LePine, Erez and Johnson, 2002). Podsakoff et al. (1990) were the first researchers to operationalise the five dimensions of Organ's five-factor taxonomy, resulting in a number of items which were subject to a Q Sort and a confirmatory factor analysis. Variations of Podsakoff et al.'s (1990) OCB questionnaire have been used in part or in whole by a range of researchers examining the link between the psychological contract and OCB (Moorman, 1991; Moorman, 1993; Niehoff and Moorman, 1993; Robinson and Morrison, 1995; McKenzie, Podsakoff and Fetter, 1991; Podsakoff, MacKenzie and Fetter, 1993; McKenzie, Podsakoff and Rich, 2001).

To assess the level of OCB demonstrated by the knowledge and non-knowledge workers this research will use the questionnaire designed by Podsakoff P.M., Ahearne M. and MacKenzie S.B. (1997). The instrument is developed from the original questionnaire designed by Podsakoff et al. (1990), based on the theoretical work of Organ's (1988) that originally proposed five organisational citizenship behaviours. Research using instruments incorporating all five factors have identified that managers have difficulties differentiating between the factors conscientiousness, altruism and courtesy (McKenzie et al., 1991 and 1993; Podsakoff and McKenzie, 1994). These three factors can be combined into a single higher-order dimension labelled '*helping behaviour*'. This dimension describes behaviour involving helping others in the work place or preventing work-related problems, as well as encouraging and supporting other members of the work team. The dimension *sportsmanship* defines a willingness to tolerate the inevitable inconveniences and impositions of work without complaining, and being prepared to fully contribute in difficult circumstances. The final dimension *Civic Virtue* describes constructive and responsible involvement in the political process of the organisation including attending meetings, reading information on the organisation and seeking to make a contribution to the internal discussions in the organisation.

Podsakoff et al. (1997) developed a three factor, thirteen item questionnaire to measure the performance of individuals against each of the constructs (*Helping behaviour=7 items; Civic virtue=3 items; Sportsmanship=3 items*). The questionnaire uses a five-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). Principal-components factor analysis with Varimax rotation carried out on the questionnaire demonstrated that all of the items loaded onto their hypothesised factors (greater than .70). The internal consistency reliabilities (coefficient alphas) were all above Nunnally's recommended level of 0.70 for newly developed scales.

## **9.20 The Use of the Podsakoff et al. (1997) Instrument in this Research**

It was decided to employ the thirteen-item version of the questionnaire [Appendix 1] for this research as it is a version of the most widely accepted instrument within the field of OCB research (LePine, Erez and Johnson, 2002). Secondly, research has demonstrated that the instrument is generalisable across different contexts and enables comparison with extant research. Thirdly, this research has focussed on two different sectors, knowledge and non-knowledge based organisations, in an exclusively UK setting and therefore can argue to be making a contribution to the generalisability of the thirteen-item version of the questionnaire. Contact was made with Professor Podsakoff at Indiana University and he kindly offered permission to use the instrument in this research.

## **9.21 Summary**

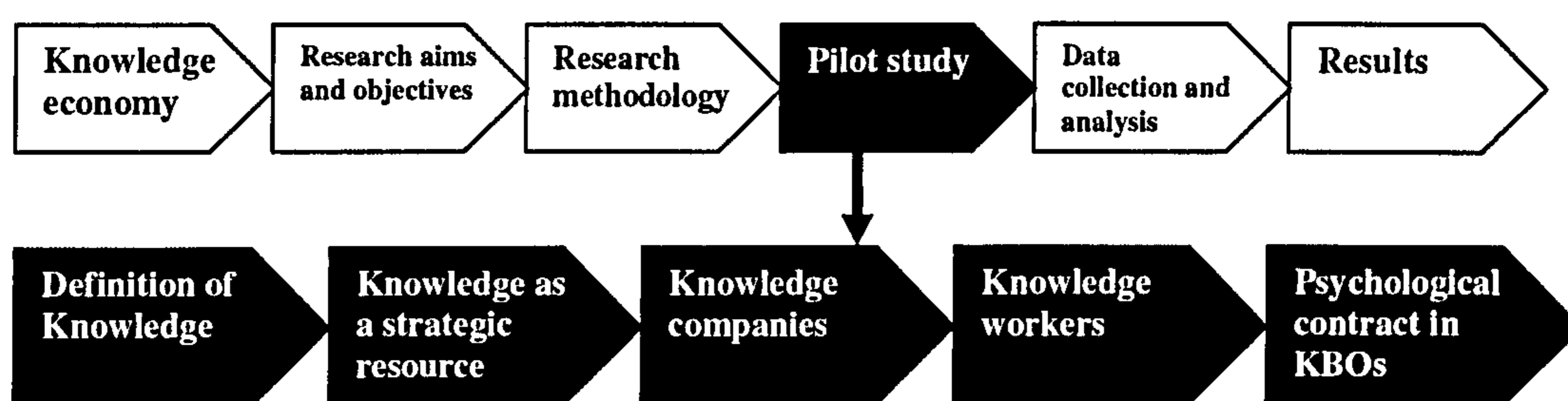
Whilst recognising the need for more research into leadership using qualitative methodologies it was decided to use questionnaires for this research as it would allow easier comparisons to be made to other research in these three fields of leadership, psychological contract and OCB, all of which are dominated by

quantitative methodologies. It was also argued that use of questionnaires was an effective means of operationalising three different concepts in an approach that allows measurement of the attitudes, perceptions, opinions and beliefs of groups of individuals. The standardised design of the three instruments also enables the researcher to determine whether there are any trends or traits that unite individuals and allows conclusions to be drawn about the population as a whole. Research into behaviours and attitudes can assist researchers to understand tendencies and allow a level of predictability about the population (Black, 1999). The use of questionnaires also gives uniform access to the opinions of a range of individuals, particularly if the sample is randomly chosen, thereby avoiding the opinions of a few outspoken individuals being mis-represented as the collective viewpoint. This research will use three survey instruments to identify if correlations exist between leadership style, motive and resource commitment.

## CHAPTER 10 PILOT STUDY

### 10.1 Outline of the Chapter

This chapter will outline the results of the pilot study carried out in advance of the main research study. The chapter outlines the data collection methods and summarises the findings of the pilot study and their implications for the main research.



### 10.2 Introduction

The pilot study was undertaken to determine whether the methodology, and in particular the instruments chosen, were fit for purpose and valid with the target samples. The results of the pilot were also used to shape and test the hypotheses.

### 10.3 Objectives of the Pilot Study

A pilot study was conducted to determine whether the methodology for the main study had the capacity to produce the required data. The results of the pilot study were also used as an indication of the expected results from the main study and used as an initial test of the main research hypotheses:

**H1 = The demonstration of transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract.**

**H2 = The demonstration of transformational leadership behaviour is negatively correlated with the emergence of a transactional or relational psychological contract.**

**H3 = A balanced psychological contract is more positively correlated with a demonstration of OCB than a relational or transactional psychological contract.**

**H4 = The impact of transformational leadership behaviour is more evident amongst knowledge workers than with non-knowledge workers.**

**H5 = The existence of a balanced psychological contract is more evident amongst knowledge workers than non-knowledge workers.**

**H6 = The existence of a relational or transactional psychological contract is more evident amongst non-knowledge workers than knowledge workers.**

**H7 = The impact of transformational leadership behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**

**H8 =** The impact of transformational leadership behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers

**H9 =** Organisational citizenship behaviour is more evident amongst knowledge workers than non-knowledge workers.

**H10 =** Organisational citizenship behaviour is more positively correlated with the impact of transformational leadership amongst knowledge workers than non-knowledge workers.

**H11 =** Organisational citizenship behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.

**H12 =** Organisational citizenship behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers.

#### **10.4 Pilot Study Outline**

The pilot study used a between groups design with six independent variables and ten dependent variables. The six independent variables are:

<b>Construct</b>	<b>Factor</b>
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<i>Transformational Leadership</i>	<ul style="list-style-type: none"><li>• Genuine concern (GC)</li><li>• Networking (Net)</li><li>• Enabling (En)</li><li>• Honesty (Hon)</li><li>• Accessibility</li><li>• Decisiveness</li></ul>
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Table 4 - Independent Variable and Factors

The ten dependent variables (Table 5 - Dependent Variable and Factors) are:

Construct	Factor
<i>Balanced Psychological Contract</i>	<ul style="list-style-type: none"> <li>• Dynamic</li> <li>• Internal development</li> <li>• External development</li> </ul>
<i>Transactional Psychological Contract</i>	<ul style="list-style-type: none"> <li>• Short term</li> <li>• Narrow</li> </ul>
<i>Relational Psychological Contract</i>	<ul style="list-style-type: none"> <li>• Loyalty</li> <li>• Security</li> </ul>
<i>Organisational Citizenship Behaviour</i>	<ul style="list-style-type: none"> <li>• Helping behaviour</li> <li>• Sportsmanship</li> <li>• Civic Virtue</li> </ul>

Table 5 - Dependent Variable and Factors

Employees were asked to complete the questionnaire which was broken into three sections: *Your Organisation*; *Your Manager*; and *Your Team*. There were issues around self-rating, particularly common method variance, but these had to be balanced against the logistics involved in adopting a dyadic approach to the research where managerial perceptions of OCB could be directly correlated with employee perceptions of their psychological contract.



## 10.5 Subjects and Sample

The sample for the pilot consisted of 44 employees (57% female / 43% male). Knowledge workers accounted for 56% of the sample and non-knowledge workers for 44%. Knowledge workers and non-knowledge workers were separated on the basis of qualifications and job roles. The sample consisted of employees from a large local authority in Scotland, a legal company and a software house in Edinburgh. The cross-sectoral sample was used to reduce sectoral bias and reduce the influence of any one specific organisational culture.

## 10.6 Instruments

The research instruments consisted of the following three survey questionnaires (See Appendices 1-3):

1. *Transformational Leadership questionnaire* [Research version] (Alimo-Metcalfe and Alban-Metcalfe, 2000) – six factors 32 items
2. *Psychological Contract Inventory* (Rousseau, 2000) - seven factors 28 items
3. *Organisational Citizenship Behaviour Questionnaire* (Podsakoff P.M., Ahearne M. and MacKenzie S.B., 1997) - three factors 13 items

The three questionnaires were prefaced by a demographics sheet detailing, job role, gender, qualifications, age and length of service. Information was also requested for the manager's gender and position in the organisation (senior/ middle/ front-line).

## 10.7 Procedure

Organisations were approached through a combination of direct mail, e-mail and telephone to secure their participation in the research. The process involved and the advantages to the organisation in terms of an assessment of leadership and understanding employee needs were explained. The agreement of three organisations to participate in the research was obtained. Discussions were held with each of the participating organisation's representatives regarding the mechanics of distributing and collecting the completed questionnaires. In one organisation this was done by e-mail, whilst in the others it was done by distributing questionnaires and returning them in sealed envelopes to a central collection point. The returns were subsequently collated and analysed using SPSS Version 13.

## 10.8 Data Analysis

A chi-squared test for '*goodness of fit*' was carried out to ascertain whether the data came from a normal distribution. If goodness of fit was established parametric tests were used. If not established, non-parametric tests were used (Mann Whitney U Test). Confirmatory factor analysis was used on all three questionnaires to validate the scale structure by demonstrating that all its constituent items load onto the same factors. Reliability analysis was carried out on each factor in the separate questionnaires to test for internal reliability (Cronbach alpha > 0.7) (Nunnally, 1970).

	<b>Genuine</b>	<b>Network</b>	<b>Enable</b>	<b>Honesty</b>	<b>Access</b>	<b>Decisive</b>
Mann-Whitney U	208.000	159.500	209.000	173.000	180.000	210.000
Wilcoxon W	398.000	349.500	399.000	363.000	370.000	400.000
Z	-.701	-1.858	-.683	-1.540	-1.389	-.672
Asymp. Sig. (2-tail)	.483	.063	.495	.124	.165	.501

a Grouping Variable: Nonknow

Table 6 - Mann-Whitney U Tests – KWs v non KWs (TLQ)

These results above (Table 6 - Mann-Whitney U Tests – KWs v non KWs (TLQ)) indicate that there is no statistically significant difference between knowledge and non-knowledge workers on all six factors of the TLQ.

	<b>S Term</b>	<b>Loyalty</b>	<b>Narrow</b>	<b>Dynamic</b>	<b>Internal</b>	<b>External</b>	<b>Security</b>
Mann-Whitney U	151	197	225.5	159.5	164	186	221
Wilcoxon W	476	387	550.5	349.5	354	376	411
Z	-2.074	-.967	-.287	-1.858	-1.749	-1.227	-.395
Asymp. Sig. (2-tail)	.038	.334	.774	.063	.080	.220	.693

a Grouping Variable: Nonknow

Table 7 - Mann-Whitney U Tests – KW v non KW (PCI)

These results above (Table 7 - Mann-Whitney U Tests – KW v non KW (PCI)) indicate that there is a statistically significant difference between knowledge and non-knowledge workers on only one of the factors of the PCI, namely ‘*Short-Term*’.

### 10.9 Transformational Leadership Questionnaire

A reliability analysis of the TLQ returned alphas over the recommended acceptance level of 0.7 (Nunally, 1970), and a Confirmatory Factor Analysis returned six components in line with the model of Alimo-Metcalfe & Alban-Metcalfe (2000). These results were extracted via Principal Component Analysis, with Varimax rotation with Kaiser Normalisation. The factors returned were:

<b>Factor</b>	<b>Items</b>	<b>Alphas</b>
Decisive:	9 items	.875
Enabling:	6 items	.927
Genuine Concern:	5 items	.947
Accessible:	5 items	.904
Honest:	4 items	.864
Networking:	2 items	.867

Table 8 - Factor Structure for TLQ

Given the results of the CFA and the Cronbach alphas it was decided to retain the six factor model for the main research.

## 10.10 Psychological Contract Inventory

The reliability analysis of the PCI's 7 factors (Table 9) returned alphas below Nunally's 0.7 guidelines on 3 of the factors:

<b>Factor</b>	<b>Alphas</b>
Transactional – short term (4 items):	0.569
Transactional – narrow (4 items):	0.578
Relational – security (4 items):	0.627
Relational – loyalty (4 items):	0.878
Balanced – dynamism (4 items):	0.902
Balanced – internal (4 items):	0.913
Balanced – external (4 items):	0.761

Table 9 - Cronbach Alphas for PCI Factors

By removing item Q8 from the *Short Term* factor the alpha was increased to 0.74. This still left the *Narrow* factor with a marginally low alpha of 0.58. Despite the low alphas in the transactional factors it was decided to retain the two factors of *Narrow and Short Term* in the full research as this would provide a greater richness of detail. Although the alpha for one of the relational factors (*security*) was below the recommended level of 0.7, its relatively high level argued for its continued inclusion in the main study.

A confirmatory factor analysis of the PCI structure with a Varimax rotation identified 7 factors but the loadings were not in line with the initial model. All items returned a loading of at least 0.53.

<b>Factor</b>	<b>Item Loading</b>
Dynamism:	8 items loaded onto this factor and tended towards a factor that could be labelled <i>management support</i> .
Internal:	8 items loaded onto this factor. This would be more accurately labelled <i>personal development</i> .
Short term:	4 items loaded.
Loyalty:	3 items loaded
External:	2 items loaded. Both addressing external job opportunities.
Narrow:	2 items loaded
Security:	1 item loaded.

Table 10 - Factor Loadings for PCI in Pilot Study

Although the factor loadings were different from the original model (Rousseau, 2000) it was decided to continue with the PCI in its original form for the research as the limited sample size of the pilot study was considered insufficient for any radical restructuring of the model.

### **10.11 Organisational Citizenship Behaviour**

The reliability analysis of the OCB's 3 factors (Table 11) returned alphas below Nunally's 0.7 guidelines:

<b>Factor</b>	<b>Items</b>
Helping behaviour (7 items):	0.691
Sportsmanship (3 items):	0.635
Civic Virtue (3 items):	0.334

Table 11 - Cronbach Alphas for OCB in Pilot Study

A confirmatory factor analysis (Table 12) returned a four component model, contrary to the three component model proposed by Podsakoff et al (1997). The structure was:

<b>Factor</b>	<b>Items</b>
Helping behaviour (team):	4 items
Helping behaviour (individual):	4 items
Sportmanship:	3 items
Civic virtue:	2 items

Table 12 - Factor Loadings for OCB in Pilot Study

It is proposed that the two components can be combined to create one factor for *Helping Behaviour*. The major issue was the low alpha for *Civic Virtue* (0.334). Considering the low reliability on this factor, the decision was taken to remove *Civic Virtue* from the research and use the two remaining factors *Helping Behaviour* and *Sportsmanship*. Although this would have an impact on the richness of the data

returned from the analysis, it was decided that the low reliability would undermine any findings resulting from the research.

## 10.12 Testing Hypotheses

### 10.12.1 Testing Hypothesis H1

A correlation analysis using Pearson's  $r$  was used to test hypothesis H1 (*the demonstration of transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract*). The results indicated that TL is strongly positively correlated to the existence of a balanced psychological contract:

		<b>TL</b>	<b>Balance</b>
TL	Pearson Correlation	1	.748(**)
	Sig. (2-tailed)		.000
	N	44	44
Balance	Pearson Correlation	.748(**)	1
	Sig. (2-tailed)	.000	
	N	44	44

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 13 - Correlations TL and BPC

The results of a correlation analysis using Pearson's  $r$  identified that the six factors of the TLQ were correlated to the following factors of the Balanced psychological contract:



		GC	Network	Enabling	Honest	Access	Decisive
<b>Dynamic</b>	Pearson Correlation	.715(**)	.669(**)	.543(**)	.670(**)	.728(**)	.702(**)
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	44	44	44	44	44	44
<b>Internal</b>	Pearson Correlation	.499(**)	.565(**)	.262	.510(**)	.601(**)	.491(**)
	Sig. (2-tailed)	.001	.000	.086	.000	.000	.001
	N	44	44	44	44	44	44
<b>External</b>	Pearson Correlation	.569(**)	.552(**)	.339(*)	.479(**)	.532(**)	.494(**)
	Sig. (2-tailed)	.000	.000	.025	.001	.000	.001
	N	44	44	44	44	44	44

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 14 - Correlations of TLQ Six Factors and Three Factors of Balanced PC

All six factors are strongly positively correlated with the balanced contract therefore Hypothesis H1 that transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract is supported.

### **10.12.2 Testing Hypothesis H2**

H2 states that transformational leadership behaviour is negatively correlated with the emergence of a relational and transactional psychological contract. This hypothesis is partially supported. The six factors in the TLQ are almost all strongly positively correlated with the relational factors of *loyalty* and *security* as a scale within the relational contract, but are negatively correlated with the two transactional factors. They are particularly negatively correlated with the *Short term factor*. Therefore, the hypothesis H2 is only partially correlated. This may be due to a large percentage of

the pilot sample coming from a public sector organisation where long term, steady employment is the norm.

		<b>GC</b>	<b>Network</b>	<b>Enabling</b>	<b>Honest</b>	<b>Access</b>	<b>Decisive</b>
<b>Security</b>	Pearson Co	<b>.394(**)</b>	<b>.322(*)</b>	<b>.397(**)</b>	<b>.216</b>	<b>.373(*)</b>	<b>.432(**)</b>
	Sig. (2-tail)	.008	.033	.008	.159	.013	.003
	N	44	44	44	44	44	44
<b>Loyalty</b>	Pearson Co	<b>.864(**)</b>	<b>.701(**)</b>	<b>.738(**)</b>	<b>.754(**)</b>	<b>.816(**)</b>	<b>.646(**)</b>
	Sig. (2-tail)	.000	.000	.000	.000	.000	.000
	N	44	44	44	44	44	44
<b>Narrow</b>	Pearson Co	-.169	-.228	-.019	-.129	-.153	-.074
	Sig. (2-tail)	.274	.137	.904	.405	.321	.635
	N	44	44	44	44	44	44
<b>S/term</b>	Pearson Co	<b>-.473(**)</b>	<b>-.457(**)</b>	<b>-.519(**)</b>	<b>-.334(*)</b>	<b>-.582(**)</b>	<b>-.466(**)</b>
	Sig. (2-tail)	.001	.002	.000	.027	.000	.001
	N	44	44	44	44	44	44

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 15 – Correlations: TLQ Factors and Four Factors of Relational/ Transactional PCs

A more interesting question raised by the pilot findings is whether transformational and transactional leadership are not dichotomous, as proposed by Burns (1978), but continuous as in the model proposed by Bass (1985). The strong positive correlation between the six TL factors and the Relational PC factors may suggest that

transformational leadership with behaviours such as *Genuine Concern*, *Honesty* and *Accessibility* may equally appeal to followers who are seeking a more stable, long term relationship with the organisation rather than a dynamic, developmental relationship.

### 10.12.3 Testing Hypothesis H3

A correlation analysis using Pearson's *r* was used to test hypothesis H3 (*Transformational leadership behaviour is positively correlated with a demonstration of OCB.*) This correlation analysis identified that a demonstration of TLQ is correlated to the single overall factor of OCB, which support Hypothesis H3.

		TL	OCB
TL	Pearson Co	1	.521(**)
	Sig. (2-tail)	.	.000
	N	45	45
OCB	Pearson Co	.521(**)	1
	Sig. (2-tail)	.000	.
	N	45	45

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 16 - TLQ and OCB: Correlation

The results of a correlation analysis using Pearson's *r* identified that the six factors of the TLQ were correlated to the two OCB factors of *Helping Behaviour* and *Sportsmanship*. All six factors of the TLQ strongly correlated positively with the

OCB factor *Helping Behaviour*, but less strongly with the *Sportsmanship* factor, offering support for hypothesis H3.

		<b>GC</b>	<b>Network</b>	<b>Enabling</b>	<b>Honest</b>	<b>Access</b>	<b>Decisive</b>
Helping	Pearson Co	.307(*)	.351(*)	.485(**)	.326(*)	.403(**)	.443(**)
	Sig. (2-tail)	.043	.019	.001	.031	.007	.003
	N	44	44	44	44	44	44
Sports	Pearson Co	.214	.254	.059	.269	.343(*)	.195
	Sig. (2-tail)	.163	.097	.702	.078	.023	.205
	N	44	44	44	44	44	44

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 17 - Correlations between Six TLQ Factors and Two OCB Factors

#### **10.12.4 Testing Hypothesis H4**

Hypothesis H4 states that *The impact of transformational leadership behaviour is more evident amongst knowledge workers than with non-knowledge workers*. An independent samples t-test (Table 18) for the means between knowledge and non-knowledge workers did not return any obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ).

		Levene's Test for Equality of Variances					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
<b>TL</b>	Equal variances assumed	2.549	.118	1.447	42	.155	.33335
	Equal variances not assumed			1.392	32.373	.173	.33335

Table 18 - Independent Samples t-Test Evidence of TL between KW and non KWs

An independent samples t-test for the six transformational leadership factors (Table 19) did not return an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) for any of the TLQ factors. Consequently the hypothesis that there is a significant difference in the pilot sample for the level of transformational leadership demonstrated between knowledge and non-knowledge workers is not supported (H4).

Levene's Test for Equality of Variances						
Factor		F	Sig.	t	Df	Sig. (2-tailed)
GC	Equal variances assumed	7.170	.011	1.134	42	.263
	Equal variances not assumed			1.073	29.392	.292
Networking	Equal variances assumed	.004	.948	1.834	42	.074
	Equal variances not assumed			1.835	38.964	.074
Enabling	Equal variances assumed	8.133	.007	1.447	42	.155
	Equal variances not assumed			1.347	26.679	.189
Honest	Equal variances assumed	.002	.961	1.131	42	.264
	Equal variances not assumed			1.146	40.541	.258
Accessible	Equal variances assumed	2.182	.147	.929	42	.358
	Equal variances not assumed			.918	37.059	.364
Decisive	Equal variances assumed	.054	.817	.470	42	.641
	Equal variances not assumed			.470	38.754	.641

Table 19 - Independent Samples t-Test Evidence of TL factors between KW and non KWs

### 10.12.5 Testing Hypothesis H5

Hypothesis H5 states that the existence of a balanced psychological contract is more evident with knowledge workers than with non-knowledge workers. This hypothesis was not supported. An independent samples t-test for H5 (Table 20) the demonstration of a balanced psychological contract between knowledge and non-knowledge workers did not return an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) and suggested no significant difference between the two groups.

Levene's Test for Equality of Variances							
Factor			F	Sig.	t	Df	Sig. (2-tail)
Balance	Equal variances assumed		.033	.857	1.841	42	.073
	Equal variances not assumed				1.859	40.173	.070

Table 20 - Independent Samples t-Test of Balanced PC between KW and non KWs

An analysis of the means for the two groups highlights that the mean for knowledge workers (3.6) for the emergence of balanced contracts is very slightly higher than for non-knowledge workers (3.2), but is not significant. An independent samples t-test (Table 21) for the three factors of the Balanced Contract (*Dynamic, Internal Development, External Development*) in the PCI (Rousseau 2000) returned no obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ). Consequently there is no support for hypotheses H5.

Levene's Test for Equality of Variances							
Factor			F	Sig.	t	Df	Sig. (2-tailed)
Dynamic	Equal variances assumed		.010	.922	1.551	42	.128
	Equal variances not assumed				1.574	40.773	.123
Internal	Equal variances assumed		.741	.394	1.683	42	.100
	Equal variances not assumed				1.653	36.095	.107
External	Equal variances assumed		.094	.761	1.377	42	.176
	Equal variances not assumed				1.398	40.803	.170

Table 21 -Independent Samples t-Test of Balanced PC Factors between KW and non KWs

#### **10.12.6 Testing hypothesis H6**

Hypothesis H6 states that the existence of a relational or transactional psychological contract is more evident amongst non-knowledge workers than with knowledge workers. This hypothesis is not supported. An independent samples t-test for H6 (Table 22) did not return an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) for the relational or transactional contracts.



Levene's Test for Equality of Variances						
Factor		F	Sig.	t	Df	Sig. (2-tail)
Relationa l	Equal variances assumed	2.276	.139	1.375	42	.177
	Equal variances not assumed			1.318	31.768	.197
Transact	Equal variances assumed	13.746	.001	-1.382	42	.174
	Equal variances not assumed			-1.297	28.074	.205

Table 22 - Independent Samples t-Test of Relational/ Transactional PC Factors between KW and non KWs

Table 22 shows an independent samples t-test for the four factors of the Relational and Transactional Contract (*Loyalty/ Security and Narrow/ Short-term*) in the PCI (Rousseau, 2000) returned no significant obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ) for the Relational factors or the Transactional factors. Consequently there is no support for hypotheses H6.

Levene's Test for Equality of Variances							
Factor			F	Sig.	t	Df	Sig. (2-tailed)
Short term	Equal variances assumed		4.368	.043	-1.220	42	.229
	Equal variances not assumed				-1.149	28.618	.260
Narrow	Equal variances assumed		1.261	.268	-.180	42	.858
	Equal variances not assumed				-.175	33.643	.862
Loyalty	Equal variances assumed		1.557	.219	1.250	42	.218
	Equal variances not assumed				1.228	36.030	.227
Security	Equal variances assumed		1.770	.191	.828	42	.412
	Equal variances not assumed				.781	28.938	.441

Table 23 -Independent Samples t-Test of Relational/ Transactional PC Factors between KW and non KWs

#### **10.12.7 Testing hypothesis H7**

Hypothesis H7 states that *the impact of transformational leadership behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers*. This hypothesis is supported. A correlation analysis using Pearson's  $r$  (Tables 12.40/12.41) was used to test hypothesis H7. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational

leadership was positively correlated to the *Balanced* psychological contract, but the correlation was stronger in the knowledge worker group.

<b>Factor</b>		<b>TL</b>	<b>Balance</b>
TL	Pearson Correlation	1	.856(**)
	Sig. (2-tailed)		.000
	N	22	22
Balance	Pearson Correlation	.856(**)	1
	Sig. (2-tailed)	.000	
	N	22	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 24 - Correlations: KWs/ - TL and BPC

<b>Factor</b>		<b>Balance</b>	<b>TL</b>
Balance	Pearson Correlation	1	.653(**)
	Sig. (2-tailed)		.001
	N	22	22
TL	Pearson Correlation	.653(**)	1
	Sig. (2-tailed)	.001	
	N	22	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 25 - Correlations: KWs/ - TL and BPC

Table 26 shows a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H7, with an examination of the correlations between the six TL factors and the 3 Balanced PC factors. In the knowledge worker group all of the TL factors were strongly correlated with the Balanced Contract factors except *Enabling*. Amongst non-knowledge workers all six TL factors were strongly correlated with *Dynamic Performance*, but the correlations were more mixed across the *Internal and External* factors.

<b>Factor</b>		<b>Dynamic</b>	<b>Internal</b>	<b>External</b>
GC	KW	.717(**)	.710(**)	.475(*)
	Non KW	.765(**)	.361	.665(**)
Networking	KW	.729(**)	.712(**)	.511(*)
	Non KW	.560(**)	.363	.596(**)
Enabling	KW	.438(*)	.246	.224
	Non KW	.644(**)	.221	.426(*)
Honest	KW	.667(**)	.736(**)	.453(*)
	Non KW	.674(**)	.259	.505(*)
Accessible	KW	.826(**)	.760(**)	.488(*)
	Non KW	.614(**)	.447(*)	.576(**)
Decisive	KW	.828(**)	.735(**)	.599(**)
	Non KW	.558(**)	.256	.367

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 26 - Pearson Correlations TL and Balanced PC – KWs and non-KWs

### 10.12.8 Testing hypothesis H8

Hypothesis H8 states that *the impact of transformational leadership behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers*. This hypothesis is partially supported. A correlation analysis using Pearson's  $r$  (Table 27 and Table 28) was used to test hypothesis H8. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to the Relational contract, but negatively correlated with the Transactional psychological contract. The correlation was stronger in the non-knowledge worker group in terms of the Relational contract and the Transactional contract.

		<b>TL</b>	<b>Relational</b>	<b>Transact</b>
TL	Pearson Co	1	.680(**)	-.149
	Sig. (2-tailed)		.000	.507
	N	22	22	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 27 - Correlations TL – Relational/ Transactional PCs amongst KWs

		<b>TL</b>	<b>Relational</b>	<b>Transact</b>
TL	Pearson Co	1	.757(**)	-.463(*)
	Sig. (2-tailed)		.000	.030
	N	22	22	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 28 - Correlations TL – Relational/ Transactional PCs amongst non KWs

Table 29 shows the results of a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H8, with an examination of the correlations between the six TL factors and the four Relational/Transactional PC factors. With both knowledge workers and non-knowledge workers, all six factors of TL were negatively correlated to *Short-term* with the exception of *Genuine Consideration* which was very weakly positively correlated with *Short Term* in the KW group. All TL factors are negatively correlated with the other Transactional element (*Narrow*) amongst non-KWs, but only the factors *Honest* and *Accessible* are negatively correlated in the KW group. All six factors were also positively correlated with both Relational factors for both groups. In both groups all six TL factors are strongly correlated to the Relational factor *Loyalty*, and positively but not as strongly to factor *Security*. Given these findings, Hypothesis H8 is only partially supported.

		<b>Short-term</b>	<b>Narrow</b>	<b>Loyalty</b>	<b>Security</b>
GC	KW	.032	.050	.766(**)	.218
	Non KW	-.709(**)	-.265	.946(**)	.476(*)
Networking	KW	-.220	.105	.629(**)	.090
	Non KW	-.638(**)	-.469(*)	.772(**)	.492(*)
Enabling	KW	-.074	.133	.652(**)	.030
	Non KW	-.701(**)	-.065	.809(**)	.551(**)
Honest	KW	-.102	-.080	.747(**)	.106
	Non KW	-.532(*)	-.168	.766(**)	.309
Accessible	KW	-.402	-.056	.829(**)	.264
	Non KW	-.721(**)	-.218	.802(**)	.453(*)
Decisive	KW	-.331	.047	.634(**)	.365
	Non KW	-.587(**)	-.162	.665(**)	.499(*)

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 29 - Correlations TL – Relational/ Transactional PCs factors amongst KWs /non KWs

**10.12.9 Testing hypothesis H9**

Hypothesis H9 states that *organisational citizenship behaviour is more evident amongst knowledge workers than non-knowledge workers*. This hypothesis is not supported. An independent samples t-test for H9 (Table 30) returned an obtained value that did not exceed the critical value of 2.021 ( $p > 0.5$ ) and suggested no significant difference between the two groups.

Levene's Test for Equality of Variances						
Factor		F	Sig.	t	Df	Sig. (2-tailed)
OCB	Equal variances assumed	2.140	.151	.516	42	.609
	Equal variances not assumed			.502	34.427	.619

Table 30 - Independent Samples Test on level of OCB between KW and non KWs

An independent samples t-test for the two factors of the OCB (Table 31) used in this research (*Helping Behaviour & Sportsmanship*) returned no significant obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ). Consequently there is no support for hypotheses H9.

Levene's Test for Equality of Variances						
Factor		F	Sig.	t	Df	Sig. (2-tailed)
Helping	Equal variances assumed	1.762	.192	.156	42	.877
	Equal variances not assumed			.149	30.999	.882
Sportsman	Equal variances assumed	1.026	.317	-.786	42	.436
	Equal variances not assumed			-.811	41.902	.422

Table 31 - Independent Samples Test on OCB factors between KW and non KWs

#### **10.12.10 Testing hypothesis H10**

Hypothesis H10 states that *Organisational citizenship behaviour is more positively correlated with transformational leadership amongst knowledge workers than non-knowledge workers*. This hypothesis was not supported. A correlation analysis using Pearson's  $r$  (Table 32 and Table 33) was used to test hypothesis H10. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to OCB, but the correlation was significantly stronger in the non-KW group.



		TL	OCB
TL	Pearson Correlation	1	.327
	Sig. (2-tailed)		.137
	N	22	22

Table 32 - Correlations between OCB and TL in KW Sample

		TL	OCB
TL	Pearson Correlation	1	.684(**)
	Sig. (2-tailed)		.000
	N	22	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 33 - Correlations between OCB and TL in non-KW sample

Table 34 sets out the results of a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H10, with an examination of the correlations between the six TL factors and the 2 OCB factors. With both knowledge workers and non-knowledge workers all six factors of TL were positively correlated to both of the OCB factors, with the perhaps surprising exception of *Genuine Consideration* which was negatively correlated with *Helping Behaviour*. Amongst non-knowledge workers all the TL factors except *Networking* were strongly correlated with *Helping Behaviour*. The correlation between *Sportsmanship* and the six TL factors is positive

but much less strong than with *Helping Behaviour*. Given these findings Hypothesis H10 is not supported.

		<b>Helping</b>	<b>Sportsman</b>
GC	KW	-.041	.072
	Non KWs	.496(*)	.400
Networking	KW	.354	.312
	Non KWs	.351	.256
Enabling	KW	.055	.143
	Non KWs	.703(**)	.045
Honest	KW	.159	.320
	Non KWs	.486(*)	.217
Accessible	KW	.274	.430(*)
	Non KWs	.508(*)	.260
Decisive	KW	.273	.285
	Non KWs	.598(**)	.074

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 34 - Correlations between OCB and TL factors in KW/ non KW sample

#### **10.12.11 Testing hypothesis H11**

Hypothesis H11 states that *organisational citizenship behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers*. This hypothesis is not supported. A correlation analysis using Pearson's *r* (Table 35) was used to test hypothesis H11. A comparison of the

two independent groups of KWs and non-KWs identified that there is a positive correlation between a Balanced PC and OCB amongst non-KWs but a negative correlation amongst KWs.

		<b>Balance</b>
OCB	Pearson Correlation	-.006
	Sig. (2-tailed)	.978
	N	22

Table 35 - Correlations Balanced PC and OCB for KW

		<b>Balance</b>
OCB	Pearson Correlation	.416
	Sig. (2-tailed)	.054
	N	22

Table 36 - Correlations Balanced PC and OCB for non-KWs

Table 37 sets out the results of a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H11, with an examination of the correlations between the three Balanced PC factors and the 2 OCB factors. With knowledge workers two factors of the Balanced PC (*Dynamic Performance/ Internal Development*) were positively correlated to both of the OCB factors, but *External Development* was negatively correlated with both OCB factors. Amongst non-knowledge workers two factors of the Balanced PC (*Dynamic Performance/External*

*Development*) were positively correlated to both of the OCB factors, but *Internal Development* was negatively correlated with Helping Behaviour. Given these findings Hypothesis H11 is not supported.

		<b>Helping</b>	<b>Sportsman</b>
Dynamic	KW	.314	.271
	Non KWs	.606(**)	.116
Internal	KW	.038	.192
	Non KWs	-.085	.237
External	KW	-.250	-.305
	Non KWs	.073	.387

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 37 - Correlations Balanced PC factors and OCB factors for KW and non-KWs

### **10.12.12 Testing hypothesis H12**

Hypothesis H12 states that *organisational citizenship behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers*. This hypothesis is partially supported. A correlation analysis using Pearson's *r* (Table 38) was used to test hypothesis H12. OCB is negatively correlated with the transactional contracts amongst non-KWs, but is positively correlated with the relational contracts. Amongst the knowledge workers both contracts are positively correlated with OCB. It is perhaps surprising that there is a strong positive correlation between the transactional contract and OCB amongst KWs.

		<b>OCB</b>
Relational	Pearson Cor	.119
	Sig. (2-tailed)	.598
	N	22
Transact	Pearson Cor	.188
	Sig. (2-tailed)	.403
	N	22

Table 38 - Correlations Balanced Relational & Transactional Contracts and OCB for KWs

		<b>OCB</b>
Relational	Pearson Cor	.540(**)
	Sig. (2-tailed)	.009
	N	22
Transact	Pearson Cor	-.221
	Sig. (2-tailed)	.323
	N	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 39 - Correlations Balanced Relational and Transactional Contracts and OCB for non KWs

Table 40 sets out the results of a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H12, with an examination of the correlations between the four Relational/Transactional PC factors and the 2 OCB factors. Amongst knowledge workers the factor *Short Term* is negatively correlated with *Sportmanship*, and *Security* is negatively correlated with *Helping Behaviour*. Amongst non knowledge workers *Short Term* is negatively correlated with both OCB factors, whilst *Sportmanship* is negatively correlated with the transactional factor *Narrow*.

		<b>Helping</b>	<b>Sportsman</b>
Short term	KW	.162	-.004
	Non KW	-.394	-.265
Narrow	KW	.093	.130
	Non KW	.348	-.397
Loyalty	KW	.068	.218
	Non KW	.498(*)	.326
Security	KW	-.101	.016
	Non KW	.443(*)	.183

\* Correlation is significant at the 0.05 level (2-tailed)

Table 40 - Correlations Relational and Transactional Contract factors and OCB factors for KW/ non KWs

### 10.13 Discussion

Owing to the small sample sizes in the pilot study the results were regarded as only an indication of expected results in the main research. The results of the pilot study showed support or partial support for the first three research hypotheses that seek to test Burns' (1978) main theory that a demonstration of transforming leadership has a

positive correlation with a higher level of motivation and a greater commitment of personal resource. Hypotheses H1 and H3 were both supported and H2 was partially supported. In H2 there was a negative correlation between TL and the transactional psychological contract but a positive correlation with the relational contract.

The results of the pilot study did not provide good support for the other eight hypotheses that test Burns' theory amongst knowledge workers and non-knowledge workers. With the exception of H7 all the other hypotheses were partially supported or not supported. These initial findings would suggest that knowledge is not a significant factor in influencing the leadership exchange relationship.

#### **10.14 Conclusions of the Pilot Study and Amendments to the Main Research Project**

The primary objective of the pilot study was to test the methodology prior to the main study. The data collection methods were successful, with a 65% response rate for the questionnaires. Some amendments were made to the layout and wording of the questionnaire following feedback from participants and also from in-house distributors of the questionnaire. The feedback also encouraged a greater use of the electronic format of the questionnaire rather than hard copies.

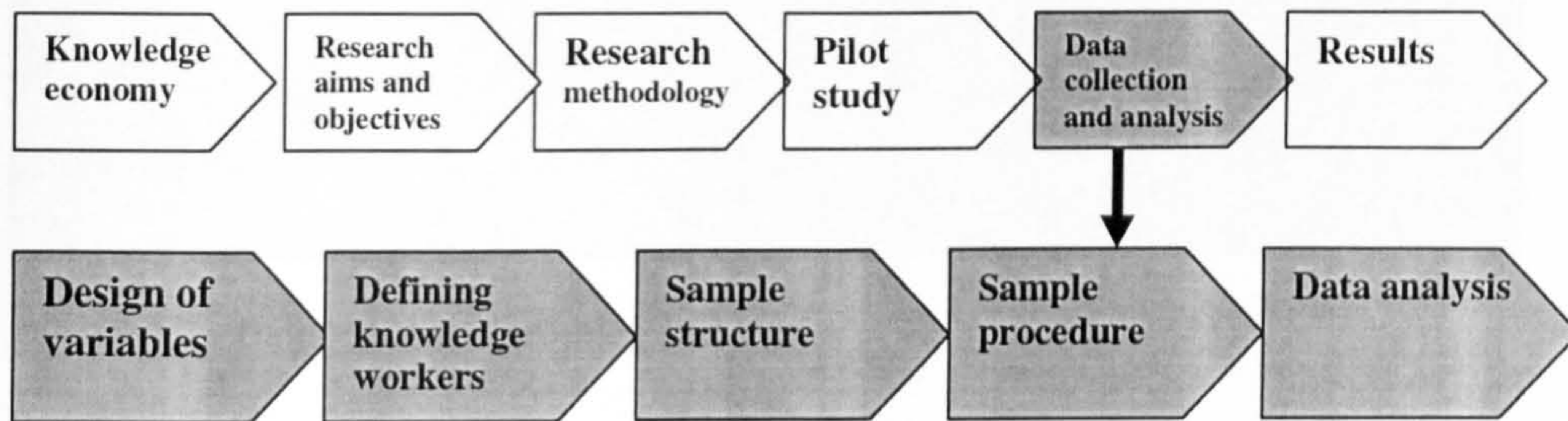
The pilot study found support for the first research objective and the first three hypotheses, but less support for the second research objectives and the subsequent 9 hypotheses. Given the limited sample size of the pilot it was decided that the hypotheses should be used in the main research project.

The data collection methods for the main research, after consideration of the points raised above and the methodological discussion in chapter nine are now described in the next chapter.

## CHAPTER 11 DATA COLLECTION & ANALYSIS

### 11.1 Outline of the Chapter

This chapter outlines the methodology of data collection used for the main study. It will detail the design, participating subjects, instruments and the process of data collection. It will also set out the statistical tools used in the data analysis.



### 11.2 Design

Following the pilot study it was decided to use a between groups design with six independent variables (Table 41):



Construct	Factor
<i>Transformational Leadership</i>	<ul style="list-style-type: none"> <li>• Genuine concern (GC)</li> <li>• Networking (Net)</li> <li>• Enabling (En)</li> <li>• Honesty (Hon)</li> <li>• Accessibility</li> <li>• Decisiveness</li> </ul>

Table 42 - Independent Variables and Factors

After the pilot study it was decided to drop Civic Virtue as an OCB factor. The 9 remaining dependent variables (Table 43) are:

<b>Construct</b>	<b>Factor</b>
<i>Balanced Psychological Contract</i>	<ul style="list-style-type: none"> <li>• Dynamic</li> <li>• Internal development</li> <li>• External development</li> </ul>
<i>Transactional Psychological Contract</i>	<ul style="list-style-type: none"> <li>• Short term</li> <li>• Narrow</li> </ul>
<i>Relational Psychological Contract</i>	<ul style="list-style-type: none"> <li>• Loyalty</li> <li>• Security</li> </ul>
<i>Organisational Citizenship Behaviour</i>	<ul style="list-style-type: none"> <li>• Helping behaviour</li> <li>• Sportsmanship</li> </ul>

Table 43 - Dependent Variable and Factors

Participants were asked to complete the questionnaire which was broken into three sections:

1. *Your Organisation;*
2. *Your Manager;* and
3. *Your Team.*

There were issues around self-rating, but these had to be balanced against the logistics involved in adopting a dyadic approach to the research where managerial perceptions of OCB could be directly correlated with employee perceptions of their psychological contract.

### 11.3 Defining Knowledge Workers

Alvesson (2001) states that

*'the idea of knowledge-intensive companies and related concepts such as knowledge work is problematic. It is difficult to substantiate knowledge-intensive companies and knowledge workers as distinct, uniform categories. The distinction between these and non- (or less) knowledge-intensive organisation/non-knowledge workers is not self-evident, as all organisations and work involve "knowledge" and any evaluation of "intensiveness" is likely to be contestable.'* (p.864)

Despite efforts to codify the different types of knowledge no clear definition of a knowledge worker exists (Blackler, 1995). There are obvious parallels with the topic of leadership in that although the term *knowledge worker* is widely used and understood an agreement on its definition is still very elusive. Much of the research on knowledge workers offers no or little definition of what constitutes a KW and how that definition was arrived at (Thompson and Heron, 2001; Flood et al., 2001; O'Donoghue et al., 2007). To determine which respondents were knowledge or non-knowledge workers two doctoral students were asked to place the returns into either category based on job type and level of qualification. Each assessor worked separately and contested questionnaires were discussed and an agreement reached. In the event of a dispute over whether an employee was a knowledge worker or not, reference was made to Bell's (1973) definition of a knowledge worker being an individual who has to draw on an abstract body of knowledge to carry out their role effectively. This was very useful in separating information workers from knowledge workers. Similarly, Sveiby and Lloyd's (1987) definition of a knowledge worker as providing a non-standard, creative, problem-solving service was also used as a reference point for deciding knowledge worker status. It is recognised that despite the introduction of additional external judgement to this part of the research, the definition of who is and isn't a knowledge worker is still a relatively subjective decision and will have a significant influence on the findings.

## 11.4 Sample

The original sample consisted of 427 respondents, of whom 202 (47.3%) were defined as knowledge workers and 224 (52.5%) as non-knowledge workers (

Table 45). Of these 57.1% were male and 41.2% were female (Table 44).

		Frequency	Percent	Valid Percent	Cumulative %
Valid	KW	202	47.3	47.4	47.4
	Non KW	224	52.5	52.6	100.0
	Total	426	99.8	100.0	
Missing	System	1	.2		
Total		427	100.0		

Table 45 - Knowledge/ Non-Knowledge Workers Sample

		Frequency	Percent	Valid Percent	Cumulative %
Valid	1.00	244	57.1	58.1	58.1
	2.00	176	41.2	41.9	100.0
	Total	420	98.4	100.0	
Missing	System	7	1.6		
Total		427	100.0		

Table 46 - Gender Sample

In terms of age (

Table 47) 42.6% were aged between 31 and 40 years of age, with the least number (1.2%) aged over 61 years of age. The largest percentage (48.2%) had served between 0 and 5 years with their present organisation, and only 7% had been with their organisations between 16 and 20 years (

Table 48).

		Frequency	Percent	Valid Percent	Cumulative %
Valid	20 yrs+	96	22.5	22.6	22.6
	31 yrs+	182	42.6	42.9	65.6
	41 yrs+	101	23.7	23.8	89.4
	51 yrs+	40	9.4	9.4	98.8
	61 yrs+	5	1.2	1.2	100.0
	Total	424	99.3	100.0	
Missing	System	3	.7		
Total		427	100.0		

Table 47 – Age Sample

		Frequency	Percent	Valid Percent	Cumulative %
Valid	0 yrs +	206	48.2	49.3	49.3
	6 yrs+	101	23.7	24.2	73.4
	11 yrs+	48	11.2	11.5	84.9
	16 yrs+	30	7.0	7.2	92.1
	20 yrs+	33	7.7	7.9	100.0
	Total	418	97.9	100.0	
Missing	System	9	2.1		
Total		427	100.0		

Table 48 - Length of Service Sample

Overall 35.8% of respondents had a degree, and 26.5% had no qualifications. Over 12% had a masters degree or a doctorate (

Table 49).

		Frequency	Percent	Valid Percent	Cumulative %
Valid	1.00	113	26.5	26.8	26.8
	2.00	53	12.4	12.6	39.3
	3.00	51	11.9	12.1	51.4
	4.00	153	35.8	36.3	87.7
	5.00	38	8.9	9.0	96.7
	6.00	14	3.3	3.3	100.0
	Total	422	98.8	100.0	
Missing	System	5	1.2		
Total		427	100.0		

Table 49 – Qualifications Sample

Participants were drawn from twelve Scottish organisations including a software house, an electronics manufacturer, a pharmaceutical company and a local authority. An effort was made to gain responses from a wide sample of organisations, both public and private, to minimise sectoral bias. In contrast only Scottish companies were used to control for national culture variance (Bass, 1998). The organisations involved were of varying sizes ranging from 25 to 5,000. Of the total of 427 questionnaires:



- 306 (71.7%) of returns were completed on male managers and 120 (28.1%) on female managers.
- 227 (53.4%) were completed on top managers, 126 (29.5%) on senior managers and 72 (16.9%) on middle managers.

		Frequency	Percent	Valid Percent	Cumulative %
Valid	Male	306	71.7	71.8	71.8
	Female	120	28.1	28.2	100.0
	Total	426	99.8	100.0	
Missing	System	1	.2		
Total		427	100.0		

Table 50 - Gender of Manager Sample

		Frequency	Percent	Valid Percent	Cumulative %
Valid	Senior	227	53.2	53.4	53.4
	Middle	126	29.5	29.6	83.1
	Front	72	16.9	16.9	100.0
	Total	425	99.5	100.0	
Missing	System	2	.5		
Total		427	100.0		

Table 51 – Level of Manager Sample

### **11.5 Procedure**

Organisations were approached directly by e-mail or by telephone to participate in the research. The benefits of participating in the research (a feedback report comparing results against other participating organisations) was explained. Agreement to participate was obtained and a representative within each organisation was selected to be the principal point of contact for the distribution and collection of the questionnaires.

Participants were given a copy of the questionnaire either in hard format or in electronic format with a covering letter explaining the purpose and outcomes of the research. The questionnaires were distributed by the company contact person either

by e-mail or by internal post. Participants were given the option of returning the forms directly by e-mail or by post, or by returning the forms in a sealed envelope to the central company contact. Participants were asked to complete the questionnaires on their direct line manager.

The returned questionnaires were processed and analysed using SPSS version 13.

## **11.6 Data Analysis**

Considering the instrument used for this research combined three independent questionnaires, and the issues raised in the pilot study, a confirmatory factor analysis was conducted to validate the factors for each of the questionnaires. To determine whether the variables met the underlying assumptions for the use of parametric tests chi-squared 'goodness of fit' and homogeneity of variance tests were carried out on all independent and dependent variables. These assumptions include:

- The level of measurement must be at least interval
- The sample data is drawn from a normally distributed population. Where the chi-squared is significant it can be assumed that the data comes from a normal distribution.
- The variance between samples is not significantly different. Where a homogeneity of variance test produces a non-significant result then it can be assumed that the sample data is not significantly different (Coolican 1994).

If the tests were failed, non-parametric tests (Mann-Whitney U-test and Spearman's rho) were used for analysis. Person's correlation (two-tailed) was carried out to examine the relationship between the variables. Two independent sample t-tests were

carried out to compare the means of the two main groups in the study (knowledge workers and non-knowledge workers).

### **11.7 Common Method Variance**

Podsakoff et al (2003) highlight that behavioural studies using self-report, cross-sectional data can be subject to problems due to Common Method Variance (CMV), that is variance attributable to the measurement method rather than to the constructs the measures represent. When a study collects information from a single source any problems or defects in the source will contaminate the measures in the same way and in the same direction, causing CMV effects in the data (Podsakoff and Organ, 1986). To counter any possible CMV issues this study used Harman's single factor test. Normally this involves researchers loading all the variables in the research into an exploratory factor analysis (Andersson and Bateman, 1997; Greene and Organ, 1973) to examine the un-rotated factor solution to determine the number of factors necessary to account for the variance in the variables. It is considered that CMV is present when a single factor emerges from the factor analysis or that one single factor accounts for the majority of covariance amongst the measures (Podsakoff et al., 2003). There are limitations to Harman's Single-Factor Test. Although the test can indicate that a single factor accounts for all of the covariances amongst the items, it does not statistically control for method effects (Podsakoff et al., 2003).

### **11.8 Summary**

The results of the data analysis are reported in the next section of the thesis. The full analysis output is not presented in this thesis but is available for examination.

## CHAPTER 12 RESULTS

### 12.1 Outline of the Chapter

This chapter will outline the results of the main research. The chapter reports the findings of a confirmatory factor analysis carried out on all three instruments to verify the factor structure within each. Second, the chapter reports the results of the data analysis. Third, it reports the result of analyses carried out to check for potential bias from self-reporting. Finally, the chapter provides a summary of the results for discussion alongside a summary comparison of the results for the two category variables.

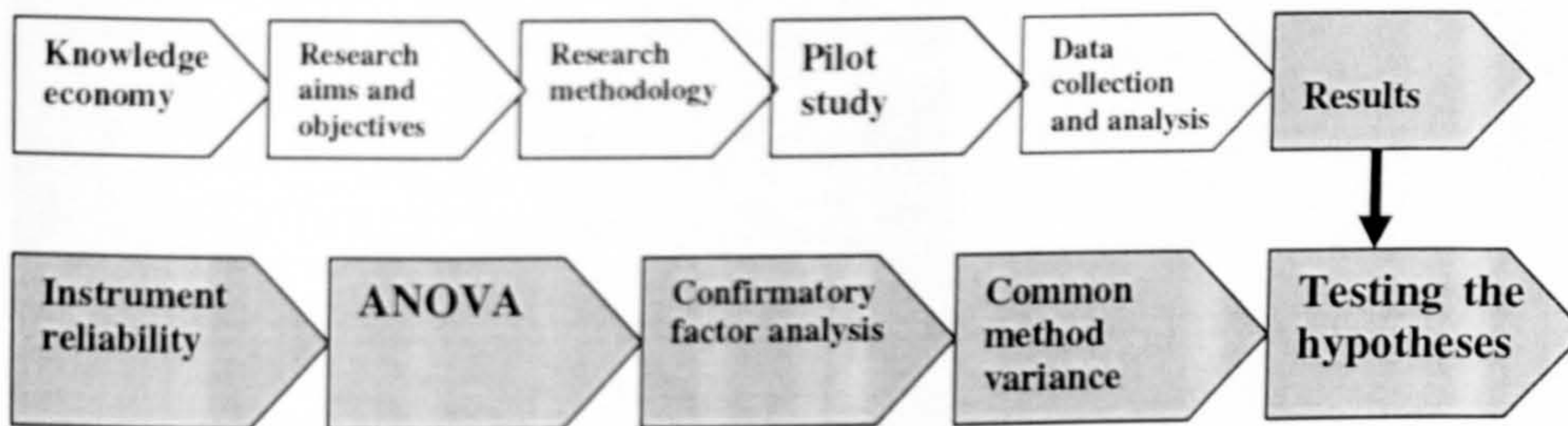


Table [52](#) shows the key for the labels that represent all independent and dependent variables in all the tables shown in this chapter.

<b>Abbreviation</b>	<b>Dimension</b>
(GC)	Genuine concern
(Net)	Networking
(En)	Enabling
(Open)	Open/Trustworthy
(Dec)	Decisiveness
(Dyn)	Dynamic
(Int)	Internal development
(Ext)	External development
(ST)	Short term
(Nar)	Narrow
(Loy)	Loyalty
(Sec)	Security
(Help)	Helping behaviour
(Spo)	Sportsmanship

Table 52 - Key for Labels used for Independent and Dependent Variables

## 12.2 Means and Standard Deviations for Independent and Dependent Variables

The means and standard deviations (SDs) for all independent and dependent variables are set out in \* Standard deviations in parenthesis.

Independent/ Dependent Variable	n	Missing	Mean	Standard Deviation
Knowledge	426	1	N/A	.49992
Gender	420	7	N/A	.49399
Age	420	3	N/A	.94583
Service	418	9	N/A	1.26851
Qualification	422	5	N/A	1.49095
Gendermgr	426	1	N/A	.45035
Level	425	2	N/A	.75622
TL	426	1	3.76	.77822
Balance	426	1	3.18	.62759
Relational	426	1	3.01	.78817
Transact	426	1	2.60	.64029
OCB	426	1	3.76	.64275

\* Standard deviations in parenthesis

Table 53 - Means and Standard Deviations of Independent and Dependent Variables

## 12.3 Instrument Reliability

### 12.3.1 TLQ – Instrument Reliability

The research version of the TLQ-LGV has six main factors comprising 32 items. (See Appendix 1). The internal consistency of the instrument was tested by measuring the Cronbach's coefficient alpha for each factor (

Table 54). Black (1999) states that Cronbach's alpha is a '*reasonable indicator of the internal consistency of instruments that do not have a right-wrong (binary) marking scheme*' and can be used for questionnaires employing scales such as Likert.

<b>Factor</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>
Showing Genuine Concern	4	0.96
Networking & Achieving	4	0.90
Enabling	4	0.93
Being Honest & Consistent	4	0.85
Being Accessible	4	0.86
Being Decisive	4	0.91

Table 54 - TLQ Cronbach Alphas

All the factors demonstrate a Cronbach's alpha of over .845, thereby confirming that the instrument is internally consistent, and therefore reliable (Bryman and Cramer, 2001).



### 12.3.2 Instrument Reliability – PCI

The Psychological Contract Inventory (Rousseau 2000) has 28 items. The internal consistency of the instrument was tested by measuring the Cronbach's coefficient alpha for each factor (Table 55, Table 56 and Table 57):

<b>Factor</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>
Short term	4	0.77
Narrow	4	0.77

Table 55 - Reliability of Transactional Contract Factors

<b>Factor</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>
Loyalty	4	0.77
Security	4	0.77

Table 56 - Reliability of Relational Contract Factors

<b>Factor</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>
Dynamic	4	0.79
Internal	4	0.83
External	4	0.84

Table 57 - Reliability of Balanced Contract Factors

All the factors demonstrate a Cronbach's alpha of over 0.79, thereby confirming that the instrument is internally consistent, and therefore reliable (Bryman and Cramer, 2001).

### 12.3.3 Instrument Reliability – OCB

The three main factors taken from the Organisational Citizenship Behaviour Questionnaire (Podsakoff P.M., Ahearne M. and MacKenzie S.B., 1997) for this research (sportsmanship, helping behaviour and civic virtue) have thirteen items. The internal consistency of the instrument was tested by measuring the Cronbach's coefficient alpha for each factor (Table 58):

Factor	Number of items	Cronbach's Alpha
Helping behaviour	7	0.64
Civic virtue	3	0.27
Sportsmanship	3	0.79

Table 58 - Reliability of OCB Factors

Only one of the factors (*Sportsmanship*) demonstrated a Cronbach's alpha of over 0.70, although the factor *Helping Behaviour* was only slightly below the recommended level, and on this basis it was decided to retain it as a factor in the research (Bryman and Cramer, 2001). Peterson (1994) and Slater (1995) suggest that 0.6 is satisfactory as the 'criterion-in-use'. Considering the very low reliability for the factor *Civic Virtue* it was decided to omit this factor from the study. This would reduce the richness of detail in the analysis but it was considered that the alpha score was too low to make any results defensible. Also, given that Civic Virtue accounted

for only three items out of 13 it can be argued that the remaining OCB factors will provide a an adequate level of detail.

#### 12.4 Chi-square 'Goodness of Fit' Test for Independent and Dependent Variables

A chi-squared test was carried out (Table 59) on the key independent variables to determine whether the labelling of a respondent as either a knowledge worker or non-knowledge worker was associated with any of the independent factors: gender, age, qualification and length of service.

Independent/ Dependent Variable	d.f.	Chi-square	Asymp.Sig (2 sided)
Gender	4	4.904	.297
Age	1	2.733	.098
Length of service	4	20.480	.000
Qualifications	5	278.384	.000

Table 59 - Chi-square 'Goodness of Fit' Test for Independent Variables and Definition of KWs

These results suggest that, perhaps unsurprisingly, there is a significant relationship between the level of qualification of an individual and their definition as a knowledge worker. The level of abstract thinking required in knowledge work as defined by Bell (1973) normally requires a higher level of education. More interestingly there is a significant relationship between the definition of a knowledge worker and the length of service in the organisation. This may support the image of

the knowledge worker being more transient, or that knowledge work is more focussed on a younger section of the sample.

## **12.5 ANOVA**

ANOVA tests were carried out (Table 60) to determine whether the change in any independent variable (gender, age, qualification, length of service, gender of manager, level of manager) has influenced the main dependent variables (Transformational leadership, Balanced psychological contract, Relational psychological contract, Transactional psychological contract, and level of OCB).

		Sum of Squares	df	Mean Square	F	Sig.
TL	Between Groups	4.026	4	1.006	1.671	.156
	Within Groups	252.302	419	.602		
Balance	Between Groups	3.016	4	.754	1.923	.106
	Within Groups	164.298	419	.392		
Relational	Between Groups	1.036	4	.259	.416	.797
	Within Groups	261.146	419	.623		
Transact	Between Groups	1.245	4	.311	.761	.551
	Within Groups	171.312	419	.409		
OCB	Between Groups	2.353	4	.588	1.424	.225
	Within Groups	173.044	419	.413		

Table 60 - ANOVA Table for the Independent Variable 'Age' and Dependent Variables

The results suggest that there is no significant effect of the independent variable 'Age' on the dependent variables.

		Sum of Squares	df	Mean Square	F	Sig.
TL	Between Groups	.144	1	.144	.237	.626
	Within Groups	253.453	418	.606		
Balance	Between Groups	.048	1	.048	.122	.727
	Within Groups	164.434	418	.393		
Relational	Between Groups	2.054	1	2.054	3.323	.069
	Within Groups	258.357	418	.618		
Transact	Between Groups	.379	1	.379	.920	.338
	Within Groups	171.994	418	.411		
OCB	Between Groups	.044	1	.044	.133	.716
	Within Groups	138.880	418	.332		

Table 61 - ANOVA Table for the Independent Variable 'Gender' and Dependent Variables

The results set out in Table 61 suggest that there is no significant effect of the independent variable 'Gender' on the dependent variables.

		Sum of Squares	df	Mean Square	F	Sig.
TL	Between Groups	5.636	4	1.409	2.360	.053
	Within Groups	246.598	413	.597		
Balance	Between Groups	2.662	4	.665	1.741	.140
	Within Groups	157.876	413	.382		
Relational	Between Groups	3.726	4	.932	1.532	.192
	Within Groups	251.188	413	.608		
<b>Transact</b>	Between Groups	4.720	4	1.180	2.918	.021
	Within Groups	167.006	413	.404		
OCB	Between Groups	.992	4	.248	.594	.667
	Within Groups	172.334	413	.417		

Table 62 - ANOVA Table for Independent Variable 'Length of Service' and Dependent Variables

The results set out in Table 62 suggest that there is a significant effect of the independent variable *Length of Service* on the dependent variable *Transactional psychological contract*.

		Sum Squares	of df	Mean Square	F	Sig.
TL	Between Groups	9.274	5	1.855	3.139	.009
	Within Groups	245.839	416	.591		
Balance	Between Groups	1.137	5	.227	.573	.721
	Within Groups	165.279	416	.397		
Relational	Between Groups	20.439	5	4.088	7.010	.000
	Within Groups	242.582	416	.583		
Transact	Between Groups	6.533	5	1.307	3.267	.007
	Within Groups	166.350	416	.400		
OCB	Between Groups	1.506	5	.301	.721	.608
	Within Groups	173.661	416	.417		

Table 63 - ANOVA Table for the Independent Variable 'Qualifications' and Dependent Variable

The results set out in Table 63 suggest that there is a significant effect of the independent variable *Qualifications* on the dependent variables Transformational Leadership, Relational *psychological contract*, and Transactional *psychological contract*.



		Sum of Squares	df	Mean Square	F	Sig.
TL	Between Groups	.000	1	.000	.000	.986
	Within Groups	257.392	424	.607		
Balance	Between Groups	.648	1	.648	1.647	.200
	Within Groups	166.746	424	.393		
Relational	Between Groups	3.858	1	3.858	6.289	.013
	Within Groups	260.154	424	.614		
Transact	Between Groups	.303	1	.303	.738	.391
	Within Groups	173.938	424	.410		
OCB	Between Groups	.859	1	.859	2.084	.150
	Within Groups	174.721	424	.412		

Table 64 - ANOVA Table for Independent Variable 'Gender of Manager' and Dependent Variable

The results set out in Table 64 suggest that there is a significant effect of the independent variable *Gender of Manager* on the dependent variable *Relational psychological contract*.

		Sum of Squares	df	Mean Square	F	Sig.
TL	Between Groups	1.984	2	.992	1.640	.195
	Within Groups	255.244	422	.605		
Balance	Between Groups	.038	2	.019	.049	.952
	Within Groups	166.330	422	.394		
Relational	Between Groups	1.335	2	.668	1.077	.342
	Within Groups	261.650	422	.620		
Transact	Between Groups	1.106	2	.553	1.350	.260
	Within Groups	172.904	422	.410		
OCB	Between Groups	1.607	2	.804	1.953	.143
	Within Groups	173.645	422	.411		

Table 65 - ANOVA Table for the Independent Variable 'Level of Manager' and Dependent Variable

The results set out in Table 65 suggest that there is no significant effect of the independent variable *Level of Manager* on the dependent variables.

## 12.6 Regression Analysis – Independent Variables

A regression analysis was carried out (Table 66) on the independent variables (gender, age, qualification, length of service, gender of manager, level of manager) to measure their influence on the main dependent variables (Transformational leadership, Balanced psychological contract, Relational psychological contract, Transactional psychological contract, and level of OCB).

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.199(a)	.040	.023		.76973

a Predictors: (Constant), Level, Gender, Age, Qualifications, Gendermgr, Service, Knowledge

b Dependent Variable: TL

Table 66 - Regression Analysis of Independent Variables on TL

The results indicate that the predictor variables are not significant in predicting transformational leadership and account for only .023% of the variance. Under the enter method no significant variables emerged in the Standardised Beta Coefficient analysis.

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.152(a)	.023	.006		.61865

a Predictors: (Constant), Level, Gender, Age, Qualifications, Gendermgr, Service, Knowledge

b Dependent Variable: Balance

Table 67 - Regression Analysis of Independent Variables on Balanced Psychological Contract

The results set out in Table 67 indicate that the predictor variables are not significant in predicting the emergence of a balanced psychological contract and account for only .006% of the variance. Under the enter method no significant variables emerged in the Standardised Beta Coefficient analysis.

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.288(a)	.083	.067		.75610

a Predictors: (Constant), Level, Gender, Age, Qualifications, Gendermgr, Service, Knowledge

b Dependent Variable: Relational

Table 68 - Regression Analysis of Independent Variables on Relational Psychological Contract

The results set out in Table 68 indicate that the predictor variables are not significant in predicting the emergence of a balanced psychological contract and account for only .067% of the variance. Under the enter method three significant variables emerged in the Standardised Beta Coefficient analysis:

Predictor variable	B	P
Service	.152	.005
Qualifications	.203	.006
Gendermgr	.115	.029

Table 69 - Standardised Beta Coefficients – Relational PC

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.158(a)	.025	.008	.63963

a Predictors: (Constant), Level, Gender, Age, Qualifications, Gendermgr, Service, Knowledge

b Dependent Variable: Transact

Table 70 - Regression Analysis of Independent Variables on Transactional PC

The results set out in Table 70 indicate that the predictor variables are not significant in predicting transformational leadership and account for only .008% of the variance. Under the enter method only one significant variable emerged in the Standardised Beta Coefficient analysis:

Predictor variable	$\beta$	P
Length of Service	-.110	.048

Table 71 - Standardised Beta Coefficients – Transactional PC

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.216(a)	.046	.030	.57087

a Predictors: (Constant), Level, Gender, Age, Qualifications, Gendermgr, Service, Knowledge

b Dependent Variable: OCB

Table 72 - Regression Analysis of Independent Variables on OCB

The results set out in Table 72 indicate that the predictor variables are not significant in predicting transformational leadership and account for only .030% of the variance. Under the enter method two significant variables emerged in the Standardised Beta Coefficient analysis:

Predictor variable	$\beta$	$\rho$
Length of Service	.131	.017
Level of manager	.121	.025

Table 73 - Standardised Beta Coefficients – OCB

### 12.7 Confirmatory Factor Analysis

A confirmatory factor analysis was conducted to verify the factorial structure of the three main instruments used in the research. This was carried out to validate that the number of factors and the loadings of measured variables on them conformed to the models. Kim and Mueller (1978) state that a requirement of confirmatory factor analysis is that there is a clear hypothesis established before the analysis on the number of expected factors in the model, and the which variables will load onto which factor. Given that all three of the main instruments used in this research had been previously used in research there was an expectation that the factor structure would be as follows:

Instrument	Number of Factors	
	6	<i>Genuine Consideration, Networking, Enabling,</i>

		<i>Decisiveness, Honest, Accessible</i>
PCI	7	<i>Dynamic Perform, Internal Development, External Development, Loyalty, Security, Short Term, Narrow</i>
OCB	3	<i>Helping Behaviour, Sportsmanship, Civic Virtue</i>

Table 74 - Expected Factors in TLQ, PCI and OCB Instruments

### **12.7.1 CFA – Transformational Leadership Questionnaire**

The six leadership behaviours of the Transformational Leadership Questionnaire (TLQ) were subjected to a confirmatory factor analysis (Table 75) employing the principal component analysis factoring method with a Varimax rotation. The factor structure emerged is shown in Table 75. Examination of the structures that emerged with alternative rotations (Oblimin, Quartimax and Equamax) produced almost identical solutions. The CFA identified five factors in the TLQ model:

<b>Factor</b>	<b>Expected items</b>	<b>CFA Items</b>
Genuine concern	<i>6 items</i>	<i>6 items</i>
Networking	<i>6 items</i>	<i>4 items</i>
Enabling	<i>6 items</i>	<i>6 items</i>
Decisiveness	<i>5 items</i>	<i>9 items</i>
Accessible/honest	<i>9 items</i>	<i>7 items</i>

Table 75 - CFA Factor Loadings for TLQ

Factor	1	2	3	4	5
Genuine concern	0.292	0.285	0.742	0.261	0.203
Networking	0.361	0.261	0.251	0.146	0.584
Enabling	0.186	0.755	0.245	0.218	0.215
Open/Trust	0.309	0.245	0.246	0.569	0.189
Decisiveness	0.621	0.132	0.161	0.168	0.117
% Variance	53.05	6.74	5.11	4.38	3.44
<b>Total variance</b>	<b>72.73%</b>				

Extraction Method: Principal Components Analysis

Rotation Method: Varimax with Kaiser Normalization/ Rotation converged in nine iterations

Table 76 - CFA TLQ Rotated Factor Matrix(a)

As can be seen from Table 76, all assumptions in factor analysis are met. Firstly, there are a substantial number of correlations above 0.30, and the measure of sampling adequacy (.89) is meritorious (Hair *et al.*, 1998). Contrary to the original TLQ model (Alimo-Metcalfe and Alban-Metcalfe, 2001) the CFA produced five factors rather than six. The two factors *Accessible* and *Honest* produced one factor which for the purposes of this research was labelled *Open/ Trustworthy*. Although this is a different structure from that originally developed, it is consistent with a factor analysis carried out in a previous study (Kelly, 2004) and it was considered that proceeding with a 5 factor model would not seriously question the validity of the TLQ as an instrument. Consequently it was decided to use the five factor model for the purposes of the research.



### ***12.7.2 CFA – Psychological Contract Inventory***

The three types of psychological contract (*Balanced/ Transactional/ Relational*) and the seven main factors of the Psychological Contract Inventory (PCI) were subjected to a confirmatory factor analysis employing the principal component analysis method with a Varimax rotation. The factor structure that emerged is shown in Table 77. Examination of the structures that emerged with alternative rotations (Oblimin, Quartimax and Equamax) produced almost identical solutions. The CFA identified seven factors in the PCI model in line with the original model of Rousseau (2000), but found that some of the items loaded onto different factors and were not evenly distributed as in the original model. Despite the uneven distribution, the fact that the CFA returned the same seven factor model led to a decision to retain Rousseau's (2000) original model for the purposes of this research.

<b>Factor</b>	<b>Expected items</b>	<b>CFA Items</b>
Narrow	4 items	2 items
Short term	4 items	2 items
Loyalty	4 items	3 items
Security	4 items	4 items
Dynamic	<i>4 items</i>	<i>9 items</i>
Internal	<i>4 items</i>	<i>5 items</i>
External	<i>4 items</i>	<i>3 items</i>

Table 77 - CFA Factor Loading for PCI

<b>Factor</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Narrow	-0.01	-0.05	-0.50	-0.00	-0.19	0.117	0.203
Short term	-0.08	-0.03	-0.08	0.042	-0.25	0.565	0.176
Loyalty	0.644	0.159	0.093	-0.15	0.245	0.003	0.013
Security	0.221	0.152	0.343	-0.19	0.241	0.117	-0.09
Dynamic	0.734	0.278	0.112	0.054	0.022	-0.02	-0.01
Internal	0.306	0.792	0.064	0.067	0.062	0.010	-0.05
External	0.237	0.383	-0.01	0.546	0.112	0.003	0.031
% Variance	29.18	10.84	7.06	5.76	4.66	4.30	3.82
<b>Total variance</b>	<b>65.64%</b>						

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization./ Rotation converged in 9 iterations.

Table 78 - CFA for PCI Rotated Factor Matrix(a)

### **12.7.3 CFA – OCB Questionnaire**

The three main factors employed from the Organisational Citizenship Behaviour Questionnaire (Podsakoff et al, 1997) were subjected to a confirmatory factor analysis employing the principal component analysis method with a Varimax rotation. The factor structure that emerged is shown in Table 79. Examination of the structures that emerged with alternative rotations (Oblimin, Quartimax and Equamax) produced almost identical solutions. The CFA identified four factors in the OCB model as opposed to three factors in the original model:

<b>Factor</b>	<b>Expected items</b>	<b>CFA Items</b>
Helping behaviour 1	<i>7 items</i>	<i>5 items</i>
Helping behaviour 2	-	<i>2 items</i>
Sportmanship	<i>4 items</i>	<i>3 items</i>
Civic virtue	<i>4 items</i>	<i>3 items</i>

Table 79 - CFA Factor Loading for OCB

<b>Factor</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Helping behaviour 1	-0.002	0.425	0.135	0.014
Helping behaviour 2	0.015	0.110	0.121	0.733
Sportmanship	0.838	0.001	0.002	-0.002
Civic virtue	0.012	0.144	0.721	0.115
% Variance	22.94	16.69	10.81	9.00
<b>Total variance</b>	<b>59.46%</b>			

Extraction Method: Principal Components Analysis

Rotation Method: Varimax with Kaiser Normalization/ Rotation converged in four iterations

Table 80 - CFA for OCB Rotated Factor Matrix(a)

Although the CFA returned 4 factors for the OCB instrument, the low reliability (Cronbach Alphas) for Helping Behaviour 2 (0.535) and Civic Virtue (.267) led to a

decision to using only two factors in the research analysis: *Helping Behaviour and Sportsmanship*. The factor *Helping Behaviour 2* was amalgamated with *Helping Behaviour 1* to form a single factor of *Helping Behaviour*. This retained a seven item factor in line with the original model (Podsakoff et al., 1997).

## **12.8 Common Method Variance**

As discussed in Chapter Nine, common method variance is a potential problem in behavioural research and represents one main source of measurement error (Podsakoff et al., 2003). Harman's single factor test is one of the most widely used techniques developed to address the issue of CMA. Harman's test assumes that if a significant amount of common method variance is present then either a single factor will emerge from the analysis, or one factor will be responsible for the majority of the covariance among the items. An examination of the unrotated factor solution of a confirmatory factor analysis of each of the three instruments used in this research identified that no single factor emerged for any of the three instruments and that no single factor was responsible for an unusual level of covariance. Consequently it was concluded that common method variance was not a significant factor in this research.

## **12.9 Testing the Hypotheses**

### ***12.9.1 Testing hypothesis H1***

Hypothesis H1 states that the demonstration of transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract. This hypothesis was supported. Table 81 shows the results of a correlation analysis using Pearson's  $r$  was used to test hypothesis H1. The results of a correlation analysis using Pearson's  $r$  identified that the five factors of the TLQ were correlated to the following PCI dependent variables:

	Balanced	Relational	Transactional
Genuine Concern	.683**	.708**	.343**
Networking	.555**	.576**	.256**
Enabling	.499**	.535**	.233**
Open/Trustworthy	.498**	.385**	.182**
Decisive	.558**	.446**	.244**

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 81 - Correlation of TL and PCI Types

All five factors are positively correlated with all three types of psychological contract, but both the balanced contract and the relational contract were more positively correlated with transformational leadership than the transactional contract. In some factors such as *Enabling*, *Networking* and *Genuine Concern* the Relational Contract is more strongly correlated with the TL factors than the Balanced contract. Table 82 shows a more detailed analysis of the correlation between the factors of transformational leadership and the seven factors comprising the three types of psychological contract:

	Short term	Narrow	Loyalty	Security	Dynamic	External	Internal
Genuine Concern	-.064	.465**	.717**	.460**	.114*	.685**	.552**
Network	.086	.388**	.572**	.380**	.068	.558**	.468**
Enabling	-.105*	.369**	.568*	.321**	.040	.529**	.414**
Open/Trust	.061	.030	.129	.113	.240**	.138	.095
Decisive	.015	.314**	.457**	.280**	.219**	.479**	.415**

\*\*Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 82 - Correlation of TL and PCI Factors

*Genuine Concern* is most strongly correlated to the Relational factor *Loyalty*, then to the External and Internal factors of the Balanced Contract.

*Networking* is also most strongly correlated to the *External* and *Internal* factors of the Balanced Contract. It is most weakly correlated with the *Dynamic* factor in the Balanced contract.

*Enabling* is also most strongly correlated to the Relational factor *Loyalty*, and to the *External* and *Internal* factors of the Balanced Contract. It is most negatively correlated with the *Short Term* factor in the Transactional contract.

The factor *Open/ Trustworthy* is most strongly correlated to the *Dynamic* factor in the Balanced contract. It is most weakly correlated with the *Narrow* factor in the

Transactional contract. The factor Open/Trustworthy (combination of the two previous factors of Honesty and Accessible) has the weakest correlation to the balanced contract.

The factor *Decisive* is also most strongly correlated to the *External* factor in the Balanced contract. It is most weakly correlated with the *Narrow* factor in the Transactional contract.

On the basis of these results, hypothesis H1 that transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract is supported.

### **12.9.2 Testing hypothesis H2**

Hypothesis H2 states that *transformational leadership behaviour* is negatively correlated with the emergence of a relational and transactional psychological contract. This hypothesis was not supported. As seen in Table 82 the factors in the TLQ are generally all strongly correlated with both the Transactional and Relational Contracts. In the more detailed analysis of the individual elements of the factors, four of the TL factors (*GC/ Networking/ Enabling and Decisive*) are positively correlated with the relational factors of loyalty and security, but are also positively correlated with the *Narrow* element of the transactional factor. *Genuine Consideration* and *Enabling* are both negatively correlated to the *Short-term* element and the other three TL factors are weakly correlated with *Short-term*. Therefore, the hypothesis H2 is not supported.

### **12.9.3 Testing Hypothesis H3**

Hypothesis H3 states that *Transformational leadership behaviour is positively correlated with a demonstration of OCB*. This hypothesis is supported. The results of a correlation analysis using Pearson's *r* (Table 83) identified that a demonstration of TLQ is strongly correlated to the single overall factor of OCB, which supports



Hypothesis H3. In particular the TL factor *Decisive* is most strongly correlated with the single OCB factor (.572), and the TL factor *Networking* is least strongly correlated.

	OCB	Helping Behaviour	Sportsmanship
<b>Genuine Concern</b>	.400**	.318**	.367**
<b>Networking</b>	.324**	.279**	.299**
<b>Enabling</b>	.345**	.241**	.297**
<b>Open/Trustworthy</b>	.534**	.238**	.636**
<b>Decisive</b>	.572**	.315**	.663**

\*\*Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 83 - Correlation of TL and OCB Factors

All five factors of the TLQ are strongly correlated to a demonstration of both Helping Behaviour and Sportsmanship. The TL factor *Genuine Consideration* is most strongly correlated with the OCB factor *Helping Behaviour*; *Decisive* is slightly less strongly correlated. The *Open/ Trustworthy* factor is the least strongly correlated to *Helping Behaviour*. The TL factor *Decisive* is most strongly correlated with *Sportsmanship*, followed closely by *Open/ Trustworthy*. Overall, the TL factor *Decisive* is most strongly correlated with OCB, and *Enabling* is the least strongly correlated. Therefore, the hypothesis H3 is supported.

#### 12.9.4 Testing Hypothesis H4

Hypothesis H4 states that *The impact of transformational leadership behaviour is more evident amongst knowledge workers than with non-knowledge workers.* This hypothesis is supported. An independent samples t-test for the demonstration of transformational leadership between knowledge and non-knowledge workers (Table 84) returned an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) and suggested a significant difference between the two groups.

		Levene's Test for Equality of Variances				
		F	Sig.	T	df	Sig. (2-tailed)
TL	Equal variances assumed	.632	.427	2.352	424	.019
	Equal variances not assumed			2.358	422.84	.019

Table 84 - Independent Samples Test – Demonstration of TL between KWs & non-KWs

An independent samples t-test for the five transformational leadership factors (Table 85) returned an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) for three of the TLQ factors: *Genuine Consideration*, *Networking* and *Enabling*. The two other factors, *Decisive* and *Open/ Trustworthy*, were found to have no significant difference between the two groups.

Levene's Test for Equality of Variances							
		F	Sig.	T	df	Sig.	(2-tailed)
GC	Equal variances assumed	3.317	.069	2.701	424	.007	
	Equal variances not assumed			2.713	423.81	.007	
Network	Equal variances assumed	1.781	.183	2.514	424	.012	
	Equal variances not assumed			2.525	423.91	.012	
Enabling	Equal variances assumed	5.567	.019	2.539	424	.011	
	Equal variances not assumed			2.563	421.60	.011	
Open	Equal variances assumed	2.245	.135	.243	424	.808	
	Equal variances not assumed			.242	411.61	.809	
Decisive	Equal variances assumed	.047	.828	.676	424	.499	
	Equal variances not assumed			.676	419.50	.499	

Table 85 - Independent Samples Test - Demonstration of TL factors between KWs and non-KWs

In addition an analysis of variance ( $F=1.476$ ) shows that transformational leadership is more evident with knowledge workers than non-knowledge workers:

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	59.283	196	.302	1.476	.002
Within Groups	46.933	229	.205		
Total	106.216	425			

Table 86 – ANOVA: TL between KWs and non-KWs

There is a significant difference in the independent sample tests for the level of transformational leadership demonstrated between knowledge and non-knowledge workers, and consequently hypothesis H4 is supported.

#### **12.9.5 Testing hypothesis H5**

Hypothesis H5 states that the existence of a *balanced psychological contract is more evident with knowledge workers than with non-knowledge workers*. This hypothesis was partially supported. An independent samples t-test for H5 (Table 86) the demonstration of a balanced psychological contract between knowledge and non-knowledge workers did not return an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) and suggested no significant difference between the two groups.

		Levene's Test for Equality of Variances					
		F	Sig.	T	df	Sig. (2-tailed)	
Balance	Equal variances assumed	.001	.979	.525	424	.600	
	Equal variances n/assumed			.524	416.42	.600	

Table 87 - Independent Samples Test Balanced Contract between KWs and non KWs

An analysis of the means for the two groups (Table 88) highlights that the means for knowledge workers for the emergence of balanced contracts are very slightly higher than for non-knowledge workers, but are slightly higher for non-KWs for the *Dynamic* and *External Development* factors. Table 89 shows the independent samples t-test for the three factors of the Balanced Contract (*Dynamic*, *Internal Development*, *External Development*) in the PCI (Rousseau, 2000) returned no obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ) for the two factors *Dynamic* and *External Development*, but did find a significant value for the difference between the two groups on the factor *Internal Development*. Consequently there is partial support for hypothesis H5.

<b>Knowledge</b>		<b>Balanced</b>	<b>Dynamic</b>	<b>Internal</b>	<b>External</b>
KWs	Mean	3.1978	2.7748	3.5928	3.2252
	N	202	202	202	202
	Std. Dev	.63839	.90878	.87267	.93874
Non KWs	Mean	3.1658	2.8170	3.4152	3.2634
	N	224	224	224	224
	Std. Dev	.61872	.84704	.97878	1.03679
Total	Mean	3.1810	2.7969	3.4994	3.2453
	N	426	426	426	426
	Std. Dev	.62759	.87607	.93313	.99053

Table 88 - Means and SD for KWs & non KWs & PCs

		Levene's Test for Equality of Variances					
		F	Sig.	T	df	Sig.	(2-tailed)
Dynamic	Equal variances assumed	.533	.466	-.496	424	.620	
	Equal variances n/assumed			-.494	411.60	.621	
Internal	Equal variances assumed	2.891	.090	1.969	424	.050	
	Equal variances n/assumed			1.980	423.94	.048	
External	Equal variances assumed	3.546	.060	-.396	424	.692	
	Equal variances n/assumed			-.399	423.99	.690	

Table 89 - Independent Samples Test: Three factors of Balanced PC between KWs & non KWs

### 12.9.6 Testing hypothesis H6

Hypothesis H6 states that the *existence of a relational or transactional psychological contract is more evident amongst non-knowledge workers than with knowledge*

workers. This hypothesis is partially supported. An independent samples t-test for H6 (Table 90) returned an obtained value that exceeded the critical value of 2.021 ( $p > 0.5$ ) for the relational contract and suggested a significant difference between the two groups. The results for the transactional contract did not return a significant obtained value and suggested no significant difference between the two groups.

		Levene's Test for Equality of Variances				
		F	Sig.	T	df	Sig. (2-tailed)
Relational	Equal variances assumed	1.986	.160	3.645	424	.000
	Equal variances n/assumed			3.656	423.254	.000
Transact	Equal variances assumed	.632	.427	1.618	424	.106
	Equal variances n/assumed			1.622	422.596	.106

Table 90 - Independent Samples t-Test Relational/ Transactional PC – non-KWs and KWs

An analysis of the means for the two groups (Table 91) highlights that the means for knowledge workers for the emergence of relational contracts is higher than for non-knowledge workers. There is no significant difference in the means between the two groups in the other two types of contract.



<b>Knowledge</b>		<b>Balance</b>	<b>Relational</b>	<b>Transact</b>
1.00	Mean	3.198	3.157	2.663
	N	202	202	202
	Std. Deviation	.6384	.7515	.6235
2.00	Mean	3.166	2.882	2.562
	N	224	224	224
	Std. Deviation	.6187	.79930	.65283
Total	Mean	3.181	3.012	2.610
	N	426	426	426
	Std. Deviation	.6276	.7882	.6403

Table 91 - Means and SD for KWs and non KWs and PCs

Table 92 shows an independent samples t-test for the four factors of the Relational and Transactional Contract (Loyalty/ Security and Narrow/ Short-term) in the PCI (Rousseau, 2000) returned significant obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ) for both the Relational factors but not for the transactional factors. Consequently there is partial support for hypotheses H6.

Levene's Test for Equality of Variances							
Factor		F	Sig.	T	df	Sig. (2-tailed)	
S/term	Equal variances assumed	.001	.974	1.248	424	.213	
	Equal variances not assumed			1.249	420.85	.212	
Narrow	Equal variances assumed	4.003	.046	1.160	424	.247	
	Equal variances not assumed			1.172	419.10	.242	
Loyalty	Equal variances assumed	6.194	.013	2.722	424	.007	
	Equal variances not assumed			2.743	423.17	.006	
Secure	Equal variances assumed	2.719	.100	3.179	424	.002	
	Equal variances not assumed			3.193	423.80	.002	

Table 92 - Independent Samples t-Test Relational/ Transactional PC factors – non-KWs and KWs

### **12.9.7 Testing Hypothesis H7**

Hypothesis H7 states that *the impact of transformational leadership behaviour is more positively correlated with a balanced psychological contract amongst*

knowledge workers than non-knowledge workers. This hypothesis is supported. A correlation analysis using Pearson's r (Table 93). \*\* Correlation is significant at the 0.01 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 94 was used to test hypothesis H7. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to the *Balanced* psychological contract, but the correlation was only very slightly stronger in the knowledge worker group.

<b>Knowledge workers</b>		<b>TL</b>	<b>Balance</b>
TL	Pearson Correlation	1	.694(**)
	Sig. (2-tailed)		.000
	N	202	202
Balance	Pearson Correlation	.694(**)	1
	Sig. (2-tailed)	.000	
	N	202	202

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 93 - Correlations: KWs – TL and BPC

<b>Non-knowledge workers</b>		<b>TL</b>	<b>Balance</b>
TL	Pearson Correlation	1	.666(**)
	Sig. (2-tailed)		.000
	N	224	224
Balance	Pearson Correlation	.666(**)	1
	Sig. (2-tailed)	.000	
	N	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 94 - Correlations: Non-KWs – TL and BPC

Table 95 shows a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H7, with an examination of the correlations between the five TL factors and the three Balanced PC factors. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to the Balanced psychological contract, however the correlation was slightly stronger in the knowledge worker group. *Open/trustworthy* and *Decisive* were strongly correlated with the Balanced contract amongst KWs, but less with the non-KWs. The three factors GC, Decisive and Open/Trustworthy were strongly correlated with Dynamic Performance, but not *Enabling or Networking*. The results also indicate that the PCI factor *Dynamic Performance* has the weakest correlation with the five factors of the TLQ. It is strongly correlated with Genuine Consideration, Open/ Trustworthy and Decisive amongst knowledge workers but not amongst non-knowledge workers.

*Genuine Consideration* has the strongest relationship with the Balanced PC amongst both knowledge workers and non-knowledge workers, particularly with the Internal factor. It was strongly correlated with all three factors with the knowledge workers, but only on the Internal and External factors with the non-knowledge workers.

*Networking* has a strong correlation with the External and Internal factors of the Balanced PC amongst both knowledge workers and non-knowledge workers. It was more strongly correlated with the Internal factor with the knowledge workers, and with the External factors with the non-knowledge workers. It has a weak link with the Dynamic factor for both the knowledge and non-knowledge workers.

*Enabling* has a strong correlation with the External and Internal factors of the Balanced PC amongst both knowledge workers and non-knowledge workers. It was more strongly correlated with both the Internal and External factors with the knowledge workers than with the non-knowledge workers. It has a weak link with the Dynamic factor for both the knowledge and non-knowledge workers.

*Decisive* has a strong correlation with all three factors of the Balanced PC amongst knowledge workers, but only on the *Internal* and *External* factors amongst non-knowledge workers. It was more strongly correlated with the *Internal* factor with the knowledge workers, and with the *External* factors with the non-knowledge workers.

Pearson Correlation		Dynamic	Internal	External
GC	KW	.193(**)	.749(**)	.532(**)
	Non- KW	.051	.631(**)	.581(**)
Network	KW	.095	.593(**)	.392(**)
	Non- KW	.051	.524(**)	.536(**)
Enabling	KW	.112	.643(**)	.439(**)
	Non- KW	-.012	.443(**)	.407(**)
Open	KW	.354(**)	.515(**)	.242(**)
	Non- KW	.136(*)	.406(**)	.354(**)
Decisive	KW	.280(**)	.595(**)	.393(**)
	Non- KW	.162(*)	.386(**)	.435(**)

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 95 - Correlations: KWs/ Non-KWs – TL and BPC Factors

### 12.9.8 Testing hypothesis H8

Hypothesis H8 states that *the impact of transformational leadership behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers*. This hypothesis is partially supported. A correlation analysis using Pearson's *r* (Table 96) was used to test hypothesis H8. A comparison of the two independent groups of knowledge

workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to the Relational and Transactional psychological contract. The correlation was stronger in the non-knowledge worker group in terms of the Relational contract, but stronger in the knowledge workers group for the Transactional contract.

		<b>TL</b>	<b>Relational</b>	<b>Transact</b>
TL	Pearson Correlation	1	.607(**)	.365(**)
	Sig. (2-tailed)		.000	.000
	N	202	202	202
Relational	Pearson Correlation	.607(**)	1	.087
	Sig. (2-tailed)	.000		.218
	N	202	202	202
Transact	Pearson Correlation	.365(**)	.087	1
	Sig. (2-tailed)	.000	.218	
	N	202	202	202

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 96 - Correlations TL – Relational/ Transactional PCs amongst KWs

		<b>TL</b>	<b>Relational</b>	<b>Transact</b>
TL	Pearson Correlation	1	.689(**)	.270(**)
	Sig. (2-tailed)		.000	.000
	N	224	224	224
Relational	Pearson Correlation	.689(**)	1	.282(**)
	Sig. (2-tailed)	.000		.000
	N	224	224	224
Transact	Pearson Correlation	.270(**)	.282(**)	1
	Sig. (2-tailed)	.000	.000	
	N	224	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 97 - Correlations TL – Relational/ Transactional PCs amongst non-KWs

Table 98 shows the results of a correlation analysis using Pearson's *r* was used for a more detailed test of hypothesis H8, with an examination of the correlations between the five TL factors and the 4 Relational/Transactional PC factors. With both knowledge workers and non-knowledge workers, all five factors of TL were negatively correlated to *Short-term* but positively correlated with the other Transactional element (*Narrow*). All five factors were also positively correlated with both Relational factors for both groups. All five factors are strongly correlated to the factors *Narrow and Security*, and most strongly with the factor *Loyalty*. All are negatively correlated with the factor *Short Term*. They are more strongly correlated to the factors *Narrow and Loyalty* with knowledge workers and more strongly to the



factor *Security* with non-knowledge workers. They are negatively correlated with the factor *Short Term* with both groups. Given these findings, Hypothesis H8 is only partially supported.

Factor		Short term	Narrow	Loyalty	Security
GC	KW	-.029	.562(**)	.757(**)	.355(**)
	Non- KW	-.108	.397(**)	.681(**)	.522(**)
Network	KW	-.103	.438(**)	.585(**)	.276(**)
	Non- KW	-.087	.349(**)	.550(**)	.439(**)
Enabling	KW	-.065	.540(**)	.673(**)	.227(**)
	Non- KW	-.149(*)	.258(**)	.489(**)	.366(**)
Open	KW	-.008	.328(**)	.522(**)	.135(**)
	Non- KW	-.044	.177(**)	.369(**)	.277(**)
Decisive	KW	-.010	.407(**)	.549(**)	.197(**)
	Non- KW	-.024	.247(**)	.388(**)	.347(**)

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 98 - Correlations: TL and Relational /Transactional PC factors

### 12.9.9 Testing Hypothesis H9

Hypothesis H9 states that *organisational citizenship behaviour is more evident amongst knowledge workers than non-knowledge workers*. This hypothesis is not supported. An independent samples t-test for H9 (Table 99) returned an obtained

value that did not exceed the critical value of 2.021 ( $p > 0.5$ ) and suggested no significant difference between the two groups.

Levene's Test for Equality of Variances						
		F	Sig.	T	df	Sig. (2-tailed)
OCB	Equal variances assumed	.637	.425	.259	424	.796
	Equal variances n/assumed			.260	423.54	.795

Table 99 - Independent Samples Test on level of OCB between KW and non KWs

Additionally an independent samples t-test for the two factors of the OCB (Table 100) used in this research (*Helping Behaviour and Sportsmanship*) returned no significant obtained values that exceeded the critical value of 2.021 ( $p > 0.5$ ). Consequently there is no support for hypotheses H9.

Levene's Test for Equality of Variances						
Factor		F	Sig.	T	df	Sig. (2-tailed)
Helping	Equal variances assumed	.149	.699	1.006	424	.315
	Equal variances n/assumed			1.004	414.92	.316
Sportsman	Equal variances assumed	.168	.682	-.786	424	.432
	Equal variances n/assumed			-.808	352.89	.420

Table 100 - Independent Samples Test on Level of OCB factors between KW and non KWs

### **12.9.10 Testing Hypothesis H10**

Hypothesis H10 states that *organisational citizenship behaviour is more positively correlated with transformational leadership amongst knowledge workers than non-knowledge workers*. This hypothesis was supported. A correlation analysis using Pearson's *r* (Table 99/ Table 100) was used to test hypothesis H10. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to OCB, but the correlation was significantly stronger in the knowledge worker group.

		<b>TL</b>	<b>OCB</b>
TL	Pearson Correlation	1	.611(**)
	Sig. (2-tailed)		.000
	N	202	202
OCB	Pearson Correlation	.611(**)	1
	Sig. (2-tailed)	.000	
	N	202	202

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 101 - Correlations between OCB and TL in KW Sample

		<b>TL</b>	<b>OCB</b>
TL	Pearson Correlation	1	.391(**)
	Sig. (2-tailed)		.000
	N	224	224
OCB	Pearson Correlation	.391(**)	1
	Sig. (2-tailed)	.000	
	N	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 102 - Correlations between OCB and TL in non-KW sample

Table 102 set out the results of a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H10, with an examination of the correlations between the five TL factors and the 2 OCB factors. With both knowledge workers and non-knowledge workers all five factors of TL were positively correlated to both of the OCB factors. In all cases the correlation was stronger between the factors amongst knowledge workers than amongst non-knowledge workers. Given these findings Hypothesis H10 is supported.

<b>Factor</b>		<b>Helping</b>	<b>Sportsman</b>
GC	KW	.493(**)	.413(**)
	Non- KW	.253(**)	.300(**)
Networking	KW	.414(**)	.420(**)
	Non- KW	.195(**)	.238(**)
Enabling	KW	.431(**)	.429(**)
	Non- KW	.188(**)	.180(**)
Open	KW	.699(**)	.477(**)
	Non- KW	.572(**)	.132(*)
Decisive	KW	.731(**)	.569(**)
	Non- KW	.599(**)	.212(**)

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 103 - Correlations TL and OCB factors for KW and non-KWs

### 12.9.11 Testing Hypothesis H11

Hypothesis H11 states that *organisational citizenship behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers*. This hypothesis is supported. A correlation analysis using Pearson's *r* (Table 104) was used to test hypothesis H11. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that there is a stronger correlation between a Balanced PC and OCB amongst KWs than non-KWs.

		<b>Balance</b>	<b>OCB</b>
Balance	Pearson Correlation	1	.439(**)
KWs	Sig. (2-tailed)		.000
	N	202	202
Balance	Pearson Correlation	1	.303(**)
Non KWs	Sig. (2-tailed)		.000
	N	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 104 - Correlations Balanced PC and OCB for KW and non-KWs

Table 105 sets out the results of a correlation analysis using Pearson's *r* was used for a more detailed test of hypothesis H11, with an examination of the correlations between the three Balanced PC factors and the 2 OCB factors. With both knowledge workers and non-knowledge workers all three factors of the Balanced PC were positively correlated to both of the OCB factors, but the correlation between *Sportsmanship* and the *Dynamic* factor was weak for both KWs and non-KWs. The

correlation between *Sportsmanship* and *Internal development* was weak for non-KWs. In all cases the correlation was stronger between the factors amongst knowledge workers than amongst non-knowledge workers. Given these findings Hypothesis H11 is supported.

		<b>Dynamic</b>	<b>Internal</b>	<b>External</b>
Helping	Pearson Correlation	.338(**)	.429(**)	.206(**)
KWs	Sig. (2-tailed)	.000	.000	.003
	N	202	202	202
Helping	Pearson Correlation	.344(**)	.156(*)	.198(**)
Non KWs	Sig. (2-tailed)	.000	.019	.003
	N	224	224	224
Sportsman	Pearson Correlation	.094	.446(**)	.317(**)
KWs	Sig. (2-tailed)	.184	.000	.000
	N	202	202	202
Sportsman	Pearson Correlation	.009	.080	.227(**)
Non KWs	Sig. (2-tailed)	.898	.230	.001
	N	224	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 105 - Correlations Balanced PC factors & OCB factors for KW & non-KWs

### 12.9.12 Testing Hypothesis H12

Hypothesis H12 states that *organisational citizenship behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers*. This hypothesis is not supported. A correlation analysis using Pearson's  $r$  (Table 106) was used to test hypothesis H12. Although OCB is not negatively correlated with the relational or transactional contracts amongst non-KWs, it is less positively correlated than amongst the knowledge workers. It is perhaps surprising that there is a strong positive correlation between the transactional contract and OCB amongst KWs.

		<b>Relational</b>	<b>Transact</b>	<b>OCB</b>
OCB	Pearson Correlation	.376(**)	.253(**)	1
KWs	Sig. (2-tailed)	.000	.000	
	N	202	202	202
OCB	Pearson Correlation	.258(**)	.141(*)	1
Non-KWs	Sig. (2-tailed)	.000	.034	
	N	224	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 106 - Correlations Balanced Relational and Transactional Contracts and OCB for KWs

Table 107/ Table 108 sets out the results of a correlation analysis using Pearson's  $r$  was used for a more detailed test of hypothesis H12, with an examination of the



correlations between the four Relational/ Transactional PC factors and the two OCB factors. A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups the factor *Helping Behaviour* was positively correlated to both factors of the Relational contract (*Security/ Loyalty*), but the correlation was stronger in the knowledge worker group for the *Loyalty* factor, and stronger in the non-knowledge group for the *Security* factor. The factor *Helping Behaviour* was positively correlated to both factors of the Transactional contract (*Short-term/ Narrow*), but the correlation was stronger in the knowledge worker group for the *Narrow* factor, and stronger in the non-knowledge group for the *Short-term* factor.

		<b>Short term</b>	<b>Narrow</b>	<b>Loyalty</b>	<b>Security</b>
<b>Helping</b>	Pearson Correlation	.102	.230(**)	.440(**)	.272(**)
<b>KWs</b>	Sig. (2-tailed)	.148	.001	.000	.000
	N	202	202	202	202
<b>Sportsman</b>	Pearson Correlation	.017	.379(**)	.391(**)	.088
<b>KWs</b>	Sig. (2-tailed)	.815	.000	.000	.214
	N	202	202	202	202

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 107 - Correlations Relational and Transactional Contract factors and OCB factors for KWs

		Short term	Narrow	Loyalty	Security
Helping	Pearson Correlation	.137(*)	.051	.172(*)	.334(**)
Non-KWs	Sig. (2-tailed)	.041	.451	.010	.000
	N	224	224	224	224
Sportsman	Pearson Correlation	-.030	.112	.146(*)	.064
Non-Kws	Sig. (2-tailed)	.655	.094	.029	.344
	N	224	224	224	224

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 108 - Correlations Relational and Transactional Contract Factors and OCB factors for non-KWs

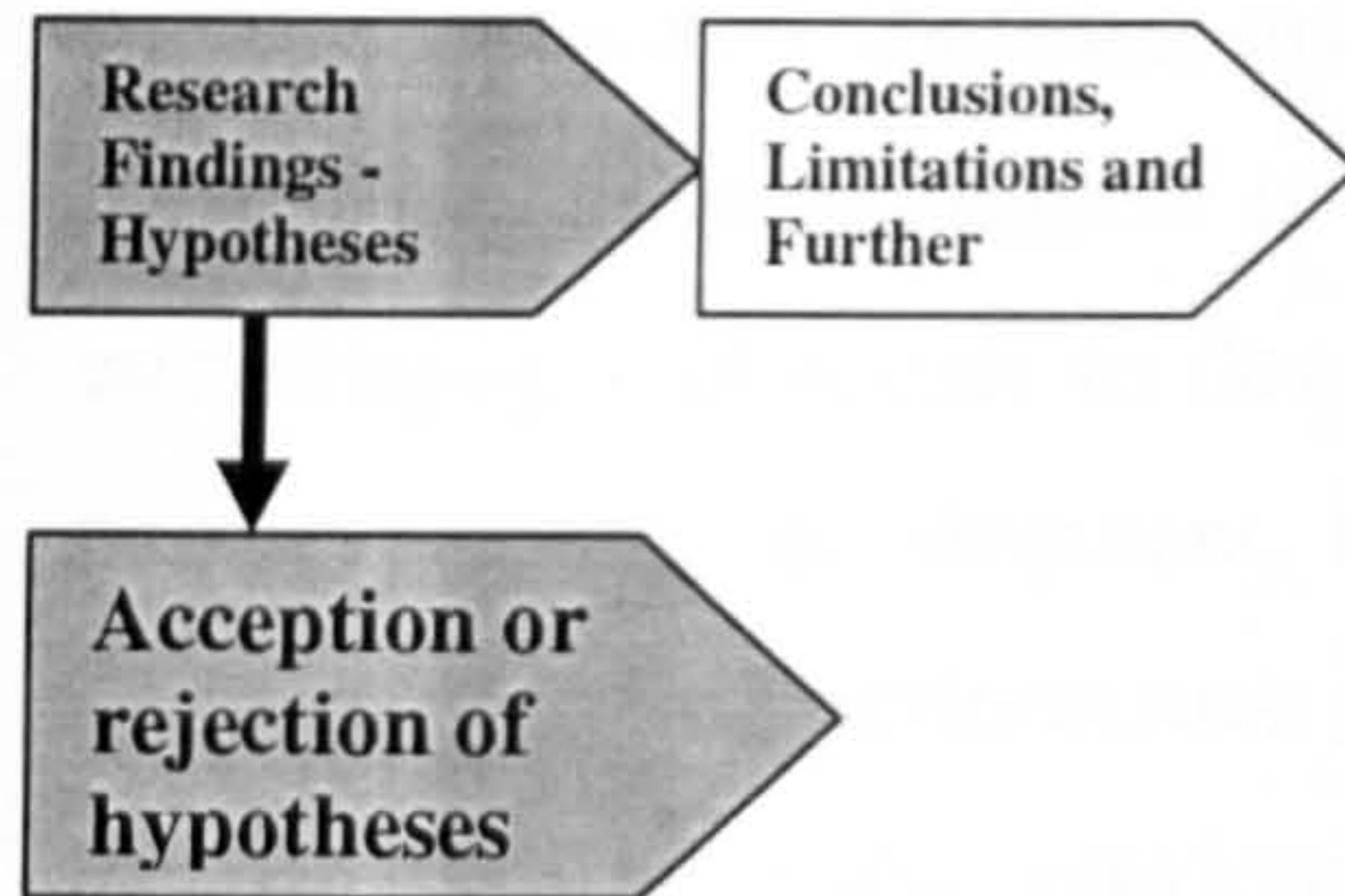
## 12.10 Summary

The discussion in this section of the thesis is based on results gained from aggregated data. It has demonstrated that the changes in the OCB and TLQ instruments were necessary due to reliability and factorial structure issues. The next chapter relates the research findings to the experimental hypotheses set out in chapter eight and discusses the findings in relation to previous research and theory in this area and in the more general leadership literature.

## CHAPTER 13 RESEARCH FINDINGS – HYPOTHESES

### 13.1 Outline of the Chapter

This chapter reviews and discusses the findings of the research findings, and accepts or rejects the hypotheses.



### 13.2 Acceptance or Rejection of the Research Hypotheses

The hypotheses were rejected or accepted depending on the evidence emerging from the research.

**H1 = The demonstration of transformational leadership behaviour is positively correlated with the emergence of a balanced psychological contract.**

This hypothesis was accepted. The analysis of the data shows that transformational leadership is strongly correlated to the emergence of a balanced psychological contract and that Hypothesis One is supported. All five factors of the TLQ were strongly correlated to the three factors of the Balanced psychological contract. This supports Burns' (1978) assertion that when transforming leadership occurs '*leaders and followers raise one another to higher levels of motivation and morality*' (p.20). This research has for the first time empirically tested Burns' leadership theory and

found support for it. It can now be argued that Burns' model has both an analytic and predictive function.

It is of particular note that in this study four of the five TL factors (*GC/ Networking/ Enabling and Decisive*) are all strongly correlated to two elements of the Balanced contract factor (*Internal development/ External development*) but more weakly correlated to the third element (*Dynamic Performance*). This is contrary to the findings of other research which found a positive relationship between aspects of TL such as attributed charisma and performance (Bass and Yammarino, 1991). What these findings may suggest is that TL is more effective as a leadership style in encouraging individuals to develop their own potential and gain the confidence to pursue personal development, but its influence on persuading individuals to seek more challenging performance goals and targets is more limited, which challenges the findings of some previous research (Bass, 1985; Howell and Frost, 1989; McKenzie et al., 2001). It also challenges some of the assumptions of Bass (1999) in that the followers' response to the TL behaviours is to emphasise their self actualisation motivations, but primarily the ones focussed on self rather than on improving performance for the benefit of the organisation or wider group.

**Evidence is therefore presented to support Hypothesis One.**

<p><b>H2 = The demonstration of transformational leadership behaviour is negatively correlated with the emergence of a transactional or relational psychological contract.</b></p>
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This research has found that the factors in the TLQ are generally all strongly correlated with both the Transactional and Relational Contracts. In particular TL is very strongly correlated to the emergence of a relational psychological contract and was most strongly correlated with the factor *Loyalty* (.717). Most significant is that,

contrary to expectations, the correlation between the TL factors and the Relational contract, consisting of mainly mid-level motivators such as loyalty and security, on Maslow's (1954) hierarchy, was as strong or in some cases stronger than the correlation between the TL factors and the Balanced contract which is focussed on addressing the higher level needs such as development and performance improvement. Similarly, the factor *Networking* has a strong correlation to the PC factor *Loyalty* (Table 81). One of the scales of this factor in the TLQ is that the leader is able *to communicate effectively to the public/ community the vision of the organisation/ department*. It could be suggested that the ability to set out the vision of the organisation or department engenders an understanding of the purpose of the team and a sense of loyalty to the vision. As with the previous factor *Genuine Consideration*, there is a low correlation between *Networking* and *Short Term*, as employees on a limited contract may have little interest or commitment to a vision or purpose which is longer term.

**Therefore, the hypothesis H2 is not supported.**

<p><b>H3 = Transformational leadership behaviour is positively correlated with a demonstration of OCB.</b></p>
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The research found that all five factors of the TLQ are strongly correlated to a demonstration of OCB, and to both factors: *Helping Behaviour* and *Sportsmanship*. This supports other research that has found that reciprocating behaviour at work is aimed at the entity from which benefits are sourced (Dabos and Rousseau, 2004) and research demonstrating a correlation between TL and OCB (Podsakoff et al., 1990; Podsakoff et al., 1997; McKenzie et al., 2001). These findings support Burns' (1978) theory that a demonstration of transformational leadership will appeal to the follower's motivation and result in a greater commitment of resources to the relationship.

The TL factor Decisive is most strongly correlated with OCB, and *Enabling* is the least strongly correlated. It could be argued that when a leader is clear and decisive about the expectation from an individual they are more ready to exceed those parameters and demonstrate initiative.

Therefore, the hypothesis H3 is supported.

**H4 = The impact of transformational leadership behaviour is more evident amongst knowledge workers than with non-knowledge workers.**

An independent samples t-test for the demonstration of transformational leadership suggested a significant difference between knowledge and non-knowledge workers. In particular the results highlighted a significant difference between the two groups for three of the TLQ factors: *Genuine Consideration*, *Networking* and *Enabling*. Alimo-Metcalfe and Alban-Metcalfe (2001) state that in the TLQ the factor *Genuine Consideration* refers to a leader who demonstrates ‘*a genuine interest in me as an individual and develops my strengths.*’ The research findings may suggest that this factor is more prevalent amongst leaders of knowledge workers because leaders of knowledge workers are limited in their ability to specify in detail the task requirements in knowledge work and supervise their implementation. Knowledge work cannot be proceduralised and the leader is highly reliant on the interpretation and fulfilment of the job role by the individual, so consequently the leader’s focus is on ensuring that the individual is content with the task and has the necessary resources and support to fulfil their roles.

It can be argued that the demonstration of the *Enabling* behaviour by leaders is designed to access and maintain a strategic resource in the knowledge organisation. The strategic importance of intellectual capital as the source of innovation and differentiation will give leaders an impetus to seek to enable knowledge workers to optimise their knowledge and create a strategic advantage for the organisation (Flood et al., 2001; Stiglitz., 1999; Lowendhal et al., 2001). The creation of a culture supportive of innovation and the development of innovative behaviours have also been found to be related to high quality exchange relationship supported by transformational leadership (Scott and Bruce, 1994). The nature of knowledge work prevents the organisation being able to direct activity with procedures or systems; rather the organisation is dependent on the individual's ability to analyse and respond to a specific problem or set of requirements (Tsoukas and Mylonopoulos, 2004). They are also expected to take a major part of the responsibility for design, development or delivery of the final product or service to the end client and as such are major contributors to the success of the organisation. The organisation is reliant on the knowledge worker demonstrating commitment to the collective goals and objectives.

**From these findings, hypothesis H4 is supported.**

<p><b>H5 = The existence of a balanced psychological contract is more evident amongst knowledge workers than non-knowledge workers.</b></p>
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The findings for H5 suggest no significant difference between the two groups in terms of the existence of a balanced psychological contract. These findings suggest that a balanced psychological contract is as likely to exist with non-knowledge workers as with knowledge workers. It can be argued that this is contrary to the expectations of Burns' theory as it would be supposed that the leaders of knowledge workers would seek to address the higher level motivators as a means of accessing

their resources. It would also appear to undermine the findings of H4 where TL was more evident amongst KWs than non-KWs, as a greater evidence of TL should result in a higher level of motivation amongst one group. Crozier's strategic contingency theory (1964) would also expect that knowledge workers would use their control of the strategic resource to maximise their advantage with the organisation and secure the higher level motivators that they seek. It is also contrary to the findings of Rousseau (1995; 2000) that balanced exchanges were becoming *'increasingly common in employment, particularly among highly skilled knowledgeable workers,'* as a result of the growing need for higher levels of involvement and creativity typical of knowledge companies.

The balanced contract is an open-ended relationship with specific, agreed performance outcomes that are mutable over time. Dabos and Rousseau (2004) state that balanced PC includes dynamic performance requirements, personal development and career development. It incorporates aspects of both relational and transactional contracts, such as the level of involvement and long-term time frame that characterises relational contracts but also allows for greater flexibility and performance changes. It is perhaps surprising in the light of Burns' (1978) theory that there is no significant difference in the level of balanced contracts between the two groups as the issues of personal development, career development and performance are all highlighted in research as key motivators for knowledge workers (Robinson and Rousseau, 1994; Hall, 1996; Flood et al., 2001; Lester and Kickul, 2001; Smithson and Lewis, 2000; Schein, 1996).

It could be argued that insecurity of employment now exists in a wide range of industries and that all types of workers are conscious of developing their own personal employability. It may also support the arguments made for hypothesis H2, that security of employment is a major motivator of all types of worker. What these findings also challenge are some of the perhaps more populist stereotypes of knowledge workers as predominantly young, mobile and employable and with little



loyalty to anyone but themselves. These results suggest that career development is important but so is mutual loyalty and security.

**From these findings, hypothesis H5 is not supported.**

**H6 = The existence of a relational or transactional psychological contract is more evident amongst non-knowledge workers than knowledge workers.**

The findings for H6 for the relational contract suggested a significant difference between the two groups, whilst the results for the transactional contract suggested no significant difference between the two groups. Further testing of the four factors of the Relational and Transactional Contract (Loyalty/ Security and Narrow/ Short-term) in the PCI (Rousseau, 2000) returned significant obtained values for both the Relational factors but not for the Transactional factors.

The relational contracts are described by Dabos and Rousseau (2004) as contracts including mutual loyalty, long term stability and job security. The mean scores in the data analysis highlight that the knowledge workers' mean was higher for relational contracts than the non-KWs. These findings, coupled with those of H5, could suggest that contrary to much of the research and much of the popular business press, knowledge workers value stability, job security and tenure of employment more than is perceived. Studies across a range of sectors have identified loyalty and job security as key factors in the content of the psychological contract for different types of employees (Rousseau, 1990; Herriot et al., 1987). The study by Thompson and Heron (2001) of six R&D-intensive high technology companies also highlighted that one of the six key contract factors was job security.

The transactional contract is of limited duration and with clearly defined outputs or activities. The transitional contract describes a relationship where there is no commitment to a time frame and there are no defined outcomes or tasks (Rousseau, 2000). They have low levels of organisational commitment and weak integration into the organisation. (Dabos and Rousseau, 2004) state that the transactional contract has two main dimensions:

- a) narrow involvement in the organisation, limited to a few defined tasks; and
- b) short term duration.

The transactional contract can also be characterised by collaborations of limited timescale and with high levels of turnover. Guest (2004) highlights that employment in is becoming increasingly contingent, and in perceiving the employment relationship to be transient the worker may have an expectation of an explicit transactional contract and have little expectation beyond the terms and conditions set out in that agreement. The perception of some knowledge workers is that they are often employed on temporary contracts for the duration of a project basis and have more expectation of a transactional contract (Guest and Patch, 2001; Stewart, 1997). One explanation of the findings is that the knowledge sector with its emphasis on project work is as likely as any other sector to have employees with a short term mentality to their roles. Another possible explanation is that there are knowledge workers whose motivations are on the lower levels of Maslow's hierarchy and that they seek to carry out a highly complex task but with little involvement in the wider organisation.

**From these findings, hypothesis H6 is partially supported.**

**H7 = The impact of transformational leadership behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**

A correlation comparison of the two groups identified that in both groups transformational leadership was positively correlated to the Balanced psychological contract, but the correlation was stronger in the knowledge worker group. A more detailed examination of the correlations between the five TL factors and the 3 Balanced PC factors identified that in both groups transformational leadership was positively correlated to the three factors of the Balanced psychological contract, but the correlation was slightly stronger in the knowledge worker group.

The three factors *Genuine Consideration*, *Decisive* and *Open/ Trustworthy* were strongly correlated with *Dynamic Performance*, but not *Enabling* or *Networking*. The results also indicate that the PCI factor *Dynamic Performance* has the weakest correlation with the five factors of the TLQ. It is strongly correlated with *Genuine Consideration*, *Open/Trustworthy* and *Decisive* amongst knowledge workers but not amongst non-knowledge workers, but even amongst KWs the correlation is significantly lower than the other two factors. This may question to an extent the structure of Rousseau's (2000) balanced contract model, where it is perceived by both KWs and non-KWs as emphasizing more the developmental aspects of the leader-follower relationship rather than the performance areas.

Rousseau (2000) describes the factor *Dynamic Performance* as '*employees are expected to successfully perform new and more demanding goals, which can change again and again in the future, to help the firm become and remain competitive.*' (P.5) These findings may suggest that non-knowledge workers in particular focus on the developmental aspects of the balanced contract but not on the performance aspect. The two TLQ factors *Enabling* and *Networking* were both negatively correlated to

*Dynamic Performance*. This may be because their performance scope is more closely defined and provides less room for change and role development, and less of a need for the reputation of work and knowledge to be communicated out with the team or organization than there is with KWs. Knowledge workers value the work itself as a major source of job satisfaction, and consider the level of challenge and the opportunities for achievement in a job as a key factor in determining job satisfaction (Coff, 1997; Robinson and Rousseau, 1999; Flood et al., 2001; Thompson and Heron, 2001).

The balanced contract factor *Internal Development* was strongly correlated with all five factors of the TLQ across both groups, but particularly with the knowledge workers. *Genuine Consideration* was the strongest correlation and *Open/Trustworthy* the least strongly correlated in both groups. The correlation for knowledge workers was stronger across all five TLQ factors for *Internal Development* than for the non-knowledge workers, but the converse was true for *External Development*, with the exception of the *Enabling* factor. It is perhaps unsurprising that knowledge workers perceive transformational leadership as more strongly correlated to the issue of internal development as it emphasises communication, individualised consideration and an emphasis on learning that appeals to the motivations of knowledge workers. Thompson and Heron (2001) state that '*challenging assignments*' are major motivators for knowledge workers. Formal training is less relevant to the knowledge worker and there is a greater emphasis on on-job learning experiences where new knowledge is gained or shared. Bass & Avolio (1994) state that transformational leaders stimulate their followers' creativity by questioning assumptions, reframing problems, and adopting innovative approaches to existing processes. The issue of providing challenging, intellectually stimulating work is fundamental in knowledge businesses as it is the source of innovation that provides the organisation's competitive advantage, but it also offers individuals the opportunity to develop their own personal knowledge equity (Hall, 1996; Kelloway and Barling, 2000; Johannessen, Olaisen, Johannessen and Olson, 1999). The creation of a culture supportive of innovation and the development of

innovative behaviours have also been found to be related to high quality exchange relationships supported by transformational leadership (Scott and Bruce, 1994).

With non-KWs the emphasis may be more on leadership support on developing out of the job and into a new role or a promoted position and consequently the stronger correlation with the factor *External Development*. The correlations for knowledge workers were also strong for *External Development* suggesting that developing skills and knowledge for career development is also a major aspect of the balanced contract for KWs. Many knowledge workers will be aware of the need to maintain their employability and have an expectation that they must secure marketable knowledge to maintain their attractiveness to external organisations (Anderson and Schalk, 1998; Smithson and Lewis, 2000).

These findings, whilst supporting the hypothesis, do challenge some of the more polarised analyses of knowledge and non-knowledge workers. It had been expected that there would be a more significant difference between the two groups but the findings suggest that transformational leadership appeals to the higher level motivators of all individuals.

**From these findings, hypothesis H7 is supported.**

<b>H8 = The impact of transformational leadership behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers</b>
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A comparison of the two independent groups of knowledge workers and non-knowledge workers identified that in both groups transformational leadership was positively correlated to the Relational and Transactional psychological contract, but the correlation was stronger in the non-knowledge worker group in terms of the Relational contract, but stronger in the knowledge workers group for the Transactional contract. A more detailed test of hypothesis H8, with an examination of the correlations between the five TL factors and the 4 Relational/Transactional PC factors identified that all five factors of TL were negatively correlated to *Short-term* but were positively correlated with the other Transactional element *Narrow*.

Burns (1978) highlights leadership as a social process of complex relationships, and emphasises the two-way influence inherent in the transformational leadership process where separate goals become unified and resources are combined in a common purpose. It is perhaps unsurprising that the factor *Short Term* correlates almost uniformly negatively with a demonstration of transformational leadership. An individual on a short term contract has little interest or time to develop a complex social relationship with their manager. In all of the TL factors except *Networking* the *Short Term* factor was more negatively correlated with TL for non-KWs than for KWs.

All five TLQ factors are positively correlated with the Relational factor Security, and most strongly with the factor Loyalty. They are more strongly correlated to the factor Loyalty with knowledge workers and more strongly to the factor Security with non-knowledge workers. These findings challenge some of the accepted thinking about the transience and consequently the lack of loyalty amongst knowledge workers (Guest and Patch, 2001). The study by Thompson and Heron (2001) did highlight job security as a major motivator amongst knowledge workers but these findings suggest that it could be argued that in terms of reciprocity, KWs regard loyalty as an obligation of the psychological contract as a quid pro quo for job security.

All five factors were positively correlated with the Narrow factor in the transactional contract, suggesting that contrary to expectations, TL has a positive correlation with an aspect of a transactional contract consisting of lower level motivators. These contrasting findings for *Short Term* and *Narrow* may suggest that even when a role is very constrained and defined, TL still has a positive influence on the individual. It could be argued that TL may not only raise peoples' motivation and needs but also effectively addresses their lower level needs such as ensuring individuals' are fairly paid.

**Given these findings Hypothesis H8 is only partially supported.**

<p><b>H9 = Organisational citizenship behaviour is more evident amongst knowledge workers than non-knowledge workers.</b></p>
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An independent samples t-test for H9 (Table 99) suggested no significant difference between the two groups. The lack of a significant difference between the two groups would support the strategic contingency theory approach that states that the holders of a strategically important resource will seek to maximise their influence as power holders in the organisation by withholding their resource (Crozier, 1965; Hickson et al., 1971). Where it perhaps questions Burns' (1978) theory is that H4 found that there was a slight difference in the levels of TL between the KWs and the non-KWs and therefore it would be expected that there would be a higher level of OCB amongst KWs than non-KWs but the difference in the mean scores was minimal.

**This hypothesis is not supported.**

**H10 = Organisational citizenship behaviour is more positively correlated with transformational leadership amongst knowledge workers than non-knowledge workers.**

A correlation analysis using Pearson's  $r$  (Table 99/ Table 100) identified that in both groups transformational leadership was positively correlated to OCB, but the correlation was significantly stronger in the knowledge worker group in all five TL factors. It can be argued that a demonstration of TL behaviours elicits a higher degree of OCB as an essential of the reciprocity inherent in the social exchange relationship between the individual and the leader (Gouldner, 1960; Konovsky and Pugh, 1994).

**This hypothesis is supported.**

**H11 = Organisational citizenship behaviour is more positively correlated with a balanced psychological contract amongst knowledge workers than non-knowledge workers.**

A correlation analysis using Pearson's  $r$  (Table 104) identified that there is a stronger correlation between a Balanced PC and OCB amongst KWs than non-KWs. This supports previous research that psychological contracts based on mutual high obligations yield the higher levels of affective commitment (Shore and Barksdale, 1998). The factor *Internal Development* was particularly strong with the KWs group, supporting the argument that KWs value the personal and career developmental aspects of the psychological contract as key motivators (Robinson and Rousseau,



1994; Flood et al., 2001; Lester and Kickul, 2001; Smithson and Lewis, 2000; Schein, 1996).

A number of researchers have found a strong correlation between motives and OCB, and argue that individuals engage in OCB because it meets their own motivational needs (Folger, 1993; Rioux and Penner, 2001; Penner, Midili and Kegelmeyer, 1997). *Internal development* was significantly more strongly correlated with the OCB factor *Helping Behaviour* for the KWs than for the non-KWs. Podsakoff et al. (1997) describe *Helping Behaviour* as encompassing Organ's (1988) original factors of conscientiousness, altruism and courtesy, and describes behaviour involving helping others in the work place or preventing work-related problems, as well as encouraging and supporting other members of the work team. This may be stronger for KWs than non-KWs as collaboration is essential to knowledge creation and particularly to knowledge sharing (Janz et al., 1997; Tsoukas and Mylonopoulos, 2004). Teece (1998) states that much of knowledge development is tacit, and Nonaka and Takeuchi (1995) describe how the development of tacit knowledge is based on the concept of the *knowledge conversion*: that knowledge creation is anchored to a critical assumption that human knowledge is created and expanded through social interaction between tacit and explicit knowledge. Given the dynamic and protean nature of tacit knowledge, it can be argued that it is in the interests of the knowledge worker to demonstrate helping behaviours in the workplace that encourage reciprocity in knowledge sharing. As suggested by Crozier's (1967) strategic contingency theory, each individual must play a game within the organisation that maximises their return in terms of motives satisfied for resources committed, but they have to be careful not to pursue these motives to the detriment of the overall game or they will be excluded by other players. A knowledge worker who selfishly pursues their own knowledge development without any reciprocity to the others in the group would be quickly ostracised from the collective knowledge creation process.

The strong positive correlation between *Internal Development* and *External Development* and OCB for knowledge workers can be argued to be a result of the longer term nature of the balanced contract. As predicted by social exchange theory, whilst a transactional relationships between parties is typically short term, social exchange theory assumes more enduring relationships between the actors that are built on interdependence over time (Blau, 1964). Contrary to the more specific and immediate aspects of the transactional contract, implicit in the balanced contract is the anticipation of future inducements (Rousseau, 2000; Coyle-Shapiro, 2002). Knowledge workers are conscious that on-going development is critical to maintaining their employability in the workplace and value career development as a main motivator so by displaying OCB as reciprocity for TL developmental behaviour can be interpreted as an effective commitment of resources for the individual (Robinson and Wolfe, 1997; Lester and Kickul, 2001). The findings suggest that knowledge workers recognise TL behaviours that have developmental benefit to them and respond by committing OCB in a reciprocal gesture. This could be regarded as support for Burns' theory that transforming leadership that address key motivators will result in a higher commitment of resource.

The dimension *sportsmanship* defines a willingness to tolerate the inevitable inconveniences and impositions of work without complaining, and being prepared to fully contribute in difficult circumstances. The factor *Internal Development* was strongly correlated to *Sportsmanship* for both KWs but very weakly for non-KWs. Hall (1996) states that '*the main form of learning in the future will be collaborative*' (P.9). Nonaka & Takeuchi (1995) highlight four different types of collective interactions that are essential to knowledge creation: socialisation (tacit to tacit); explication (tacit to explicit); combination (explicit to explicit); internalisation (explicit to tacit). It is argued that the organisation is a knowledge-creating entity that is based on the principle of a community of practice where knowledge creation is a collective process which involves a conversion from explicit to tacit knowledge through human interactions amongst individuals within a community of practice (Brown and Duguid, 1998; Nonaka and Takeuchi, 1995). It could be argued that the

collaborative nature of knowledge creation and knowledge sharing militates against an individual KW being regarded as a difficult workmate, and team mates would have an expectation of reciprocity in the relationship that would require a contribution to the knowledge creation process regardless of circumstances.

Nahapiet and Ghoshal (1998) highlight the structural dimension of social capital as critical to developing intellectual capital. This involves individuals participating in knowledge networks that involve sharing ideas, bringing knowledge into the network and collaborating. Again, a failure by a KW to demonstrate *Sportsmanship* may exclude them from the network and cost them access to knowledge that will support their own development or career. As with *Helping Behaviour*, the commitment of personal resources in the form of *Sportsmanship* OCB can be seen as the individual making an investment in their personal development and responding to the opportunity to participate in knowledge sharing activities. Rioux and Penner (2001) highlight the link between impression management and OCB, claiming that impression management motivates the individual to maintain a positive image within a group.

What appears to emerge from these findings is that OCB amongst KWs can be regarded as only a reciprocal quid pro quo to the leader as a response for addressing key motivators but also as a necessary behaviour to participate in the collective knowledge sharing and knowledge creation processes within an organisation. It may suggest that a middle level motivator such as *Belonging* from Maslow's (1954) hierarchy is a significant motivator for knowledge workers, as well as higher level motivators such as *Status*, where expertise is recognised. These findings suggest that the TL behaviour of *Enabling* may be effective on a group basis amongst knowledge workers as a means to encouraging knowledge sharing and knowledge creation.

**This hypothesis is supported.**

**H12 = Organisational citizenship behaviour is more negatively correlated with a relational or transactional psychological contract amongst non-knowledge workers than knowledge workers.**

A correlation analysis using Pearson's  $r$  (Table 106) identified that although OCB is not negatively correlated with the relational or transactional contracts amongst non-KWs, it is less positively correlated than amongst the knowledge workers. The findings that the relational contract is more positively correlated to OCB than the transactional contract supports previous research (Kalleberg and Rogues, 2000).

The factor *Helping Behaviour* was positively correlated to both factors of the Transactional contract (*Short-term/Narrow*), but the correlation was stronger in the knowledge worker group for the *Narrow* factor, and stronger in the non-knowledge group for the *Short-term* factor. The weak correlation between the *Short Term* factor and the OCB factors would appear to support Rousseau and Wade-Benzoni's (1995) claim that temporary staff have a different psychological contract than their permanent colleagues. The temporary nature of the contract seems to influence individuals' willingness to demonstrate behaviours that exceed the agreed tasks or levels of input. In particular there is a negative correlation between the level of *Sportsmanship* demonstrated and the short term aspects of the contract which suggests that temporary staff do not feel a need to manage their image through adopting a non-complaining or tolerant attitude to work as their stay within the organisation is limited.

A correlation analysis using Pearson's  $r$  (Table 103) identified that in both groups the factor *Helping Behaviour* was positively correlated to both factors of the Relational contract (*Security/Loyalty*), but the correlation was stronger in the knowledge worker

group for the *Loyalty* factor, and stronger in the non-knowledge group for the *Security* factor.

Robinson and Wolfe (1995) argue that the more an individual believes that the organisation has fulfilled the terms of the psychological contract the more likely they are to engage in OCB. The findings of this research may suggest that KWs believe that the transactional aspects of their contracts, the more defined, specific and time-limited elements are being met by the organisation, where this is less so amongst non-KWs. It may be that the terms and conditions of short term, narrowly defined contracts are clarified and agreed explicitly as the employment relationship starts, and as long as there are no perceived breaches in the agreement then the knowledge workers reciprocate with OCB. The financial package offered to short term contractors in knowledge based industries may also be a factor in this but this variable was not built into this research.

Nahapiet and Ghoshal (1998) emphasise the relational and cognitive aspects of social capital as critical to the creation of intellectual capital. Relational refers to the individual knowledge worker's allegiance to and trust in the knowledge creation network they participate in, and the cognitive aspect to a shared culture or '*narrative*' (Rousseau, 2000). The emphasis on *Loyalty* and *Security* from KWs compared to non-KWs may suggest that KWs value the creation of a culture where they can build up a secure network of contacts where knowledge sharing can develop. The findings of this research support previous research into the psychological contracts of KWs, where the item '*feeling secure in my job*' was listed as third important out of 24 aspects of the psychological contract (Thompson and Heron, 2001).

**This hypothesis is not supported.**

### 13.3 Conclusion

The first three hypotheses were designed to test Burns' (1978) basic theory that leadership is about power, and the two essentials of power are motive and resource: *'this view of power deals with three elements in the process: the motives and resources of power holders; the motives and power of the power recipients; and the relationships among all these'* (p.13). What this research has found is that transformational leadership is strongly correlated to the higher level motivators in Maslow's (1954) hierarchy as encapsulated in the Balanced Psychological contract, but it is also strongly correlated to the mid-range motivators such as loyalty, security and belonging. It is also positively correlated to certain elements of the transactional psychological contract. Burns states that transforming leadership exists when leaders and followers engage with each other to *'raise one another to higher levels of motivation and morality'* (p.20). This research has found a direct correlation between the existence of a transformational leadership style and the emergence of relational and balanced psychological contracts. The findings that TL is also positively correlated with the Transactional psychological contract, but not as strongly as the other two contract types, would also support Burns' interpretation of Maslow (1954) that lower level needs such as food or safety must be addressed before leaders and followers can raise each other to realise the higher level motivators such as self actualisation (p.426).

The findings of the research also support Burns' claim of a correlation between a demonstration of transforming leadership and a high level of resource commitment, as represented in this research as OCB. This research suggests that where the higher level motivators are being addressed, in the forms of a fulfilled, balanced and relational psychological contract, there is a greater commitment of resources in the form of a higher level of OCB. This indirectly supports the findings of Podsakoff et al. (1990) that TL influences OCB through increasing followers' trust in their leader, as well as other studies that suggest a correlation between TL and level of subordinate effort, satisfaction with leader's performance and the acceptance of challenging goals (Avolio and Bass, 1988; Kuhnert and Lewis, 1987).

The study has also found that, as Burns' states, there is a direct correlation between TL and resource commitment in the form of OCB. This emphasises the influence of followers on the leadership relationship and supports' Burns' statement that *individuals will use the power inherent in their resource base to achieve or satisfy their motives* (p.13). These findings support Burns' assertion that the followers' motivations will determine their reaction and response to the leader's behaviours, and again emphasises the reciprocal nature of leadership (Meindl, 1995; Collinson, 2005).

The second objective of this research was to test Burn's claim that there is a correlation between leadership behaviour, follower motives and the commitment of resources in a leadership relationship. It focused on the role of power and resource in the leadership relationship by adopting a sample where the level of resource controlled by followers was significantly different: knowledge workers and non-knowledge workers. The results from the t-tests and Pearson's *r* correlations offered mixed support for the nine hypotheses (H4-H12). There appears to be support for the hypothesis that transformational leadership is more prevalent with knowledge workers than non-knowledge workers, but a statistically significant difference was apparent in only four of the six TLQ factors. What is perhaps interesting are the four factors where a difference was evident: *Genuine Concern, Networking & Achieving, Enabling* and *Being Accessible*. The two factors that displayed no significant difference were *Being Honest* and *Decisiveness*. It could be argued that these two factors are generic to any group of employees but that the nature of knowledge work with its high dependency on collaboration, empowerment and individual motivation requires a higher level of display of the first four factors. Whereas non-knowledge workers may require a high level of direction, knowledge workers require their leaders to be more interactive and supportive to enable them to create competitive advantage for the organisation (Lester and Kickul, 2001; Thompson and Heron, 2001).

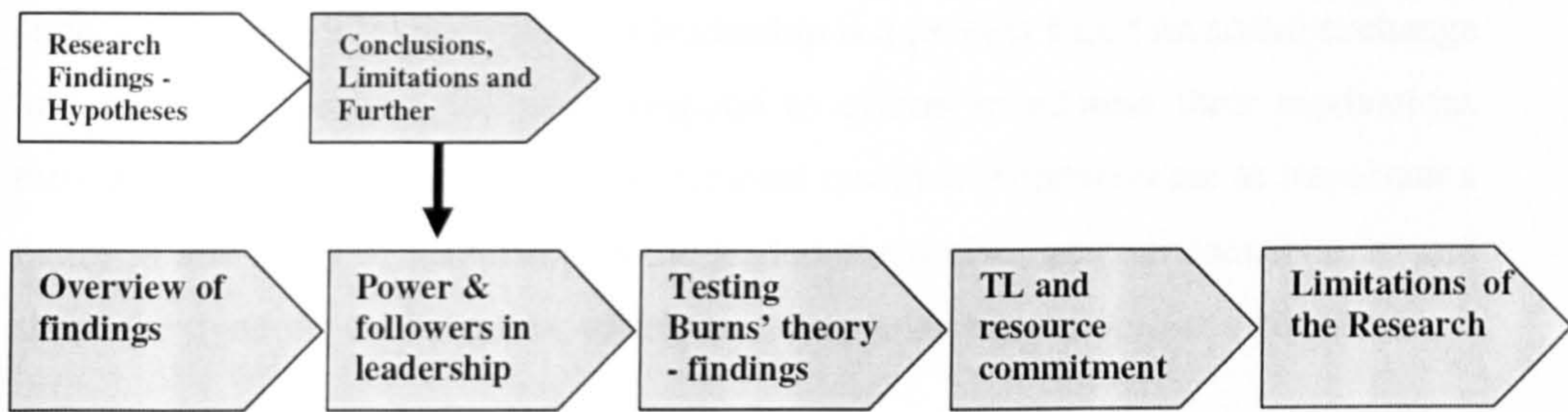
The next chapter will explore in more detail the research findings and their implications for Burns' theory and support and challenges to the transformational leadership model.



# CHAPTER 14 CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH

## 14.1 Outline of the Chapter

This chapter reviews the main conclusions of the thesis, the value and limitations of the research, and recommendations for future research.



## 14.2 Overview of Findings

The primary objective of this research was to test Burns' theory about leadership. The findings of this research support and offer empirical evidence of its validity as a theory of leadership. Thibault and Kelley (1959) stated that leadership needs to be studied in terms of other more basic concepts of social psychology involved in the phenomenon, particularly motivation and power. This research has used these concepts to gain a clearer understanding of Burns' model of leadership and the influence of both leaders and followers on the leadership relationship. It is argued that this research has contributed some understanding to Burns' theory of leadership but what it would also be hoped that this limited research has demonstrated that Burns' definition and explanation of the process of why individuals follow leaders is generally accurate. What it has supported is Burns' assertion that leadership is a power-based relationship where the motives and resources of the followers are central to the development of the relationship.

### **14.3 Power & Followers in Leadership**

Burns puts power at the heart of his leadership model. This research supports his assertion that power is a the central factor in the leadership relationship and challenges the leader-centric '*great man*' theories that assume leaders are a powerful elite with a group of dependent followers who exert little or no upward influence on the behaviour of the leader (Burns, 1978; Pfeffer, 1981; Yukl, 1999; Gronn 1995; Gronn 2002; Collinson 2005). This research sought to highlight and explore the leadership relationship through the lens of the follower, and to examine whether the balance of power, in terms of control of strategic resources, within the relationship affected the level of transformational leadership. The findings of this research support Burns' (1978) assertion that leadership is a process based on social exchange and reciprocity, where followers respond to efforts to address their motivations through an increased commitment of personal resource. Followers are as important a factor in any study of leadership as the leaders themselves as both contribute to and shape the dynamic exchange for which the term leadership is a heuristic construct.

To persist with the '*great man*' focus of leadership neglects followers as a vital part of the leadership equation. What can be argued from these findings is that any study of leadership needs to fully include the motivations and resource control of the relevant followers before any understanding can be gained of the impact of the leadership style. Adopting Burns' model of leadership as social exchange offers a more holistic and robust analysis of leadership and a greater understanding of the concept of leadership.

### **14.4 Testing Burns' Theory – Findings**

The first three hypotheses in this research were designed to test Burns' (1978) basic theory that leadership is about power, and the two essentials of power are motive and resource. What this research has found is that transformational leadership is strongly correlated to the higher level motivators in Maslow's (1954) hierarchy as encapsulated in the Balanced Psychological contract, but it is also strongly correlated

to the mid-range motivators such as loyalty, security and belonging. Burns (1978) highlights the need for leadership to raise its own goals to respond to the raising of motivational and need levels in followers, but it may be argued from these findings that transformational leadership, as well as addressing the higher level self actualisation motivators also effectively addresses the mid-level motivators in Maslow's hierarchy where leadership behaviours such as *Genuine Consideration* relate to the individual's need for belonging and a sense of security.

Burns states that transforming leadership exists when leaders and followers engage with each other to '*raise one another to higher levels of motivation and morality*' (p.20). This research has found a direct correlation between the existence of a transformational leadership style and the emergence of relational and balanced psychological contracts. The findings that TL is also positively correlated with the Transactional psychological contract, but not as strongly as the other two contract types. The results also, perhaps surprisingly, suggest that transformational leadership is more strongly correlated to aspects of a transactional psychological contract such as *Narrow* than it is to aspects of the *Balanced* contract such as *Dynamic Performance*. This research supports Burns' interpretation of Maslow (1954) that lower level needs such as food or safety must be addressed before leaders and followers can raise each other to realise the higher level motivators such as self actualisation (p.426). It questions Burns' assumption that transformational and transactional leadership are dichotomous and support Bass and Avolio (1990) that transformational leadership and transactional leadership are not either ends of a continuum but argued that the two styles were complementary. Leaders must be able to demonstrate both transformational and transactional behaviours to secure the greatest level of commitment from individuals.

## 14.5 Transformational Leadership & Resource Commitment

This research has argued that the resource factor in Burns' leadership model has been greatly neglected. There is evidence from this research of a strong correlation between transformational leadership and both factors of OCB which suggests that, regardless of job role, a transformational leadership style is conducive to a high commitment of personal resources to the leader. This emphasises the influence of followers on the leadership relationship and supports Burns' statement that individuals will use the power inherent in their resource base to achieve or satisfy their motives (p.13). These findings suggest that the followers' motivations will determine their reaction and response to the leader's behaviours, and again emphasises the reciprocal nature of leadership and the influence of followers on the leadership relationship.

The research found that all five factors of the TLQ are strongly correlated to a demonstration of OCB, and to both OCB factors: *Helping Behaviour* and *Sportsmanship*. This supports other research that has found that reciprocating behaviour at work is aimed at the entity from which benefits are sourced (Dabos and Rousseau, 2004) and research demonstrating a correlation between TL and OCB (Podsakoff et al., 1990; Podsakoff et al., 1997; McKenzie et al., 2001). These findings support Burns' (1978) theory that a demonstration of transformational leadership will appeal to the followers' motivation and result in a greater commitment of resources to the relationship. The findings of the research also indirectly support the findings of Podsakoff et al. (1990) that TL influences OCB through increasing followers' trust in their leader, as well as other studies that suggest a correlation between TL and level of subordinate effort, satisfaction with leader's performance and the acceptance of challenging goals (Avolio and Bass, 1988; Kuhnert and Lewis, 1987).

## 14.6 Leadership – Distant and Close

This research has argued that the dominant US transformational leadership model is too imbued with the concept of '*heroic leadership*' that privileges the influence of the leader over followers in the leadership relationship. Implicit in the heroic leadership model is the element of distance where leadership behaviours such as communicating a vision and decision making are most highly regarded. This study research would argue that an unforeseen legacy of Burns' work, with its focus on major political figures, has been an over-emphasis on the distant leadership of '*great men*' and a neglect of close, proximal leadership in a quotidian setting. It may be argued that the transposition of a scientific analysis of political leadership failed to recognise the difference between leadership influence and behaviour at the most senior global level and at the dyadic level. This research has sought to test Burns' theory, developed from an interpretation of wider political and historical forces, on a more immediate level. One of the contributions of this research is that it demonstrates the applicability and validity of Burns' theory at a close level of leadership.

This research chose to use the UK-based Transformational Leadership Questionnaire Alimo-Metcalfe and Alban-Metcalfe (2001), rather than the ubiquitous MLQ (Bass and Avolio, 1990). The primary reason was that this study asked participants to rate their relationship with their direct line manager rather than a distant leader. Secondly it was also to test Burns' theory of transforming leadership, derived from the study of distant leaders at a more immediate level. Thirdly it is argued that the MLQ (Bass and Avolio, 1990) is derived from a study of senior military leaders and as a result is based on a model of distant leadership. The results of the research demonstrate that Burns' theory is valid when applied to a group of close managers. It suggests that the individually focussed elements of transformational leadership such as *Genuine Consideration* are more strongly correlated to individually focussed aspects of the psychological contract such as *Internal Development* than they are to aspects such as *Dynamic Performance* which is more organisationally focussed. This may support the argument of Alimo-Metcalfe and Alban-Metcalfe (2001) that in the UK based transformational leadership model, factors such as *Genuine Consideration* emphasise

what the leader can do for the individual, as opposed to the US model where the leader acts as a role model which inspires the individual and highlights the role of charisma in the leadership relationship (Bass, 1998).

In this research of the five factors of TLQ, *Genuine Concern* was most strongly correlated with the Balanced psychological contract (.683). In the factor analysis of the TLQ (Table 76) GC accounted for over 53% of the variance. Alimo-Metcalfe & Alban-Metcalfe (2001) state that *Genuine Concern for Others* comprises the following:

- A genuine interest in and a sensitivity to the needs and feelings of others
- Giving personal job-related support
- Actively supporting development
- Communicating positive expectations
- Taking time to develop the team

The factor *Genuine Consideration* is a description of a close leader-follower relationship, focussing on the dyadic relationship between the individual and the leader and behaviours such as empowering, developing, valuing and developing. The importance of *Genuine Consideration* in this study as a factor in transformational leadership supports Burns' (1978) emphasis on leadership as a relationship among persons (p.12). The demonstration of a genuine interest or care in an individual by their leader appears to be a significant factor in the demonstration of TL and in developing a balanced psychological contract with the individual where higher level motivators such as personal development and dynamic performance are more prevalent. This supports the argument that the commitment of resources is a source of power for the follower and that a demonstration of consideration and satisfaction of motives by the leader will gain a reciprocal commitment of resources from the follower.

## 14.7 Knowledge Workers and Leadership

According to Burns' theory, all followers will seek the satisfaction of their motivations in return for a commitment of resources. This research sought to examine a situation where the control of strategic resource was significantly different between two sample groups to determine whether that control had a greater or lesser influence on the demonstration of transformational leadership behaviours.

The results of this study suggest that knowledge workers as followers expect their higher level motivators to be met in return for a greater commitment of their strategic resource. These findings propose that there is a greater expectation amongst KWs of an enabling leadership style which promotes networking, individual consideration and close, supportive working to facilitate knowledge working and knowledge exchange. Similarly in their psychological contract knowledge workers are expecting a greater degree of latitude in their jobs than non-knowledge workers. An important finding of this research is that the leader is less likely to demonstrate *Genuine Consideration with* non-knowledge workers, where their personal level of knowledge is less strategically important, and their resource less valued. This interpretation would support Burns' (1978) theory that resource control by either party in the leadership relationship will affect the exchange.

The research demonstrates that the higher motivators such as self-actualisation and status are important to knowledge workers, and consequently knowledge workers value TL *Networking* behaviour in their leader. The TLQ states that the *Networking* factor is leadership that promotes the achievements of the department or team to the outside world, and effectively communicate the vision of the organisation or team to the outside world. This study argues that this factor is of more importance in the leader-follower relationship in a knowledge organisation because external recognition of expertise or achievement raises the equity of individuals, addressing

the higher level motivational factors of recognition and status. Creative individuals locate a high degree of their identity in their work, consciously seek opportunities for professional recognition and achievement, and are aware of managing their image as experts in a particular field (Alvesson, 2001; Mumford et al., 2002). These findings support the arguments that knowledge workers are motivated to make a contribution to a recognised body of knowledge that transcends the organisation, and that they value leaders who facilitate that process. It is argued that in the knowledge sectors individual reputation will be a major factor in employability (McLean-Parks, Kidder and Gallagher, 1998; Lester and Kickul, 2001; Sparrow, 2000). If reputation and recognition are motivators for knowledge workers then it is in the interests of leaders to communicate their expertise, both to secure their resource commitment and to highlight the competitive advantage both internally and externally to the organisation. A leader who can promote the expertise and capability of their team effectively will be regarded as more transformational than one who cannot.

In the TLQ the *Enabling* factor refers to demonstrating a high level of trust in an individual to take decisions and demonstrate initiative on important issues, and enabling the individual to use their potential. This factor is more relevant to knowledge workers than non-knowledge workers as knowledge work relies heavily on interpretation and fulfilment of the job role by the individual. In the case of knowledge workers their commitment to the organisation cannot be managed or measured as a process, only by its outcomes (Zand, 1981; Ridderstrale and Nordstrom, 2000). Managers expect that they should apply their abstract knowledge to create unique contributions to the competitiveness of the organisation and demonstrate significant motivation and initiative to enable them to work without supervision. Similarly the creative aspect of knowledge work, drawing on a body of abstract knowledge (Bell, 1973; Sveiby and Lloyd, 1987) will develop most effectively where the knowledge worker is allowed to use their own initiative and potential in the role. The scope to develop individual potential will be a significant high level motivator for knowledge workers who are aware that the exchange of skills and knowledge for development opportunities to maintain '*employability*' is a



significant factor in the relationship. These findings also support research into the motivators of knowledge workers that found that items such as management support, challenging and interesting work, and open and honest communication were of more importance to knowledge workers than more transactional contractual items such as hours of work.

The results of the research support Burns' (1978) assertion that the leaders must seek to address the motivations of the followers to gain their commitment of resources to achieve a common purpose (p.18). In this case the development of knowledge based competitive advantage will satisfy the organisational need for competitive advantage and also address the individual's need to develop their own potential, and consequently their level of job satisfaction, self actualisation and employability. This research demonstrates that the leadership relationship is shaped by the resource control and motivational satisfaction of followers and encourages a more balanced consideration of leadership from a pluralist standpoint.

#### **14.8 Challenges to Expectations**

Overall the findings of this research support Burns' theory, but some of the detail challenges or questions some of the assumptions underpinning the overall theory. In terms of the correlation between transformational leadership and a Balanced psychological contract it is of particular note that four of the five TL factors (*GC/Networking/Enabling and Decisive*) are all strongly correlated to two elements of the Balanced contract factor (*Internal development/ External development*) but more weakly correlated to the third element (*Dynamic Performance*). This is contrary to the findings of other research which found a positive relationship between aspects of TL such as attributed charisma and performance (Bass and Yammarino, 1991). What this may suggest is that TL is more effective as a leadership style in encouraging individuals to develop their own potential and gain the confidence to pursue personal development, but its influence on persuading

individuals to seek more challenging performance goals and targets is more limited, which challenges the findings of some previous research (Bass, 1985; Howell and Frost, 1989; McKenzie et al., 2001). It also challenges some of the assumptions of Bass (1999) in that the followers' response to the TL behaviours is to emphasise their self actualisation motivations, but primarily the ones focussed on self rather than on improving performance for the benefit of the organisation or wider group.

The results of this research also suggest that transformational leadership is more strongly correlated to aspects of a transactional psychological contract such as *Narrow* than it is to aspects of the *Balanced* contract such as *Dynamic Performance*. Bass and Avolio (1990) argued that a flaw in Burns' (1978) initial theory was that transformational leadership and transactional leadership are not either ends of a continuum but argued that the two styles were complementary. The results of this research highlight that TL is strongly correlated to a *Narrow* element of a transactional psychological contract but negatively correlated with the *Short Term* element. Although a job scope may be narrow the individual can respond to elements of TL such as Genuine Consideration but those with a limited contract have little interest in reciprocating or building any relationship. These findings support Bass and Avolio's (1990) claim of transactional and transformational leadership being complementary rather than Burns' continuum-based model.

These results also offer some challenges to the emphasis on the higher end motivators in Burns' (1978) model of transforming leadership. As well as raising individuals to higher levels of motivation there appears to be a strong correlation between TL and mid-range motivators such as *Security* and *Loyalty*. These results highlight the close model of leadership represented by the TLQ, as opposed to the more distant model of leadership offered by Burns. It may also highlight that leaders seeking to achieve higher levels of motivation must appeal to self-actualisation levels of motivation but they must be careful not to neglect the lower level motivators.

## **14.9 Challenging the Stereotypes**

The research findings challenge some of the assumptions that have been made in the more popular stereotypes of knowledge workers. The research suggests that they value the mid-level motivators of job security and stability of employment as much as the higher level. The mean scores in the data analysis highlight that the knowledge workers mean was higher for relational contracts than the non-KWs. The relational contracts are described by Dabos and Rousseau (2004) as contracts including mutual loyalty, long term stability and job security. These findings suggest that contrary to much of the research and much of the popular business press, knowledge workers value stability, job security and tenure of employment more than is perceived. Studies across a range of sectors have identified loyalty and job security as key factors in the content of the psychological contract for different types of employees (Rousseau, 1990; Herriot et al., 1987). The study by Thompson and Heron (2001) of six R and D-intensive high technology companies also highlighted that one of the six key contract factors was job security. What these findings suggest that perhaps knowledge workers are not as focussed on the higher level motivators as may be assumed, and that the issue of intellectual capital ownership has not constructed as radically new an employment relationship as was expected.

These findings suggest that a Balanced psychological contract is as likely to exist with non-knowledge workers as with knowledge workers. It can be argued that this is contrary to the expectations of Burns' theory as it would be supposed that the leaders of knowledge workers would seek to address the higher level motivators as a means of accessing their resources. Crozier (1964) would also expect that knowledge workers would use their control of the strategic resource to maximise their advantage with the organisation and secure the higher level motivators that they seek. Thompson and Heron (2001) state that the factors knowledge workers most value in a psychological contract are primarily balanced/relational aspects: working on challenging assignments; a work-life balance; job security; opportunities to develop new skills; and promotion on the basis of technical skills. Given these findings it

would be expected that there would be a significant difference in the level of balanced contracts emerging in the two groups.

Perhaps surprisingly, this sample suggests that as well as expecting a dynamic, open role in the organisation knowledge workers also value stable employment and commitment to one employer. Much of the popular literature on KWs offer a stereotype of itinerant employees but this study indicates that belonging and security are also important motivators to KWs. What these findings suggest it that perhaps knowledge workers are not as focussed on the higher level motivators as may be assumed, and that the issue of intellectual capital ownership has not constructed as radically new an employment relationship as was expected (Guest and Patch, 2000; Thompson and Heron, 2001).

It is argued that the psychological contract that provided employees with security of employment is in decline and employment conditions are increasingly contingent and consequently employees may direct their personal and career development towards the external labour market (Guest 2004). Given these assumptions it would be expected that balanced PCs would be more in evidence amongst knowledge workers as the balanced contract includes the factor *external development* but again this is not supported by the findings. It could be argued that insecurity of employment now exists in a wide range of industries and that all types of workers are conscious of developing their own personal employability. It may also support the argument that security of employment is a major motivator of all types of worker. What these findings again challenge are some of the perhaps more populist stereotypes of knowledge workers as predominantly young, mobile and employable and with little loyalty to anyone but themselves. These results suggest that career development is important but so is mutual loyalty and security.

The research also identified that the results for the transactional contract suggested no significant difference between the two groups. The transactional contract is of limited duration, with clearly defined outputs or activities and a relationship where there is no commitment to a time frame (Rousseau, 2000). They have low levels of organisational commitment and weak integration into the organisation. Dabos and Rousseau, 2004 state that the transactional contract has two main dimensions:

- a) narrow involvement in the organisation, limited to a few defined tasks; and
- b) short term duration.

The transactional contract can also be characterised by collaborations of limited timescale and with high levels of turnover.

It may be surprising that knowledge workers are as likely to describe their psychological contract as transactional as non-KWs. It may be that in the knowledge sector employment is becoming increasingly contingent, and in perceiving the employment relationship to be transient the worker may have an expectation of an explicit transactional contract and have little expectation beyond the terms and conditions set out in that agreement. The perception of some knowledge workers is that they are often employed on temporary contracts for the duration of a project and have more expectation of a transactional contract, and hence the value they place on the mid-level motivators such as job stability and belonging. One explanation of the findings is that the knowledge sector with its emphasis on project work is as likely as any other sector to have employees with a short term mentality to their roles. Another possible explanation is that there are knowledge workers whose motivations are on the lower levels of Maslow's hierarchy and that they seek to carry out a highly complex task but with little involvement in the wider organisation.

What is perhaps more interesting is that contrary to expectations KWs correlate TL more strongly with a transactional contract than non-KWs. These findings would

indicate that KWs may be more accepting of a narrowly defined role in a project or team where their expertise is applied in a focussed manner rather than seeking wider involvement. The study by O'Donaghue et al. (2007) highlighted the motivational need of scientists as knowledge workers to exclude wider organisational issues such as restructuring to focus specifically on their research topics. It could be argued that in terms of expert power, a narrow, defined role is a motivator for some knowledge workers.

The research found that the level of OCB was higher amongst KWs than non-KWs. The question must be why? Politis (2002) identified some elements of TL behaviour that enable followers' knowledge acquisition and argues that if KWs perceive that leaders are restricting their freedom of thought and action their motivation towards acquiring or developing new knowledge will decline. Politis (2002) also highlights a positive correlation between TL behaviour that emphasises mutual respect, recognition and a clear vision and knowledge acquisition. It can be argued that the higher levels of TL amongst leaders of KWs found in this research demonstrates that leaders in KBOs recognise that TL behaviours secure a higher level of reciprocal OCB from the KWs, thereby assisting the organisation to secure more of the knowledge resource that forms their competitive advantage. This would suggest that Burns' (1978) theory is correct and that KWs respond more positively to a demonstration of TL with a higher level of OCB. In this knowledge context, there is a direct link between the level of OCB and the demonstration of TL behaviour, which supports the findings of previous research (McKenzie et al., 2000).

What also appears to emerge from these findings is that OCB amongst KWs can be regarded as only a reciprocal quid pro quo to the leader as a response for addressing key motivators but also as a necessary behaviour to participate in the collective knowledge sharing and knowledge creation processes within an organisation. It may suggest that a middle level motivator such as *Belonging* from Maslow's (1954) hierarchy is a significant motivator for knowledge workers, as well as higher level

motivators such as *Status*, where expertise is recognised. These findings suggest that the TL behaviour of *Enabling* may be effective on a group basis amongst knowledge workers as a means to encouraging knowledge sharing and knowledge creation.

#### **14.10 Summary**

This research has sought to make a contribution to the fundamental understanding of leadership and why people follow. It has supported Burns' basic theory that leadership is essentially about the constituent elements of power, motivation and resource.

This research was undertaken to challenge or prove the basic premise of Burns' work that *'the processes of leadership must be seen as part of the dynamics of conflict and of power...and by the satisfaction of human needs and expectations'* (p.3). One of the two main objectives for this research was to test the validity of Burns' (1978) theory that a demonstration of transformational leadership, aimed at higher level motivators would lead to a reciprocal commitment of resources to a common goal. The contribution of this research was that this is the first time that Burns' basic theory and underpinning assumptions had been tested empirically. The findings of this research offer support for Burns' proposal for a correlation between transformational leadership, motivation and a commitment of resources amongst employees. The study found a strong correlation between transformational leadership and a balanced psychological contract which appears to support Burns' theory that a display of transformational leadership behaviours leads to a higher level of motivation amongst followers, regardless of job role. The research also found a strong correlation between transformational leadership and levels of OCB, which support Burns' theory that a display of transformational leadership behaviours leads to a higher commitment of personal resource from followers, regardless of job role.

This research chose a sample that encompassed two groups where resource control and input varied to measure the impact of resource control on leadership style and power within the exchange relationship. The research has found that TL is more positively correlated with knowledge workers than non-knowledge workers, is more positively correlated with a balanced and a relational psychological contract and is more positively correlated with OCB with KWs than non-KWs. This would suggest that leaders in KBOs are responding to the shift in uncertainty and, as Crozier (1967) predicted, knowledge workers have greater expectations of their psychological contract. Leaders in KBOs are responding to changes in the power balance and are demonstrating higher levels of TL to secure more OCB, the source of competitive advantage in KBOs.

The findings of this research argue that any leadership research should build the resource control of the followers into the leadership exchange equation. To privilege the leaders in any analysis offers a skewed and arguably misleading interpretation and, as these results demonstrate, neglect the power factor within the relationship that Burns' argues is at the heart of the transforming leadership model. It can also be argued that the effectiveness of leaders can be measured by the level of resource commitment from their followers.

#### **14.11 Limitations of the Research and Recommendations for Further Research**

This research has limited ecological validity because it had limited scope. Participants were from only one country and research would need to extend sampling to other geographical areas. Another limitation is the definition of a knowledge worker. Given the lack of any clearly defined profile or description of a KW, it could be argued that the results of this research have been greatly influenced by not only adhering to certain definitions of a knowledge worker (Bell, 1973; Sveiby and Lloyd, 1987), but by one interpretation of these definitions. A clear agreement of what



constitutes a knowledge worker will continue to be an area of contention in any academic research in this area (Alvesson, 2001).

The decision to use the Transformational Leadership Questionnaire (TLQ) was made in the light of a growing number of questions about the transferability of the MLQ (Bass, 1985) out with the US. Initial studies by Alimo-Metcalfe and Alban-Metcalfe (2000; 2001) identified that much of the research into transformational leadership was US dominated and questioned the transferability of all aspects of the model to other cultures, primarily the UK, and highlighted that two of the most critical studies of the MLQ and its factoring came from researchers working out with the US (Den Hartog et al., 1997; Carless, 1998). In addition they highlight that the dominant transformational models are the result of studies done amongst senior executives in US companies, and that much of the data is obtained directly from senior managers rather than from their direct reports. As a result the US models of leadership, and the factors and constructs they employ, are often more reflective of '*distant*' leaders (Bass, 1985; Conger and Kanungo, 1987). Alimo-Metcalfe and Alban-Metcalfe (2000) have made a significant effort to create a transformational leadership instrument that is designed for and relevant to the UK manager. Whilst the development of a UK transformational leadership model is welcome, there is a need for the instrument to be more widely tested in a range of sectoral and geographic settings. In addition more testing of the factor structure of the TLQ would be of benefit. Similarly research on UK and US managers using and comparing the TLQ and the MLQ would be of interest.

A limitation of this research has been the reliance on self-reporting and the possible influence of common method variance on the research findings. Future research using dyads and assessment of the three separate constructs (TL, psychological contracts and OCB) involving the manager and the follower would be of benefit.

Perhaps a major limitation of this research is that it could be accused of falling into a trap that a number of other researchers have unwittingly fallen into before. This study has made a distinction between knowledge workers and non-knowledge workers and has assumed that these two distinct generic groups are homogeneous, where in fact the results tend to suggest that within each genus there are different motivational profiles and expectations. Thompson and Heron (2001) highlighted that from within their sample there were significant differences between scientists and engineers in terms of their work orientation, needs and career objectives. An example of the differences between the groups is that engineers rated the item *linking pay to performance* as 5<sup>th</sup> highest in their listing, whilst scientists rated it at 17<sup>th</sup>. It can be argued that marketing executives and software designers are both knowledge workers but their stereotypes, however clichéd or humorous, may suggest significant differences in their motivations or expectations in the psychological contracts. Whilst acknowledging some generic similarities between different types of knowledge workers more research into the difference of the various types in terms of motivations would be of interest. In terms of practical application Elkins and Keller (2003) argue that there is a significant lack of leadership research carried out in knowledge-based organisations. Further study is required to understand how the psychological contract between knowledge workers and leaders is developing in the knowledge age and what the implications are for leadership in coming years. There is also a need for more research into how knowledge workers are led and motivated in organisations, particularly as their economic importance in the developed economies continues to grow. The current trends in economic development suggest that KBOs will continue to constitute an increasingly large percentage of the western economies.

Bass (1995) requests more research on why transformational leadership generates follower commitment and states that '*much more explanation is needed about the workings of transformational leadership*' (P.299) This research has sought to explore Burns' leadership model from the aspect of resources and this is an area that requires

more analysis to enable a better understanding of how the exchange processes that underpin leadership actually operate, particularly in terms of knowledge.

#### **14.12 Personal Reflections on the Research and Resulting Thesis**

I have been a management consultant working in the leadership and organisational development field for almost twenty years. I decided to carry out research for a PhD part-time as a result of experiences I had had as a management consultant, where I had a vague unease that much of the standard analysis of the employment relationship between workers and managers appeared to be increasingly inappropriate. My research was started from a desire to understand more about what was happening to the psychological contract in the emerging knowledge sector, but particularly how these changes were affecting the role of managers in the workplace. I was motivated to explain changes in organisations that I had witnessed but did not understand. An exploration of the more popular or perhaps populist leadership and organisational literature appeared superficial and either unable or unwilling to explore the deeper structural changes in the leader-follower relationship. What I hope is that this research has helped me better understand not only the changes in the economic relationships but more fundamental issues around leadership and followership.

I started on this part-time PhD as someone who, mistakenly, felt that after many years of consultancy and an MBA, he had a good understanding of organisational theory and management concepts. This delusion was sadly exposed in the first year! The PhD process has helped me to understand how I learn. I have found the rigour of academic analysis and argument very stimulating, and have developed a number of skills during my PhD studies, in particular the ability to construct and analyse an argument in a logical manner. The understanding of theory has enabled me to apply these theories in a practical way. I believe I am now more able to be more critical and objective when analysing a topic and have developed the ability to deconstruct

an argument. Perhaps most importantly I feel the PhD process has given me the confidence to disagree and to propose my own arguments to opposition to an argument. The process has also made me a much sterner critic of management books, an outcome for which I will be eternally grateful. I am also very grateful to everyone at Strathclyde Business School for the opportunity to debate with them, listen to them and for all their patience in putting up with my academic peregrinations.

The PhD process is often described as a '*roller coaster*' experience with its heights of productivity and lows of frustration. I would concur with this description. A major challenge for me has been balancing the time and energy requirements of the PhD with running a business and acting as UN peacekeeper to three teenage children. Despite this, the opportunity to meet and debate with so many intelligent and inspiring people has been a privilege that justifies the commitment of the last six years.

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