ASSESSMENT OF THE ORGANIZATIONAL CULTURE PROFILE (OCP) AND A STUDY OF THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND ORGANISATIONAL COMMITMENT, JOB SATISFACTION AND CULTURE STRENGTH USING THE OCP

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ABSTRACT

This research was designed to test the factor structure of the Organizational Culture Profile (OCP) and the relationship of the dimensions of culture to 3 outcome variables, organisational commitment, job satisfaction and culture strength.

A 158-item questionnaire, including the OCP, additional culture factors, social desirability scales, and measures for 3 outcome variables was distributed throughout a metropolitan hospital. 302 useable responses were analysed. Structural equation modeling using AMOS was used to assess the models.

The 10-factor OCP model was not supported, but a 3-factor higher order structure (Task, Relationship and Socialisation) represented the data. An alternative 7-factor structure (Leadership, Planning, Individual Development, Structure, Innovation, Humanistic and Socialisation) was indicated. Chi-square differences favoured the 7-factor over the 3-factor model.

Structural models were tested for each outcome variable using the 7-factor model of culture. Organisational commitment and job satisfaction were directly related to the extent to which the organisation develops and up-skills its members. Commitment and job satisfaction were indirectly related to socialisation of new members, through collectivism and collaboration. Encouragement of innovation and creativity were positively related to job satisfaction. However, socialisation was also negatively predictive of two facets of job satisfaction, work conditions and pay/rewards. Structure and the extent policies and procedures limit the actions of staff were negatively related to job satisfaction. The degree of care and respect afforded staff and the free sharing of information were negatively predictive of satisfaction with pay and the nature of work. Those who felt they were respected felt less satisfied with their pay and the type of work they carried out. Culture strength was not related to the cultural dimensions.

Results support the theory (Rousseau, 1995) concerning the changing nature of psychological employment contracts. Psychological contracts between employees and organisations have moved from relational (mutual commitment to the relationship and built on trust) to transactional whereby an exchange of services and benefits occurs. The research suggested that in exchange for receiving training and development, staff give the organisation commitment and feel more satisfied with their job. The implications for the healthcare sector are discussed.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

Introduction

Over the last 20 years or so, the construct of organisational culture has attracted a great deal of interest and attention from academics and practitioners alike. Conferences, symposia, special issues of journals and much research have been devoted to the subject. However, there is little agreement in the academic literature about organisational culture – neither what it is nor how it can be measured (Barley, 1995; Hofstede, Neuijen, Ohayv, & Sanders, 1990; Martin, 1995a; Rousseau, 1990). The most frequently used definition of culture is arguably Schein's description: "*The culture of a group is the pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and therefore to be taught to new members as the correct way to perceive, think and feel in relation to those problems*" (Schein, 1992, p12).

It is widely recognised that when organisations attempt to change, culture plays a critical role in the process (Schein, 1996). Without accompanying culture change, most organisational change initiatives will fail or at best become temporary or transitory phenomena. Indeed a company's prevailing cultural characteristics can inhibit or defeat a change effort before it even begins (Detert, Schroeder & Mauriel, 2000). Mergers and acquisitions provide another example of the impact of culture. Cultural incompatibility between companies is widely reported as the cause for the frequently observed poor performance following mergers and acquisitions (Cartwright & Cooper, 1993; Walter 1985). The cost of 'culture collisions' resulting from the

attempt to integrate mismatched organisational cultures is said to be as high as 25 to 30% of the performance of the acquired company (Cartwright & Cooper, 1993) to say nothing of the human cost in anxiety and stress that often accompanies such changes. While the decision to acquire and merge companies is generally based on strategic fit between potential business partners, cultural fit may be of equal if not greater importance.

Organisational psychology has been criticised for being too individualistic and for continuing to underestimate the importance of culture in how organisations function (Schein, 1996). As a result of this individual focus, researchers often look at productivity as defined in terms of an individual's ability to be productive, without considering the systemic and environmental forces that influence people to behave in certain ways.

A common belief expressed in management literature (Cameron & Freeman, 1991; Siehl & Martin, 1990) asserts that organisational culture that is strong, strategically aligned and flexible will be more effective than one that is weak, incongruent or disconnected (Kotter & Heskett, 1992). Despite the pervasiveness of this belief however, there is very little empirical evidence linking strength of culture to organisational effectiveness (Martin, 1995a).

If understanding an organisation's culture is important to the success of change management, before implementing a major (and costly) business strategy (Pool, 1999), there needs to be a way to assess and identify relevant cultural dimensions and to compare them across organisations. In order to change organisational culture to support major business initiatives and change (e.g. innovation, process improvement, re-engineering, mergers and acquisitions) there needs to be a way to identify what aspects of culture need to be modified and in what

direction (Cameron & Freeman, 1991). Currently there is little empirical research linking cultural dimensions to outcome variables such as organisational commitment, job satisfaction and job performance (Pool, 1999). This research therefore seeks to look at such measurement and, using multivariate statistics techniques, to analyse these linkages.

Statement of Problem

This study will be conducted to assess the Broadfoot and Ashkanasy 10-factor model of organisational culture and the organisational questionnaire used to derive these factors, the Organisational Culture Profile (OCP). Furthermore the researcher seeks to identify the relationships between culture factors and three outcome variables: organisational commitment; job satisfaction; and, culture strength.

This research is a cross-sectional study of one organisation. Responses will be sought from all levels of the organisation to assess its culture using the OCP questionnaire.

Assumptions Made by the Researcher in Carrying out this Research

Five assumptions underlie this study. Firstly, it is assumed that there is an identifiable, reasonably homogeneous organisational culture in the target company, which sits over the various sub-cultures that might exist. Secondly, it is assumed that responses to a questionnaire will give a reasonably accurate and coherent picture of the culture of the target organisation. Thirdly, it is assumed that participants in the survey know the culture well enough to answer questions in a way that truly represents the overall organisational culture. Fourthly, it is assumed that the sample will be representative of the workforce of the organisation. Finally, it is assumed that gaps in the data will be reasonably random and not subject to systematic influences.

Significance of the Study

While organisational culture is recognised as playing a critical role in developing effective interventions, strategies and in guiding or inhibiting processes of transformation, innovation and change (Ingersoll, Kirsch, Merk, & Lightfoot, 2000; Quinn & Spreitzer, 1991), little empirical research has been carried out on how best to assess culture and its impact on a variety of organisational issues.

As will be discussed in the literature review, much of the work on measuring organisational culture has employed qualitative research methods. However, the data collected in this way usually cannot be used as the basis for the systematic comparison of companies or to compare the same organisation at different times (Siehl and Martin, 1988). It also precludes the use of multivariate analysis and the accompanying management of confounding variables.

Although there are a range of methodological issues associated with cross cultural comparisons of any kind, the first step towards being able to make those comparisons is to have a reliable, robust, sensitive and valid instrument to measure culture (Xenikou & Furnham, 1996). The quantitative data produced by such a tool can be used to compare organisational cultures of different organisations, or at different times for the same organisation, or in different parts of the same organisation. Multivariate statistics techniques can be used on such data to isolate the relationships between cultural dimensions and outcome variables and to take into account any possible confounding variables.

This study therefore goes some small way to meeting the need for greater quantitative research and analysis of outcome variables. Furthermore most research in this subject has been carried out in North America or Europe. The OCP was developed in Australia and this research is to be carried out in a New Zealand

organisation and so will provide a local example of such work. For the organisation that participates in this study, it will provide insights into the aspects of culture that affect organisational commitment, job satisfaction and perceptions of culture strength.

Delimitations or Scope of this Study

This section will discuss the parameters or limits the researcher chose to impose on this research.

Survey methods have characteristics that make them especially useful for research into aspects of organisations (Ashkanasy, Broadfoot & Falkus, 2000). Organisational culture concerns shared assumptions held by a group that determines how it reacts, thinks about and perceives its environment (Schein, 1992). It is therefore appropriate to focus on such perception. Self-report surveys allow respondents to record their perceptions of reality (Ashkanasy et. al., 2000). While survey methods have advantages, there are clearly delimitations. They have been criticised as subject to strong mono-method bias (Martin, 1992).

It is generally agreed that surveys can tap into the shallower, more accessible levels of culture. It is argued by some that even deeper levels of culture may be rooted in perceived practices (Hofstede, et al., 1990) and therefore exposed by surveys. However, others contend deeper levels of culture will be uncovered only by intensive and extensive observation, supplemented by in-depth interviews of cultural insiders (Schein, 1990). The researcher accepts that deep underlying assumptions may not come out in this study.

Schein (1990, 2000) also argues that questionnaires force the researcher to restrict the domain of inquiry. In this research 15 variables will be measured (including 10 culture dimensions, Individualism Collectivism, organisational commitment, job satisfaction and culture strength). According to Schein, every

organisation's culture is so unique and complex that an a priori set of variables will never "*cover the conceptual terrain*" (Schein, 1991, p244). By taking a quantitative approach in this study, the researcher accepts that the criterion measures are constrained to those 15 variables and their inter-relationships.

The sample in this study is to be taken from all levels of one organisation rather than across one level of many organisations. The aim of this strategy is to get a picture of the organisational culture from many vantage points from the top to the bottom of the organisation's structure. The results, however, may not be generalisable to other kinds of organisations.

Definitions and Operational Terms

Organisational culture: "*The culture of a group is the pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and therefore to be taught to new members as the correct way to perceive, think and feel in relation to those problems*" (Schein, 1992, p12).

Organisational commitment: The model of affective commitment to be used in this study was developed by Mowday, Steers and Porter (1979) and is characterised by three elements. Firstly, it consists of a strong belief in and acceptance of the organisation's goals and values; secondly, a willingness to exert considerable effort on behalf of the organisation; and thirdly, a desire to maintain membership of the organisation.

Job Satisfaction: The model of job satisfaction to be used in this study was developed by Spector (1985). Job satisfaction can be considered as a global feeling of satisfaction (or dissatisfaction) about a job or as a related constellation of attitudes to various facets of a job (Spector, 1997). In this research the facet approach will be

taken to find out which parts of the job produce satisfaction or dissatisfaction. Some of the facets to be considered are pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, co-workers, communication and pride in one's work.

Culture Strength: This factor refers to the degree to which respondents agree the organisation has a clear, well-defined, strong and consistent culture.

CHAPTER TWO

REVIEW OF LITERATURE

History of Culture

The construct of organisational culture has its roots in Anthropology and the study of societal culture. The concept of culture is not very old. Well into the 19th century many people did not understand the difference between the culture experienced by an individual (the learned beliefs and habits that made cultures distinct) and the race or biological makeup of an individual (their inherited physical characteristics) (Peoples & Bailey, 2000).

Peoples and Bailey (2000) note that, while anthropologists define culture in many different ways, most definitions within this discipline share the following common features:

- Culture is learned from others.
- Culture is widely shared by members of a group.
- Culture is responsible for most of the differences in ways of thinking and behaving between groups.
- Culture is so essential in completing the social and psychological development of individuals that a culture-less individual would be considered abnormal.

Therefore in one view from Anthropology *"the culture of a group consists of shared, socially learned knowledge and patterns of behavior"* (Peoples & Bailey, 2000, p17).

Culture and Organisational psychology

Pettigrew is generally credited with introducing culture into organisational psychology in 1979 (Detert et al., 2000; Reichers & Schneider, 1990). His paper "On

Studying Organizational Cultures" investigated the emergence and development of an organisation's culture over time (Pettigrew, 1979). Much was written on the subject in the early 80's. The profile of organisational culture was further raised by the release of the Peters and Waterman (1982) book "In Search of Excellence".

The rise in economic power of Japan and the recognition of the success of Japanese management practices occurred at this time. In Europe and the USA, big business was failing and there was a growing conviction that current methods of building employee commitment and managing change were not working in the west. In such conditions, 'Organisational Culture' was recognised as an exciting construct for study (Pettigrew, 2000). By 1983 both the "Administrative Science Quarterly" and "Organizational Dynamics" had devoted special issues to the topic.

Alongside such developments Hofstede (1980) carried out groundbreaking work with analyses of data from IBM. The data consisted of employee responses to surveys about values, attitudes and perceptions of work. Data were collected from 116,000 respondents in 64 countries. While the focus of the study became one of looking at the differences in an organisation across national cultures, Hofstede himself recommended analysis and differentiation into further levels of culture such as regional, ethnic, occupational and organisational subcultures (Hofstede, 2001). Some of the dimensions developed in the original work, such as individualism and collectivism, have been used in recent organisational culture assessment tools (Denison & Neale, 1999).

Organisational Culture Defined

There is little agreement about organisational culture in the academic literature. There are differences in what people perceive it is and therefore in how it should be measured (Rousseau, 1990; Hofstede et al., 1990; Martin, 1995a; Barley, 1995). As

early as 1983 Smircich identified five different organisational research themes, each with different assumptions about the nature of culture. Each one took research and analysis in different and promising directions (Smircich, 1983). Different conceptions give rise to a variety of interests and research questions that might be studied using different methodologies.

While there may be no consensus regarding a definition, Hofstede, et al., (1990) suggest a starting point with some characteristics of organisational culture with which most authors would agree. They are:

1. Holistic
2. Historically determined
3. Related to anthropological concepts
4. Socially constructed
5. Soft
6. Difficult to change.

Schein (1992) views culture as the accumulated, shared learning of a group, derived from its shared history, and covering the behavioural, emotional and cognitive aspects of members' total psychological functioning. He describes three levels of culture:

1. Artefacts – at the most visible level including structure and processes.
2. Espoused values – includes strategies, goals and philosophies.
3. Basic assumptions – 'unconscious' beliefs that are taken for granted and the sources of these beliefs and values.

The research considered in this thesis will operate at levels one and two. The third level, involving shared underlying assumptions, is harder to expose. This level operates outside of one's awareness. Assumptions are formed, taken for granted and become the mental model adopted by the group, which distinguishes it from other

groups. Such assumptions are seldom examined or even discussed and are therefore seemingly 'unconscious' (Schein, 1992).

Rousseau (1990) suggests it is not so much the definitions of culture that vary widely but the types of data researchers collect. To focus cultural research and provide an over-arching construct, she extends Schein's model further with elements arranged like the layers of an onion from the outer layers that are easily accessible, to the inner layers which are difficult to assess (Figure 2.1).

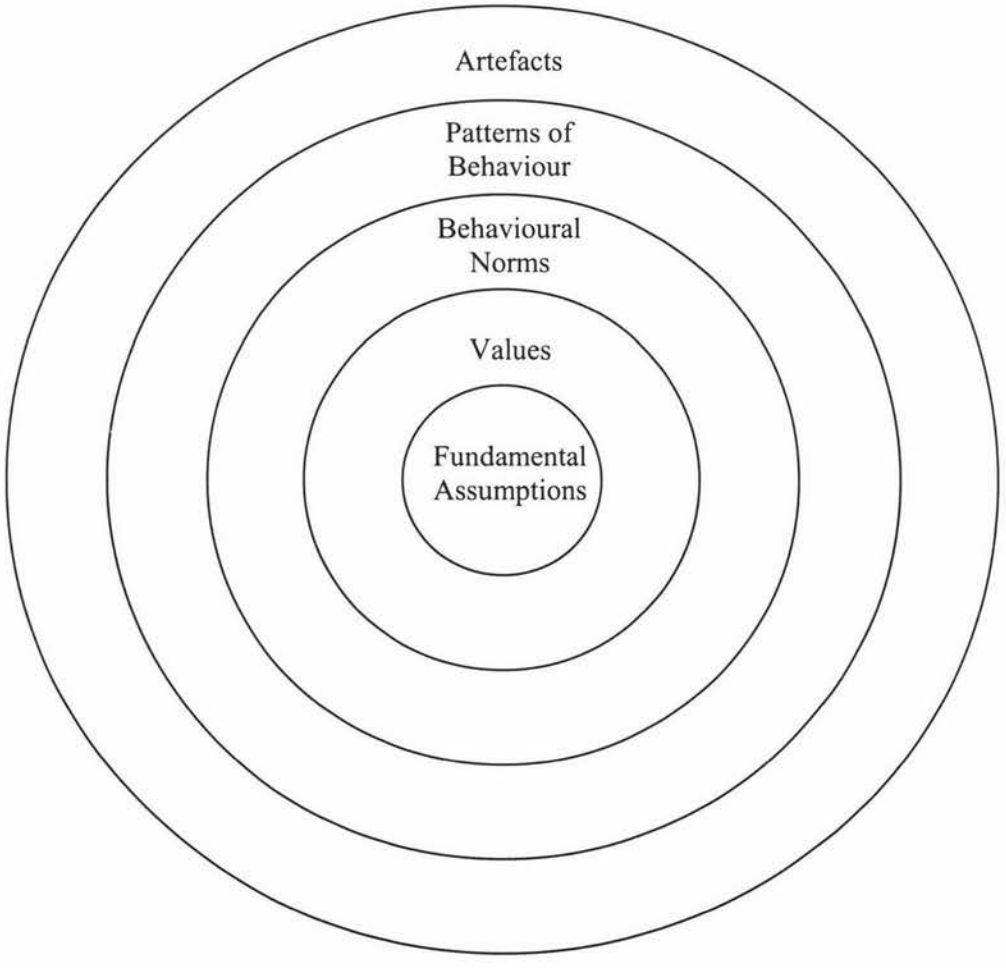


Figure 2.1: Rousseau's model of organisational culture

These layers consist of:

1. Artefacts – physical manifestation and products of cultural activity
2. Patterns of behaviour – decisions making, coordination, communication mechanisms
3. Behavioural norms – beliefs regarding what is acceptable or unacceptable behaviour
4. Values
5. Fundamental assumptions

Rousseau's fifth level of Fundamental Assumptions, like Schein's third level, is unlikely to be exposed by this research as it is beyond the organisational members' awareness. It may, however, come to the surface when espoused values and patterns of behaviour and behavioural norms are found to conflict. Exploration of such anomalies can expose the basic underlying assumptions (Schein, 1992).

Culture Versus Climate

Given that "*organizational culture researchers disagree vehemently about fundamental issues*" in culture among themselves (Martin, 1992, p4) it is not surprising that there is confusion between the related constructs of 'culture' and 'climate'. Schneider (1990) edited the book *Organizational Climate and Culture* without coming to a definitive conclusion about their differences (Payne, 1995). Indeed some researchers use the terms 'culture' and 'climate' interchangeably (Schneider, 2000) and phrases such as "the way we do things around here" have been attributed to both constructs. Some of this confusion may have arisen due to the different origins of these constructs. Climate has its roots in Sociology whereas culture is derived from Anthropology (Hofstede, 1998).

Schein equates climate to cultural artefacts (Schneider, 2000). He suggests that the word 'culture' in popular management parlance more often refers to what he would call climate (Schein, 2000). The words people use to describe the setting like 'innovative' or 'customer focused' or 'employee centred' are really climate. Climate is also what people talk about when they describe what happens to them and around them in organisations (Schneider, 2000). When one looks at why these things happen, at the deep underlying assumptions then these are culture (Schein, 2000). Hence an innovative climate may produce lots of new ideas and different ways of doing things. One deep underlying assumption in an innovative climate is that risk taking at some level is acceptable. How can one develop new ideas without taking some risk? There might also be a deep underlying assumption that long-term gains are valued and not just those achieved in the short term. A climate of teamwork might be embedded in a culture of shared rewards and collectivism.

Verbeke, Volgering and Hessels (1998) undertook a recent and extensive analysis of the published literature on culture and climate. They identified 32 different definitions of organisational climate and 54 definitions of organisational culture (Glisson & James, 2002). However, content analysis revealed two core concepts from this literature. Organisational climate was found to be the way people perceive and describe their work environment, whereas organisational culture was found to be the way things are done at an organisational unit level (Verbeke et al., 1998). This is consistent with the approach taken in this research. One of the survey items taken from the OCP (Question 4) "Our managers encourage staff to give their views and are generally responsive to them" taps into an aspect of organisational culture. On the other hand a hypothetical item such as "I feel I can talk to my manager and s/he will listen to my views" fits with Rousseau's definition of climate as "an individual's

description of the social setting or context of which the person is a part" (Rousseau, 1988, pp 140).

James and James (1989) make a further distinction between psychological climate and organisational climate. Psychological climate is defined as the individual's perception of the psychological impact of the work environment on his or her own well-being. When employees agree on their perceptions of this impact, their shared perceptions aggregate to describe organisational climate (Glisson & James, 2002). However, whether agreed or not, climate is more closely linked with individual motivation and behaviour (Hofstede, 1998). Issues such as role clarity, fairness, role conflict, work overload and emotional exhaustion involve organisational climate (Glisson & Hemmelgarn, 1998).

Organisational culture is a characteristic of the organisation and not of individuals (Hofstede, 1998). It is however, manifested and measured by the behaviour of individuals (the visible part of culture) aggregated to a higher level such as the work unit or the organisation itself. The invisible part of culture, parallel to Rousseau's (1990) 'inner layer', cannot be observed directly and can only be derived indirectly from the statements and behaviour of people in the organisation.

It seems reasonable to take Schneider's (2000) viewpoint that "*Climate causes culture but the reverse is also true*". They are "*two complementary ideas that reveal overlapping yet distinguishable nuances in the psychological life of organizations*" (Schneider, 2000, p XXI). The research considered here will accept that culture and climate are overlapping and complementary constructs.

Multiple Perspectives in Culture

How culture is measured or research is carried out, depends on how the researcher perceives and enacts the construct (Meyerson & Martin, 1987). Many

scholars consider that the diversity of paradigms and multiplicity of perspectives enriches this area of organisational study (Schultz & Hatch, 1996). Indeed some researchers (Meyerson, 1991; Martin, 1992) sharply criticise those who would advocate a single-minded focus on culture as a cohesive pattern of cultural manifestations (values, practices, artefacts and jargon) shared by all members of an organisation (Schultz, 1995).

Smircich (1983) differentiates between two different viewpoints. Culture can be considered as something an organisation ***has*** or culture can be considered as something an organisation ***is.*** If culture is considered as something an organisation *is,* culture is seen as a root metaphor and this promotes a view of organisations as expressive forms and manifestations of human consciousness (Smircich, 1983). Proponents of this view suggest that organisational culture cannot be measured or manipulated. It can only be observed, deciphered and interpreted (Meek, 1988). The research stemming from this qualitative, ethnographic/anthropological approach results in 'thick descriptions' of the deep structure of organisations (Barley, 1983; Gregory, 1983; Reichers & Schneider, 1990).

If one adopts the alternative view of culture as something an organisation ***has***, then culture is an attribute of the organisation, a variable typically defined in terms of values, attitudes or underlying assumptions. This approach encourages the investigation of causes (the context) and effects (e.g. problematic mergers and acquisitions or low staff commitment) of organisational culture. As an attribute or variable, culture can be measured, for example:

1. Strong versus weak cultures (Kotter & Heskett, 1992; Hofstede et al., 1990) where strength is considered as a high degree of consistency.

2. Efficient versus inefficient cultures (Denison, 1990; McCarthy, 2001). Some researchers have measured elements of culture and drawn conclusions (rightly or wrongly) with regard to performance (Shultz, 1995).

The research under consideration here will adopt the latter point of view – considering culture as something an organisation *has*. As such the variables of culture will be measured and some of the effects examined.

Martin and Meyerson created a three-perspective framework for conceptualising culture (Meyerson & Martin, 1987; Martin, 1995b). Viewing organisations as '*patterns of meanings, values and behaviors*' (Meyerson & Martin, 1987, p623), they consider three different perspectives or paradigms of culture and cultural change:

1. Integration: In this paradigm culture is defined in terms of homogeneity, that which is shared, the social and normative glue that holds together different parts of the organisation (Martin & Siehl, 1983). Emphasis here is on clarity, cohesion and consensus regarding, for example, appropriate behaviour, values, and a common language.
2. Differentiation: In this paradigm emphasis is on diversity and inconsistency. Researchers focus on lack of consensus. Pressures from within and from outside the organisation may result in multiple overlapping and nested subcultures or even counter cultures (Martin & Siehl, 1983).
3. Fragmentation: This perspective views ambiguity as an inevitable feature of organisational culture (Frost, Moore, Louis, Lundsberg and Martin, 1991). While individuals may share some viewpoints, they will disagree about others, or be ignorant of them, or indifferent to them (Meyerson & Martin, 1987). This perspective reminds us that groups may lack clarity and have

uncertainty, confusion and double meanings around aspects of organisational life.

Gregory (1983) criticises researchers for considering organisational cultures as more homogeneous than they really are. Instead she emphasises their divisive potential over their cohesiveness. One assumption, made in the research that is the subject of this thesis is that there is a sufficiently integrated culture, that it is identifiable within the subject organisation and that it sits over the various subcultures or counter cultures that might exist.

The identification of an over-arching organisational culture is aided by the design of the OCP questionnaire. While sub-cultures and counter-cultures may exist, respondents are focused on the overall organisational culture in the way the instructions and questions are worded. Should such an overall culture not exist, analyses of the predictive nature of cultural dimensions on outcome variables such as organisational commitment and job satisfaction will fail. If cultural elements are fragmented or inconsistent, they will not hold together in a model and nor will they predict the outcome variables.

Measurement of Organisational Culture

Qualitative measurement of Culture Schein(1992) promotes the use of qualitative techniques to measure organisational culture. He contends that the only way to get to the underlying assumptions in an organisation's culture is to do in-depth interviews and focus groups in order to bring these assumptions into awareness. His analytical approach is categorical. Schein lists the cultural elements and diagnoses the relationships between them. He describes his methodology as 'clinical research' with data coming voluntarily from members of the organisation (Schein, 1991).

This approach can be compared to the qualitative approach taken by Barley, (1983; Smircich, 1983), with an ethnographic methodology. Here the assumption is that the organisation should be observed, understood and left intact (Schein, 1987). A true ethnographic study could involve one to two years fulltime observation and include conducting in-depth qualitative interviews revealing the ways in which organisational members construct meaning (Shultz, 1995). The result of such research is narrative text that explores the culture's uniqueness. Such a comprehensive analysis would have practical limitations. It would be costly with respect to time commitment and by the time it was reported, the organisational culture might well have changed.

Climate and a Quantitative Approach Climate Researchers have historically come from a different scientific tradition. While culture researchers were using qualitative methods, climate scholars used quantitative tools and techniques. Substantial agreement existed around the appropriateness of these diverse research strategies until about 1990, when some researchers challenged this lack of cross-fertilisation (Rentsch, 1990; Reichers & Schneider, 1990; Rousseau, 1990). Reichers and Schneider (1990) went even further, suggesting that by the year 2000 climate and culture would be amalgamated into one construct, exhibiting many of the conceptual, methodological and practical characteristics held to be unique to each, at the time. It was felt that the study of organisational culture could be enhanced by an increased use of quantitative methods such as surveys and questionnaires.

Schein (1991) contested this view and argued against the use of quantitative techniques. He contends that they "force the researcher to cast their theoretical nets too narrowly" (Schein, 2000 pXVIII). He argues that attempting to measure culture using questionnaires, forces the data into dimensions derived a priori and that such an

approach presupposes organisational cultures have common dimensions. This, he contends, leads to failure to capture the uniqueness of an organisation's culture.

Many suggest that quantitative methods such as surveys give a standardised and efficient means of tapping at least the shallower levels of culture (Ashkanasy, et al., 2000; Rousseau, 1990), if not the deeper ones (Ott, 1989; Rentsch, 1990; Hofstede, et al., 1990). Glisson and James (2002) contend that culture is expressed and transmitted among employees more through shared behavioural expectations and normative beliefs than through deeper values and assumptions (Hofstede, 1998; Ashkanasy et al., 2000). They suggest that individuals can be fully aware of and comply with expectations without internalising the underlying values and beliefs (Glisson & James, 2002). This is especially true for those at the 'coal face' in a situation where the underlying values of the organisation's culture may have developed historically from leaders or founders of the company.

Some researchers have taken a middle ground. Rousseau (1990) and others (Hofstede, 1998; Hofstede et al., 1990; Seihl & Martin, 1988) promoted a 'multiple methods' or 'hybrid methodology' approach. Qualitative techniques can be used to create data from which quantitative methodologies such as questionnaires might be developed.

In this study a strongly quantitative approach has been adopted. This research could be enhanced by the addition of qualitative techniques. Interviews could have been conducted to identify other cultural dimensions, not measured by the OCP that might be relevant to organisational members. Feedback of results to the organisation could include qualitative elements, to gain further insight into the meanings of these results for organisational members.

Questionnaire and Survey Measures of Culture The trend towards use of quantitative techniques to measure culture resulted in the development of a wide variety of questionnaires and survey tools. Ashkanasy et al., (2000) note that even a cursory comparison reveals significant differences and a lack of consensus in recommended format and style. They also highlight the lack of theoretical basis for many instruments as a further cause for concern.

In conducting the research to develop the OCP questionnaire, Broadfoot and Ashkanasy (1994, quoted in Ashkanasy et al., 2000), developed a new typology for the classification of culture measures. They found that culture surveys could be classified as either T*yping* or *Profiling* scales. Profiling scales could be further divided into three subcategories: *Effectiveness Surveys, Descriptive Surveys* and *Fit Profiles*.

Typing Surveys. Typing Surveys identify organisations as belonging to one of a number of mutually exclusive categories or organisation culture "types". Margerison (1979), for example, categorises organisational cultures as *Bureaucratic, Innovative* or *Supporting.* Each category is described allowing respondents to understand the influences and consequences of type-category membership (Cooke & Rousseau, 1988; Margerison, 1979). Ashkanasy et al (2000), identify three limitation of this approach. Firstly, typing implies that all organisations belonging to a particular type are similar and thus neglects the unique nature of organisational culture (Schein, 1985). Secondly, typing implies the categories are discrete, something that is difficult to argue on theoretical grounds (Rousseau, 1990). Thirdly, not all organisations conform to a particular type and others appear to be a mixture of types.

Profiling Surveys. Profiling Surveys describe organisations in terms of multiple categories of norms, behaviours and values or beliefs. Different scores are produced on several culture dimensions, generating a profile of the organisation's culture. *Effectiveness Profiling* instruments, the most common of this approach, assess values that are considered to be associated with high levels of effectiveness and performance.

Descriptive profiles describe the intensity with which values are held by members of the organisation, but do not relate these to performance. This is the approach typically taken in consulting organisational culture surveys. Scores are fed back to the company executives, where they are discussed, the results are interpreted and meaning is attributed (Margerison, 1979). The OCP used in this research is descriptive in nature. Ratings on each of the culture dimensions were calculated and a profile of the hospital's organisational culture was generated.

The third kind of profiling instrument is the *Fit Profiling Surveys*. These tools are based on the premise that congruence between values held by organisational members and that demonstrated in the organisational culture, will determine organisational effectiveness. O'Reilly, Chatman and Caldwell (1991) used this approach for their survey instrument. Using a Q-sort technique, they assess organisational culture and the individual member preferences. The person-organisation fit is calculated using correlational statistics.

The Organisational Culture Profile

In the nineties, controversy and debate continued to surround the definition of culture and the methodologies to be used in its study (Detert et al., 2000; Martin, 1995a; Pettigrew, 2000). Interpretive studies offered good insight into culture but failed to build on one another (Di Maggio, 1997).

With the aim of building on what had gone before, and seeking to put greater focus on empirical and theoretical validation of measures of organisational culture, Broadfoot & Ashkanasy (1994, quoted in Ashkanasy et al., 2000) developed the Organizational Culture Profile (OCP). The OCP is the subject of this research.

In reviewing the literature, Broadfoot and Ashkanasy noted that researchers viewed organisational culture from a variety of often conflicting theoretical positions and that many of the measures of culture lacked empirical support (Ashkanasy et al., 2000). Rousseau (1990) had undertaken an analysis of seven quantitative measures of culture. In sourcing her material, Rousseau was looking for surveys that assessed organisational behavioural norms, espoused values regarding organisational actions and "*other cultural elements with an organisational frame of reference*" (Rousseau, 1990, p172). Broadfoot and Ashkanasy built on this summary adding 11 more assessment instruments. Some of these were developed by practitioners rather than academics. While Rousseau had rejected such measures on the grounds that they lack supporting validity research, Broadfoot and Ashkanasy noted that many academic tools were also bereft of empirical support (Ashkanasy et al., 2000). In addition they felt that practitioner-developed instruments might be more meaningful to managers and those in target organisations, than academic ones. These 18 surveys were considered by the researchers to represent the collective knowledge base of scholars in this field, at the time. Broadfoot and Ashkanasy identified 15 underlying themes from these 18 questionnaires. These were then distilled down to the 10 dimensions found in the OCP.

To validate the OCP, Broadfoot and Ashkanasy administered it to 151 respondents in an Australian Healthcare Authority. Four dimensions (Leadership, Planning, Communication and Humanistic) were found to be reliable (Cronbach alpha

> .80). Three other dimensions (Environment, Job Performance and Development of the Individual) approached acceptable reliability (Cronbach alpha > .70). The last three dimensions (Structure, Innovation and Socialization of Entry) achieved lowered reliability. It was recommended that if they produced similar results in future research, these dimensions should be used with care (Ashkanasy et al., 2000).

Principal-axis factor analysis with varimax rotation was then carried out and the results showed that while all items loaded on at least one dimension, only three factors underpinned the OCP (Ashkanasy et al., 2000).

Falkus, (1998) carried out a larger validation study with 297 respondents from 14 diverse organisations. Exploratory factor analysis supported a 20-item, two-factor solution rather than the 50-item, 10-factor structure. Despite the mixed results for the factor and reliability analyses, the OCP performed well in terms of its validity indices. Within-group agreement and significant between-group differences were found for both the 2-factor shortened form and the full 10-factor model (Ashkanasy et al., 2000). Predictive and concurrent validity lent support for nine of the ten dimensions. The exception was Structure. Multiple regression however, indicated considerable overlap among the ten dimensions (Falkus, 1998).

Dimensions of Organisational Culture

Detert et al., (2000) performed a qualitative content analysis of the extant literature to identify the specific constructs or dimensions used by researchers to tap organisational culture over the last 20 years. The review of over 25 multi-concept frameworks revealed eight broad cultural dimensions that underlie the majority of culture concepts (Detert et al, 2000).

Table 2.1 General Dimensions of Organisational Culture from the Literature

	8 Dimensions Cultural Dimensions	OCP Dimension(s)	No. of References
1	The basis of truth and rationality	Leadership	10
2	Nature of time/time horizon	Planning	7
3	Motivation	Communication, Humanistic	9
4	Stability vs Change/innovation/ personal growth	Innovation, Individual Development	17
5	Orientation to work, task, co-workers	Job Performance, Socialisation of Entry	12
6	Isolation vs collaboration/ cooperation	_____	17
7	Control, coordination, responsibility	Structure	13
8	Orientation/focus – internal/external	Environment	11

The ten original dimensions of the OCP are similar to seven of the eight categories identified by Detert et al, (2000). Refer to table 2.1. It is notable that almost every framework reviewed (17 out of 25) considered the area of working alone or working collaboratively, something the OCP does not consider.

Individualism and Collectivism Individualism and Collectivism have been researched and studied at a number of levels. The ecological level looks at the differences in Individualism and Collectivism across countries. The organisational or group levels of analysis can be impacted by culture at a higher level. Much of the learning from research is applicable across different levels (Hofstede, 1990).

Triandis and his colleagues have carried out much of the work on the constructs of Individualism and Collectivism. They have focused on national cultures (i.e. at the ecological level) (Triandis, 1995; Triandis and Gelfand, 1998; Singelis, Triandis, Bhawuk and Gelfand, 1995). Drawing on his own experience as a Greek

immigrating to the USA, Triandis studied and wrote about the differences in these cultures as early as the 1970's (Triandis, 1995).

Hofstede (1980) also looked at Individualism/Collectivism. He analysed data from IBM concerning respondents' values, preferences, attitudes and their perceptions of work. He looked at the results across 64 countries. Factor analysis revealed four factors including *Individualism* and *Power Distance, which* were highly and negatively correlated (-.70). Power Distance is a measure of the interpersonal power or influence between a manager and their subordinate, as perceived by the subordinate. It is therefore a measure of inequality between the two (Hofstede, 1980). The negative correlation between Power Distance and Individualism suggests that acceptance of a strong hierarchy (inequality) is low in individualistic cultures (Triandis, 1995). New Zealand ranked 4th lowest out of 39 countries for Power Distance on the IBM study (Hofstede, 1980).

Hofstede's Individualism factor was similar to the constructs developed by Triandis when studying traditional Greeks (collectivists) and Americans (individualists) (Triandis, 1995). Collectivism relates to definition of self as part of the group, subordination of personal goals to in-group goals, concerns for the integrity of the group and intense emotional attachment to it. The major themes of Individualism are defining self as distinct for the group, an emphasis on personal goals even at the expense of the group and less concern and emotional attachment to the group (Triandis, Bontempo, Villareal, Asai & Lucca, 1988). Rather than considering Individualism and Collectivism as either end of one continuum, factor analysis suggested these were orthogonal constructs (Triandis et al., 1988).

Modelling his work on his IBM project, Hofstede and a team of researchers went on to look at organisational culture (Hofstede et al., 1990). The cross-national

study provided a model of how to study culture at a different level, the organisational level. While Hofstede considers Power Distance an appropriate construct for study at different levels of culture (Hofstede, 2001), he did not use the Individualism/ Collectivism construct in the organisational culture study. However, a comparable variable 'Parochial versus Professional' construct was derived from the factor analysis. The Parochial end of the dimension reflects people who derive their identity from the group, whereas Professionals identify more with the job (Hofstede et al., 1990). Items regarding cooperation, trust, and competition derive this construct.

As early as 1988, Triandis and his team of researchers recognised that not all collectivists or individualists were alike (Triandis, et al., 1988). Recognising that collectivism in an Israeli kibbutz might be different to collectivism in India or traditional Greece, Triandis et al. (1988) distinguished between vertical and horizontal individualism and collectivism. Horizontal Collectivism is the cultural pattern in which the individual sees the self as similar and equal to others and interdependent on them. Vertical Collectivism is the pattern where the self is interdependent but not necessarily equal to others. Hence one might provide service or sacrifice for the in-group. Horizontal Individualism is the pattern where the self is individual but equal in status to others. Vertical Individualism is the cultural pattern in which individuals see themselves and others as unequal and different (Singelis, et al., 1995). In developing measures of the four scales, Singelis et al (1995) contend that measurement of the more abstract constructs of Individualism and Collectivism is too broad and difficult to achieve data with sufficient reliability (i.e. $\alpha > .70$).

In this research, the four scales will be measured in order to obtain reliable data and to provide a clearer picture of the impact of Individualism and Collectivism on the outcome variables, in an organisational setting.

There is recognition that what is needed at this time is more research exploring the nature and efficacy of management practices within increasingly multinational workforces (Smith, 2001). Some progress has been made in this direction. Bochner and Hesketh's (1994) study of work related attitudes and values in a single multicultural company supported Hofstede's Individualism and Power Distance constructs. Earley and Mosakowski (2000) found that highly heterogeneous (multicultural) teams initially performed badly compared to homogeneous teams. Over time, however, highly heterogeneous teams created a common identity and team culture providing the basis for exchange and coordination and thereby permitted productive use of their diverse styles, talents and resources.

Harrison, Price and Bell (1998) found a similar result. In a study of demographic and attitudinal diversity, the length of time group members worked together impacted on their performance as a cohesive group. The initial negative impact of diversity was weakened over time, as group members engaged in meaningful interactions.

While it is accepted that the multicultural nature of the workforce, from which the research sample is taken, may well impact on the degree of individualism and collectivism at the organisational level, this is not the focus of this research. The study undertaken here will investigate organisational influences such as socialisation of newcomers, in the development of individualistic and collectivist organisational culture rather than looking at individual differences.

Organisational Socialisation

Organisational socialisation is the process by which one is taught and acquires the social knowledge and skills necessary to assume an organisational role (Van Maanen & Schein, 1979). Since such a process involves the transmission of

information and values it is fundamentally a cultural matter (Louis, 1990). Van Maanen and Schein's (1979) Theory of Organisational Socialisation utilises a framework developed by Schein in 1971. A role is defined in terms of three dimensions. The *functional dimension* refers to the tasks performed. Functional domains of an organisation might include Production, Sales, Marketing, HR, Finance and so on. The second dimension concerns the *hierarchical* distribution of rank. Who is responsible for whom? The third dimension of particular relevance to this discussion is the *inclusion dimension* and concerns the social fabric or interpersonal domain of organisational life (Van Maanen & Schein, 1979). As one becomes more socialised into the organisation, one moves from newcomer to proviso member (accepted but not permanent), to confederate (permanent member with tenure granted), to confidante and then to central figure. This process involves social rules, norms, and values through which a person's worthiness to group membership is judged by its members (Van Maanen & Schein, 1979).

The use of organisational socialisation processes is not limited to people's entry into an organisation. People are most open to socialisation when their anxiety levels are high (Ott, 1989) and therefore it is most likely to occur when people enter, are promoted, demoted or moved laterally across organisational boundaries (Van Maanen & Schein, 1979). While some organisations put considerable effort and resources into their socialisation processes (e.g. delivery of an induction programme) others leave it to chance (Ott, 1989).

In the research that is the subject of this thesis, it seems likely that the Socialisation of Entry factor, measured in the OCP, will have some impact on the Collectivism and Individualism constructs, in line with Van Maanen and Schein's, (1979) theory. Consistent with the Harrison, Price and Bell (1998) study, it could be

expected that Individualism would decrease and Collectivism increase, the more positively the Socialisation of Entry is rated. This factor might therefore have an indirect effect (through Individualism and Collectivism) as well as a direct impact on the outcome variables.

Organisational Culture as a Predictor of Outcome Variables

Culture as a predictor of performance. Research on the relationship between organisational culture and performance has increased significantly over the past ten to fifteen years. Prior to this many writers assumed a relationship (Ott, 1989) but the arguments put forward were anecdotal, conceptual or case studies without formal measurement of either culture or performance (Gordon & DiTomaso, 1992).

Even with the large-scale quantitative studies that have been undertaken in both the USA and Europe (Calori & Sarnin, 1991; Denison, 1984, 1990; Denison & Mishra, 1995; Gordon & DiTomaso, 1992; Kotter & Heskett, 1992), the link between organisational culture and performance remains tenuous and unproven (Wilderom, Glunk & Maslowski, 2000).

The difficulties in providing convincing empirical evidence to support the culture performance linkage owe much to the origins of cultural research within organisational studies (Denison & Mishra, 1995). With a strong emphasis on a qualitative research approach, some academic scholars have argued that culture should not be studied as a 'variable' with 'outcomes' (Meek, 1988; Trice & Beyer, 1984; Siehl & Martin, 1990).

In a review of ten empirical studies carried out in the 1990's, Wilderom et al. (2000) found that while each study claimed to show a culture performance linkage, and therefore on the surface this could be considered a reasonable body of evidence, they did not build on each other or indeed have much relation to each other at all.

Each operationalised culture and the outcome variable performance, differently. Results were often conflicting. While some studies showed a link between cultural strength (often measured as consistency or homogeneity) and short term performance but not necessarily to long term performance (Calori & Sarnin, 1991; Denison, 1990; Gordon & DiTomaso, 1992), others such as Kotter and Heskett (1992) found a positive link to long term performance. Cameron and Freeman (1991) found in their study that type of culture was more predictive of effectiveness than congruence or strength.

Even the direction of the relationship between culture and performance is questioned. Schein (1985) argues that the success of an organisation can influence the culture. The relationship between culture and performance might therefore be recursive rather than unidirectional (Wilderom et al, 2000). For this reason, some researchers (Denison and Mishra, 1995; Siehl & Martin, 1990) call for a greater emphasis on longitudinal research with in-depth measures of culture and the development of more elaborate theories around culture and performance. Wilderom et al. (2000) conclude that while there are significant methodological short-comings in the way studies have been carried out to date, progress can be made into this complex relationship with more sophisticated and in-depth research techniques and analysis. The importance of culture strength, a variable considered in this research, and the best way to measure it, therefore remain a topic of contention.

Organisational Commitment and its Implications Organisational commitment is defined in terms of the strength of an individual's identification with and involvement in a particular organisation (Porter, Steers, Mowday & Boulian, 1974). It is characterised by strong belief in and acceptance of the organisation's goals and

values, a willingness to exert considerable effort on behalf of the organisation and a desire to remain one of its members (Porter et al., 1974).

In the late 80's a three dimensional model of commitment was proposed (Allen & Meyer, 1990b). *Affective* commitment refers to the emotional attachment to, identification with and involvement in the organisation. This is similar to the Porter et al. (1974) definition of commitment. *Continuance* commitment refers to commitment based on costs an employee associates with leaving the organisation (Allen & Meyer, 1990b). *Normative* Commitment, sometimes called *moral* commitment (Jaros, Jernier, Koehler & Sincich, 1993) refers to the employee's feelings of obligation to remain with the organisation (Allen & Meyer, 1990b). This form of commitment differs from affective commitment because it reflects a sense of duty rather than an emotional attachment (Jaros et al., 1993).

Ideas about the antecedents of commitment and the relationship between employees and organisations that employ them, have been challenged in recent years. Rousseau (1995) argues that the psychological contract between an individual and an organisation has changed from longer term and relational (based on mutual commitment and trust) to shorter term and transactional (based on an exchange of benefits and services) (Hall & Mirvis, 1996).

Hall (2002) frames this change from the perspective of the individual. He describes a shift from the organisational career to what he describes as a 'Protean' career. The protean career is managed by the person and not the organisation; it involves a series of experiences, learnings, transitions and identity changes; development is continuous, self-directed and the goal is psychological success. According to Hall (2002) ingredients for success have moved from job security to employability; from know-how to learn-how; and from work self to whole self.

While in the past the psychological contract was with the organisation, in the protean career, the contract is with oneself (Hall & Mirvis, 1996). Commitment between an individual and an organisation is therefore affected. It has moved on both sides from long term to short term, and from permanent, mutual loyalty to temporary, opportunistic alliances (Parker & Inkson, 1999).

Notwithstanding the changing nature of the psychological contract, employees who are emotionally committed to their organisation show heightened performance (Benkhoff, 1997), reduced absenteeism and a lessened likelihood of quitting their job (Arnold & Feldman, 1982; Mathieu & Zajac, 1990; Mowday, Porter and Steers, 1982; Rhoades & Eisenberger, 2002). Researchers (O'Reilly and Chatman, 1986; Schappe 1998) have found that commitment is a strong predictor of organisational citizen behaviour (OCB). It is this discretionary, supra-role behaviour, acts of cooperation, altruism, and spontaneous assistance not recognised by the formal reward system, that organisations often rely on for effective functioning (Beyer, Hannah and Milton, 2000).

The importance of organisational commitment has been highlighted in a number of meta analyses carried out on commitment and its quality as a predictor of intentions to leave and leaving per se (Cohen, 1993; Mathieu & Zajac, 1990; Tett & Meyer, 1993). While much of the literature had previously focused on job satisfaction as a predictor of tenure, Porter et al (1974) found that organisational commitment takes longer to develop and was therefore a more stable construct. It was also found to be a stronger predictor of staying than job satisfaction. Tett and Meyer (1993) on the other hand, found that commitment did not predict intentions to leave, any stronger than job satisfaction, but did relate more strongly to turnover per se. Based on the 15-item Organisational Commitment Questionnaire (the OCQ, which is also

used in the research in this thesis), they found commitment contributed significant unique variance to turnover, independent of satisfaction and intentions/cognition regarding leaving (Tett & Meyer, 1993). Cohen (1993) also found this relationship and showed that it was particularly strong early in a person's career. The Steers and Mowday (1981) model of turnover also considered alternative opportunities as a factor in whether people stayed or left their employing organisation.

The implications for hospitals such as the one that is the subject of this thesis, is considerable. There is currently a worldwide shortage of nurses (Zangaro, 2001) and other health professionals. Those with New Zealand qualifications are highly sought after in the UK, Ireland, Middle East, Canada, USA and Australia, as is evidenced by the advertisements in health sector journals and periodicals. Hospitals will need to consider ways to build commitment and thereby reduce loss of staff, especially loss of their more recent graduates. The use of locum medical staff and bureau nurses may also have long term implications for the development of organisational culture and commitment within hospitals.

Culture as a Predictor of Organisational Commitment Organisational commitment involves a process of accepting organisational goals and values and integrating them into a system of personal goals and values (Weiner, 1982). Such a process involving values clearly relates to organisational culture.

In their three-component model of organisational commitment, Meyer and Allen (1991) suggest that different antecedents develop different kinds of commitment. Affective commitment is influenced by personal characteristics, job-related characteristics, structural characteristics and work experience (Mowday et al., 1982). While relatively few studies have examined the relationship between organisational characteristics and commitment (Glisson & Durick, 1988), there is

evidence that affective commitment is impacted by the degree of decentralisation of decision-making and the formalisation of policy and procedures (Meyer & Allen, 1991). Such characteristics are captured by the Structure factor of the OCP culture profile.

There has, on the other hand, been considerable research linking work experience to affective commitment. It is suggested that commitment develops as a results of experiences that satisfy employees' needs and are compatible with their values (Meyer & Allen, 1991). Many of these experiences are affected by organisational culture. Such variables include confirmation of pre-entry/early expectations (Clugston, Howell & Dorfman, 2000; Meyer & Allen, 1988) which relates to Socialisation of Entry; organisational dependability (Allen & Meyer, 1990a; Buchanan, 1974; Meyer & Allen, 1988; Steers, 1977) which relates to Planning; organisational support (Eisenberger, Fasolo & Davis-LaMastro, 1990; Rhoades & Eisenberger, 2002) which relates to the Humanistic factor; group/team attachment (Clugston, et al., 2000; Mael & Ashforth, 1995) which relates to Collectivism and Individualism; supervisor consideration (Glisson & Durick, 1988) which relates to both Leadership and Humanistic factors.

James and Cropanzano (1994) developed the concept of 'dispositional group loyalty' (DGL) as an aspect of collectivism. They found that the stronger the DGL, the greater the involvement in group-based organisational activities, the more positive the attitude towards the organisation and the more willing people were to perform behaviours that benefited the organisation (Triandis, 1995). A similar result was found by Moorman and Blakely (1995) with regard to collectivism and organisational citizenship behaviours.

The competence related work experiences sited by Mowday et al. (1982) include job challenge, scope and opportunity for advancement (Buchanan, 1974; Glisson & Durick, 1988, Meyer, Bobocel & Allen, 1991) which relates to Individual Development and Job Performance; opportunity for self expression (Meyer & Allen, 1988) which relates to the Communication factor; participation in decision making (De Cotiis and Summers, 1987) which relates to Structure; and personal importance to the organisation (Buchanan 1974; Steers, 1977) which relates to the Humanistic factor of the OCP.

Continuance commitment involves the recognition of the costs associated with leaving an organisation. The antecedents most frequently studied are side-bets, investments and the availability of alternatives (Meyer & Allen, 1991). The most obvious cost of leaving an organisation that is related to its culture is the cost of losing opportunities for individual development. Costs would also involve any other positive cultural aspect that was highly valued by an individual. This might include the cost of losing the feeling of being highly valued (Humanistic), the cost of losing a workplace with good communication and sharing of ideas (Communication), an environment that was very responsive to customer needs and a reputation as an industry leader (Environment), a workplace with a strong sense of direction with clearly defined goals (Leadership and Planning) or an environment that allows flexibility and the opportunity to show individual innovation and creativity (Innovation, Structure).

Job cost and investment is thought to be low, early in the period of employment with an organisation and to increase the longer a person stays (Rusbult & Farrell, 1983). Continuance commitment is therefore likely to increase as tenure increases (Meyer & Allen, 1991). This makes the early period of employment with an

organisation particularly critical and adds weight to the call for more thorough and complete socialisation processes (Ott, 1989).

Normative commitment, feelings of obligation towards the organisation, develops from the internalisation of normative pressures exerted on an individual following entry e.g. through organisational socialisation (Allen & Meyer, 1990a; Meyer & Allen, 1991). It also develops when an organisation incurs significant costs in providing employment, such as the costs associated with initial job training (Wayne, Shore & Liden, 1997). Recognition of the investment made on the part of the organisation, may cause the employee to feel an obligation to commit to the organisation until the debt has been repaid or the imbalance of reward and cost redressed (Scholl, 1981). This would apply whether the employee relationship with the organisation was a contracting one, temporary or permanent.

Organisations may provide new hires with socialisation experiences that communicate to them that the organisation values and expects employee loyalty (Meyer & Allen, 1991). Again the Socialisation of Entry factor from the OCP may be important in this regard. The Humanistic factor may also be important as it reflects the loyalty of the organisation to its staff.

Job Satisfaction and its Implications Job satisfaction is arguably the most frequently studied variable in organisational behaviour research (Trevor, 2001; Spector, 1997). It can be understood as a person's affective attachment to a job, viewed either in its entirety (global satisfaction) or with regard to particular aspects (facet satisfaction) (Tett & Meyer, 1993). Facet scales cover different elements of a more general domain. Commonly used facets include appreciation, communication, co-workers, fringe benefits, job conditions, nature of work itself, the organisation's

policies and procedures, pay, personal growth, promotion opportunities, recognition, security and supervision (Spector, 1997).

Global satisfaction can be measured in two ways. One approach is to ask questions regarding overall affectivity regarding job satisfaction. This assumes that some sort of processing takes place, in which the respondent incorporates aspects not necessarily measured in the facet scales or items (Ironson, Smith, Brannick, Gibson & Paul, 1989). Such a question might be "All things considered, I feel satisfied with my job, most of the time" (Ironson et al., 1989).

Composite scales, on the other hand, assume that the whole is equal to the sum of the parts. The Job Satisfaction Survey (Spector, 1985) for example, combines nine facet scores, a total of 36 items, to obtain a total satisfaction score. The proponents of aggregation hold that use of multiple observations cancels out random error around a respondent's true score, thereby providing a more reliable measure (Tett & Meyer, 1993). Ironson et al. (1989) raise concerns regarding this practice. Specifically they suggest that sum-of-facet scales may omit some important areas and therefore underestimate general job satisfaction; include aspects that are unimportant to some people and therefore overestimate general job satisfaction; include a descriptive component that interferes with the affective evaluation of general job satisfaction; encourage a different frame of reference e.g. short term and narrow rather than long term and global; and by simply adding facets in a linear fashion, fail to capture the unique processing an individual would do to arrive at a summary feeling of general job satisfaction (Ironson et al., 1989). However, Tett and Meyer (1993) found that overall satisfaction was not unduly compromised in their research by the use of facet-based scales. They recommend their use as such scales offer diagnostic opportunities

(e.g. comparison of pay versus the nature of work), precluded by global measures (Tett & Meyer, 1993).

For the research undertaken for this thesis, facet measures of job satisfaction will be used. In the light of the concerns raised, they will not be aggregated, but used individually in the identification of predictive relationships.

A moderate and consistent positive relationship has generally been found between job satisfaction and propensity to remain within an organisation (Porter et al., 1974). Employees who are experiencing job satisfaction are more likely to be productive and have lower absenteeism as well as staying longer (Arnold & Feldman, 1982; Porter & Steers, 1973; Tett & Meyer, 1993). Much of the research in the 60's and 70's into intentions to leave and turnover, failed to look beyond the job satisfaction construct for other correlates of turnover (Porter et al., 1974).

In recent research Trevor (2001) looked at the interactions of educational level, cognitive ability, occupational specific training (measured as the time required to acquire the information and skill to become an average performer), market conditions and job satisfaction and their effect on turnover. He found that job satisfaction's negative effect on turnover was greater when education, cognitive ability and occupational specific training levels were high. These more marketable employees are likely to be high performers (given these attributes) and their loss would represent the dysfunctional turnover that employers can least afford. (Trevor, 2001). Similarly, job satisfaction mattered more for turnover, when there was greater employment opportunities to move, such as is the case for medical staff in the current health employment market.

The relationship between job satisfaction and commitment with regard to predicting turnover is a contentious one. It is generally agreed that they are highly

related but distinguishable work attitudes (Mathieu, 1991; Porter, et al., 1974; Tett & Meyer, 1993). Some researchers consider job satisfaction is antecedent to commitment (Clugston, 2000; Porter et al., 1974; Rusbult & Farrell, 1983; Williams & Hazer, 1986). When investigating the effect of personal characteristics and work environment on intentions to leave, Williams and Hazer (1986) found no direct effect. While job satisfaction was directly influenced by the independent variables, commitment was influenced only indirectly through job satisfaction. This, they contended, substantiated the importance of job satisfaction and commitment as intervening variables in models of turnover.

Other researchers suggest the relationship between job satisfaction and commitment is reversed and that commitment is antecedent to job satisfaction (Bateman & Strasser, 1984). Mathieu (1991) found that satisfaction and commitment were reciprocally related.

Culture as a Predictor of Job Satisfaction Few empirical studies have examined the relationship between culture and job satisfaction (Odom, Boxx & Dunn, 1990). Such a gap is surprising given the importance and widespread interest in both constructs. Some models such as Steers and Mowday (1981), consider *job expectations and values* and *organisational characteristics and experience* to impact on affective responses such as job satisfaction, organisational commitment and job involvement. However, the aspects of organisational life considered seem to be a mixture of organisational culture and climate. They include job duties, co-worker relations, supervisory style, opportunity for participation in decision-making, pay and promotion policy, organisational structure and organisational goals and values (Steers and Mowday, 1981). Williams and Hazer (1986) based their study of work environment and personal characteristics, and their impact on job satisfaction on the

Steers and Mowday (1981) model. They also found a positive relationship. Wiley and Brooks (2000) and Schneider, White and Paul (1998) link climate to job satisfaction and from there on to customer satisfaction.

Odom et al., (1990) measured three qualities of organisational culture, bureaucracy, innovativeness and supportiveness. The extent to which a culture is bureaucratic refers to the hierarchical, procedural and structural aspects of the work environment. Innovativeness refers to a creative, results oriented and challenging culture. A supportive culture exhibits a people oriented, trusting, encouraging and team-based environment. Job satisfaction and work group cohesion were found to be enhanced when the organisational culture exhibited either innovative or supportive characteristics. The bureaucratic nature of a work environment neither improved nor detracted from employees' job satisfaction or work group cohesion (Odom et al., 1990). Cooke and Szumal (2000) measured culture using the Organisational Culture Inventory (OCI; Cooke & Lafferty, 1987). They found that job satisfaction was positively related to constructive cultures and negatively related to passive/defensive and aggressive/defensive cultures.

Glisson and James (2002) also used the OCI. They gathered data on two of the three dimensions of culture, constructive and passive/defensive measures each with three scales. To these they added a measure of structure with scales for centralisation and formalisation. Their findings demonstrated a link from team-level culture and climate to job satisfaction and commitment as well as to perceptions of service quality and (negatively) to turnover (Glisson and James 2002).

Price and Mueller (1981) carried out a longitudinal study with over a thousand nurses, from seven hospitals in the USA. Seven variables were found to have a statistically significant influence on job satisfaction. One variable, *routinization,*

(degree of repetition in the job) was concerned with climate and three others involved aspects of culture and are similar to some of the measures to be used in this research. They are *instrumental communication* (which includes aspects of Communication and Socialisation of Entry), p*romotional opportunity* (similar to Individual Development), and *participation in decision making* (the reverse of the Structural dimension of the OCP). Three other factors found to influence job satisfaction in this study were *the amount of time worked* (part-timers were more satisfied than full-timers), *external opportunities* (the greater the opportunity the less satisfied the nurse) and *age* (older nurses were more satisfied than younger nurses) (Price and Mueller, 1981).

Lok and Crawford (2001) found similar results in a study with Australian nurses, in seven Sydney hospitals. They found that subcultures (e.g. ward culture) was much more predictive of job satisfaction and commitment than overall hospital culture. This highlights a limitation of the current research which will only consider overall organisational culture.

The impact of organisational culture and climate has been recognised in recent occupational stress literature (Griffin, Hart and Wilson-Evered, 2000). The organisational environment is found to play a central role in determining employee well-being. A constructive culture for example, positively influences the way employees appraise their work experience, thereby decreasing job tensions and increasing job satisfaction (Hart, Wearing & Headey, 1995; Pool, 1999).

A number of researchers have considered the relationship between culture and job satisfaction from a cultural-fit point of view. A cultural match suggests that job satisfaction is a function of the match or fit between the individual's needs (motivation) and the organisation's culture (Wallach, 1983). Koberg and Chusmir (1987) found that those with a high need for power, reported high job satisfaction in

organisations with a bureaucratic culture. Innovative cultures were predictive of job satisfaction, for those with a high need for achievement. Supportive cultures combined with a high need for affiliation were also predictive of job satisfaction.

O'Reilly, Chatman and Caldwell (1991) developed and tested an instrument for assessing person-organisation fit. Using a Q-sort and template matching approach, they demonstrated a significant relationship between person-culture fit and job satisfaction, commitment and turnover, in a longitudinal study over two years. They also investigated person-job fit. While this had some independent effects on job satisfaction and intention to leave, it had no effect on the culture-person fit relationship. Vandenberghe (1999) replicated this study in the health sector and found that person-culture fit was highly predictive of nurse staying versus leaving, one year after congruence was measured.

Harris and Mossholder (1996) studied organisations undergoing significant change. They measured four culture dimensions using the Competing Values Model (CVM; Quinn & McGrath, 1985; Quinn & Spreitzer, 1991). For each dimension, the discrepancy was assessed between an individual's ideal culture compared with the current culture. These discrepancies were then analysed for their prediction of job satisfaction, commitment and turnover intention. The *group* dimension of culture, reflecting affiliation and concern for people (similar to the Collectivism and Humanistic factors of the OCP) was significantly related to job satisfaction as well as commitment and (negative) turnover intention. The *hierarchical* dimension, reflecting the degree of bureaucracy, centralisation and coordination (similar to the Structure factor of the OCP) explained significant variance in job involvement. The *developmental* dimension reflecting change, innovation, growth and creativity (similar to the Innovation and Individual Development factors of the OCP) and the *rational*

dimension reflecting job performance and goal achievement (similar to the Job Performance factor of the OCP) explained significant variance in job turnover intention (Harris & Mossholder, 1996).

Hui, Eastman and Yee (1990, quoted in Triandis, 1995) found a positive predictive relationship between collectivism and job satisfaction.

This diverse body of research suggests that despite the wide variety of approaches and instruments used to measure culture and satisfaction, there are likely to be predictive relationships between aspects of culture and job satisfaction, in the research to be undertaken for this thesis.

Strength of Culture and its Implications The concept and measurement of culture strength is a contentious one. Hofstede et al., (1990) interpreted "strong" culture as one that is more homogeneous and therefore operationalised it as the reverse of the mean standard deviation, for members of a unit, over all (in this case 18) key practices.

Schein (1990) conceived of culture strength as a function of the stability of the group, the length of time the group has been together, the intensity of the groups learning experiences, the mechanisms by which learning has taken place (e.g. positive reinforcement or avoidance conditioning) and the strength and clarity of the assumptions held by the founders and leaders of the group/organisation.

A three-dimensional model of culture strength is presented by Payne (2000). This includes *pervasiveness, strength of consensus* and *psychological intensity.* Pervasiveness refers to the range of behaviour and beliefs that the culture influences. Psychological intensity relates to how deeply held the goals, values and assumptions are. The degree of consensus is similar to the homogeneity used by Hofstede et al (1990). A religious cult therefore might have a culture with high consensus, over a

broad range of beliefs and behaviours and work at a deep level of intensity such that things are no longer questioned (Payne, 2000).

That strong organisational culture necessarily leads to effective organisations, is considered by some to be a major, prevailing management myth (Martin, 1995a). Strong cultures may facilitate goal alignment, with everyone agreeing the goals and the means. Strong culture is said to lead to employee motivation (Virtanen, 2000). This is predicated on the notion that strong culture would only exist in organisations with a high degree of person-culture fit among employees. Organisations with strong cultures are said to be better able to learn from the past as they have widely held norms, rituals and well-known stories (Virtanen, 2000). Such strong mental models may affect the ability to adapt to different conditions in the future, however.

Hofstede et al., (1990) found that 'strong' cultures were more results oriented. Tzeng, Ketefian and Redman (2002) in a study of 520 nurses found that strength of culture predicted job satisfaction well and positively. Job satisfaction, in turn, predicted in-patient satisfaction well and positively.

Virtanen (2000) suggests that strength of culture can be better understood if it is conceived of and analysed as strength of multiple commitments. It will be treated this way in the research to be undertaken for this thesis.

Derivation of Research Questions

The Organisational Culture Profile (OCP) is a quantitative descriptive profiling questionnaire designed to measure 10 dimensions of organisational culture (Ashkanasy et al., 2000).

Research Question 1: Does the data collected using the OCP support a 10-factor model of organisational culture?

Mixed results were recorded in the validation study carried out following the development of the OCP. Rather than producing a 10-factor model, it was found that only 3 factors underpinned the OCP. This led to the second and third research questions.

Research Question 2: Could a 3-factor higher order structure account for the data?

Research Question 3: Can some other factor structure in the OCP account for the data?

If more than one structure could account for the data, a comparison of these models will be carried out, giving rise to research question 4.

Research Question 4: Which culture factor model best represents the data.

A comparison of the OCP with more recent survey tools (refer Appendix C) and reference to the Detert et al., (2000) research (refer Table 2.1), reveals a gap in the Broadfoot and Ashkanasy model. While the OCP has a 'Socialisation of Entry' factor, which is not typical of the sample of surveys presented, it does not have Individualism or Collectivism dimensions.

Research Question 5: Does the data support the inclusion of two additional factors – Individualism and Collectivism?

A disadvantage of using self-report measures, such as the ones used in this research, is the possibility of response bias. Respondents may display a tendency to

respond to some questionnaire items on some basis other than that which they are designed to measure (Paulhus, 1991). In order to mitigate against this, two Socially Desirable Responding Scales (measuring Impression Management and Self Deception Enhancement) will be added to the model so that this response bias can be accounted for and removed from the analysis.

Research Question 6: What is the effect of social desirability?

Three outcome variables have been selected for this research. They are Organisational Commitment, Job Satisfaction and Culture Strength.

Theorists have proposed that culture is an important antecedent to organisational commitment (Meyer & Allen, 1991; Weiner, 1982). Many researchers such as Odom et al., (1990), Quinn and Speitzer (1991), Cameron and Freeman (1991) and Sheridan (1992) have shown that people-oriented organisational cultures result in greater job satisfaction and commitment. Mathieu and Zajac (1990) found support for a relationship between task characteristics, particularly taken as an aggregate and organisational commitment. Allen and Dyer (1980) found correlations between their measure of culture and job satisfaction (Rousseau, 1990). Van Maanen and Schein (1979) suggest that organisational socialisation decreases anxiety, increases feelings of competence and a sense of accomplishment, resulting in greater job satisfaction and commitment. Socialisation may also lead to greater cohesion and collectivism within the group (Odom et al., 1990), which in turn may lead to increased commitment (Clugston et al., 2000; Steers, 1977).

Research Question 7: What is the relationship between organisational culture and organisational commitment, job satisfaction and culture strength?

CHAPTER THREE

METHOD

Research Design

This research is a passive ex post facto design that examined the co-variation of variables without manipulation of conditions of the study. A questionnaire was constructed with 158 questions, as well as a demographic data collection section and a space to add comments regarding the questionnaire, the process or any others matter that respondents thought should be brought to the researcher's attention.

Questions on the survey were asked in the same order as on the original surveys but source surveys were randomly ordered rather than presented sequentially, so that no variables would be subject to greater fatigue effects than any other. Item responses were recorded on a 6-point Likert scale.

Participants and Sampling Procedure

The organisation selected for this research was a large (by New Zealand Standards) metropolitan hospital. As structural equation modeling (SEM) was the proposed statistical procedure, a reasonably large sample (n >300) was required. At the same time it was desirable to sample a significant proportion of the employees to gain an accurate picture of the perceived organisational culture. The hospital selected represented a good compromise between being large enough to provide an adequate sample size, but not so large that a sample of 300 – 350 was not representative of this organisation.

Previous culture research has often focused on middle to senior managers (Wilderom, Glunk & Maslowski, 2000) and indeed some studies, such as Denison and Mishra (1995), sampled only CEO's. Given that organisational culture refers to

characteristics of the whole organisation, it was considered crucial in this research to ensure all levels of the hospital were represented. The organisation employs 1010 full time equivalent (FTE) staff, with full and part time staff employed in most areas.

Data Collection

A Memorandum of Understanding was signed between the researcher and the hospital to formalise the agreement to collect data and to protect the access to the data at a later stage (refer Appendix A). 1200 surveys were distributed over a two-month period. A follow-up letter went out after one month expressing appreciation to those who had completed the survey, explaining the support of the hospital administration for this research and encouraging others to participate. Participation was voluntary and anonymous. Employees completed the survey and returned it, un-named, in a sealed envelope, addressed to the researcher, through the internal hospital mail system to a closed collection box which was collected daily by the author. 309 surveys were returned. Seven surveys were removed from the sample due to missing data (less than 90% of the question completed) resulting in 302 useable surveys for data analysis.

Instruments

The 158 questions in the survey were made up of:

- The Broadfoot and Ashkanasy Organizational Culture Profile (OCP)(50 questions)
- A commitment questionnaire (15 questions)
- A job satisfaction survey (36 Questions)
- Questions on the perception of culture strength (5 questions)
- Individualism and Collectivism questions (16 questions)
- Two social desirability scales (36 questions)

Demographic data was also requested. The questionnaire appears as Appendix B.

Organizational Culture Profile (OCP) The 50-item OCP questionnaire developed by Broadfoot and Ashkanasy was used to measure organisational culture. This survey was selected as the research and development of the tool was done in Australia. It was felt that the results were likely to be more applicable to New Zealand than instruments solely researched in the USA or Europe. Previous studies had shown that seven of the ten dimensions measured had acceptable reliability with Cronbach's alpha > 0.7 (Ashkanasy et al., 2000). Note was taken of the caution given that the last three dimensions (Structure, Innovation and Socialisation of Entry) needed to be used with care. Falkus (1998) assessed the OCP and found weak reliability on four dimensions. These were Structure (α = .33), Environment (α = .46), Socialisation of Entry (α = .52), and Innovation (α = .57). While previous research had given mixed results from the factor and reliability analyses, the OCP had performed well in terms of validity indices. Predictive and concurrent validity was strongly supported for nine of the ten dimensions, the exception being the Structure dimension (Ashkanasy et al., 2000).

Organizational Culture Profile Factors The OCP originally proposed by Broadfoot and Ashkanasy had ten dimensions as shown in table 3-1.

Comparison with others modern culture questionnaires (refer Appendix C) suggest that the variables are typical with the exception of a Team Orientation/ Individualism/Collectivism factor which is not represented and a Socialisation of Entry factor which is.

Table 3.1 The Definitions for the 10 Dimensions of Culture for the OCP

Leadership:	Role of leaders in directing organisation, maintaining its culture and serving as role models.
Planning:	The extent to which the organisation has clear goals, has plans to meet those goals and strives to follow those plans.
Communications:	The free sharing of information among all levels within the organisation where possible, the direction it takes (bottom-up or top-down) and the importance of rumour in communication.
Humanistic:	The extent to which the organisation respects and cares for individuals; represents the people end of the task-versus people dichotomy.
Job Performance:	The degree to which the organisation emphasises task performance – the extent of task orientation and whether performance is rewarded.
Environment:	The extent to which the organisations is responsive to the needs of its clients and the extent to which it is influenced by and influences the action of other similar organisations.
Development of the Individual:	The extent to which the organisation expends sufficient effort in providing opportunities for members to develop their skills and rewards development with career advancement and challenging work.
Innovation:	The organisation's risk preference: the willingness to take risks and the encouragement it shows for innovation and creativity.
Socialisation of Entry:	The time new members take to settle in, the degree to which the employees feel they understand the organisation, the extent of formalisation and the effectiveness of the socialisation process.
Structure:	Degree to which organisational structure limits the action of its members, looking at influence of its policies and procedures on members' behaviours and the concentration of power in the organisation.

Ashkanasy, Broadfoot and Falkus, 2000

Three higher order factors were developed during the analysis. The Relationship Factor was made up of five of Broadfoot and Ashkanasy's original culture factors viz. Communications, Humanistic, Development of the Individual, Innovation and Structure. This factor represents the operational elements of culture with a people focus, how people work together, communicate, value each other, develop, innovate and are sometimes constrained by the system (Structure). The Relationship Factor score was calculated as a mean from the means of its subscales (refer Appendix D). The Task Factor was made up of four of Broadfoot and

Ashkanasy's original culture factors viz. Leadership, Planning, Environment and Job Performance. This factor represents a more strategic and task focus – whether the organisation is going in the right direction, whether plans are in place, tasks are completed and how the organisation relates to the external environment. This factor is also scored as a mean from the means of its subscales (refer Appendix E). The Socialisation of Entry Factor remains unchanged from the Broadfoot and Ashkanasy model (refer Appendix F).

Organisational Commitment was measured using the 15-item short form of the Organizational Commitment Questionnaire (OCQ) (Mowday, Steers & Porter, 1979). This questionnaire is the most widely used instrument for measuring organisational commitment over the last 25 years (Clugston et al., 2000) and its psychometric properties are well researched (Mowday et al., 1979; Bateman & Strasser, 1984).

The OCQ measures affective commitment rather than either of the two additional forms, normative or continuance commitment, suggested by Meyer and Allen (1984). While numerous definitions of affective commitment have been proposed, the conceptualisation by Mowday et al. (1979) is widely accepted (Tumulty, Jernigan & Kohut, 1995). Affective commitment is characterised by three elements according to these researchers: Firstly, a strong belief in and acceptance of the organisation's goals and values; secondly, a willingness to exert considerable effort on behalf of the organisation; and thirdly, a desire to maintain membership of the organisation (Mowday et al., 1979).

Job Satisfaction was measured using Spector's (1985) Job Satisfaction Survey, (JSS) (Spector, 1997). This 36-item questionnaire measures nine subscales – Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Co-workers, Nature of Work and Communications. Given the industrial climate in

the New Zealand Health Sector in recent years, with nurses and other health professionals protesting and even striking over pay and rewards, it seemed likely that an overall job satisfaction score might mask a more complex construct. Observation of the data would support this conclusion. The total mean for all participants on all questions was 3.6 (± 0.8 SD). Individual facets of job satisfaction ranged from means of 2.7 (± 1.2 SD) for satisfaction with pay to 4.6 (± 1.0 SD) for satisfaction with one's immediate supervisor and 4.6 (± 0.8 SD) for satisfaction and pride in one's work (Nature of Work subscale). Scores for the sub-sample of nurses were found to be very similar to the total sample with overall score of 3.4 (± 0.6 SD); Pay of 2.2 (± 1.0 SD); Supervisor mean of 4.5 (± 1.0 SD) and Nature of Work mean of 4.6 (± 0.8 SD). Factor analysis and Structural Equation Modeling were therefore carried out using the subscales rather than an overall Job Satisfaction score.

24 of the original 36 questions were used in the final analysis. Some questions were unreliable (particularly some of the negatively worded items) and others did not load well onto their respective factors during factor analysis. Pay, Fringe Benefits and Contingent Rewards were put together as a single factor called Extrinsic Rewards with nine contributing questions. This factor included satisfaction with pay, pay rises, fringe benefits and other rewards (not necessarily monetary) given for good performance (Spector, 1997). Spector (1985) carried out factor analysis in his validation study and found that Contingent Rewards split evenly between Supervision and Pay, while the other 8 subscales factored out cleanly.

Supervision measured satisfaction with the person's immediate supervisor; Nature of Work measured satisfaction with the type of work carried out; Promotions measured satisfaction with promotional opportunities; and Operating Conditions measured satisfaction with rules and procedures (Spector, 1997).

Cronbach's alpha for the subscales ranged from .83 (Supervision) to .54 (Co-workers). Three subscales had reliabilities below the recommended .70 level viz. Co-workers at .54; Operating Conditions at .58 and Communications at .61. Both Co-workers and Communications factors were later dropped from the analysis, as each of their four items did not load cleanly onto their respective factors during exploratory factor analysis. In Spector's own validation study, (Spector, 1997), Operating Conditions and Co-workers achieved alphas lower than recommended, .62 and .60 respectively. In the present study Nature of Work had a marginal but acceptable alpha. Evidence for the discriminant and convergent validities of this assessment tool were provided by the multi-trait-multimethod analysis of the JSS and the Job Descriptive Index JDI carried out by Spector (1985) in his validation study.

Culture Strength. Five questions were developed for this research, to measure the perceptions of culture strength. These were:

Q40 I think our culture is strong

Q83 I perceive we have a clear organisational culture

Q120 Our organisational culture is well defined

Q136 We are consistent about how we do things within this company culture

Q157 We have a powerful organisational culture within this company.

The questions were worded, as they would apply to any organisational setting rather than specific to a hospital, as this was consistent with all the other questions from source questionnaires.

Some researchers such as Hofstede et al., (1990) have defined 'strong' cultures as homogeneous cultures and therefore have used a reverse of the mean standard deviation of scores on key practices, as a measure of culture strength. For this research a mean was considered more appropriate for use in factor analysis and

Structural Equation Modeling in a similar approach to that taken by Tzeng, et al. (2002).

Individualism and Collectivism. Collectivism is a central cultural value that has important influences on social behaviour (Triandis, 1989). Collectivism represents an individual's belief that collective or group interests should take precedence over the interests of the individual (Van Dyne, Vandewalle, Kostova, Latham & Cummings, 2000). While collectivists prefer to work in groups, individualists are content to work alone. Triandis (1995) proposed 4 defining attributes of individualism and collectivism:

a) The definition of self as independent or interdependent.
b) Personal goals that have priority over in-group goals (Individualism) or vice versa (Collectivism).
c) The emphasis on exchange rather than communal relationships (Individualism) or emphasis on rationality rather than relatedness (Collectivism).
d) The importance of attitudes as determinants of social behaviour (Individualism) versus norms as determinants of social behaviour (Collectivism). (Triandis and Gelfand, 1998)

People who are more collectivist will have a more interdependent conceptualisation of themselves (Markus & Kitayama, 1991) and their role in an organisation, placing emphasis on the link between the individual and the group. Collectivists place a high value on group membership, stress group goals, cohesiveness and group well-being (Van Dyne et al., 2000). Singelis and Brown (1995) demonstrated that context is very important and that independent and interdependent selves can occur in different

cultural settings. This highlights the importance of the socialisation process as staff join organisations or move within them.

Although individualism and collectivism are often considered as either end of a single continuum, Triandis and his colleagues have described them as independent constructs (Rose, Kahle & Shohan, 2000). Furthermore they suggest that individualism and collectivism may be horizontal (emphasising equality) or vertical (emphasising hierarchy) (Triandis & Gelfand, 1998). Following this approach, Horizontal Individualism, Vertical Individualism, Horizontal Collectivism and Vertical Collectivism were measured in this research using 16 of the highest loading items from Triandis and Gelfand's (1998) research. These items were in turn derived from a modified version of the original Singelis et al., (1995) instrument for measuring horizontal and vertical individualism and collectivism. Poor internal consistency reliability scores were achieved for the four factors, Horizontal Individualism .51, Vertical Individualism .43, Horizontal Collectivism .49 and Vertical Collectivism .51. In view of this the four factors were reduced to two, Individualism and Collectivism, and some questions dropped as they loaded poorly onto these two constructs. Six items were retained to measure Individualism. Four items were retained to measure Collectivism. Both have reliabilities that were less than ideal and suggest some caution is required in interpretation of results involving these factors.

Socially Desirable Responding SDR was measured using the Paulhus (1991) Balanced Inventory of Desirable Responding (BIDR) Version 6. Early attempts to measure social desirability regarded it as a one-dimensional construct. This became problematic when the various measures of SDR were found to have low correlations with each other. This led Paulhus to develop the two-factorial BIDR (Paulhus, 1984).

Continuous revision and improvement of the questionnaire means Version 6 enjoys widespread use within the scientific community. It has been found to be a robust measure with satisfactory internal consistency and test-retest reliability (Stober, Dette and Musch, 2002).

The BIDR has two subscales Self Deception Enhancement and Impression Management (Paulhus, 1991). Negative items were reversed and extreme scores were allocated one point, in line with the dichotomous scoring procedure recommended by the developer. Means of 6.66 (SD = 3.01) for Self Deception Enhancement and 8.21 (SD = 3.84) for Impression Management were obtained. Paulhus (1988, as quoted in Paulhus, 1991) reports an overall score for college students of 7.5 (SD = 3.2) and 6.8 (SD = 3.1) for Impression Management. He found a mean of 11.9 (SD = 4.5) for Self Deception Management in a 1984 study whereas Quinn (1988, as quoted in Paulhus, 1991) reported scores between 7.3 and 8.9 (SD = 3.1) for religious adults (Paulhus, 1991). This analysis showed the results were similar to those found by other researchers using Paulhus' recommended scoring procedure.

The SDR data used in later analysis for this research, however, used data developed from continuous rather than dichotomous scoring. This is in line with research by Stober et al., (2002) who found that most authors do not follow Paulhus' (1991) scoring recommendations. It is argued that dichotomising continuous variables leads to loss of information and adds errors of discreteness to the measurement error in the original scales (Stober et al., 2002).

Self Deception Enhancement (SDE) is the unconscious positive bias in item responding that aims to protect positive self-esteem. SDE scores have been shown to predict hindsight, over-confidence, and over-claiming (Paulhus, 1994, as quoted in Stober et al., 2002). They show strong positive correlations with measures of

adjustment, being associated with self-esteem and vocational identity and inversely with anxiety and depression (Stober et al., 2002). Relationships with the Big Five personality traits (Costa & McCrae, 1992) show a positive correlation with Extraversion and Conscientiousness and a negative one with Neuroticism (Stober et al., 2002).

Impression Management (IM) in contrast refers to the conscious dissimulation of item responses with the aim of making a favourable impression on others (Paulhus, 1986). IM scores do not correlate with measures of adjustment. They do, however, show substantial positive correlations with Agreeableness and Conscientiousness from Costa and McCrae's (1992) Big Five personality traits (Stober et al., 2002).

Variable List

Table 3.2 Independent Variables

Quality Measured	Factor	Symbol
Culture Factor	Leadership	Lead
	Planning	Plan
	Job Performance	Jobpf
	Environment	Envir
	Communications	Comms
	Humanistic	Hum
	Development of Individual	Indev
	Innovation	Innov
	Structure	Struct
	Socialisation of entry	Soc
	Expanded Leadership Factor	LeadS
	Expanded Humanistic Factor	HumS
Higher Order Factors	Relationships	Relationship
	Task	Task
	Socialisation of entry	Soc
Social Desirability scale	Impression Management	IM
	Self Deception Enhancement	SDE
Social Orientation	Individualism	Individ
	Collectivism	Coll

Table 3.3 Dependent Variables

Quality Measured	Factor	Symbol
Commitment	Affective Commitment	Commit
Job Satisfaction	Extrinsic Rewards	Exr
	Supervision	SUP
	Nature of Work	NoW
	Promotion	PROM
	Operating Conditions	OpC
Culture Strength	Culture Strength	Cultstr

Statistical Analyses

Incomplete Data. Questionnaires that were less than 90% completed were removed from the sample. Where data was incomplete but greater than 90%, Missing Value Analysis (MVA) was carried out using an Expectation Maximization (EM) algorithm. This method estimates missing values by an iterative process. Each iteration has an estimation step to calculate the expected values of the parameter and a maximization step to calculate Maximum Likelihood (ML) estimates. In contrast to other procedures such as listwise deletion or pairwise deletion, which lack any kind of theoretical rationale (Byrne, 2001), a direct approach based on Maximum Likelihood Estimation is theoretically based and offers several important advantages (Arbuckle & Wothke, 1999). ML estimates are both consistent and efficient and, it has been suggested, reduce bias even when the 'missing at random' conditions is not fully satisfied (Little & Rubin, 1989). When missing data is non-random i.e. is of a systematic nature, all estimation procedures will yield biased results but ML will yield the least bias (Byrne, 2001; Muthen, Kaplan & Hollis, 1987). This procedure avoids

overfitting (making the solution look better than it really is) and produces realistic estimates of variance (Tabachnick and Fidell, 2000).

Structural Equation Modeling. Structural Equation Modeling allows a set of relationships between one or more independent variables (either continuous or discrete) and one or more dependent variables (either continuous or discrete) to be examined (Ullman, 2000). SEM is particularly useful in the situation presented by this research, where for various reasons, experimentation cannot take place e.g. variables cannot be manipulated for ethical reasons, comparison groups are not and cannot be made equivalent but a rich correlational data set is available (Byrne, 2001; Maruyama, 1998).

SEM is primarily a confirmatory technique (Ullman, 2000) but it can also be used to compare alternative models. Models can be tested, modified and re-tested in a more exploratory approach (Kaplan, 1990; Kline, 1998) but such post hoc model modification procedures have been criticised (Bentler, 1990; Bollen, 1990; Steiger, 1990). Revisions should be theory-based and not data-based modifications or there is a risk of producing a model that does not make substantive sense (Bolton, 1990). In this research some models have been simplified e.g. by dropping single variables that were found to have no significant relationships, but an overall confirmatory approach has been maintained.

The major question posed by SEM is "Does the proposed model produce an estimated population covariance matrix that is consistent with the sample (observed) covariance matrix" (Ullman, 2000). If the model is a good fit to the data, the parameter estimates will produce an estimated matrix that is close to the sample matrix.

A variety of estimation techniques can be used with SEM including Generalised Least Squares (GLS), Maximum Likelihood (ML), Elliptical Distribution Theory (EDT) and Asymptotically Distribution Free (ADF). Hu, Bentler and Kamo (1992) found that with reasonably normally distributed data, a condition required of all multivariate techniques, ML performed well, especially with samples over 500. It has also been found to be robust with modest violations of normality (Hoyle, 1995). GLS performed slightly better with samples less than 500 but could lead to acceptance of too many models (Hu et al., 1992). If the reasonable normality condition is not met, EDT is recommended. ADF was found to be a poor estimator with samples of less than 2500. In this research the cases were independent, the data was normally distributed with no excess kurtosis. The ML technique, the most frequently used estimation method (Ullman, 2000), was therefore selected.

Neither SEM nor standard approaches offer statistical tests of causality. SEM approaches have an advantage over more restrictive methods in evaluating causal hypotheses as they have the ability to specify models in which causes are isolated from extraneous influences and measurement error (Hoyle, 1995). The measurement error is estimated and removed (Byrne, 2001; Ullman, 2000). This increases the probability of detecting associations and obtaining estimates of free parameters close to their population values (Hoyle, 1995).

SEM is valuable and highly appropriate when particular predictors and their regression weights are of interest, as they are in this research. SEM is recommended when the researcher wants to know not only how well the predictors explain the criterion variable (such as Organisational Commitment or Job Satisfaction), but also which specific predictors (facets of organisational culture) are most important. Where a number of predictors are thought to influence the criterion variable, SEM helps to

disentangle the influences or possible impacts of various predictors (Maruyama, 1998).

SEM provides a more flexible and comprehensive approach to research design and data analysis than any other statistical technique in standard use in the social sciences and allows the evaluation of a whole model from a macro perspective (Hoyle, 1995; Kline, 1998).

SEM is a large sample technique. A sample size of about 200 is considered adequate for small to medium models (Ullman, 2000). The sample size of 302 in this study is adequate for a reasonably complex model.

Comparison of Alternative Models. SEM is often used to compare alternative models. These might be established a priori and arise from the literature, or post hoc and result from earlier analysis.

If the alternative models are nested, they may be compared using the Chi-square Differences Test. If they are not nested, direct comparison is more difficult. Bryant and Yarnold (1995) recommend the Standardised Root Mean Square Residual (SRMR) for comparison of models.

Models are considered to be nested whenever one model has all the same parameters as another model but in one of them some of the parameters are constrained rather than left free (Byrne, 2001; Maruyama, 1998). Nesting also occurs when a one-factor model is created by assuming the correlation between the two factors X and Y, as shown below in Figure 3.1, is unity (Maruyama, 1998).

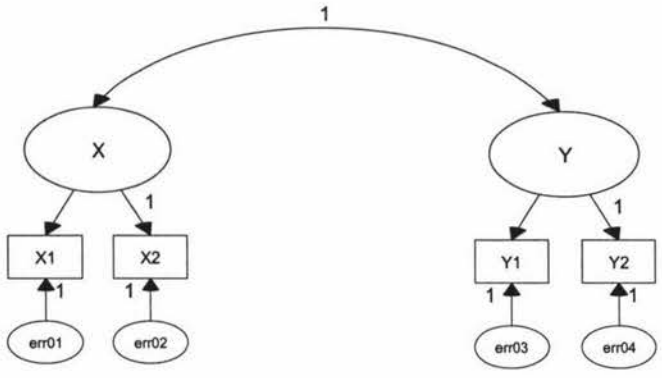


Figure 3.1 Nested models

In this research the 10, 7 and 3 factor models are all nested. The 7-Factor model is nested within the 10 Factor model with Lead, Jobpf and Envir inter-correlations constrained to one and the correlation between Comms and Hum also assigned unity. Similarly the 3-Factor model arises from the 7-factor model by constraining the correlation of LeadS factor and the Plan Factor to one. Likewise HumS, Indev, Innov, and Struct factors are all constrained to correlations of one. Chi-square differences test is therefore appropriate to compare models.

Model Fit. SEM uses a Chi-square statistic to test the Null Hypothesis, that specification of the factor loadings, factor variances, covariances and error variances for the model under study are valid and hence the sum of the residuals (the differences between the sample and the population) is zero (Byrne, 2001).

Kaplan(1990) suggested that researchers should adhere to the use of the Chi-square statistic for hypothesis testing. However, both the sensitivity of the Chi-square test to sample size and the need to assume that the model fits perfectly in the population has led to problems that are well recognised. (Byrne, 2001; Hu & Bentler, 1995; MacCallum, 1990). Postulated models, no matter how good they are, can never exactly fit real world data. Therefore a range of goodness-of-fit indices, that take a

more pragmatic approach to the model evaluation process, have been developed (Bentler, 1990; Byrne, 2001; Maruyama, 1998).

A good 'rule of thumb' recommended by Ullman (2000) and directly related to the general Chi-square (Likelihood Ratio Test) statistic is the ratio of Chi-square to the degrees of freedom. When this value is less than 2.0 a good fitting model may be indicated. In AMOS this is given as (Cmin /DF< 2). A variety of further indices have been developed including a) Comparative Fit Indices b) Absolute Fit Indices c) Degree of parsimony Fit Indices d) Residual-based Fit Indices (Ullman, 2000). For almost a decade Bentler and Bonnet's (1980) Normed Fit Index (NFI) was the criterion of choice. This index was found to underestimate fit in small samples and so was revised in 1990 taking sample size into account. The resulting index, the Comparative Fit Index (CFI) ranges from zero to one and values greater than 0.90 represent a well fitting model (Bentler, 1990, 1992). However, Hurley, Scandura, Schriesheim, Brannick, Seers, Vandenberg and Williams (1997) point out that it is difficult to meet this criterion in a complex model with a large number of items, such as is the case with the research for this thesis.

The Root Mean Square Error of Approximation (RMSEA) estimates the lack of fit in a model compared to a perfect saturated model. Values of 0.06 or less indicate a good fit (Hu & Bentler, 1999). A residual-based fit index worthy of note is the Root Mean Square Residual (RMR) and in particular its standardised version, the SRMR. The RMR represents the average residual value derived from the fitting of the variance-covariance matrix for the hypothesised model to the variance-covariance matrix of the sample data (Byrne, 2001). The standardised RMR is easier to interpret and represents the average value across all standardised residuals and ranges from zero to one. A value of 0.05 suggests a well fitting model with .05 average

discrepancy between the observed sample and the hypothesised correlation matrices i.e. the model explains the correlations to within an error of .05 (Byrne, 2001; Hu & Bentler, 1995). Hu and Bentler (1999) recommend a cut-off value of .08 for the SRMR suggests a relatively good fit between the hypothesised model and the observed data.

It is generally recommended that a set of numbers evaluating a variety of aspects of model fit should be provided by researchers (Bentler, 1990; Byrne, 2001; Hoyle, 1995; MacCallum, 1990). Hu and Bentler (1995) suggest reporting two types of fit indices, the SRMR and a comparative fit index, either the CFI or Tucker Lewis Index (TLI). The RMSEA and the CFI are the most commonly reported indices of fit (Ullman, 2000) and therefore are reported in this research along with the TLI, SRMR and the Cmin/DF ration as recommended by Hu and Bentler (1999) and Ullman (2000) respectively.

AMOS – Analysis of Moment Structures. Three software packages, AMOS, EQS and LISREL allow the researcher to draw the model, and the programme translates the figure into lines of code. This allows a user who knows little about writing computer code to never-the-less conduct a very sophisticated type of statistical analysis (Kline, 1998).

AMOS was selected for this study as it integrates an easy-to-use graphical interface with an advanced computer engine for SEM (Ullman, 2000). It can be used either in AMOS Graphics, where the model is specified directly from path diagrams or AMOS Basic where models are specified by equation statements in a format that resembles the traditional input file (Byrne, 2001).

In this research AMOS Graphics was employed. Large models were broken down into components, tested, assembled into larger components and retested, as

recommended by Bollen (1990) and Byrne (2001). Post hoc model modification using Modification Indices was avoided. Some paths were removed from the model (e.g. from Individualism) when they were found to have no significant impact. This resulted in a more parsimonious model.

Methodological and Statistical Considerations

Statistical Procedures. Surveys with major omissions were removed from the sample. Missing data was still evident in some of the remaining (302) surveys returned. A total of 343 questions were unanswered out of the 47,716 total number of questions (302x158 questions), an omission rate of .72%. The highest rate of omission was for Leadership Question Five at 4.7%. It cannot be assumed that such data is missing completely at random (Muthen et al., 1987).

Meeting Assumptions. Neither skewness nor kurtosis were at unacceptable levels. The distribution of data was reasonably normal with few outliers, as is required for all statistical techniques based on multiple regression.

SEM analysis requires that all relevant variables are included in the model to be tested (Kline, 1998). Clearly such a requirement is untenable (Pedazur, 1997), and this condition is seldom if ever met. In the research undertaken here, a large complex model was broken down and tested separately for each outcome variable. All models were based on sound theory to safeguard against misspecification (Klem, 1995). Parts of the model were tested before being put together as recommended by Byrne (2001) and Yaffee (1996). One large and very complex model with all three outcome variables, was not tested, as the sample size was not considered large enough to support such an analysis.

Sampling Limitations. 302 useable surveys were completed and returned to the researcher. 84.4% of this sample was female (c.f. 10.6 % male and 5.0% who

failed to indicate gender). Such a strong gender bias in the sample may influence the analysis. A recent business survey, carried out in New Zealand to identify the characteristics of a good workplace (Robertson, 2003) showed that females tend to rate their workplace, their organisational commitment and their job satisfaction more positively than males. This suggests that a different gender mix may produce different results.

Some groups were under represented in the sample. Only two RMO's (house surgeons) of the 112 who work at this hospital responded to the survey. No analysis was carried out to identify any differences between those who chose to respond compared to those who did not.

Reliability Estimate Limitations. Some factors used in the analysis had reliability scores less than the desirable .70 recommended by Nunnally (1978). Of the 20 factors used, four had Cronbach alphas of less than .60 (viz. Operating Conditions .58; Individualism.56; Structure .50; Socialisation of entry .49). A further four had reliabilities scores between .60 and .70 (viz. Nature of Work .69; Promotion .66; Self Deception Enhancement .64; Collectivism .63). These factors therefore should be used and interpreted with care.

CHAPTER FOUR

RESULTS OF THE STUDY

Descriptive demographics

The sample (N = 302) outlined in Table 4.1 is mostly female, a reflection of the high proportion of female staff in the hospital. The typical respondent was mature (mean age 43.3, SD = 10.5, range 19 - 66) with considerable experience in their role (mean duration 16.3 years, SD = 10.9, range 6 weeks – 45 years) and having been at this hospital for a reasonable length of time (average tenure 6.1 years, SD = 6.3, range 1 month – 40 years). Such respondents could be expected to be very familiar with the organisational culture.

Table 4.1 Sample Statistics

Gender		
Male	Female	Unspecified
10.6%	84.4%	5.0%

Sample Composition			
Occupational Group	Nos.	% Sample	% Hospital Represented by this Occ Gp
Administration	71	23.5	10.7
Management	10	3.3	1.6
Clinical Management	17	5.6	2.6
SMO's*	14	4.6	8.5
RMO's*	2	0.7	11.1
Nurses	139	46.0	59.4
Allied Health Prof's	38	12.6	6.1
Un-identified	11	3.6	

SMO, Senior Medical Officers/senior doctors, RMO's, Resident Medical Officers/junior doctors.
Allied Health Prof's; Allied Health Professionals including Physiotherapists, Occupational Therapists, Speech and Language Therapists and Social Workers.
N = 302

The composition of the sample is similar to the composition of the workforce at this hospital. Administrators and Allied Health Professionals are slightly over-represented and doctors, particularly RMO's, are under-represented. While Nurses represent a significant proportion of the sample they are also a large percentage of the workforce and in fact are slightly under represented. However, given the voluntary nature of the participants' contribution, it was felt that a reasonable balance of clinical and administrative input had been achieved.

As recommended by Hoyle and Panther (1995) bivariate correlations, means, standard deviations and Cronbach's alpha are reported in Table 4.2, for the original 10-factor model and the seven outcome variables. All culture factors were significantly inter-correlated at the $p \leq .01$ level (2-tailed test of significance) and therefore multivariate statistical techniques were required to analyse these data. Socialisation of Entry and Structure both had the lowest Pearson correlation coefficients to the other culture variables and also the lowest reliabilities ($\alpha = .49$ and .50 respectively). Broadfoot and Ashkanasy (1994, quoted in Ashkanasy et al., 2000) found similar results in their original study, as did Falkus (1998) in a follow-up study with reliability estimates of .52 and .33 respectively for Socialisation of Entry and Structure.

Table 4.2 Correlations and Descriptive Statistics for 10-Factor Model

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Leadership	_																
2. Planning	.71**	_															
3. Communications	.68**	.60**	_														
4. Humanistic	.65**	.58**	.76**	_													
5. Individual Dev	.64**	.58**	.68**	.64**	_												
6. Structure	-.18**	-.25**	-.37**	-.30**	-.28**	_											
7. Job Perform	.68**	.64**	.57**	.57**	.56**	-.19**	_										
8. Environment	.66**	.59**	.56**	.50**	.47**	-.20**	.55**	_									
9. Innovation	.59**	.61**	.65**	.69**	.60**	-.32**	.57**	.50**	_								
10. Soc of Entry	.31**	.41**	.34**	.37**	.42**	-.31**	.38**	.28**	.45**	_							
11. Commitment	.54**	.57**	.54**	.61**	.59**	-.23**	.49**	.49**	.55**	.33**	_						
12. Extrinsic R	.32**	.38**	.39**	.39**	.44**	-.33**	.27**	.22*	.38**	.18**	.53**	_					
13. Supervisor	.38**	.41**	.44**	.51**	.45**	-.22**	.34**	.23**	.50**	.36**	.40**	.25**	_				
14. Nature of Work	.34**	.32**	.25**	.17**	.26**	-.18**	.25**	.31**	.24**	.24**	.46**	.23**	.25**	_			
15. Promotion	.47**	.46**	.56**	.61**	.60**	-.41**	.44**	.32**	.55**	.37**	.46**	.44**	.46**	.25**	_		
16. Op Conditions	.22**	.25**	.29**	.33**	.22**	-.39**	.15**	.23**	.25**	.10	.21**	.34**	.18**	.13*	.30**	_	
17. Cult Strength	.67**	.73**	.67**	.64**	.55**	-.27**	.65**	.64**	.60**	.35**	.57**	.33**	.35**	.30**	.42**	.25**	_
Mean	3.96	3.96	3.52	3.59	3.74	3.83	3.72	4.04	3.74	3.60	3.77	2.82	4.61	4.62	3.38	2.99	3.75
SD	.82	.78	1.00	.83	1.02	.80	.76	.72	1.00	.89	.74	1.00	1.02	.78	.85	.98	.91
Alpha	.73	.76	.75	.71	.75	.50	.56	.54	.81	.49	.85	.89	.83	.69	.66	.58	.86

** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)

Results from Testing the Research Questions – Part 1 – Measurement Models

Research Question 1: Does the data collected using the OCP support a 10-factor model of organisational culture? SEM was used to test the 10-factor model (refer Figure 4.1). Factors such as Communication and Humanistic, Leadership and Environment, and Leadership and Job Performance were so highly correlated they had rendered the covariance matrix non-positive definite and as a results the solution was considered to be inadmissible (Byrne, 2001). The computation therefore failed and no fit indices were produced. Correlation coefficients further confirmed multicollinearity and the need to re-specify the model.

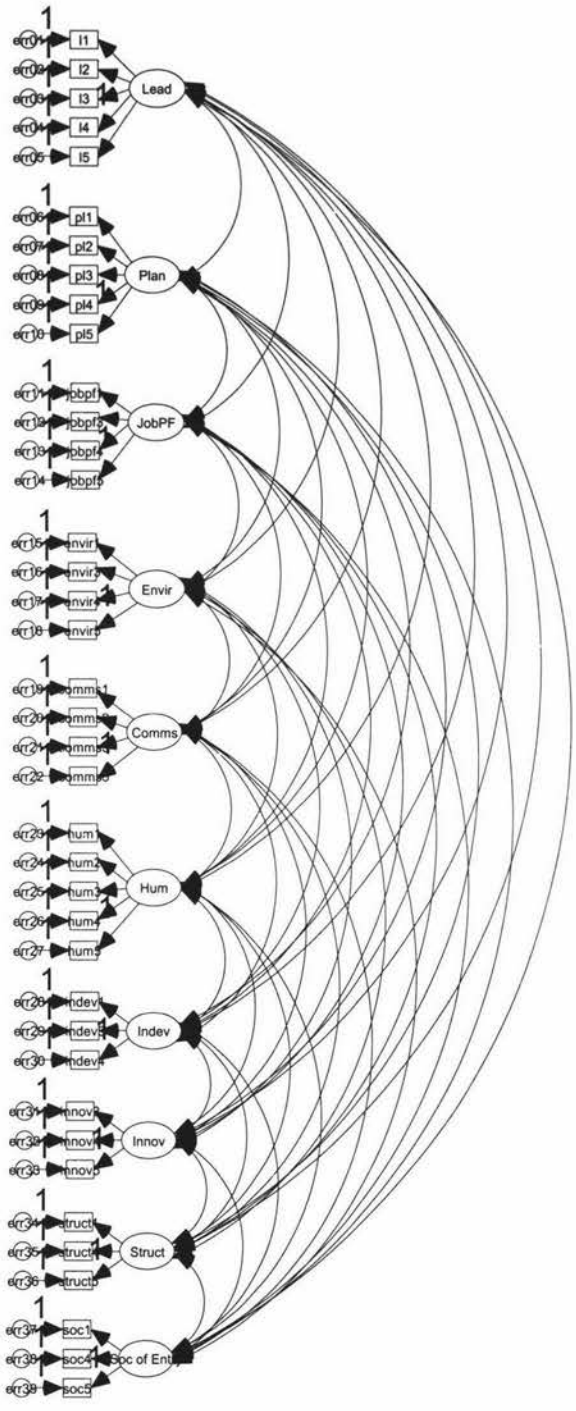


Figure 4.1 The Original 10-factor model of the OCP

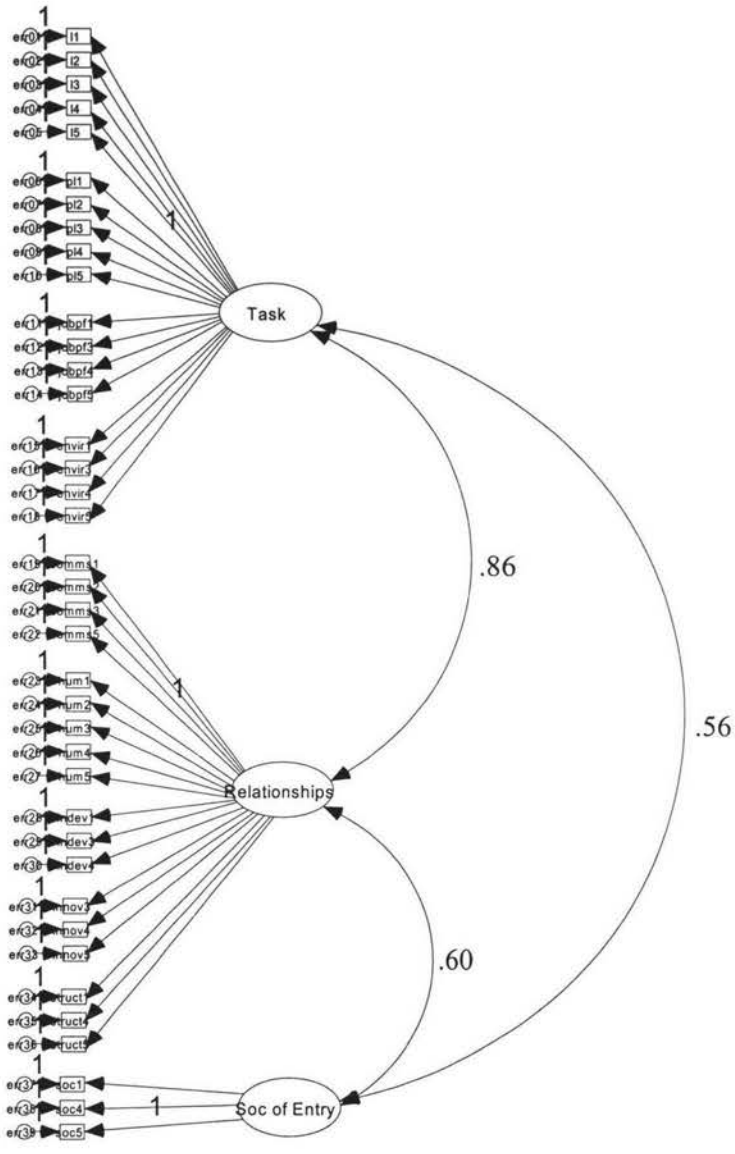
Research Question 2: Could a 3-factor higher order structure account for the data? In the original research Broadfoot and Ashkanasy found a 3-factor higher order structure. SEM modeling was used to test a 3-factor model, from the current data (refer figure 4.2).

The fit statistics in Table 4.3 suggest the 3-factor model is a reasonable fit to the data. Cmin/DF is less than 2, suggesting a good fitting model is indicated (Ullman, 2000). The Root mean Square Estimate of Approximation RMSEA, is less than 0.06, the value recommended by Hu and Bentler (1999) as indicative of good fit. The Standardised Root Mean Square Residual (SRMR) suggests the model explains the correlations to within an average error of .0589. This is within the .08 value recommemded by Hu and Bentler (1999). RMSEA and SRMR are absolute fit indices and assess how well the a priori model reproduces the sample data. The Comparative Fit Index (CFI) and the Tucker Lewis Index (TLI) on the other hand are incremental fit indices that measure the proportion improvement in fit by comparing a target model with a more restrictive baseline model (the independence or null model in which all correlations among variables are zero). Ideally the CFI and TLI is greater than .90 for a good model fit. At .845 and .836 respectively some misspecification is evident as compared to the null model. However, Hurley et al (1997) suggest that it is difficult to meet this criterion in a complex model such as this with a large number of items.

Table 4.3 Fit Statistics for the Structural Equation Modeling of the 3 and 7-Factor Models of Culture

Model	Fit Statistics				
	Cmin/DF	CFI	TLI	RMSEA	SRMR
3 Factor Model	1.957	.845	.836	.056	.0589
7 Factor Model	1.810	.872	.861	.052	.0576

Bivariate correlations, means, standard deviations and Cronbach's alpha are reported in Table 4.4, for the 3-factor model and the seven outcome variables.

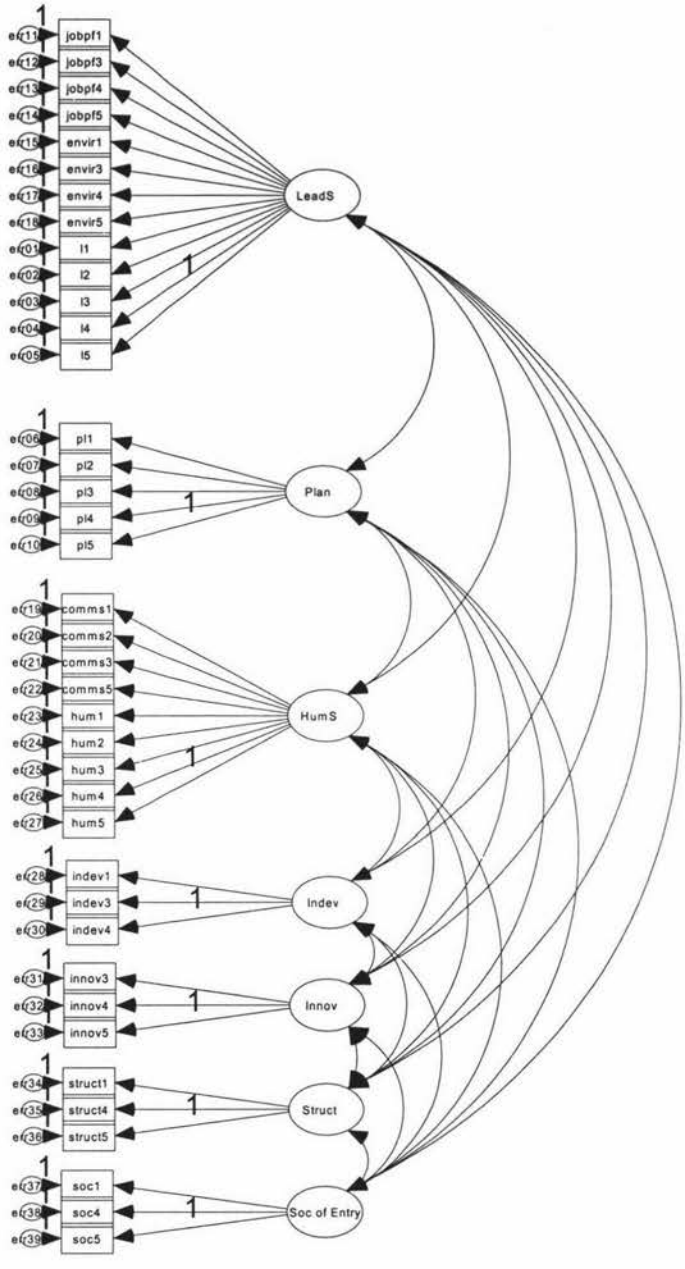


Fit Statistics				
Cmin/DF	CFI	TLI	RMSEA	SRMR
1.957	.845	.836	.056	.0589

Figure 4.2 The hypothesised 3-factor model of higher order factors with statistics to indicate model fit.

Research Question 3: Can some other factor structure in the OCP account for the data? From the SEM of the 10-factor model an alternative to the three-factor solution was indicated. In order to address the issue of multicollinearity and in line with recommendations of Bryne (2001), some of the factors were deleted but their indicator variables were loaded onto the factors to which they were highly correlated. Job Performance and Environment were loaded on to the Leadership factor (now labelled LeadS), as they were clearly all measuring the same construct. Likewise Communication was loaded on to Humanistic (now labelled HumS). This resulted in a 7-factor model that was then tested. (The full 7-factor model is shown in Figure 4.3.)

The fit statistics in Table 4.3 suggest a reasonable fit and one that compares well to the three-factor model. Bivariate correlations, means, standard deviations and Cronbach's alpha are reported in Table 4.5, for the 7-factor model and the seven outcome variables.



Fit Statistics				
Cmin/DF	CFI	TLI	RMSEA	SRMR
1.810	.872	.861	.052	.0576

Figure 4.3 The 7-factor model of culture with statistics to indicate model fit.

Table 4.4 Correlations and Descriptive Statistics for 3-Factor Model of Culture

Variable	1	2	3	4	5	6	7	8	9	10
1. Task	_									
2. Relationship	.74**	_								
3. Soc of Entry	.41**	.41**	_							
4. Commitment	.62**	.65**	.33**	_						
5. Extrinsic Rewards	.35**	.42**	.18**	.53**	_					
6. Supervisor	.40**	.53**	.36**	.40**	.25**	_				
7. Nature of Work	.36**	.24**	.24**	.46**	.23**	.25**	_			
8. Promotion	.50**	.62**	.37**	.46**	.44**	.46**	.25**	_		
9. Op Conditions	.25**	.26**	.10	.21**	.34**	.18**	.13*	.30**	_	
10. Cult Strength	.79**	.69**	.35**	.57**	.33**	.35**	.30**	.42**	.25**	_
Mean	3.91	3.66	3.60	3.77	2.82	4.61	4.62	3.38	2.99	3.75
SD	.66	.64	.89	.74	1.00	1.02	.78	.85	.98	.91
Alpha	.89	.85	.49	.85	.89	.83	.69	.66	.58	.86

** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)

Table 4.5 Correlations and Descriptive Statistics for 7-Factor Model of Culture

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. LeadershipS	_													
2. Planning	.75**	_												
3. HumanisticS	.73**	.63**	_											
4. Individual Dev	.65**	.58**	.70**	_										
5. Structure	-.21**	-.25**	-.35**	-.28**	_									
6. Innovation	.64**	.61**	.71**	.60**	-.32**	_								
7. Soc of Entry	.37**	.41**	.38**	.42**	-.31**	.45**	_							
8. Commitment	.60**	.57**	.61**	.59**	-.23**	.55**	.33**	_						
9. Extrinsic R	.31**	.38**	.42**	.44**	-.33**	.38**	.18**	.53**	_					
10.Supervisor	.37**	.41**	.51**	.45**	-.22**	.50**	.36**	.40**	.25**	_				
11.Nature of Work	.34**	.32**	.22**	.26**	-.18**	.24**	.24**	.46**	.23**	.25**	_			
12. Promotion	.47**	.46**	.63**	.60**	-.41**	.55**	.37**	.46**	.44**	.46**	.25**	_		
13. Op Conditions	.23**	.25**	.34**	.22**	-.39**	.25**	.10	.21**	.34**	.18**	.13*	.30**	_	
14. Cult Strength	.75**	.73**	.70**	.55**	-.27**	.60**	.35**	.57**	.33**	.35**	.30**	.42**	.25**	_
Mean	3.90	3.96	3.55	3.74	3.83	3.74	3.60	3.77	2.82	4.61	4.62	3.38	2.99	3.75
SD	.67	.78	.84	1.02	.80	1.00	.89	.74	1.00	1.02	.78	.85	.98	.91
Alpha	.84	.76	.85	.75	.50	.81	.49	.85	.89	.83	.69	.66	.58	.86

** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)

Research Question 4: Which culture factor model best represents the data. A Chi-square Differences Test was carried out on the two models as they are nested, refer table 4.6.

Table 4.6 Comparison of 3-Factor and 7-Factor Models Using Chi-Square Differences and Standardised Root Mean Square Residuals

Model	Statistics		
	χ^2	DF	SRMR
3 Factor Model	1367.597	699	.0589
7 Factor Model	1232.282	681	.0576
$\chi^2_{\text{3 Factor}} - \chi^2_{\text{7 Factor}}$	135.315	18	

The result ($\chi^2_{18} = 135.315$, $p < .01$) is significant and therefore the 7-Factor model is retained. The SRMR statistic also supports this model in preference to the 3-Factor model.

Research Question 5: Does the data support the inclusion of two additional factors Individualism and Collectivism? When the OCP is compared to other culture survey tools, the omission of a variable concerned with group versus individual orientation is notable. The OCP, on the other hand has a related variable, Socialisation of Entry.

In order to enhance the model further questions on Individualism and Collectivism were sought. The 16 highest loading questions from Triandis and Gelfand's (1998) research were selected. Two questions were removed due to low reliability. In line with the two-step approach recommended by Anderson and Gerbing (1988, 1991) exploratory factor analysis was carried out on a random sample (N=50) to identify appropriate measures of Individualism and Collectivism. Exploratory factor analysis using Maximum Likelihood and Direct Oblimin rotation identified two measures that were cross-loading and two that were failing to load on

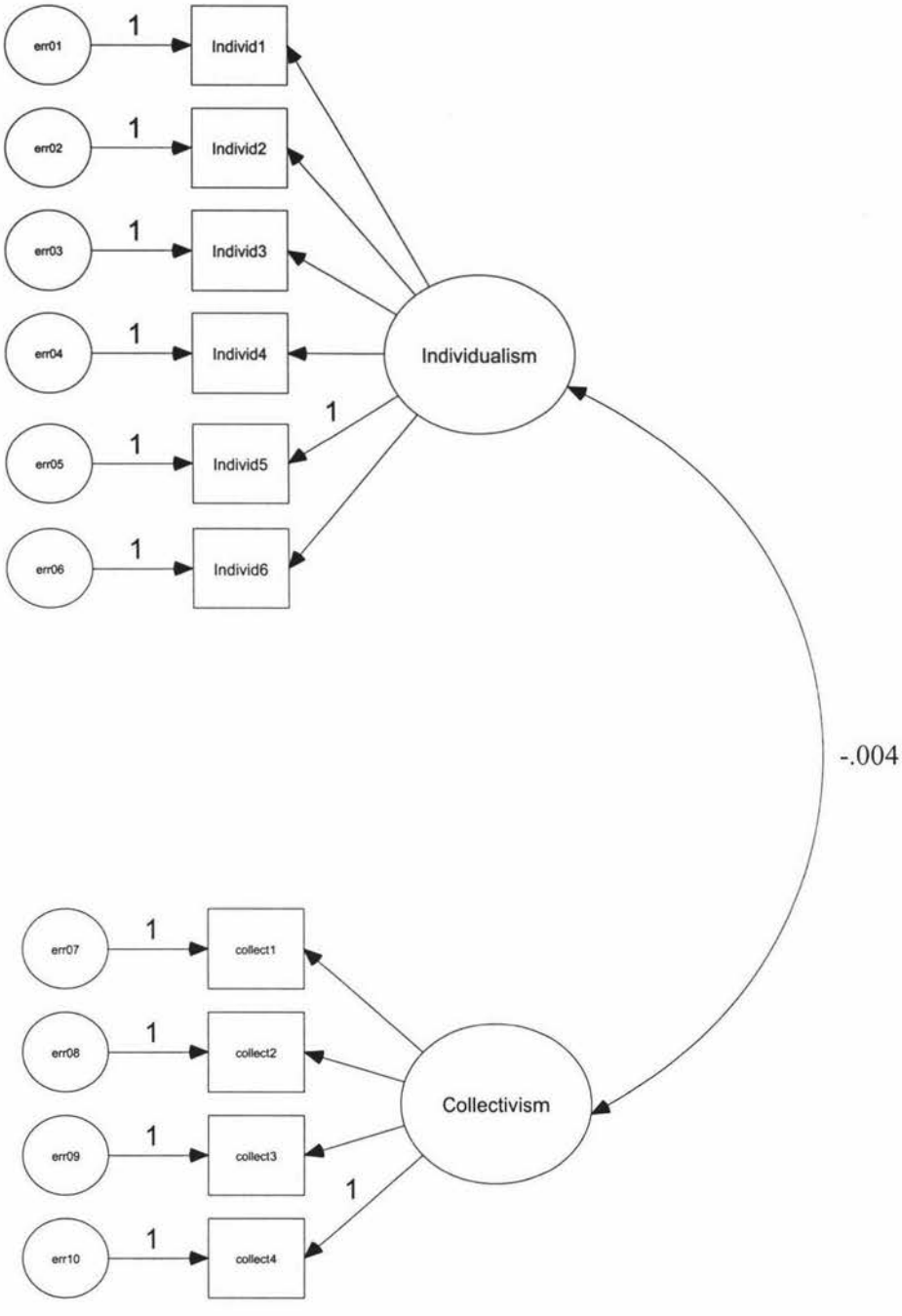
either factor. The remaining 10 questions underwent factor analysis. Two factors were extracted ($\chi^2_{26} = 34.534$, $p = .122$). The pattern matrix is shown below in table 4.7

Table 4.7 Pattern Matrix for Individualism and Collectivism

	Factor	
	1	2
Individ 2	.635	
Individ 1	.633	
Individ 3	.591	
Individ 6	.461	
Individ 5	.444	
Individ 4	.297	
Collect 1		.896
Collect 2		.742
Collect 3		.456
Collect 4		.434

Extraction Maximum Likelihood
Rotation Oblimin with Kaiser Normalisation
Rotation converged in 3 iterations

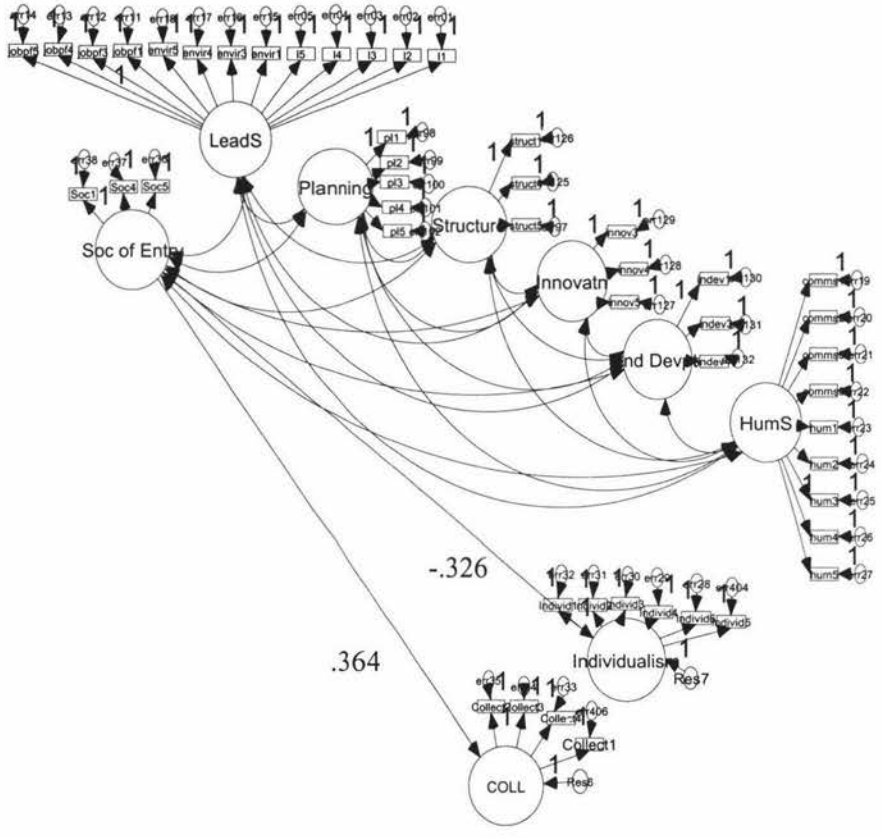
The model with 10 variables was then tested using SEM. The fit statistics suggest some misspecification in this model. While the SRMR is within the .08 range recommended, the other four measures are outside their ideal specifications. Modification indices indicate that Individualism item5 and Collectivism item 1 are problematic and the model could be considerably improved. The correlation between Individualism and Collectivism is -.004 and is not significant. In line with the recommendation to maintain a strictly confirmatory approach, (Bentler, 1990; Bollen, 1990; Steiger, 1990), no changes were made to Individualism or Collectivism.



Fit Statistics				
Cmin/DF	CFI	TLI	RMSEA	SRMR
2.574	.837	.775	.072	.0639

Figure 4.4 Individualism and Collectivism model with statistics to indicate model fit.

Individualism and Collectivism were added to the 7-Factor model. In accordance with Van Maanen and Schein's (1979) Theory of Organisational Socialisation, it was predicted that Socialisation of Entry would be positively related to Collectivism and negatively related to Individualism. The SEM model tested is shown in Figure 4.5.



Fit Statistics				
Cmin/DF	CFI	TLI	RMSEA	SRMR
1.766	.827	.816	.050	.0690

Figure 4.5 The 7-factor model with Individualism and Collectivism, with statistics to indicate model fit.

The relationships between Socialisation of Entry and Collectivism, and Socialisation of Entry and Individualism produced significant regression weights (as

shown in Figure 4.5) and in the direction predicted. Despite the weakness in the Individualism and Collectivism factors, the measurement model represents the data quite well, with Cmin/DF, RMSEA, and SRMR all within appropriate range. Again the failure of CFI and TLI to meet the .90 benchmark reflects the complexity of the model.

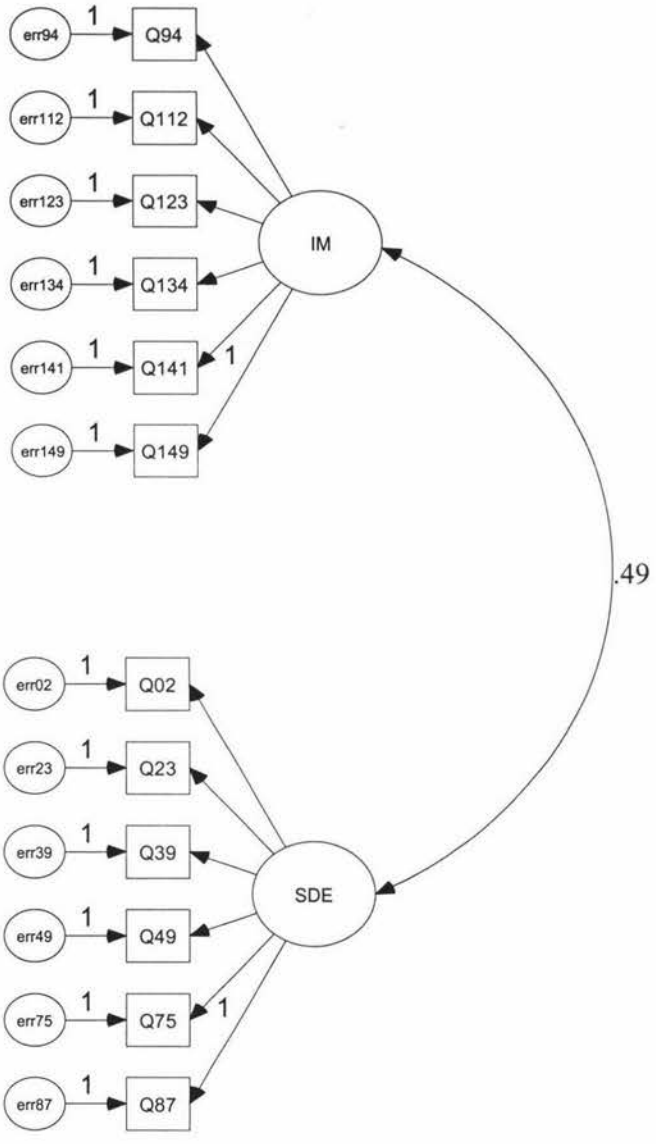
Research Question 6: What is the effect of social desirability? Impression management (IM) and Self Deception Enhancement (SDE) scales were added to the model to counter some of the effects of self-report measures. 36 items from the BIDR were selected for assessment. Four items were found to be unreliable. Exploratory factor analysis was carried out on a random sample (N=50) to identify appropriate measures for IM and SDE. Items that cross-loaded, loaded inappropriately or failed to load were removed. Six items were identified for SDE and IM measurement. The pattern matrix is shown in Table 4.8.

Table 4.8 Pattern Matrix for Impression Management and Self Deception Enhancement.

Item	Factor	
	1	2
Question 94	.823	
Question 141	.626	
Question 112	.481	
Question 134	.473	
Question 123	.420	
Question 149	.388	
Question 39		.646
Question 2		.552
Question 75		.529
Question 23		.520
Question 49		.502
Question 87		.395

Extraction Maximum Likelihood
Rotation Oblimin with Kaiser Normalisation
Rotation converged in 5 iterations

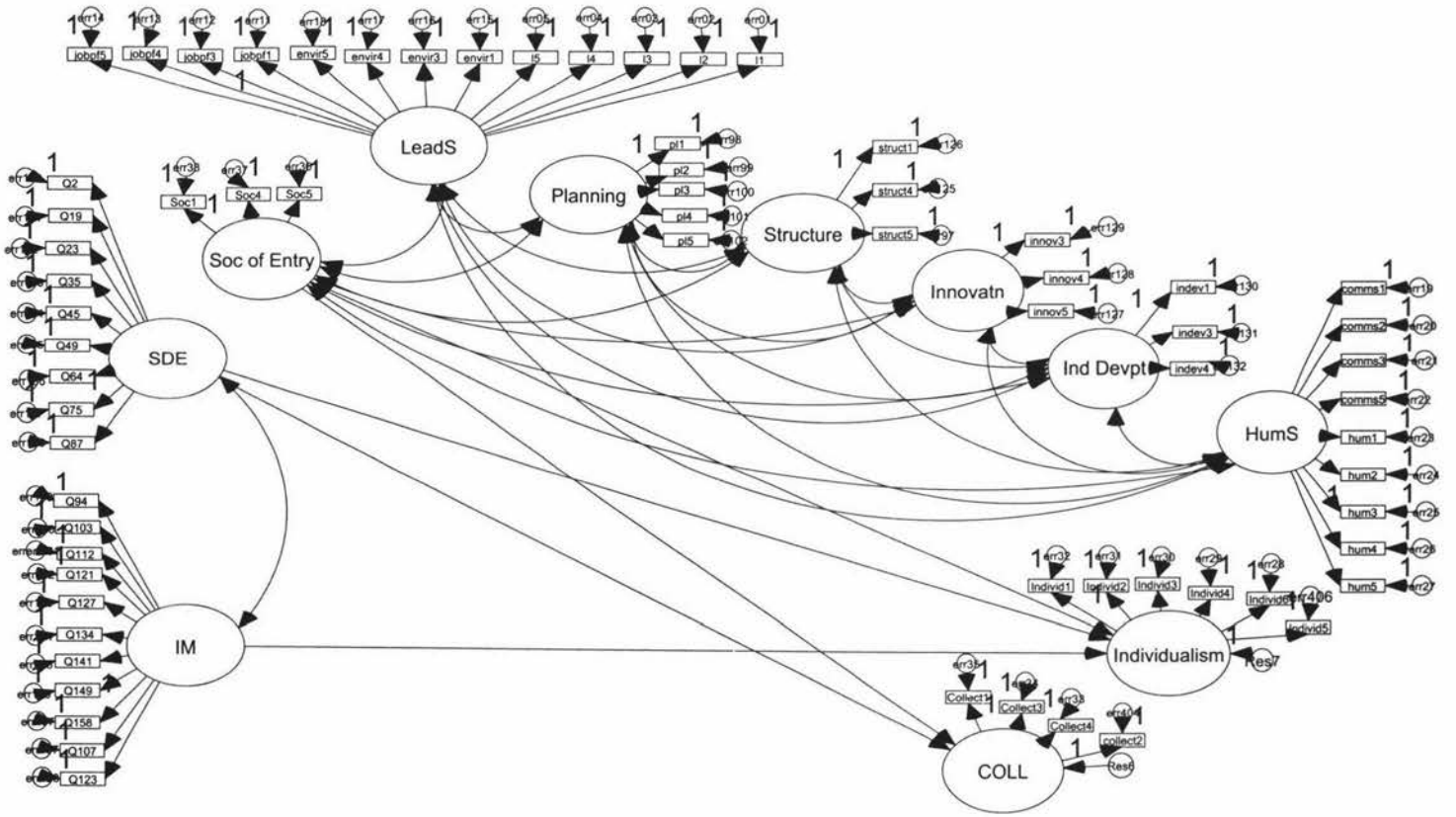
The SEM of these two factors was tested as shown in figure 4.6 below.



Fit Statistics				
Cmin/DF	CFI	TLI	RMSEA	SRMR
1.762	.846	.809	.050	.0588

Figure 4.6 Model Tested for Social Desirability with statistics to indicate model fit.

The full measurement model was then tested as shown in figure 4.7



Fit Statistics				
Cmin/DF	CFI	TLI	RMSEA	SRMR
1.47	.791	.781	.046	.0712

Figure 4.7 Full Measurement Model with statistics to indicate model fit.

All regression weights were significant except the one between IM and Collectivism. Impression management was not a significant predictor of collectivism. Three of the five fit statistics suggest that the measurement model provides a reasonable fit for the data. As before, the CFI and TLI have failed to meet the .90 benchmark because of the complexity of the model (Hurley et al., 1997).

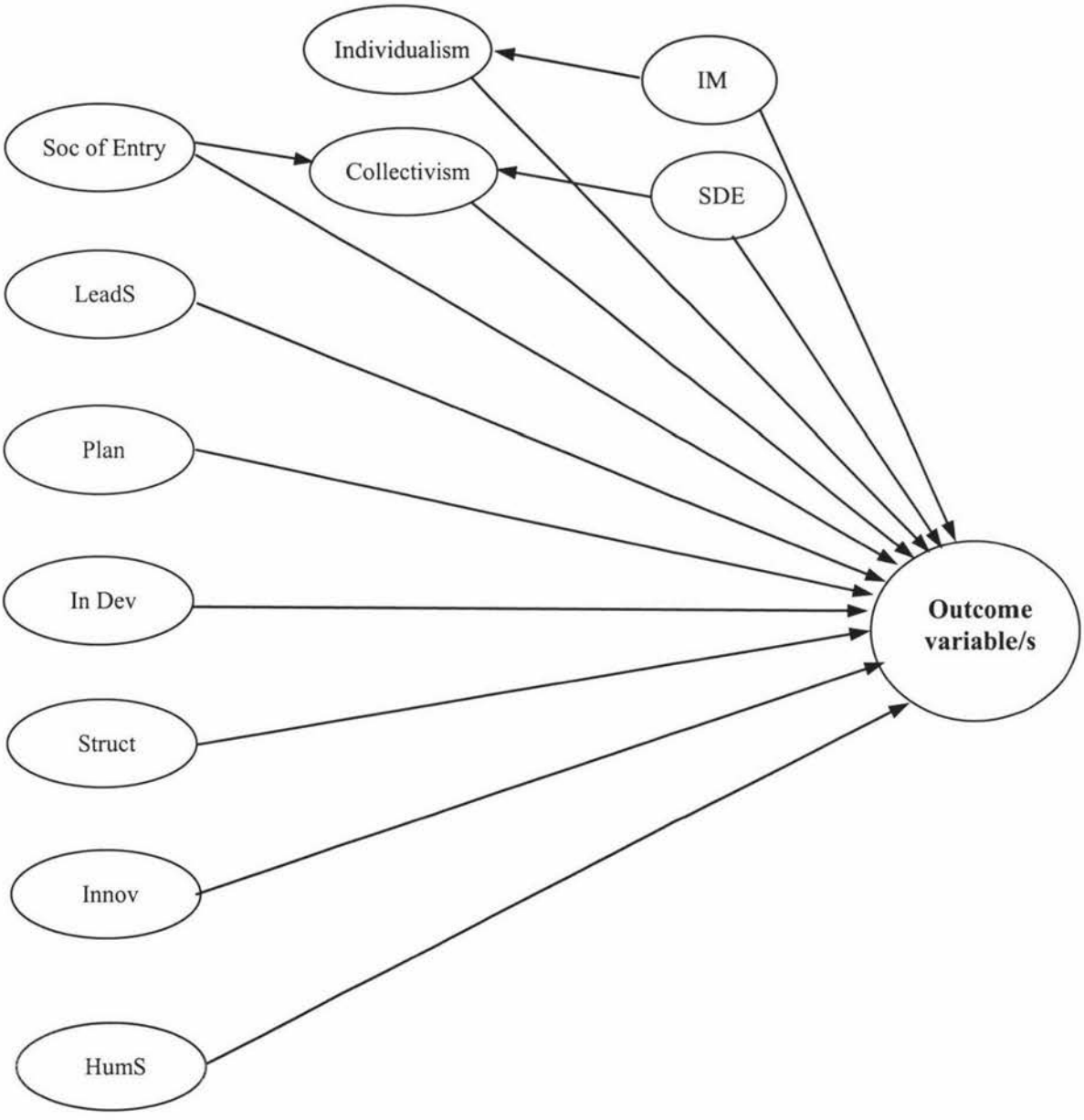


Figure 4.8 Generalised Model to be tested for the relationships between organisational cutural dimensions and the outcome variable/s.

Results from Testing the Research Questions – Part 2 – Testing of Structural Models

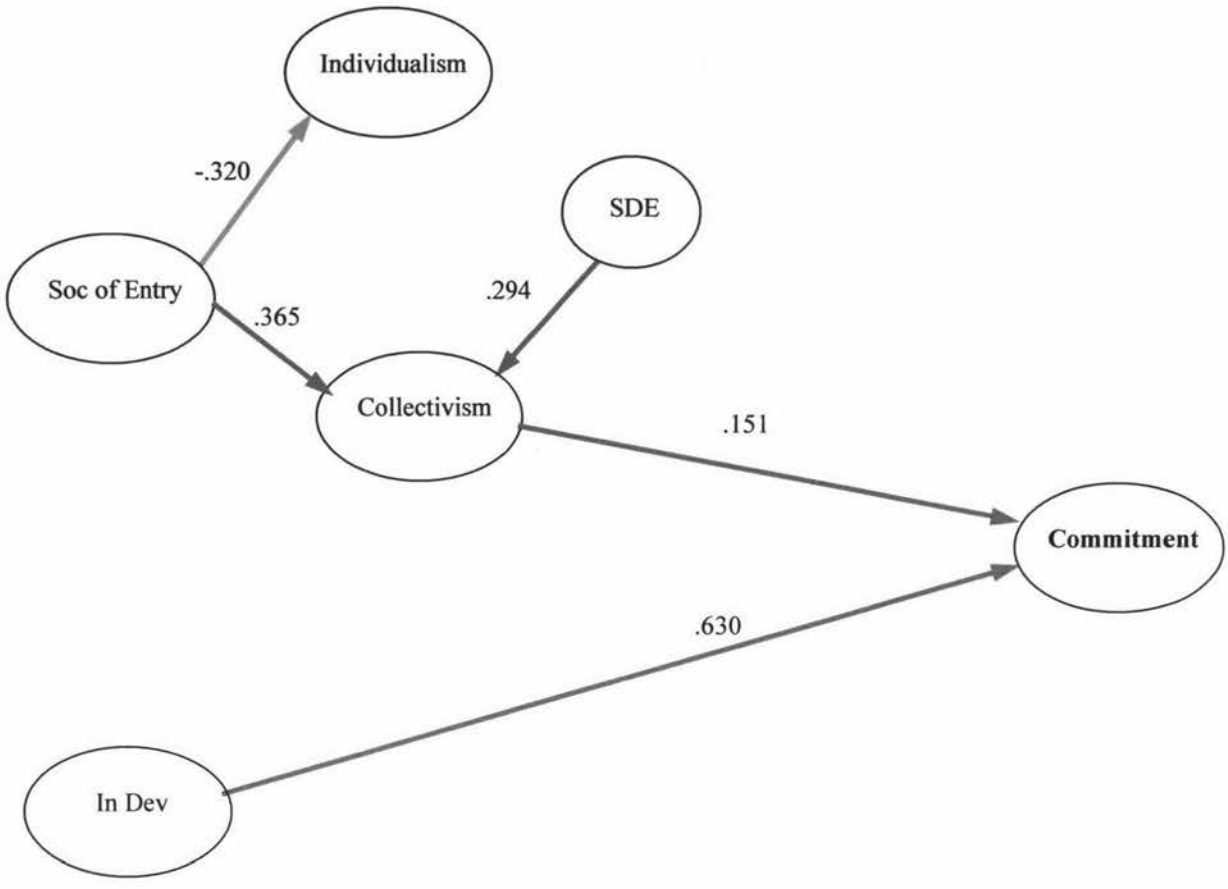
Research question 7: What is the relationship between organisational culture and organisational commitment, job satisfaction and culture strength. SEM analysis was carried out for each outcome variable. The results are shown in Table 4.9.

Table 4.9 Structural Model Results for Relationships Between the Dimensions of Culture and Organisational Commitment, Job Satisfaction and Culture Strength

	Fit Statistics				
Outcome variable	Cmin/DF	CFI	TLI	RMSEA	SRMR
Org Commitment	1.671	.757	.768	.047	.0720
Job Satisfaction	1.678	.750	.738	.047	.0727
Culture Strength	1.657	.796	.786	.047	.0707

Significant paths and their standardised regression weights are shown in Figures 4.9 for commitment, Figures 4.10 for Job satisfaction and Figure 4.11 for Culture strength. Regressions weights are significant $p < .05$ unless otherwise stipulated.

In all three cases (as shown in Table 4.9), Cmin/DF is less than 2.0 suggesting a reasonable fit to the data. RMSEA is less than .06 and SRMR is less than .08 as recommended by Hu and Bentler (1999). As has been the case through all the analysis, CFI and TLI are lower than ideal due to the complexity of the model.



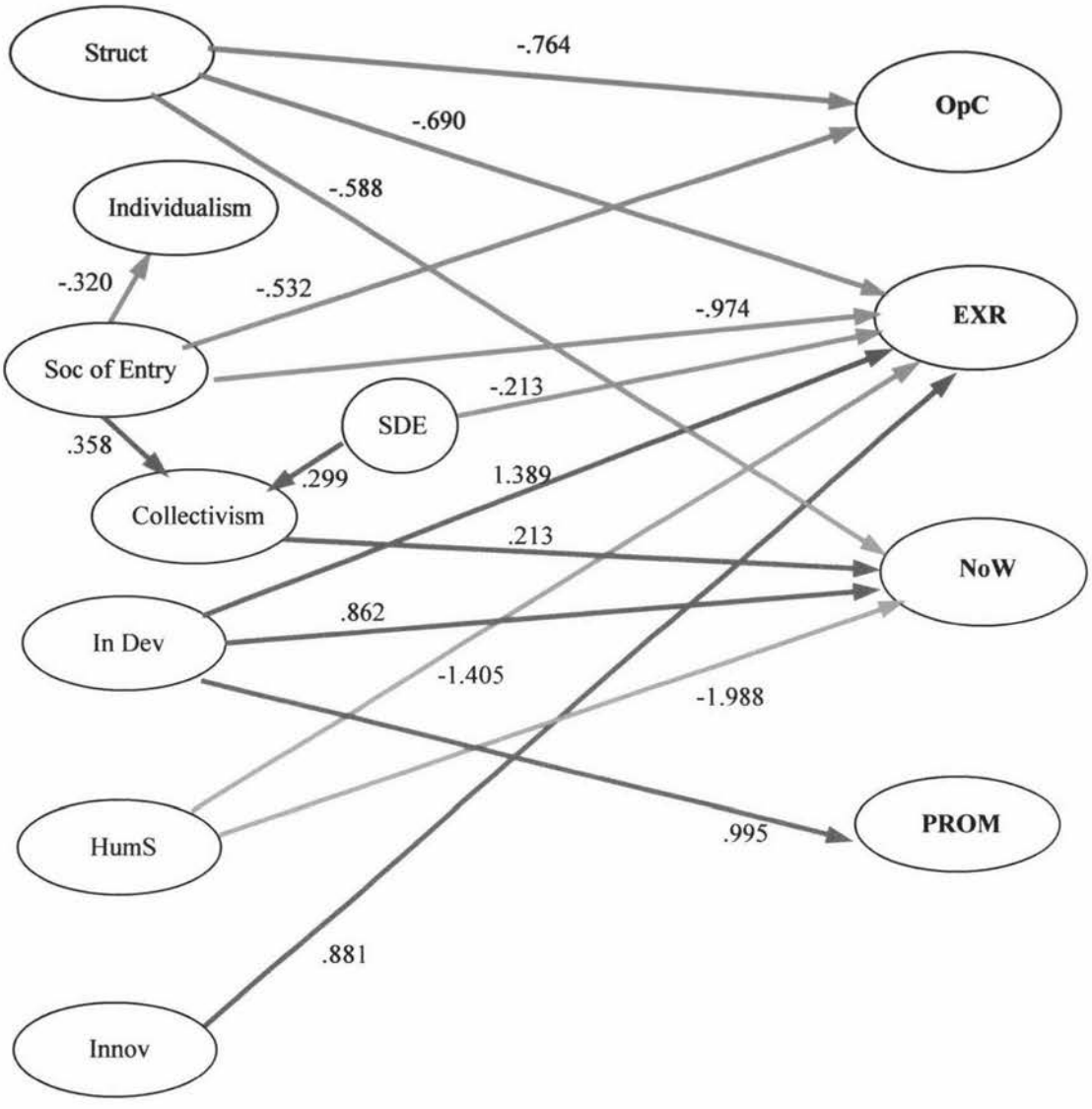
Note:

Positive standardised regression weights are denoted by a green arrow

Negative standardised regression weights are denoted by a red arrow

Regressions weights are significant $p < .05$.

Figure 4.9 The relationships between organisational cutural dimensions and commitment.



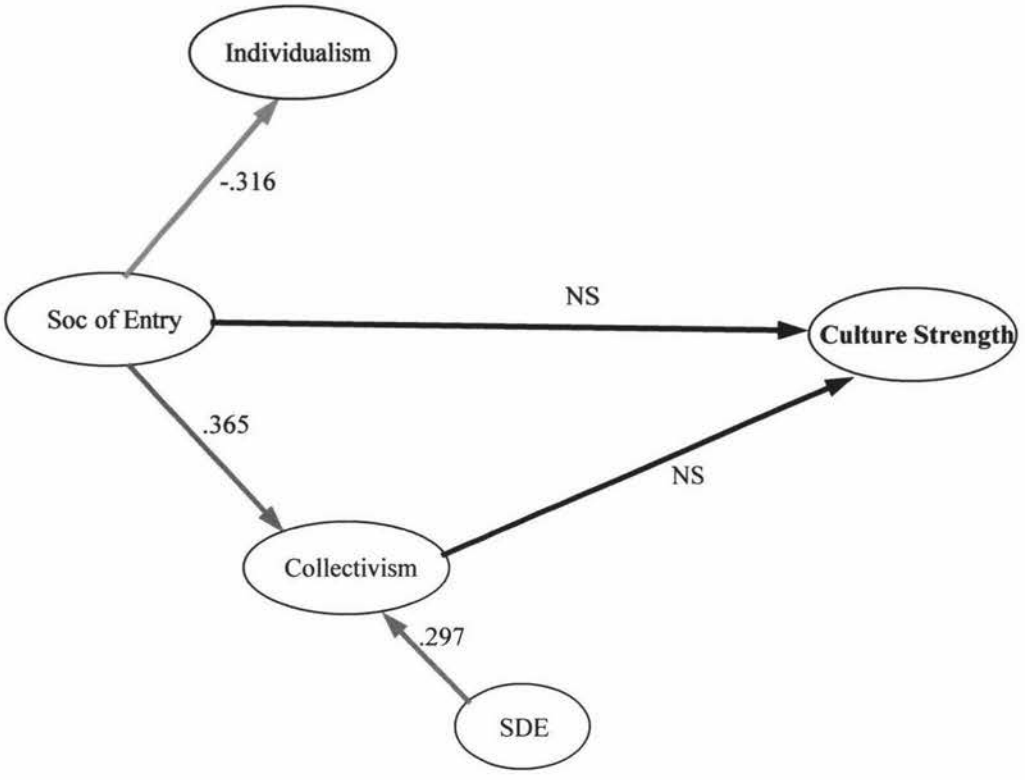
Note:

Positive standardised regression weights are denoted by a green arrow

Negative standardised regression weights are denoted by a red arrow

Regressions weights are significant $p < .05$.

Figure 4.10 The relationship between organisational cultural dimensions and facets of job satisfaction.



Note:

Positive standardised regression weights are denoted by a green arrow

Negative standardised regression weights are denoted by a red arrow

Regressions weights are significant $p < .05$ unless otherwise stipulated.

NS = Non Significant

Figure 4.11 The relationship between organisational cultural dimensions and culture strength

CHAPTER FIVE

DISCUSSION

Summary of the Study

This research was designed to achieve two overall objectives. Firstly it sought to assess the 10-factor structure of the Organizational Culture Profile (OCP) developed by Broadfoot and Ashkanasy, (1994, quoted in Ashkanasy et al., 2000). The second objective was to use the OCP questionnaire to analyse the relationships between aspects of organisational culture and three criterion variables, organisational commitment, job satisfaction and culture strength.

Confirmatory factor analysis (CFA) using structural equation modeling was used to assess an enhanced measurement model of culture. Three structural models were then tested with respect to predicting the outcome variables.

The research questions investigated the 10-factor structure originally proposed for the OCP, and the 3-factor higher order structure that was found in the first validation study carried out by the developers (1994, quoted in Ashkanasy et al., 2000). Two further dimensions were added to the model along with two social desirability scales. This allowed the impact of self-deception and impression management to be accounted for in the analysis. Finally the predictive impact of the culture dimensions were investigated with respect to organisational commitment, job satisfaction and culture strength.

Conclusions of the Study

The Factor structure of the OCP The 10-factor model of the OCP was not supported. As had been found previously (Falkus, 1998), some of the dimensions were too closely related (too highly correlated) to be distinguishable from each other.

The dimensions of Leadership, Job Performance and Environment were all highly correlated. All three dimensions are task focused and more strategic in nature. It seems reasonable to conceive of a Leadership factor involving the management and direction of the organisation as well as the management of performance and the relationship with the external environment.

The Humanistic and Communication dimensions were also highly correlated and indistinguishable from each other. Both related strongly to the people end of the task versus people dichotomy. The extent to which the organisation values and respects its people (Humanistic) is likely to be demonstrated by the free sharing of ideas, both bottom-up and top-down (Communication). The other five dimensions were distinguishable from each other. Given the problems discussed with five of the OCP dimensions, the original 10-factor model as proposed by Broadfoot and Ashkanasy, (1994, quoted in Ashkanasy et al., 2000) was rejected.

Broadfoot and Ashkanasy (1994, quoted in Ashkanasy et al., 2000) found that a 3-factor higher order structure better represented their data, in the original validation study and thus an alternative 3-factor structure was also tested in this research. Fit statistics (refer Fig. 4.2) indicate a reasonable fit. The complexity of the model restricts its ability to achieve good CFI and TLI scores (Hurley et al. 1997). For every factor added to a model, the loadings linking that factor with items associated with the other factors are set to zero. The more of these constraints (restrictions of paths to zero) the lower the obtained values of general fit indices such as CFI and TLI (Hurley et al. 1997).

Two of the three dimensions of the 3-factor model have acceptable psychometric properties. One dimension, labelled Task is built around the highly correlated elements of Leadership, Job Performance and Environment, as discussed

above. The additional factor of Planning fits with the other three in that part of leadership is to ensure that the organisation has clear goals and objectives. All four elements are more strategic and outward looking in focus and at the task end of the people versus task dichotomy.

The second dimension, labelled Relationships involves a more operational focus about how people interact to get the job done. Built around the highly correlated factors of Humanistic and Communication, it concerns people's interactions, development, communication, creativity, how they show initiative and finally, how they are constrained. The Structure factor involves policies and procedures and their constraining effects. This is negatively correlated to the other factors and is the least strong in its relationship with them, as can be seen from Table 4.2.

The third dimension is Socialisation of Entry which has weak reliability and should be used with care. Broadfoot and Ashkanasy (1994, quoted in Ashkanasy et al., 2000) also found low reliability in this dimension. Falkus (1998) similarly reported an alpha of .52 on this dimension, reinforcing the need to revise it. Three of the original five Socialisation of Entry questions were negatively worded. Such reverse scored items have consistently shown less reliability in this research. Some items such as Questions 24 "*I know what is expected of me as a member of this organisation*" could be reworded to demonstrate a stronger connection to socialisation and a clearer differentiation from other culture factors such as Job Performance. Despite these weaknesses, the results support a three-factor higher order structure as posed in research question two.

Consistent with the research of Broadfoot and Ashkanasy (1994, quoted in Ashkanasy et al., 2000) and Falkus (1998), this research supports the existence of

three broader over-arching dimensions of culture. While such a model provides a parsimonious solution, it is not necessarily the most useful from a practical or theoretical perspective (Ashkanasy et al., 2000). Quantitative measures of culture have been criticised for taking a too reductive approach and thereby losing the essence and uniqueness of an organisation's culture (Schein, 1991). More global measures may also dilute the influence of particular cultural factors or mask the significance of others (Harris & Mossholder, 1996). The 3-factor model, while valid is unlikely to provide a useful insight into the relationships between cultural dimensions and commitment or job satisfaction.

An alternative to the 10-factor (which was rejected) and the 3-factor model (which was accepted but considered of limited utility) is a 7-factor structure, which developed out of research question one. Five of the original ten factors from the OCP were distinguishable. A sixth factor arose from the combination of the Humanistic and Communication Dimensions. The resulting factor called HumanisticS is similar to one found by Detert et al (2000) in their review of dimensions used in organisational culture research. This dimension they called Motivation reflected the belief that employees are intrinsically motivated to do good work if their environment values them, treats them with respect as demonstrated by strong lines of communication.

A seventh factor arises from the combination of Leadership, Job Performance, and Environment. This factor called LeadershipS concerns the role of senior management in directing the organisation, managing performance and in promoting organisational concerns and issues to the external environment, be that Government, the public, other health sector providers or the local community.

The two new factors HumanisticS and LeadershipS have acceptable psychometric properties (refer Table 4.5). Testing of the full 7-factor model revealed fit statistics (refer Figure 4.3) which suggested this model was a reasonable fit to the data.

Comparison of the 3-factor and 7-factor models (refer Table 4.3) shows that the 7-factor model is a slightly better fit to the data on all statistics. As these two models are nested a Chi-square differences tests was appropriate and was carried out. The results indicated the models were significantly different and therefore the 7-factor model was retained.

In contrast to the research by Broadfoot and Ashkanasy (1994, quoted in Ashkanasy et al., 2000), the more complex 7-factor model was more psychometrically robust and a better fit to the data than the 3-factor model. This allowed this research to take a more multi-dimensional assessment of culture as recommended by Harris and Mossholder (1996) and Cooke and Rousseau (1988). This gave greater discriminability of the cultural factors (Ashkanasy et al., 2000), which was essential for the assessment of their relationship to the outcome variables of Commitment, Job Satisfaction and Culture Strength.

In order to build a comprehensive model of culture, two further dimensions were required. Triandis (1995) demonstrated that Individualism and Collectivism are two separate constructs (Triandis et al., 1988) and data from this research (a non-significant inter-correlation of -.004) supported that position. 10 questions from previous research were selected to measure Individualism (6 items, Cronbach alpha = .56) and Collectivism (4 items, Cronbach alpha = .63). With reliabilities less than ideal (<.70) the model did not hold together particularly well. However, in accordance with the decision not to modify the model on indications from the

modification indices (Bentler, 1990; Bolton, 1990; Steiger, 1990) and to therefore maintain a strictly confirmatory approach, Individualism and Collectivism were added to the overall model, despite these weaknesses. As new staff become inducted into the organisation, they become part of the team, and see themselves and are accepted by others as worthy members of the group (Van Maanen & Schein, 1979). Socialisation of Entry predicted increased Collectivism and decreased Individualism. This is consistent with Van Maanen and Schein's (1979) theory of Organisational Socialisation. The enlarged model accounted for the data well despite weakness in the Individualism and Collectivism dimensions.

A 9-factor model of culture was therefore proposed with dimensions covering eight of the general factors of organisational culture identified by Detert et al. (2000) from their review of the literature, as well as the Socialisation of Entry factor proposed by Broadfoot and Ashkanasy ((1994, quoted in Ashkanasy et al., 2000) in the original research.

Some 12 items from the BIDR were selected to measure social desirability scoring. Six items were used to measure each of Impression Management and Self Deception Enhancement. CFA demonstrated a model of reasonable fit. Neither Self Deception Enhancement nor Impression Management was found to predict Individualism. While items such as "I rely on myself most of the time. I rarely rely on others" and "I'd rather depend on myself than others" have both been rated highly, respondents were neither exaggerating nor underplaying their individualism.

Self Deception Enhancement has a positive and significant relationship with Collectivism. People may see themselves as more cooperative and team oriented than they actually are. Both of the items "The well-being of my co-workers is important to me" and "I feel good when I cooperate with others" received a mean score of 5.1

(where 6 = strongly agree) across the whole sample. Impression Management was not significantly predictive of Collectivism, on the other hand.

Testing showed that the full measurement model including social desirability measures, accounted for the data reasonably well.

The Relationship between Organisational Culture and Commitment As had been found in the measurement model, Socialisation of Entry positively and significantly predicted Collectivism and negatively and significantly predicted Individualism. This is consistent with previous research (Van Maanen & Schein, 1979). The stronger respondents rate the socialisation process, the more they feel they can rely on their colleagues and the stronger they relate to the group. This is above and beyond the impression they are trying to create to others or any over-inflated (positive or negative) view they might have of themselves. Such cooperation and teamwork is a significant predictor of organisational commitment. It is interesting to note that Socialisation of Entry does not directly influence commitment, significantly. Rather its impact is through Collectivism. These results are consistent with the work of others (Clugston et al., 2000; James & Cropanzano, 1994; Mael & Ashforth, 1995; Moorman & Blakely, 1995) who showed that team or group attachment increased commitment. This is also consistent with the results of research by Glisson and James (2002) who found that constructive, supportive cultures predict increased commitment. These results however, are different from those found by Allen and Meyer (1990) on the other hand. Their research found that newcomer's socialisation was positively and significantly related to commitment, directly.

Development of the Individual was also a strong positive predictor of organisational commitment. The stronger respondents rated personal and career development and training, the higher their rating of organisational commitment. This

is also consistent with the work of others (Buchanen, 1974; Glisson & Durick, 1988; Meyer, Bobocel & Allen, 1991) and the notion that developing one's skills, being given the opportunity for advancement, taking up roles with greater challenge and scope all increase the level of commitment to the organisation.

These results support the notion proposed by Rousseau (1995) that commitment has moved from a relational association to a transactional one. Relational factors such as teamwork and collaboration are predictive of commitment. However, health professionals are managing their own (protean) careers and in return for the opportunity to learn and develop their skills, they are (in exchange) giving the organisation commitment. Comparison of the standardised regression weights suggest this transactional aspect is a much stronger influence than the relational one. While commitment may be influenced by loyalty to one's team, it appears to have more to do with what Inkson and Parker (1999) called 'opportunistic alliances' between the employer and the employee. An employee will remain committed to an employer (and vice versa) as long as the needs and expectations of both parties are being met. With a move from valuing *employability* rather than *employment* (Hall, 2002), health professionals are likely to show greater commitment to an organisation that develops their capability.

It is interesting to note that the Humanistic dimension, involving feeling valued by the organisation, was not a significant predictor of commitment once all others influences had been accounted for. Perhaps a significant amount of the variance from this factor was already accounted for in the Collectivism variable.

Structure also did not significantly and negatively predict commitment, as expected. While the standardised regression weight was negative, it was not significant. Perhaps those working in the healthcare sector accept that policies,

procedures and rules reduce risk to patients and therefore liability to healthcare professionals.

The fact that leaders were directing the organisation and had plans and goals in place had little impact on respondents' commitment to the hospital. Similarly the focus on job performance or the responsiveness of the organisation to the external environment had no significant impact on organisational commitment. Whether or not they could be innovative in their work was also not predictive of commitment.

The Relationship between Organisational Culture and Job Satisfaction The cultural dimension of Structure was found to be a strong negative predictor of satisfaction with the operating conditions as well as a negative predictor of satisfaction with extrinsic rewards and the nature of the work performed. It must be recalled that Structure was one of the weakest dimensions in terms of its psychometric properties and therefore conclusions with regard to it must be viewed with caution. Given that this dimension reflects the degree to which the organisation's structure limits the actions of its members, the influence of policies and procedures in this regard, and the concentration of power, it was expected to predict dissatisfaction with onerous rules and procedures, and the extent of the 'paper-war'. The constraints imposed by Structure were not compensated for by the extrinsic rewards, hence Structure was highly predictive of low satisfaction with pay and benefits.

This result differs from research by Odom et al., (1990). They found that a bureaucratic culture had no effect on job satisfaction. Cooke and Szumal (2000) on the other hand suggest that conforming and following the rules, consistent with what they describe as passive defensive cultures, was rated poorly by respondents in NZ, Australia, UK and USA with respect to ideal and satisfying cultures (McCarthy, 2002). In a study in the health sector in Australia, Lok and Crawford (2001) found

bureaucratic cultures were significantly and negatively predictive of job satisfaction, at the ward rather than the hospital level of culture.

Socialisation of Entry was also negatively predictive of satisfaction with operating conditions and extrinsic rewards. Strong induction and initial training, so that newcomers are well informed about conditions and pay, is predictive of low satisfaction with these conditions and rewards. Van Maanen and Schein (1979) found that socialisation increases feelings of competence and therefore may reduce satisfaction with rewards and increase frustration with rules and procedures (Operating Conditions) that restrict the ability to demonstrate this competence. Again it must be remembered that Socialisation of Entry had weak psychometric properties. Further research would need to be carried out to confirm these relationships.

Socialisation of Entry was positively predictive of Collectivism. As was seen in the commitment model and consistent with Van Maanen and Schein (1979) Theory of Organisational Socialisation, the stronger the induction, orientation and initial training, the more newcomers feel part of the team and rely on and support their colleagues.

Collectivism in turn was predictive of satisfaction with the nature of the work done. The more respondents see themselves as part of the team and the higher the levels of cooperation, the more likely they are to rate their job as meaningful, enjoyable and the greater their sense of pride in what they do. This result is consistent with previous research. Hui, Eastman and Yee (1990, quoted in Triandis, 1995) found that collectivism was highly related to job satisfaction. Other researchers (Glisson & James, 2002; Odom et al., 1990; Sheridan, 1992) have found that supportive team-based cultures are predictive of job satisfaction.

While Impression Management had no significant effect on any facets of job satisfaction, Self Deception Enhancement (SDE) did. SDE was a negative predictor of satisfaction with extrinsic rewards. The greater the self-deception, the more dissatisfied people were with their pay and rewards. SDE positively predicted Collectivism. People may be less collaborative and cooperative than they think they are.

The cultural dimension of Individual Development was found to be strongly and positively predictive of satisfaction with extrinsic rewards, promotion and with the nature of the work they do. People who feel that the organisation invests in their training and development are more satisfied with their pay, the opportunities for promotion and the tasks they perform.

The strong relationship between Individual Development and job satisfaction mirrors that of this dimension on commitment. It again supports the notion that the relationship between employees and employers is moving from relational (based on long term commitment to a relationship and trust) to transactional (based on a shorter term exchange of benefits and services) as proposed by Rousseau (1995) and Hall and Mirvis (1996). The more opportunities to develop they are given, the more health professionals are satisfied with their jobs.

The enlarged Humanistic dimension of culture (HumanisticS), which includes five humanistic items and four communication items, is strongly and negatively predictive of satisfaction with the nature of work and extrinsic rewards.

This result was not as expected. Research has generally found that constructive, supportive cultures predict job satisfaction positively (Cooke & Szumal, 2000; Glisson & James, 2002; Odom et al., 1990). These contrary results may further support Rousseau's theory regarding the changing nature of the psychological

contract between employees and employers. The higher the rating for respect and being valued by the organisation (HumanisticS) the higher the expectation for better extrinsic rewards and therefore the lower the satisfaction with those rewards.

In a similar way, those who have rated their satisfaction with the nature of their work highly (as meaningful, enjoyable and giving them a sense of pride) expect to be respected and their opinions sought and valued. Such respondents have marked the HumanisticS dimension down.

The cultural factor of Innovation is strongly and positively predictive of Extrinsic Rewards. The more respondents felt that they were encouraged to show initiative and put forward new ideas, the more they were satisfied with their job as measured by Extrinsic Rewards. This result is consistent with other researchers such as Odom et al., (1990). This might also reflect a belief that an environment that encourages initiative, is also one in which a health professional can learn more.

The relationship between Organisational Culture and Culture Strength None of the dimensions of culture on their own were predictive of culture strength. Consistent with the other models tested, Socialisation of Entry predicted Collectivism positively and significantly and Individualism negatively. Those with a positive view of themselves (SDE) saw themselves as more cooperative.

In summary, the models tested have demonstrated the importance of some dimensions of organisational culture in relation to organisational commitment and job satisfaction. While some factors such as Individual Development have strong positive relationships with both commitment and job satisfaction, others such as Socialisation of Entry can have positive and negative impacts on the outcome variables. While the socialisation process may increase the sense of belonging (Collectivism), it may also raise expectations and lead to disappointment and dissatisfaction.

Implications

Healthcare organisations are undergoing major changes in response greater demands being placed on them from increased expectations as medicine progresses and the population ages. Financial constraints increase as costs escalate and there is a worldwide shortage of healthcare professionals, especially nurses (Zangaro, 2001). In this environment more and more emphasis is placed on organisational culture, its role in facilitating or inhibiting change (Ingersoll, Kirsch, Merk and Lightfoot, 2000) and in its effect on staff turnover.

Extensive research has demonstrated the impact of organisational commitment (Cohen, 1993; Mathieu & Zajac, 1990; Porter et al., 1974; Tett & Meyer, 1993) and job satisfaction (Porter and Steers, 1973; Porter et al., 1974; Tett & Meyer, 1993; Trevor, 2001) with regard to staff turnover. While some researchers claim that job satisfaction leads to organisational commitment (Clugston, 2000; Porter et. al., 1974; Rusbult & Farrel, 1983; Williams & Hazer, 1986) others contend that commitment leads to job satisfaction (Bateman & Strasser, 1984). No one doubts the importance of both with regard to intentions to leave and leaving per se, to say nothing of their effect on the quality of people's working lives.

This research suggests that Development of the Individual is a strong predictor of both organisational commitment and job satisfaction (in particular in pay, rewards, nature of the work and promotional opportunities). A greater emphasis on training and development could have a major payback for the organisation. If healthcare professionals feel that the organisation is investing in their development, they may stay longer, perhaps 'go the extra mile', display behaviours that benefit the organisation, have a more positive attitude and will be more satisfied with their pay, the tasks they perform and promotional opportunities. It is interesting to note that in

times of financial constraint, the first thing to be cut is often the training budget. This research suggests that at least for this organisation, training should not be seen as a discretionary spend item but one that is essential to the continued efficient functioning of the operation. Furthermore the hospital should recognise and promote the training and development currently occurring. As Individual Development is a major source of commitment and job satisfaction, above and beyond all other cultural effects, it will also be a major draw card in attracting potential new staff.

Socialisation of Entry also has a significant impact on commitment and job satisfaction. This occurs through the effect of Collectivism. The delivery of an intensive socialisation process, not only as newcomers enter the organisation, but also as staff move from one part of the operation to another, could also have tangible benefits. Greater emphasis on teamwork, cooperation and collaboration is also indicated in this research. This is consistent with occupational stress literature (Griffin et al., 2000; Hart et al., 1995) that suggests that greater teamwork and a more positive and supportive environment results in greater employee well-being and reduced perceived stress, even when workload demand remains high.

Limitations and Further Research

The constructs in this study relate to individual's perceptions of organisational culture. Self-report questionnaires are therefore an appropriate tool for data collection. However, a mono-method bias may exist, as with most survey research (Clugston, 2000), since all data is self-reported.

The research design described in this work considers overall hospital organisational culture and investigates its impact on outcome variables such as organisational commitment and job satisfaction. Other studies have found that stronger relationships exist within sub-cultures. Lok and Crawford (2000) found that

ward culture was more predictive of organisational commitment than overall hospital culture. Vandenberge (1999) questions the existence of a global culture in a hospital because of alternative sources of culture. Professionals such as doctors may commit themselves to an external reference group such as the Royal Australasian College of Surgeons rather than to their own hospital. Vandenberge also suggests that measurement of culture at an organisational level may disguise the fact that managers value control, close supervision, work standardisation and productivity whereas professionals such as doctors value autonomy, expertise, sense of ethics, meaningful and challenging work and dedication to service delivery (Vandenberge, 1999). Research such as this, using an overall measure of organisational culture, may not capture these inter-professional group differences. "Competing sources of culture may be detrimental to the emergence of a homogeneous culture in hospitals" (Vandenberge, 1999 p176). Future research might measure both overall and work unit level culture. Stronger relationships may be found than in the current study.

As with other multivariate techniques, SEM is only generalisable to the type of sample used to estimate and test the model (Ullman, 2000). Care must be taken with this research not to generalise the results beyond a New Zealand metropolitan hospital setting and may be not beyond the environment within this specific hospital.

This research is of a cross-sectional design rather than a longitudinal design. SEM analysis permits only weak evaluation of causal hypotheses based on correlational data in this situation (Tett & Meyer, 1993).

Only one type of organisational commitment was considered in this study. Organisational commitment was measured using the 15-item Organizational Commitment Questionnaire (Mowday et al., 1979), which measures affective, or attitudinal commitment. Meyer and Allen (1991) have proposed a three-components

model – Affective Commitment, Continuance Commitment and Normative Commitment. Further research might include the more comprehensive model.

The OCP questionnaire would benefit from the revision of some of the items. Low reliability items could be reworked and those with multiple parts (e.g. Question 41: "Organisational policies and procedures are helpful, well understood and up to date") might be simplified. Similarly further work is required to distinguish some dimensions of culture that were so highly correlated that they needed to be collapsed into a single factor.

Summary

The Organisation Culture Profile was assessed and its orignal 10-factor structure was rejected. A 3-factor higher order structure (with Task, Relationships and Socialisation of Entry factors) was found to adequately represent the data. A 7-factor model was also assessed and found to represent the data well.

The 7-factor model was enhanced by the addition of two further factors (Individualism and Collectivism) and then tested for relationships with three outcome variables. Organisational commitment was directly related to Individual Development and indirectly related to Socialisation of Entry, through Collectivism. Job satisfaction showed positive and significant relationships with Individual Development, Innovation and indirectly with Socialisation of Entry through Collectivism. Socialisation of Entry was also negatively related to some facets of job satisfaction (Operating Conditions and Extrinsic Rewards). Both the Structure and Humanistic dimensions of culture were also negatively predictive of aspects of job satisfaction. Culture strength perceptions were found to have no significant relationships with the OCP dimensions of culture.

The results support the theory proposed by Rousseau (1995) concerning the changing nature of psychological employment contracts. She argued that the psychological contract has moved, in recent years, from a longer-term relational basis to a shorter-term transactional one (Hall, 2002). People want to know what is required of them and what benefits they will get in exchange. The implication for the healthcare sector, which is suffering from critical staff shortages, is significant.

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Appendix A **Memorandum of Understanding**

Massey University

Memorandum of Understanding

1. **Parties to Memorandum:**
Eileen Henderson representing the School of Psychology at Massey University
And
«NAME» of «Organization»

2. **Short Title of Project:**
The Assessment of the Organizational Culture Profile (OCP) and its Application in New Zealand Business

3. **Project Objectives :**
The collection of culture survey data for Ms Henderson's Masters thesis.

4. **Agreement:**
This memorandum formalises the agreement of your organization to participate in this project and to allow staff to volunteer to participate and respond to questions outlined in the questionnaire.

A copy of the questionnaire which has been approved for use for academic purposes by the Massey University Ethics committee will be provided to you in advance of the proposed visit to your site.

Completion of the questionnaire by each participant and subsequent return is taken as consent to use the information in this study.

All participants will remain anonymous and data generated will not be traceable to a participant. Confidentiality is guaranteed to all participants.

Ms Henderson retains the rights to publish the results of the study and will on request provide copy of the final report to the participants. If agreed, the company will be identified in any publications as acknowledgment of their agreement to allow their staff to participate.

The right to use the results of the project for further research and educational purposes is also retained.

Ms Henderson agrees to comply with any applicable company policies while on site.

Signed:
Eileen Henderson

..... Date :.....

Company Representative

Name .....

..... Date : .....

Appendix B OCP Questionnaire

Information Sheet for participants in the Culture Survey using OCP.

Title: Assessment of the Organizational Culture Profile (OCP) and its application in a New Zealand organisation.

Name: Eileen Henderson
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I am a Masters student at Massey University completing a Master of Science in Industrial and Organisational Psychology. My area of interest is in the measurement of company culture. This research project is designed to assess a culture survey tool, the Organizational Culture Profile (OCP) for use in New Zealand. This research will give your organisation insight into its culture and in particular into what aspects of the culture affect people's commitment, job satisfaction and their perceptions of strength of the culture.

Your participation in this survey is voluntary and your input is anonymous. You have the right to decline to answer any questions in the survey. All staff are invited to participate. It is assumed that completing and returning this questionnaire implies your consent to participate in this study.

This project has been reviewed and approved by the Massey University Regional Human Ethics Committee, Albany Campus, Protocol MUAHEC 02/044. If you have any concerns about the conduct of this research, please contact Associate-Professor Kerry Chamberlain, Chair, Massey University Regional Human Ethics Committee, Albany, telephone 09 443 9799, email K.Chamberlain@massey.ac.nz

Instructions:

This survey asks for your views about various aspects of your organisation. This is your opportunity to express your opinion and make observations that could be used to improve the organisation.

Please give your honest opinion. Your answers will be kept strictly confidential. To ensure confidentiality do not put your name on the survey form. None of the data you will be asked to supply will make it possible to identify any individual. When you have completed the survey form place it in the envelope provided and return it to: ***Eileen Henderson, Massey University, C/o XXXXX Hospital Reception, Level 1, XXXXX Hospital,*** by **21st October, 2002**. The results of this survey will be processed by researchers at Massey University and the envelopes will only be opened by them.

There are 158 statements in the survey. You are to decide if each statement is true for your organisation. There are no right or wrong answers, just give your opinion. You may have strong opinions on some statements, but not on others. Using the scale shown below, *circle* the number that best represents your opinion.

Please respond to each item independently and do not go back and change already completed items. However if you make a mistake please cross out your response and circle another option. Please ensure you respond to each statement.

Please use the following guide when you complete this profile. Essentially, you are being asked to decide first whether or not you agree with each statement. Then you need to determine the strength of your agreement or disagreement. If you are undecided, then you are asked to indicate your inclination one way or the other.

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

If you have any concerns with regard to this survey, please call me or email me – see contact details on page one.

Your participation is greatly appreciated – THANK YOU!!

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Circle the number that best represents your opinion:

1.	By their actions, our senior management show that they put our clients first.	1 2 3 4 5 6
2.	My first impression of people usually turns out to be right.	1 2 3 4 5 6
3.	Open and free exchange of information is encouraged here.	1 2 3 4 5 6
4.	I feel I am being paid a fair amount for the work I do.	1 2 3 4 5 6
5.	This organisation regularly invests time and resources in developing its members.	1 2 3 4 5 6
6.	It would be hard for me to break any of my bad habits.	1 2 3 4 5 6
7.	Our managers encourage their staff to give their views and are generally responsive to them.	1 2 3 4 5 6
8.	There is really too little chance for promotion on my job.	1 2 3 4 5 6
9.	For me, this is the best of all possible organizations for which to work.	1 2 3 4 5 6
10.	I don't care to know what other people really think of me.	1 2 3 4 5 6
11.	Individual rewards are based on performance in this organisation.	1 2 3 4 5 6
12.	My supervisor/manager is quite competent in doing his/her job.	1 2 3 4 5 6
13.	Individualism is respected in this organisation.	1 2 3 4 5 6
14.	I have not always been honest with myself.	1 2 3 4 5 6
15.	It takes time for newcomers to settle in here.	1 2 3 4 5 6
16.	I'd rather depend on myself than others.	1 2 3 4 5 6
17.	I am not satisfied with the benefits I receive.	1 2 3 4 5 6
18.	Members of this organisation are concerned about their personal and career development.	1 2 3 4 5 6
19.	I always know why I like things.	1 2 3 4 5 6
20.	Communications across all levels in this organisation tend to be extremely good.	1 2 3 4 5 6
21.	When I do a good job, I receive the recognition for it that I should receive.	1 2 3 4 5 6
22.	People in this organisation help each other with on-the-job and personal problems.	1 2 3 4 5 6
23.	When my emotions are aroused it biases my thinking.	1 2 3 4 5 6
24.	I know what is expected of me as a member of this organisation.	1 2 3 4 5 6
25.	Many of our rules and procedures make doing a good job difficult.	1 2 3 4 5 6
26.	This organisation avoids risk.	1 2 3 4 5 6
27.	It is important that I do my job better than others.	1 2 3 4 5 6
28.	I like the people I work with.	1 2 3 4 5 6
29.	I really care about the fate of this organisation.	1 2 3 4 5 6
30.	Once I have made up my mind, other people can seldom change my opinion.	1 2 3 4 5 6
31.	Management keeps the organisation on course.	1 2 3 4 5 6
32.	I sometimes feel my job is meaningless.	1 2 3 4 5 6
33.	I often find myself having to make decisions based on limited information.	1 2 3 4 5 6
34.	If a coworker gets a prize I would feel proud.	1 2 3 4 5 6
35.	I am fully in control of my own fate.	1 2 3 4 5 6
36.	This organisation is rule oriented.	1 2 3 4 5 6
37.	Communication seems good within this organisation.	1 2 3 4 5 6
38.	Employees know what clients want from this organisation.	1 2 3 4 5 6
39.	It's hard for me to shut off a disturbing thought.	1 2 3 4 5 6
40.	I think our company culture is strong.	1 2 3 4 5 6

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Circle the number that best represents your opinion:

41.	Organisational policies and procedures are helpful, well understood and up to date.	1 2 3 4 5 6
42.	Raises are too few and far between	1 2 3 4 5 6
43.	Parents and children must stay together as much as possible	1 2 3 4 5 6
44.	It would take very little change in my present work circumstances to cause me to leave this organisation.	1 2 3 4 5 6
45.	I never regret my decisions.	1 2 3 4 5 6
46.	This organisation regards the welfare of its employees as its first priority.	1 2 3 4 5 6
47.	Those who do well on the job stand a fair chance of being promoted.	1 2 3 4 5 6
48.	The 'grapevine' is the best source of information about this organisation.	1 2 3 4 5 6
49.	I sometimes lose out on things because I can't make up my mind soon enough.	1 2 3 4 5 6
50.	Often I find it difficult to agree with this organisation's policies on important matters relating to its employees.	1 2 3 4 5 6
51.	My supervisor/manager is unfair to me.	1 2 3 4 5 6
52.	This organisation provides opportunities for personal and career development.	1 2 3 4 5 6
53.	I rely on myself most of the time: I rarely rely on others.	1 2 3 4 5 6
54.	I have to ask my boss before I can do almost anything.	1 2 3 4 5 6
55.	The benefits that we receive are as good as most other organisations offer.	1 2 3 4 5 6
56.	I find that my values and this organization's values are very similar.	1 2 3 4 5 6
57.	The reason I vote is because my vote can make a difference.	1 2 3 4 5 6
58.	People here are encouraged to use their own initiative to develop better methods.	1 2 3 4 5 6
59.	I do not feel that the work I do is appreciated	1 2 3 4 5 6
60.	I sometimes drive faster than the speed limit.	1 2 3 4 5 6
61.	I would accept almost any type of job assignment to keep working for this organisation.	1 2 3 4 5 6
62.	My efforts to do a good job are seldom blocked by 'red tape'.	1 2 3 4 5 6
63.	This organisation is successful in developing people for more challenging work within the organisation.	1 2 3 4 5 6
64.	I am a completely rational person.	1 2 3 4 5 6
65.	Winning is everything	1 2 3 4 5 6
66.	This organisation keeps employees well informed on matters important to its employees.	1 2 3 4 5 6
67.	I have to work harder at my job because of the incompetence of the people I work with.	1 2 3 4 5 6
68.	It is up to peers to teach new employees how things are done here.	1 2 3 4 5 6
69.	The well-being of my co-workers is important to me.	1 2 3 4 5 6
70.	I could just as well be working for a different organisation if the type of work was similar.	1 2 3 4 5 6
71.	I rarely appreciate criticism.	1 2 3 4 5 6
72.	Social relationships are encouraged here.	1 2 3 4 5 6
73.	I like doing the things I do at work.	1 2 3 4 5 6
74.	We really strive to follow the organization's plans.	1 2 3 4 5 6
75.	I am very confident in my judgements.	1 2 3 4 5 6
76.	We accept people who don't fit in, provided they produce results.	1 2 3 4 5 6
77.	It is my duty to take care of my family even when I have to sacrifice what I want.	1 2 3 4 5 6
78.	Deciding to work for this organisation was a definite mistake on my part.	1 2 3 4 5 6
79.	The goals of this organisation are clear to me.	1 2 3 4 5 6
80.	It's all right with me if some people happen to dislike me.	1 2 3 4 5 6

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Circle the number that best represents your opinion:

81.	This organisation emphasises the needs of the clients more than the needs of employees	1 2 3 4 5 6
82.	I am proud to tell others that I am part of this organisation.	1 2 3 4 5 6
83.	I perceive we have a clear company culture.	1 2 3 4 5 6
84.	The emphasis here is on achieving results.	1 2 3 4 5 6
85.	I feel unappreciated by the organisation when I think about what they pay me.	1 2 3 4 5 6
86.	Overall this organisation is a harmonious place to work.	1 2 3 4 5 6
87.	I don't always know the reasons why I do the things I do.	1 2 3 4 5 6
88.	This organisation has very clear goals.	1 2 3 4 5 6
89.	People get ahead as fast here as they do in other places.	1 2 3 4 5 6
90.	I often do "my own thing".	1 2 3 4 5 6
91.	This organisation does not have a formal induction program.	1 2 3 4 5 6
92.	My supervisor/manager shows too little interest in the feelings of subordinates.	1 2 3 4 5 6
93.	I am willing to put in a great deal more effort than normally expected to help this organisation be successful.	1 2 3 4 5 6
94.	I sometimes tell lies if I have to.	1 2 3 4 5 6
95.	New ideas are highly valued here.	1 2 3 4 5 6
96.	The benefit package we have is fair.	1 2 3 4 5 6
97.	People are properly oriented and trained on joining this organisation.	1 2 3 4 5 6
98.	I never cover up my mistakes.	1 2 3 4 5 6
99.	Competition is the law of nature.	1 2 3 4 5 6
100.	Participation in strategic planning is encouraged here.	1 2 3 4 5 6
101.	There are few rewards for those who work here.	1 2 3 4 5 6
102.	This organisation inspires the best of me in the way of job performance.	1 2 3 4 5 6
103.	There have been occasions when I have taken advantage of someone.	1 2 3 4 5 6
104.	I do not have enough training to do my job well.	1 2 3 4 5 6
105.	I have too much to do at work.	1 2 3 4 5 6
106.	Progress towards meeting planned objectives is periodically reviewed here.	1 2 3 4 5 6
107.	I never swear.	1 2 3 4 5 6
108.	To me pleasure is spending time with others.	1 2 3 4 5 6
109.	Leaders demonstrate their own commitment to what this organisation is trying to accomplish.	1 2 3 4 5 6
110.	I enjoy the company of my co-workers.	1 2 3 4 5 6
111.	There is little to be gained by sticking with this organisation indefinitely.	1 2 3 4 5 6
112.	I sometimes try to get even rather than forgive and forget.	1 2 3 4 5 6
113.	Members of this organisation are expected to follow orders even when they are wrong.	1 2 3 4 5 6
114.	I often feel that I do not know what is going on with the organisation.	1 2 3 4 5 6
115.	I 'talk up' this organisation to my friends as a great organisation to work for.	1 2 3 4 5 6
116.	I always obey laws even if I'm unlikely to get caught.	1 2 3 4 5 6
117.	Family members should stick together no matter what sacrifices are required.	1 2 3 4 5 6
118.	There are leaders in this organisation who symbolize its values and beliefs.	1 2 3 4 5 6
119.	I feel a sense of pride in doing my job.	1 2 3 4 5 6
120.	Our organisational culture is well defined.	1 2 3 4 5 6

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Circle the number that best represents your opinion:

121.	I have said something bad about a friend behind his or her back.	1 2 3 4 5 6
122.	Everyone in this organisation is aware of the importance of care for the client.	1 2 3 4 5 6
123.	When I hear people talking privately, I avoid listening	1 2 3 4 5 6
124.	This organisation has a defined plan to meet its goals.	1 2 3 4 5 6
125.	I feel satisfied with my chances for salary increases.	1 2 3 4 5 6
126.	Innovation and creativity are encouraged here.	1 2 3 4 5 6
127.	I have received too much change from a salesperson without telling him or her.	1 2 3 4 5 6
128.	We should have benefits that we do not have.	1 2 3 4 5 6
129.	This organisation is regarded as taking a leadership role in relation to other similar organizations.	1 2 3 4 5 6
130.	I always declare everything at customs.	1 2 3 4 5 6
131.	The organisational structure limits the way we do things here.	1 2 3 4 5 6
132.	My personal identity, independent of others, is very important to me.	1 2 3 4 5 6
133.	I like my manager/supervisor.	1 2 3 4 5 6
134.	When I was young I sometimes stole things.	1 2 3 4 5 6
135.	I feel very little loyalty to this organisation.	1 2 3 4 5 6
136.	We are consistent about how we do things within this company culture.	1 2 3 4 5 6
137.	I have too much paperwork.	1 2 3 4 5 6
138.	I have never dropped litter on the street.	1 2 3 4 5 6
139.	This organisation responds quickly to external changes.	1 2 3 4 5 6
140.	There is a clear way of measuring performance in this organisation.	1 2 3 4 5 6
141.	I have done things that I don't tell other people about.	1 2 3 4 5 6
142.	I don't feel my efforts are rewarded the way they should be.	1 2 3 4 5 6
143.	When another person has done better than I do, I get tense and anxious.	1 2 3 4 5 6
144.	I am satisfied with my chances for promotion.	1 2 3 4 5 6
145.	Management in this organisation sets precedents for others.	1 2 3 4 5 6
146.	I never take things that don't belong to me.	1 2 3 4 5 6
147.	There is too much bickering and fighting at work.	1 2 3 4 5 6
148.	I feel good when I cooperate with others	1 2 3 4 5 6
149.	I have taken sick leave from work or school even though I wasn't really sick.	1 2 3 4 5 6
150.	It is important to me that I respect the decisions made by my group.	1 2 3 4 5 6
151.	I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.	1 2 3 4 5 6
152.	My job is enjoyable.	1 2 3 4 5 6
153.	I have never damaged a library book or store merchandise without reporting it.	1 2 3 4 5 6
154.	Work assignments are not fully explained.	1 2 3 4 5 6
155.	I have some pretty awful habits.	1 2 3 4 5 6
156.	Members of this organisation care about and strive for excellent performance.	1 2 3 4 5 6
157.	We have a powerful organisational culture in this company.	1 2 3 4 5 6
158.	I don't gossip about other people's business.	1 2 3 4 5 6

Thank-you for completing this questionnaire. Please remember to double check that you have responded to every statement. Finally, please complete the demographic data below, to provide a clear statistical picture of the group who answered the questionnaire. Note that the data collected from this survey is confidential. Researchers at Massey University will dispose of the survey forms after they are processed.

PERSONAL

Age: ..... years Gender: (Circle which applies) Female / Male

Time in this organisation: .....

Occupational Group (Tick the ONE box that applies):

- ❒ Administration, Clerical, Project
- ❒ Management
- ❒ RC/ Clinical Management
- ❒ SMO
- ❒ RMO
- ❒ Nurse
- ❒ Allied Health Professional including:
  PT's, OT's, Speech Language Therapists, Technicians and Social Workers

Total years experience in this Occupational Group in ANY organisation: .....

Do you wish to make any additional comments about the questionnaire, the process or any other matter you feel should be taken into account?

Appendix C **Comparison of Dimensions on Six Culture Survey Tools**

OCP (10)	DENNISON (12)	GLOBE (9)	HOFSTEDE (5)	OCI (12)	OCP 2 (8)
1994	1992	2001	1990	1987	1991
-Leadership	-Strategic Direction & Intent -Vision	-Power Distance	-Power Distance	-Dependent -Power	----
-Planning	-Goals & Objectives	-Future Orientation	-Long vs Short term Orientation	-Perfectionist	----
-Communications	-Coordination & Integration	----	----	----	----
-Humanistic	-Core Values	-Humane Orientation	----	-Humanistic	-Supportiveness
-Job Performance	----	-Performance Orientation	----	-Achievement	-Outcome orientation
-Environment	-Customer Focus	----	----	----	----
-Individual development	-Capability Development	----	----	Self Actualising	----
-Innovation	-Creating Change -Organisational Learning	----	----	-Oppositional -Conventional	-Innovation
-Structure	-Empowerment	-Uncertainty Avoidance	-Uncertainty Avoidance	-Conventional -Dependent	----
-Socialisation of Entry	----	----	----	----	----
----	-Team Orientation	-Collectivism I & II	-Individualism vs Collectivism	-Affiliative -Competitive	-Team orientation
----	-Agreement	----	----	-Approval	----
----	----	-Gender egalitarianism -Assertiveness	Masculinity vs Femininity	----	-Aggressiveness
----	----	----	----	Avoidance	----
----	----	----	----	----	-Attention to detail
----	----	----	----	----	-Decisiveness
----	----	----	----	----	-Emphasis on rewards

Appendix D

OCP QUESTIONNAIRE – Relationships Factor Items

	Communications Questions:	The free sharing of information among all levels within the organisation where possible, the direction it takes (bottom-up or top-down) and the importance of rumour in communication
3.	Open and free exchange of information is encouraged here.	
7.	Our managers encourage their staff to give their views and are generally responsive to them.	
20.	Communications across all levels in this organisation tend to be extremely good.	
66.	This organisation keeps employees well informed on matters important to its employees.	
	Humanistic Questions:	The extent to which the organisation respects and cares for individuals; represents the people end of the task-versus people dichotomy.
13.	Individualism is respected in this organisation.	
22.	People in this organisation help each other with on-the-job and personal problems.	
46.	This organisation regards the welfare of its employees as its first priority.	
72.	Social relationships are encouraged here.	
86.	Overall this organisation is a harmonious place to work.	
	Development of the Individual Questions:	The extent to which the organisation expends sufficient effort in providing opportunities for members to develop their skills and rewards development with career advancement and challenging work.
5.	This organisation regularly invests time and resources in developing its members.	
52.	This organisation provides opportunities for personal and career development.	
63.	This organisation is successful in developing people for more challenging work within the organisation.	
	Innovation Questions:	The organisation's risk preference: the willingness to take risks and the encouragement it shows for innovation and creativity.
58.	People here are encouraged to use their own initiative to develop better methods.	
95.	New ideas are highly valued here.	
126.	Innovation and creativity are encouraged here.	
	Structure Questions:	Degree to which organisational structure limits the action of its members, looking at influence of its policies and procedures on members' behaviours and the concentration of power in the organisation.
36.	This organisation is rule oriented.	
113.	Members of this organisation are expected to follow orders even when they are wrong.	
131.	The organisational structure limits the way we do things here.	

Appendix E

OCP QUESTIONNAIRE – Task Factor Items

	Leadership Questions:	Role of leaders in directing organisation, maintaining its culture and serving as role models
1.	By their actions, our senior management show that they put our clients first.	
31.	Management keeps the organisation on course.	
109.	Leaders demonstrate their own commitment to what this organisation is trying to accomplish.	
118.	There are leaders in this organisation who symbolise its values and beliefs.	
145.	Management in this organisation sets precedents for others.	
	Planning Questions:	The extent to which the organisation has clear goals, has plans to meet those goals and strives to follow those plans.
74.	We really strive to follow the organisation's plans.	
88.	This organisation has very clear goals.	
100.	Participation in strategic planning is encouraged here.	
106.	Progress towards meeting planned objectives is periodically reviewed here.	
124.	This organisation has a defined plan to meet its goals.	
	Job Performance Questions:	The degree to which the organisation emphasises task performance – the extent of task orientation and whether performance is rewarded.
11.	Individual rewards are based on performance in this organisation.	
84.	The emphasis here is on achieving results.	
140.	There is a clear way of measuring performance in this organisation.	
156.	Members of this organisation care about and strive for excellent performance.	
	Environment Questions:	The extent to which the organisations is responsive to the needs of its clients and the extent to which it is influenced by and influences the action of other similar organisations.
38.	Employees know what clients want from this organisation.	
122.	Everyone in this organisation is aware of the importance of care for the client.	
129.	This organisation is regarded as taking a leadership role in relation to other similar organisations.	
139.	This organisation responds quickly to external changes.	

Appendix F

OCP QUESTIONNAIRE – Socialisation of Entry Factor Items

	Socialisation of Entry Questions:	The time new members take to settle in, the degree to which the employees feel they understand the organisation, the extent of formalisation and the effectiveness of the socialisation process
15.	It takes time for newcomers to settle in here.	
91.	This organisation does not have a formal induction program.	
97.	People are properly oriented and trained on joining this organisation.	