CHAPTER 5
RESEARCH METHODOLOGY

INTRODUCTION

The aim of this chapter is to describe the research procedures of the present study. Firstly, methodological implications in cross-cultural research are discussed, after which an explanation of the sample and the way in which the results were obtained are presented. This is followed by a description of the nature and development of the various measuring instruments used in the multi-measure questionnaire. The Societal Questionnaire developed by Project-GLOBE (Hanges & Dickson, 2004; House et al., 1999; House & Hanges, 2004) and adapted by Booysen (1999), was used to measure cultural values. The MLQ was used to evaluate managers on Bass and Avolio's Full Range Model of Leadership (1997), while the Core and Peripheral Cultural Values Questionnaire that was developed for this study was used to examine the possibility of core and peripheral cultural values. The chapter is concluded with a description of the statistical procedures used in the analyses of the data, as well as a description of the research objectives.

RESEARCH DESIGN

Methodological Implications in Cross-Cultural Research

The South African society is complex and sub-culturally heterogeneous (cultural, racial, ethnic origin, political history, educational level, socio-economic status, occupations, gender, age, and so forth). In heterogeneous societies, samples should either be representative of the national population or consist of specific "organizations which are by their very nature multisocietal" (Hofstede, 1980, p. 38). This word of advice referred to the danger of inferring that culture is the root cause of all cross-cultural differences, a fundamental methodological issue in cross-cultural research.

Dorfman (1996) also appealed to researchers to consider the impact of a multitude of other factors, including technological, political, social, economic, and organisational contingency factors when interpreting their data. All of these factors present rival explanations that need to

be ruled out when cultural differences are indicated as causes. Researchers can avoid this epistemological trap by careful selection of comparable cross-national samples. Although perfectly matched samples are in all probability not viable, researchers should try their utmost to create sample equivalence on the important variables that need to be matched.

The present study did not investigate cultural differences between national cultures, but between sub-cultures within the same national culture. This ruled out rival explanations referring to different political, economic, and macro-environmental factors. The cultural level and gender of respondents were controlled by including members of both genders of all four sub-cultural groups in South Africa: Black, Coloured, White and Indian. Furthermore, all of the respondents were junior and middle managers in three organisations within the financial services sector. The first was one of the four large banks, the second a smaller bank, and the third an insurance company. Due to the control over the important variables in the study, the possibility of rival explanations has been limited to a degree.

Establishment of Equivalence

Before justifiable comparisons could be made across cultures, it is imperative to create equivalent bases upon which such comparisons could be based. Methodologists constantly refer to four types of equivalence, namely functional, conceptual, linguistic, and metric equivalence. The discussion of the four types of equivalance below, is based on the views of Dorfman (1996) and Lonner (1979).

Functional equivalence is essential for an understanding of the emic-etic distinction that is discussed later in this chapter, and refers to an approach which compares the functions of practices and customs at the cultural level, rather than the practices or customs themselves. The appointment of employees in organisations is viewed as an organisational practice that occurs cross-culturally. However, a non-critical acceptance of this practice as a basis for making comparisons between cultures may be flawed. Something like nepotism might be interpreted as nothing else but nepotism, but in another culture this practice might be viewed as corruption, and in still another as in-group responsibility.

Conceptual equivalence refers to meanings that individuals attach to stimuli such as test items and specific words, and it is within this framework that so called "culture-free" psychometric testing is often questioned. As such, cross-cultural researchers should ensure that behaviour observed or measured within different cultures should not be interpreted without additional contextual information. If conceptual equivalence is not addressed by researchers, especially during the planning and design phases of cross-cultural studies, it is possible that research results might show differing factor structures of questionnaires when they are administered in different cultures.

Lonner (1979) described *linguistic equivalence* as a variant of conceptual equivalence, referring to both spoken and written language approaches when doing comparative research. It involves questionnaires, interviews, and instructions given during research. However, linguistic equivalence is not necessarly achieved by translating words and assuming that the meanings would be the same. Equivalence can only be assured through the use of rigorous procedures, such as back-translation.

Metric equivalence requires that numerical values must measure the same magnitude of a specific construct, regardless of the population being studied. If individuals in comparative cultures obtained different scores on a specific questionnaire, any comparisons drawn from the data may be erroneous in the absence of confirmation that the questionnaire is metrically equivalent. There are three possible interpretations of score difference between comparative cultures, namely the differences are real and conclusive, the test measures qualitatively different aspects of a particular construct, or the test measures quantitatively different aspects of a particular construct. Furthermore, serious problems of metric equivalence exist if research findings show differing factor structures of questionnaires when they are administered in different cultures. Strategies such as factor analysis and item response theory performed on questionnaires in different cultures to assess the internal structure coherence of the data, could be utilised to address measurement equivalence. Another technique to test for functional equivalence is to investigate whether inter-correlation matrices between groups of variables show equal values for the cultures being compared.

Measurement equivalence aspects of the questionnaires used in this study have been addressed during the development and validation of the questionnaires and both these questionnaires have also been standardised on comparable South African samples (Bass & Avolio, 1997; Booysen, 1999; House & Javidan, 2004).

Etic-Emic Distinction

Having addressed the above-mentioned issues of equivalence, the emic-etic distinction is the most recurrent methodological concern facing cross-cultural researchers. If the etic-emic distinction is conceptualised as a bipolar continuum, an etic construct in its extreme form refers to the universal aspects of a culture. An emic construct, on the other end of the continuum, refers to a unique aspect of a culture, sharing nothing in common with other cultures (Dorfman, 1996; Lonner, 1979). Table 3 presents characteristics of the etic-emic distinction, as summarised by Lonner (1979, p.19):

Table 3 Characteristics of etic-emic distinction

	ETIC	EMIC
Number of cultures studied	As many cultures as possible — for statistical generalisation purposes.	Only one culture at any given time. Generalisations to other cultures not considered nor desired.
Perspective taken by researchers	Behaviour of individuals in one or more cultures are studied by a researcher who is not a member of the culture(s) being studied.	Behaviour of individuals only studied from within a culture by a researcher who is intimately familiar with that culture.
Structure or constructs guiding research	Created by the researcher or paradigm he/she follows and imposed onto the systems being studied.	Discovered by researcher when and if they manifest themselves as important in a specific culture.
Criteria against which to compare behaviour in culture(s)	Absolute or universal.	Relative to only one culture.

Dorfman (1996) argued that cultural differences can often be understood by analysing cross-cultural generalities that were determined through etic research. Statistical analyses performed on constructs within each culture, may indicate how a specific culture does not fit the originally conceptualised etic construct. As such, etic or comparative research approaches could lead to discovering both cultural differences and similarities between various cultures. An inherent problem of the etic approach is that important aspects that are culturally unique may be overlooked, whereas emic or in-depth intra-cultural studies may lead to findings of behaviour that are difficult for outsiders to understand. A purely etic approach, therefore, might lose sight of the uniqueness of a specific culture, while a pure emic approach would restrict the description of general principles. Both the etic and emic aspects of the sub-cultures involved in the present study were investigated within the quantitative paradigm.

Unit of Analysis

As discussed in Chapter 2, a number of authors (Bond, 1997; Dorfman and Howell, 1988; Ferdman, 1995; Hofstede, 1980a, 1980b, 1991; House & Hanges, 2004; Schwartz, 1999) warned cross-cultural researchers against the ecological fallacy when interpreting cultural values, this fallacy being the assumption that something that is true at the group level is true for every individual of that group. Hofstede (1980a) also mentioned another type of uncertainty with regard to the individual and the ecological level which he labelled the "reverse ecological fallacy". This fallacy occurs when researchers compare cultures on measures that were created for use at the individual level. House and Hanges (2004) confirmed that the Project-GLOBE research team took both the ecological and the reverse ecological fallacies into consideration when they designed the questionnaires to ensure that they measured constructs at the correct level of analysis. The unit of analysis in the present study is the sub-cultural group, Black, Coloured, Indian, and White managers.

Population and Sample

Due to the impact of organisational contingency variables on cross-cultural studies, this study was confined to the financial services sector, in order to minimise and control the influence of

such contingency variables. Booysen (1999) pointed out that this sector is, in South Africa, one of the largest and most progressive, and as such, it could be assumed that task, structural and technological variables are similar in the various organisations within this industry.

The population consisted of Black, Coloured, Indian and White, junior and middle managers of both genders in the financial services industry. The inclusion of Indian and Coloured managers not only extended the scope of Booysen's (1999) study, but also aimed to contribute to a better understanding of the cultural values and leader attributes of all four South African cultural groups.

Junior managers are defined as managers at least one level above clerical level employees, and one level below middle managers (Paterson upper and lower C-bands). Middle managers are defined as managers at least two levels above clerical levels (Paterson upper and lower D-bands) (Duvenhage, 1990). The population of junior and middle managers in the three organisations sampled in the financial services sector as in March 2003, is indicated in Table 4. These numbers were calculated using the namelists of managers provided by the three organisations.

Table 4 Population of junior and middle managers in the three organisations

	Male			Female			
	Junior Mngt	**Middle Mngt**	**Total**	**Junior Mngt**	**Middle Mngt**	**Total**	**Grand Total**
Asian	73	121	**194**	133	95	**228**	**422**
Black	75	151	**226**	63	74	**137**	**363**
Coloured	98	82	**180**	194	66	**260**	**440**
White	856	3623	**4479**	2489	1465	**3954**	**8433**
Total	**1102**	**3977**	**5079**	**2855**	**1682**	**4579**	**9658**

From Table 4 it is evident that the White group is the dominant group in this population, with White males as the majority in middle management positions, and White females as the majority in junior management positions. Due to the availability of detailed name lists

stratified according to organisation, culture group, gender, and management level, a disproportional probability sampling method was used to include comparable numbers of male and female managers within each management level per organisation belonging to the four sub-culture groups. The sample was stratified according to organisation, management level, sub-culture group, and gender, in order to ensure homogenous sub-populations from which to sample independently. Hofstede (1998) argued that it is a frequent misinterpretation in cross-cultural psychology that comparative studies between nations or cultures should be based on representative samples from the nations' or cultures' populations. If this were the case, very few comparative studies would ever be conducted, and none in less developed countries. He concluded that samples for these studies need not be representative, but should be functionally equivalent, or matched to ensure that researchers compare like with like.

According to Guy, Edgley, Arafat, and Allen (1987), disproportional probability sampling is a good predictor when strata are compared, but it is not as efficient when the purpose is to determine population characteristics. A total of 1675 managers (17.34% of the total population) were sampled and the overall return rate of the questionnaires was 28.48%. Descriptive statistics of the sample are presented and discussed in Chapter 6.

Data Collection and Procedures

The issue of informed consent as a generally accepted requirement, had to be addressed in planning the present study. The *Rules of Conduct Specifically Pertaining to the Profession of Psychology* of the South African Professional Board for Psychology (2006, Sections 89 and 90) clearly prescribe procedures in this connection. The *Publication Manual* of the American Psychological Association (2001, p. 391-392) presents comparable requirements. In collecting data for the present study it was, however, not possible to comply with rules about obtaining concent from individuals.

When the researcher negotiated with the various companies for permission to conduct the research, anonymity of respondents was a serious concern. It was agreed that the respondents would receive the questionnaire via internal mail, with a return envelope to be sent to the

reseacher without any identifying information. The various companies assured the researcher that respondents would not complete the questionnaires if a signature is required, since that they would feel that the data could be traced back to them. The key consideration is that the instructions on the questionnaire stated clearly that participation was completely voluntary. This is common practice, both here and abroad, nothwithstanding the effect of voluntarism on the constitution of samples.

Quantitative data were collected from 477 managers in the three organisations by mailing questionnaire booklets to all selected respondents. Due to various specific organisational "life-cycles", processes, procedures, and very specific requirements as to when the questionnaires could be distributed, it was not possible to distribute questionnaires in the three organisations simultaneously.

It must, however, be pointed out that the researcher struggled for the best part of a year to find institutions in this sector that were willing to participate in the present study. Due to the fact that this industry is so progressive and controlled, institutions are being overwhelmed by the number of requests for research and therefore declined to participate without even considering the content and outcomes of the research proposal.

The questionnaires were initially distributed within the three organisations from April to August 2003 and followed up with an electronic message to all the managers in the sample reminding them to complete the questionnaire if they had not yet done so. The overall response rate of 28.48% (n = 477) was in accordance with expectations, but this was achieved only when the questionnaires were redistributed to the sample of managers from September to January 2004, followed up with another electronic reminder to complete and return the questionnaires in the provided return envelope.

Respondents were requested to complete a questionnaire booklet containing the various measuring instruments. Since English is regarded as the business language in all three organisations, and since the unit of analysis was managers, it was assumed that all participants could understand English. Consequently the questionnaires were only provided in English.

Since completed questionnaires came in until March 2004, the coding and capturing of data were done from April to June 2004. Data analysis followed in September 2004.

Measuring Instruments

Biographical Questionnaire

A biographical questionnaire was developed to suit the needs and goals of the present study. The following biographical variables were included in this questionnaire: age, gender, sub-culture group, qualifications, managerial level (junior or middle management), exposure to any formal training in Western management practices, total number of years full-time work experience, and number of years/months functioning at managerial level.

Societal Questionnaire

This questionnaire requested respondents to indicate their observations regarding their culture with respect to the cultural dimensions discussed in Chapter 2. The questionnaire was developed and validated by Project-GLOBE in the first and second phases of that study, as an international, cross-cultural study conducted on middle managers from the financial, telecommunications, and food-processing industries worldwide (Hanges & Dickson, 2004; House et al., 1999; House & Hanges, 2004). Booysen (1999) described that the questionnaire scales were cross-validated, refined, and revised based on interviews, Q-sorts, focus groups, and feedback from researchers on the international project team. This also included feedback from South Africa, Zimbabwe, Namibia, and Zambia. The South African sample was also included in the first pilot test.

According to House et al. (1999), the Project-GLOBE scales have sound psychometric properties, which suggest that the scales could be used to measure differences between cultures, both in terms of societal and organisational phenomena. During the development of the Project-GLOBE questionnaire scales, organisational and societal culture items were written for the cultural dimensions discussed in Chapter 2. The initial item pool consisted of

371 societal and organisational culture items that were generated through interviews and focus groups conducted in several countries. The items were written as quartets with isomorphic structures for the Organisational and Societal Questionnaire and across two culture manifestations — Practices (as is) and Values (should be), Organisational (as is), Organisational (should be), Societal (as is), and Societal (should be) (Hanges & Dickson, 2004; House & Hanges, 2004).

Booysen (1999) obtained permission to adapt the Project-GLOBE Societal Questionnaire to measure sub-cultural differences within the same national culture, as opposed to the Project-GLOBE questionnaire which measures values between national cultures. The adaptation was minor and, in essence, implied that where the terms "my culture" or "this society" was used, they were substituted with "my subculture". The instructions of the Project GLOBE Societal Questionnaire were also adapted to instruct respondents to answer the questions from their own gender and sub-cultural frame of reference and not from a national South African frame of reference.

This adapted scale was utilised in the present study, and just like Booysen (1999), also excluded the "should be" scale. The reasons for this were that the focus was on the current state and not the future state, and that the "as is" and "should be" scales were supplementary and could be administered independently. The adapted questionnaire was validated for use in the South African study (Booysen, 1999). Items were measured on two variations of a 7-point Likert scale. The one type had behavioural anchors linked to the different values, and the other ranged from "Strongly Agree" to "Strongly Disagree", as in the following examples.

In my sub-culture people are generally:

Very sensitive toward others						Not at all sensitive toward others
1	2	3	4	5	6	7

In my sub-culture people are generally very sensitive toward others.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

The cultural value dimensions (see Chapter 2 for detailed discussions), as well as examples of questionnaire items for each of the dimensions are presented below. On all subscales, a high score indicates a high degree of the characteristic concerned. A high score on the Individualism/Collectivism dimension indicates a high degree of Collectivism.

Uncertainty Avoidance refers to the degree to which a culture prefers structured over unstructured situations, for instance, "In my sub-culture, orderliness and consistency are stressed, even at the expense of experimentation and innovation."

Gender Egalitarianism refers to the extent to which a society minimises gender role differences, for instance, "In my sub-culture, boys are encouraged more than girls to attain a higher education."

Assertiveness refers to the degree to which individuals in societies are confrontational, assertive or aggressive in interpersonal relationships, for instance, "In my sub-culture, people are generally dominant."

Future Orientation refers to the extent to which a society encourages and rewards either future-oriented or present/past oriented behaviours, for instance, "In my sub-culture, more people live for the present than live for the future."

Power Distance refers to the degree of inequality among people that is considered normal within a culture. An example of an item in this sub-scale is, "In my sub-culture, a person's influence is based primarily on the authority of one's position."

Individualism/Collectivism refers to the degree to which a society encourages and rewards individualistic or collectivistic behaviour, for instance, "In my sub-culture, leaders encourage

group loyalty even if individual goals suffer" (Collectivism I); and "In my sub-culture, aging parents generally live at home with their children" (Collectivism II).

Humane Orientation refers to the degree to which individuals in societies encourage and reward other individuals for being fair, altruistic, friendly and caring, for instance, "In my sub-culture people are generally very concerned about others."

Performance Orientation refers to the extent to which a society encourages and rewards members for performance improvement and excellence, for instance, "In my sub-culture, teen-aged students are encouraged to strive for continuously improved performance."

Although Hanges and Dickson (2004) and House and Hanges (2004) stated that the Societal Questionnaire is psychometrically sound, a series of tests were performed on the data to test the psychometric functioning of the questionnaire in the present study. The results are presented and discussed in Chapter 6.

Multifactor Leadership Questionnaire (MLQ)

The MLQ was originally developed to evaluate leaders on Bass and Avolio's Full Range Model of Leadership. The questionnaire contains forty-five items that measure "key leadership and effectiveness behaviors shown in prior research to be strongly linked with both individual and organizational success" (Bass & Avolio, 1997, p. 11). The factors included in the MLQ were conceptually and empirically derived from two studies, which have maintained almost the same structure in various studies utilising the questionnaire. Each of the leadership dimensions are measured by four highly inter-correlated items that are low in correlation with items of the other dimensions. Various versions of the MLQ have been utilised extensively in various organisations in countries throughout the world since 1985 and have undergone several revisions as more information became available regarding transformational, transactional, and laissez-faire leadership (Bass & Avolio, 1997).

A five-point rating scale is used to measure leader behaviour, ranging from 0 = "Not at all" to 4 = "Frequently, if not always". Data collected on the MLQ substantially support the convergent and discriminant validity of the theoretical and empirically based factors, with internally consistent scales (Bass & Avolio, 1997). Although the MLQ provides for self-assessments, as well as assessments by supervisors, peers, and subordinates, only self-assessments were utilised in this study.

The Transformational leadership dimensions that were discussed in Chapter 3, as well as examples of questionnaires for the self-assessments for each of the dimensions, are presented below. On all subscales, a high score indicates a high degree of the characteristic concerned.

Idealised Influence (Charisma) refers to leaders who are respected, hold high standards, and set challenging goals for employees. A sample item is, "I specify the importance of having a strong sense of purpose."

Inspirational Motivation refers to expressive appeals to increase awareness and understanding of mutually desirable goals. An item in this sub-scale is, "I talk enthusiastically about what needs to be accomplished."

Intellectual Stimulation is used to persuade employees to question their own values, beliefs, and assumptions, as well as those of the leader and the organisation. A sample item is, "I get others to look at problems from many different angles."

Individualised Consideration measures leaders' ability to treat employees differently but fairly on a one-on-one basis. A sample item of this sub-scale is, "I treat others as individuals rather than just as a member of a group."

The Transactional leadership dimensions that were discussed in Chapter 3, as well as examples of questionnaires for the self-assessments for each of the dimensions, are presented below. On all subscales, a high score indicates a high degree of the characteristic concerned.

Contingent Reward involves an interaction between leader and follower that emphasis an exchange of appropriate rewards when followers meet agreed-upon objectives. A sample item is, "I discuss in specific terms who is responsible for achieving performance targets."

Active Management-by-Exception measures the degree to which a leader monitors situations to ensure that mistakes are not made. A sample item in this sub-scale is, "I concentrate my full attention on dealing with mistakes, complaints, and failures."

Items in the *Passive Management-by-Exception* sub-scale measure a leader's tendency to only intervene in a process or to make a correction only when things go wrong. A sample item is, "I fail to interfere until problems become serious."

Non-leadership, where leaders avoid accepting their responsibilities, is measured by the *Laissez-Faire* dimension. An example of a questionnaire item is, "I avoid making decisions."

Core and Peripheral Cultural Values Questionnaire

Rokeach's contributions in the study of human values have significantly influenced values research since the late 1960s (Mayton et al., 1994; Schwartz & Bilsky, 1987, 1990). He argued that values are hierarchically arranged in terms of relative importance and that values do not decay or decline, but ascend or descend in the estimation of their relative importance. Consequently, individuals order values hierarchically according to their importance. Rokeach developed the Rokeach Value Survey to measure values via a ranking or ipsative process (Mayton et al., 1994).

The priorities of the cultural values can be determined by asking respondents to rank these values according to their relative importance. However, a Likert format is preferred, where respondents can indicate the extent of agreement with each statement, instead of ranking items. Values do not have to be ranked in order to be classified as core or peripheral values. Marino et al. (2000) were of the opinion that this format allows respondents to rate all items at equal value, therefore allowing for variability of responses even though the preference order

might not have varied. Furthermore, a ranking procedure yields an ordinal scale which is not suitable for parametric statistical analysis.

The possibility of core and peripheral cultural values was explored by means of a questionnaire specifically constructed for purposes of this study. Respondents were presented with the descriptions of the various cultural values mentioned below and requested to read through the descriptions of the cultural values, and with the sub-cultural group as the unit of analysis, decide how they occur in their specific sub-culture. They were then requested to indicate on a 7-point semantic differential scale with the endpoints labelled, how easy or difficult they think it would be for members of their own sub-culture group to change the specific cultural value in a changing environment. The values of this questionnaire were not named, but described. This section followed after the Societal Questionnaire where respondents had to reply to the individual items of the various cultural values. On all items, a high score indicates a high degree of difficulty to change the cultural value concerned.

The Individualism/Collectivism dimension focuses on the relation between the individual and other members of the sub-culture:

- Some sub-cultures are characterised by loose ties between the individuals and personal goals are more important than group goals.
- Other sub-cultures are characterised by strong ties between the individuals where the interest of the group takes precedence over the individual member's interests. In these cultures, individuals are part of a strong, interconnected in-group from birth onwards.

Gender Egalitarianism and Assertiveness describes the degree to which a sub-culture minimises or maximises the division and differences between gender roles:

- In some sub-cultures gender roles are clearly distinct inasmuch as men are supposed to fulfil certain roles (often outside the home), while women are supposed to fulfil other roles (often inside the home). These sub-cultures often also support assertiveness, competition and achievement.

- In other sub-cultures there is a high degree of gender role overlap and thus no clear distinctions or differentiation between gender roles. These sub-cultures often support quality of life, caring for the weak, modesty, and a preference for relationships.

Uncertainty Avoidance focuses on how a sub-culture copes with change, and the uncertainty that change provokes:

- Some sub-cultures favour structured organisations with many rules and regulations which create a less confusing environment.
- Other sub-cultures accept uncertainty, and prefer unstructured environments without constricting rules and regulations.

Power Distance relates to the degree to which sub-cultures maintain inequality among their members by differentiating individuals and groups based on power, authority, prestige, and status:

- Some sub-cultures try to minimise inequalities; power is distributed equally and leadership is less autocratic, while members are more empowered.
- Other sub-cultures are characterised by greater acceptance of inequalities; leadership is more autocratic and there is a greater centralisation of authority.

Future Orientation focuses on how a specific sub-culture perceives time:

- In some sub-cultures, living in the present, immediate action and gratification, spontaneity, and living for the moment are valued.
- In other sub-cultures, investing in the future, and preparing for future events are encouraged. Emphasis is put on effective planning, forecasting and saving.

Humane Orientation refers to a sub-culture's orientation towards individuals:

- In some sub-cultures societal norms and laws protect the unfortunate, and there is a lack of discrimination against minorities.
- In other sub-cultures, wealth is concentrated in the hands of a few individuals; there is widespread poverty and discriminatory practices against minorities.

Performance Orientation describes the degree to which a sub-culture emphasises the importance of individual achievement:

- In some sub-cultures the emphasis is on education, encouragement of moderate risk taking, and reward for achievements and entrepreneurial behaviour.
- Other sub-cultures are concerned mainly with tradition, convention, "protection of face", and reward for artistic achievement.

DATA ANALYSIS

The data analysis was done using descriptive statistics, reliability analysis (Cronbach's alpha), factor analysis, correlations, effect size, *t* test for independent samples, and analysis of variance.

Descriptive statistics of the sample on the various measures for the dependent and independent variables were obtained to gain insight into their nature. These statistics included minimum and maximum scores, means, and standard deviations.

The internal consistencies of the measuring instruments were calculated by means of Cronbach's (1951) coefficient alpha. It measures the internal consistency or homogeneity of a measuring instrument. According to Aron and Aron (1994), calculating Cronbach's alpha divides the test up into halves in all possible ways and computes the correlation using each division, then averages these divisions.

The Pearson product-moment correlation coefficient is used to describe the linear relationship between two variables that are both either interval or ratio variables. In this study, correlation was used to calculate correlations between the subscales of the various measuring instruments. The possible relationships between the cultural values and leadership were also explored by means of correlation (Heiman, 1992).

The construct validity of the measuring instruments was determined by means of factor analysis, which is a statistical technique applied to a single set of variables to uncover the latent structure (dimensions) of a set of variables that are relatively independent of one another. It reduces a larger number of variables to a smaller number of factors, and is therefore used to validate a scale or index by demonstrating that its constituent items load on the same factor, as well as to drop proposed scale items which cross-load on more than one factor. Rotation of factors is a process by which the output is made more understandable without changing the underlying mathematical properties. This is usually necessary to facilitate the interpretation of factors. There are two classes of rotation: orthogonal and oblique. Oblique rotation (direct quartinum) was used in this study (Tabachnick & Fidel, 1996).

Tests of significance indicate whether a non-chance relationship between variables is likely, but they do not indicate the magnitude of the relationship. “Consequently, it is inappropriate to imply a large effect or use the phrase ‘very significant’ when the exact probability of a calculated value is very small” (Abrami, Cholmsky, & Gordon, 2001, p. 212). According to Henson and Smith (2000), the use of the term “statistical significance” could be confused with the meaning of the term “important”. Results that are statistically significant could over time be regarded as important. A consequence of significance testing is that non-significant relationships are often indicated for seemingly large effects between means, when the sample size is small. Conversely, significant relationships could be indicated for very small effects between means when the sample size is large.

The effect size, represented by the symbol *d*, gives an indication of the magnitude of the relationship between the dependent and independent variables, or the practical importance of the relationship. Effect sizes are categorised according to their magnitude:

- An effect size around 0.20 is a small effect. The implication of this in new research is that the research should be replicated to determine whether there is an effect or whether the result is practically non-significant.
- An effect size around 0.50 is a medium effect. This implies that the result is detectable and might indicate practical significance.
- An effect size around 0.80 is a large effect, which means that the results are practically significant and therefore of practical importance (Abrami, Cholmsky, & Gordon, 2001; Henson & Smith, 2000; Steyn, 1999).

The *t* test was used to compare the results of the current study with those obtained by Booysen (1999).

The purpose of analysis of variance is to test for statistically significant differences between the means of more than two different groups. It is used to uncover the main and interaction effects of independent variables on a dependent variable. A main effect is the direct effect of an independent variable on the dependent variable, while an interaction effect is the joint effect of two or more independent variables on the dependent variable.

The statistic that forms the basis for ANOVA is the *F* test of difference of group means, testing whether the means of the groups formed by values of the independent variable are different enough not to have occurred by chance. If the group means do not differ statistically significantly it is assumed that the independent variables did not have an effect on the dependent variable. If the *F* test shows that group means of the independent variables differed significantly, a second statistical procedure, called *post hoc* comparisons, is done to explore which means differed statistically significantly. In this study, post hoc comparisons were done using least square means (LSM) (Heiman, 1992; Tabachnick & Fidell, 1996).

RESEARCH OBJECTIVES

The first objective of the present study was to examine cultural differences and similarities between managers in the financial services sector belonging to the four South African sub-cultural groups (Black, Coloured, White, and Indian), and between South African male and female managers. The inclusion of Coloured and Indian, male and female managers in South African organisations did not only extend the scope of Booysen's (1999) study, but also aimed at contributing to a better understanding of the cultural values and leader attributes of all four South African sub-cultural groups.

Even though Booysen (1999) found significant differences between the White and Black groups on seven of the eight cultural value dimensions, it was pointed out in Chapter 2 that individual members of the same cultural groups in culturally plural societies may vary regarding their cultural values, due to the process of acculturation. It was also mentioned that new knowledge and roles could be acquired quickly without affecting individual values, resulting in group members being highly acculturated in one aspect of life (knowledge and practises) and not in others (values, beliefs, and so on). The level of acculturation may fluctuate according to individual and group need, as well as opportunities for integration of other cultures' values (Marino, Stuart & Minas, 2000).

House et al. (1999) maintained that the Project-GLOBE theory does not account for possible cultural changes as a result of exposure to international media, ever-increasing cross-border commerce in the global village, or any other form of cross-cultural interaction. South Africa is a culturally plural society, and since 1994 the different cultural groups have increasingly and less superficially been interacting with each other on a daily basis, especially in the work environment. It follows that individual members of cultural groups will display various degrees of behavioural and psychological acculturation. Since value systems change more slowly than the visible parts of culture, such as practices, language, and so forth, a second objective was to examine whether cultural values change indiscriminately during the acculturation process or whether possible peripheral cultural values change more easily or before possible core cultural values.

A further objective of this research was to ascertain whether the differences and similarities of the cultural values of White and Black, male and female managers changed since 1998, when Booysen's data were collected, possibly as a consequence of socio-political changes taking place in South Africa.

In addition, Project-GLOBE identified 21 specific leader attributes that are universally endorsed as contributing to an effective leadership style. Eleven of these 21 identified attributes were part of the Charismatic/Transformational leadership dimension (den Hartog et al., 1999; House et al., 1999). Booysen (1999) used the Leader Attribute Questionnaire, as developed by Project-GLOBE, to assess the degree to which a particular leader attribute contributes to outstanding leadership in the South African context. This questionnaire is not a self-report measure, but asks respondents to indicate the attributes they think distinguish highly effective leaders from others. This is in contrast to the self-report MLQ developed by Bass and Avolio, which was used in the present study. The fourth objective of this study was thus to explore the differences and similarities of South African managers on Bass and Avolio's Full Range Model of Leadership, specifically transformational leadership, as measured by the MLQ, as well as possible interactions between the various cultural value dimensions and this leadership model (Avolio & Bass, 1999; Bass, 1985, 1997).

CONCLUDING REMARKS

This chapter highlighted methodological implications when doing cross-cultural research, especially in such a complex and culturally heterogeneous society as South Africa. It was also pointed out that rival explanations were controlled for by the thorough selection of equivalent cross-cultural samples. Due to the importance of creating equivalent bases upon which justifiable comparisons can be made across cultures, four types of equivalence — functional, conceptual, linguistic, and metric — were discussed. Since the emic-etic distinction is one of the most persistent methodological concerns facing cross-cultural researchers, a discussion of this topic in the present context was also included.

A number of cross-cultural researchers cautioned against the ecological fallacy when interpreting cultural values by assuming that something that is true at the group level, is true for every individual of that group. As such, the cultural group was confirmed as the unit of analysis of this study. The study was confined to the financial services sector, not only to minimise and control for the influence of contingency variables, but also because this industry is considered as one of the largest and most progressive in the South African context.

It was pointed out that data collection started in April 2003 and continued until March 2004. The organisations that participated in the study had specific organisational life-cycles and a multitude of other processes, and therefore had very specific requirements as to when the questionnaires could be distributed. It was therefore not possible to distribute the questionnaires in the three organisations simultaneously.

The various research instruments that were included in the multi-measure questionnaire utilised in the study were discribed, after which the statistical procedures used in the analysis of the data were described. The chapter was concluded with a description of the research objectives.

The results obtained in the study will be presented in Chapter 6.

CHAPTER 6
RESULTS

INTRODUCTION

The results of the quantitative data obtained by means of the Biographical Questionnaire, the Societal Questionnaire, the Core and Peripheral Cultural Values Questionnaire, and the MLQ, are presented in this chapter. The presentation of results commences with the descriptive statistics of the sample after which the psychometric functioning (reliability and construct validity) of the measuring instruments is discussed. This is followed by descriptive and exploratory statistical analysis of the aggregated responses obtained on all the measuring instruments of the total sample — across management level, gender and cultural group. The means obtained with the three measuring instruments, the dependent variables, were compared with the independent variables by means of ANOVAs, namely the various sub-culture groups, gender, age, educational level, management level, number of years full-time work experience, number of years experience as manager, exposure to formal western management training, and possible interactions between the independent variables. In cases where reliable differences were found, *post hoc* comparisons were done, using least square means.

DESCRIPTIVE STATISTICS OF SAMPLE

As discussed in Chapter 5, a total of 1675 managers were sampled in this study. The obtained sample of 477 managers consisted of junior (49.90%) and middle managers (50.10%) in the financial services sector in South Africa representative of members of four sub-culture groups — 27.88% Black, 23.48% Coloured, 26.21% Indian, and 22.43% White (Table 5). The distribution of junior and middle managers within the Black and Indian group were almost equal, whereas the Coloured group consisted of slightly more junior managers (59.82% junior managers and 40.18% middle managers) and the White group of somewhat more middle managers (41.12% junior managers and 58.88% middle managers). Furthermore, 28.57% of all junior managers in the sample were Black, compared to 28.15% Coloured, 24.79% Indian,

and 18.49% White. The spread within the middle management group was more equal, with 27.61% Indian, 27.20% Black, 26.36% White, but only 18.83% Coloured.

Based on the data provided in Table 6, 51.36% of the sample were male and 48.64% were female. Within the male group, 32.24% were Black, compared to 26.53% Indian, 20.82% White and 20.41% Coloured managers. The female group consisted of 26.72% Coloured, 25.86% Indian, 24.14% White, and 23.28% Black managers.

Table 5 Management Level versus Culture

		Black	Coloured	Indian	White	TOTAL
Junior Management	*Frequency*	68	67	59	44	238
	% Total	14.26	14.05	12.37	9.22	49.90
	Row %	28.57	28.15	24.79	18.49	
	Column %	51.13	59.82	47.20	41.12	
Middle Management	*Frequency*	65	45	66	63	239
	% Total	13.63	9.43	13.84	13.21	50.10
	Row %	27.20	18.83	27.61	26.36	
	Column %	48.87	40.18	52.80	58.88	
TOTAL		133	112	125	107	477
		27.88	23.48	26.21	22.43	100

Table 6 Sub-culture Group versus Gender

		Black	Coloured	Indian	White	TOTAL
Male	*Frequency*	79	50	65	51	245
	% Total	16.56	10.48	13.63	10.69	51.36
	Row %	32.24	20.41	26.53	20.82	
	Column %	59.40	44.64	52.00	47.66	
Female	*Frequency*	54	62	60	56	232
	% Total	11.32	13.00	12.58	11.74	48.64
	Row %	23.28	26.72	25.86	24.14	
	Column %	40.60	55.36	48.00	52.34	
TOTAL		133	112	125	107	477
		27.88	23.48	26.21	22.43	100

The age distribution of the total sample per sub-culture group is graphically presented in Figure 6, the distribution of educational level per sub-culture group is presented in Figure 7, while the respondents' exposure to formal management training is presented in Figure 8. The distribution of total number of years work experience and total number of years as manager per culture group are respectively illustrated in Figures 9 and 10.

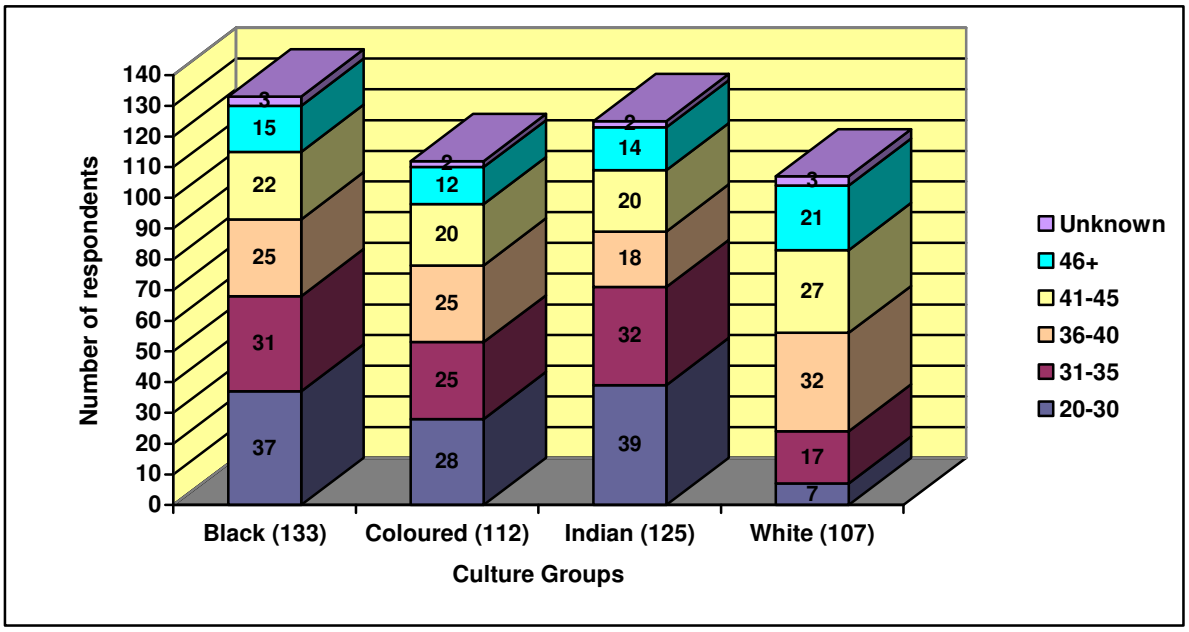

Figure 6 Distribution of Age per Sub-culture Group (Total Sample)

According to Figure 6, 51.13% of managers of the Black sample were 35 years and younger, compared to 47.32% of the Coloured sample, 56.8% of the Indian sample, and only 22.43% of the White sample. In contrast, 55.14% of managers of the White sample were between 36 and 45 years of age, compared to 30.40% of the Indian sample, 40.17% of the Coloured sample and 35.34% of the Black sample. The Employment Equity Act 55, of 1998 and the ensuing implementation of affirmative action programmes in South African organisations, which placed focus on the promotion and appointment of previously disadvantaged Black, Coloured and Indian managers, may be a possible explanation for the younger age distribution in these groups (Black $\bar{x}$ = 35.87, Coloured $\bar{x}$ = 36.59, and Indian $\bar{x}$ = 35.59). This is in contrast to the White group ($\bar{x}$ = 40.73), where current managers have often been appointed or promoted before the implementation of affirmative action programmes.

According to the Employment Equity Act, affirmative action measures are intended to ensure that suitably qualified employees from designated groups (Black, Coloured, and Indian) have equal employment opportunities and are equitably represented in all occupational categories and levels of the workforce. Affirmative action measures include the identification and

elimination of barriers with an adverse impact on designated groups; the implementation of measures which promote diversity; development and training of designated groups (including skills development); and preferential treatment and numerical goals to ensure equitable representation.

Based on the information portrayed in Figure 7, the majority of Black managers (60.12%) and Indian managers (51.20%) in the sample obtained tertiary qualifications, while the majority of Coloured managers (53.57%) and White managers (42.99%) reported as having a Grade 12 (Matric) qualification. Additionally, 24.11% of Coloured managers, 21.80% of Black managers, 16.00% of Indian managers and 14.95% of White managers completed Banking industry qualifications. Only 31.03% of the total sample (Figure 8) had been exposed to formal Western management training.

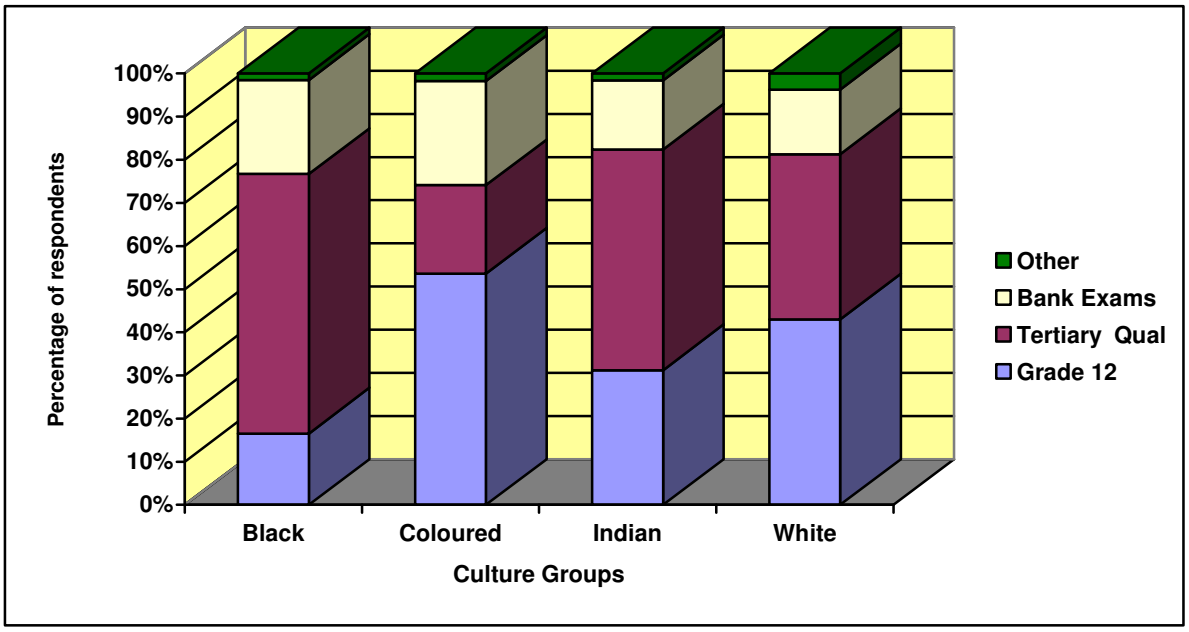

Figure 7 Distribution of Educational level (%) per Sub-culture Group (Total Sample)

More than half (52.63%) of the Black managers, 37.60% of the Indian managers and 32.14% of the Coloured managers had less than ten years full-time work experience, compared to only 13.08% of the White managers (Figure 9). In contrast to this, 66.36% of the White managers

had more than 16 years full-time work experience, compared to the 47.32% of the Coloured managers, 38.40% of the Indian managers, and only 26.32% of the Black managers. Black managers had an average of 11.89 years full-time work experience, compared to 15.78 years for Coloured managers, 14.24 years for Indian managers and 19.71 years for White managers.

Due to the fact that more than half of the Black managers were 35 years and younger (Figure 6) and had less than ten years full-time work experience (Figure 9), it is not surprising that 82.71% of the Black managers had less than ten years managerial experience (Figure 10). This trend was also true for the Indian managers (80.80%) and the Coloured managers (79.46%), whereas only 57.94% of the White managers had less than 10 year's managerial experience. Black managers had an average of 4.65 years managerial experience, compared to 4.98 years for Coloured managers, and 5.12 years for Indian managers. This is in contrast to an average of 9.36 years for White managers.

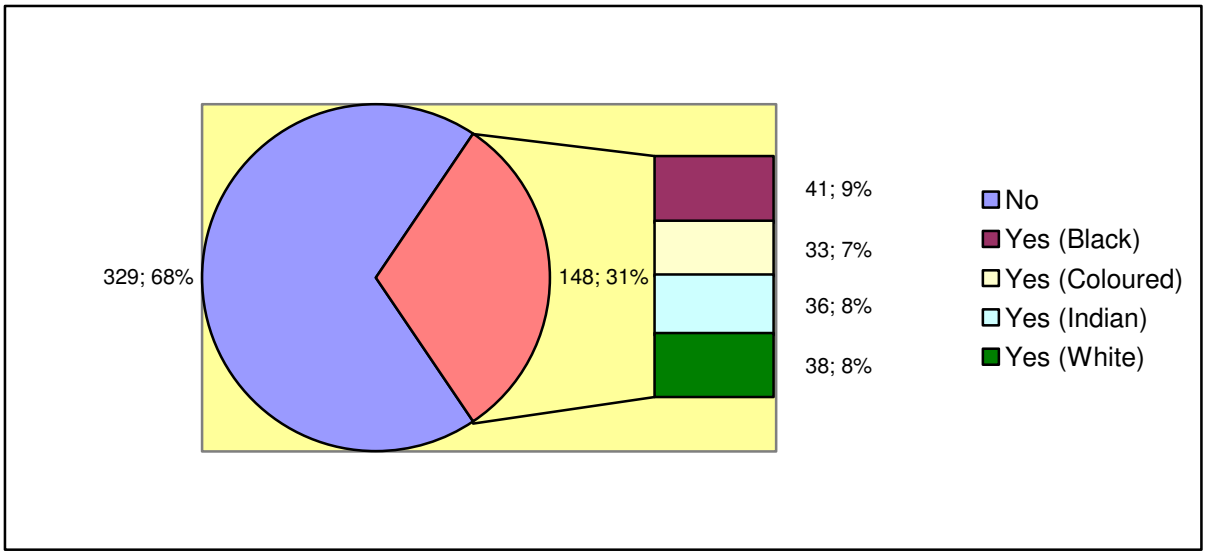

Figure 8 Exposure to Formal Western Management Training (%) per Sub-culture Group (Total Sample)

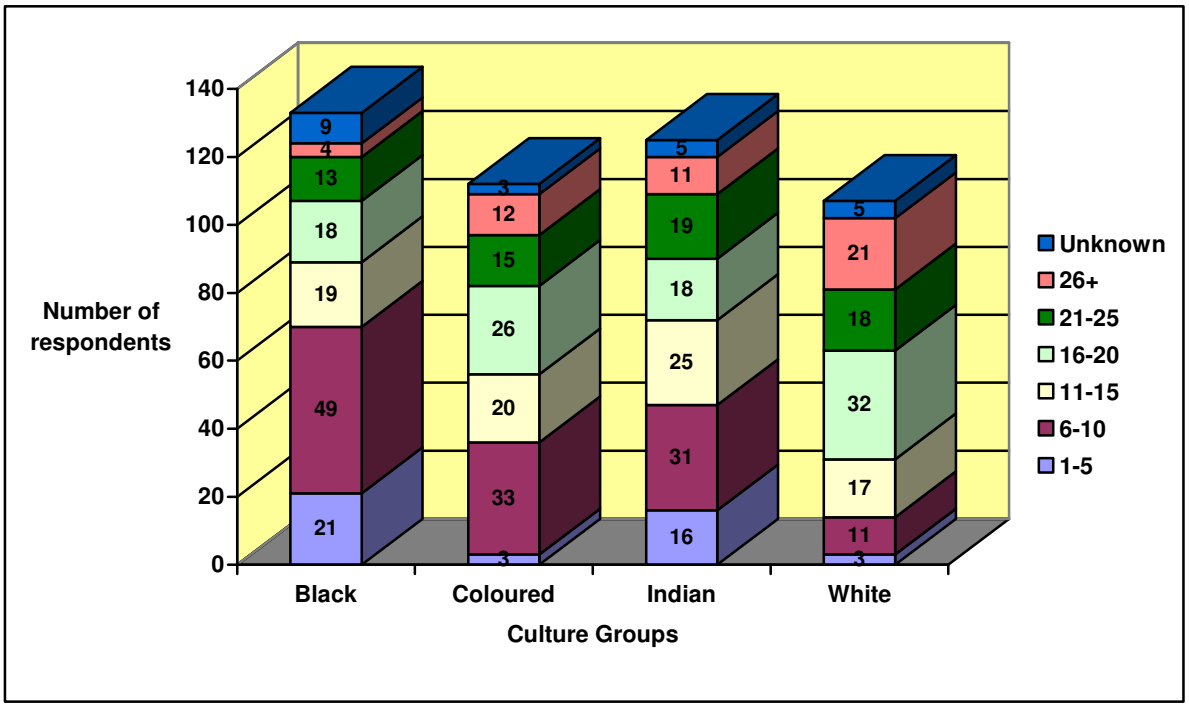

Figure 9 Distribution of Total Years Full-Time Work Experience per Sub-culture Group (Total Sample)

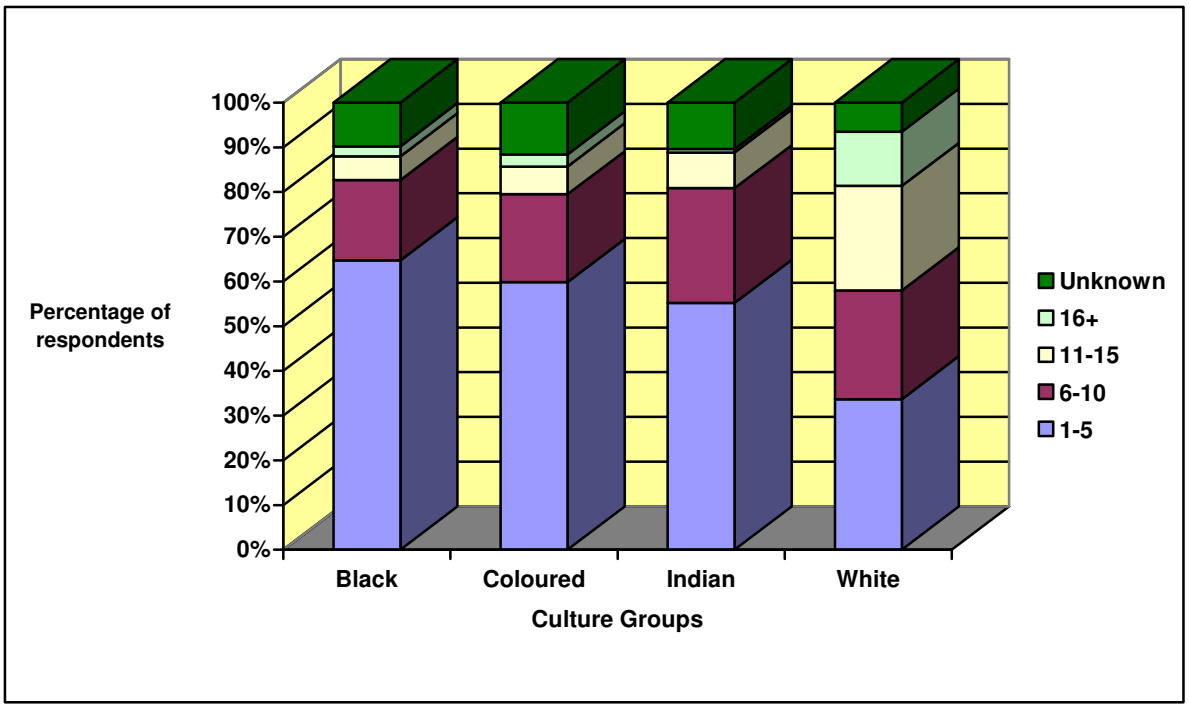

Figure 10 Distribution of Years as Manager (%) per Sub-culture Group (Total Sample)

PSYCHOMETRIC PROPERTIES OF MEASURING INSTRUMENTS

The construct validity and reliability of the various measuring instruments are presented to indicate the psychometric functioning of these instruments in the present study. A factor analysis was performed on each of the measuring instruments to determine construct validity, and the reliability, or internal consistency, of all the measuring instruments was assessed by means of Cronbach's coefficient alpha (Cronbach, 1951).

Construct Validity

Societal Questionnaire

Hanges and Dickson (2004) reported that two empirical pilot studies were conducted to assess the psychometric properties of the Project-GLOBE questionnaire. In the resulting analysis, a multilevel confirmatory factor analysis replicated the factor structure of the culture scales (which included the societal questionnaire). Booysen (1999) obtained permission to adapt the societal questionnaire of the Project-GLOBE questionnaire to measure cultural differences within the same national culture (as opposed to the GLOBE questionnaire which measures values between national cultures). Results were obtained with a confirmatory factor analysis that was performed at the individual level of analysis and including the total number of respondents. She reported a goodness of fit index of 0.80 and an adjusted goodness of fit index of 0.76 between the existing underlying factorial structure of the Project-GLOBE Questionnaire and the realised factorial structure of the South African sample. Booysen concluded that due to the significant indices of fit and the relatively acceptable levels of internal consistency (see discussion on reliability), the adapted version of the questionnaire could be regarded as valid and reliable. As such, it was not necessary "to explain the variables in terms of their common underlying dimensions, through exploratory or common factor analysis" (1999, p. 142).

Factor analysis (FA) with oblique rotation (direct quartinum) was performed through BMDP4M on the results obtained with the 39 items of the Societal Questionnaire for the

sample of 477 participants in the present study; after missing values were discarded, the FA was conducted on the responses of 476 participants. An initial FA extracted nine factors with eigenvalues greater or equal to one (40.2% of explained variance), although the nine factors were not theoretically interpretable. Based on the scree test, it was decided to extract six factors (35.2% of explained variance), which was also the best-interpretable solution (see Appendix A).

Factor 1 included all the items of the Humane Orientation, and most items of the Individualism/Collectivism sub-scale. According to the correlations presented in Table 7, the Humane Orientation sub-scale correlated positively with the Individualism/Collectivism sub-scale (0.55). Factor 2 consisted of all but one of the items of the Future Orientation sub-scale, while Factor 3 contained all the items of the Uncertainty Avoidance and Performance Orientation sub-scales. The Uncertainty Avoidance sub-scale also correlated positively with the Performance Orientation sub-scale (0.44) (see Table 7). Factor 4 included all the items of the Assertiveness sub-scale, and Factor 5 contained all the items of the Power Distance sub-scale. Factor 6 consisted of four of the five items of the Gender Egalitarianism sub-scale.

Only two of the six factors (Factors 1 and 3) contained items of more than one sub-scale of the Societal Questionnaire. Although the sub-scales contained in these two factors are positively correlated, distinguishing between the different components or sub-scales may remain useful for theoretical purposes. For purposes of comparability to the results of published data on Project-GLOBE, it was decided to treat the sub-scales in Factors 1 and 3 separately and to retain the original nine sub-scales of the societal questionnaire of the Project-GLOBE Questionnaire.

Table 7 Correlations between the Sub-scales of the Societal Questionnaire

	UA	A	GE	FO	PD	C	HO
Uncertainty Avoidance (UA)	1.00						
Assertiveness (A)	0.18 <0.001***	1.00					
Gender Egalitarianism (GE)	-0.14 0.003**	-0.13 0.005**	1.00				
Future Orientation (FO)	0.40 <0.001***	0.17 <0.001***	0.11 0.013*	1.00			
Power Distance (PD)	-0.02 0.691	0.03 0.466	-0.37 <0.001***	-0.19 <0.001***	1.00		
Individualism/Collectivism (C)	0.27 <0.001***	-0.23 <0.001***	-0.23 <0.001***	0.09 0.045*	0.05 0.266	1.00	
Humane Orientation (HO)	0.18 <0.001***	-0.18 <0.001***	-0.04 0.404	0.10 0.025*	-0.20 <0.001***	0.55 <0.001***	1.00
Performance Orientation (PO)	0.44 <0.001***	0.19 <0.001***	0.19 <0.001***	0.49 <0.001***	-0.34 <0.001***	0.13 0.004**	0.20 <0.001***

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Multifactor Leadership Questionnaire (MLQ)

Factor analysis with oblique rotation (direct quartinum) was performed through BMDP4M on 36 items of the MLQ for a sample of 477 participants. After 85 missing values were discarded, the FA was conducted on the responses of 392 participants. An initial FA extracted 11 factors with eigenvalues greater or equal to one (39.2% of explained variance) that were not theoretically interpretable. Well-interpretable solutions were provided by the two- and three-factor solutions. The two-factor solution generated an active and passive leadership factor. However, the items of the active Management-by-Exception scale loaded almost equally strong on both of these factors. The three-factor solution (24.3% of explained variance) yielded three factors that were almost similar to Bass' (1985) theoretical model, namely a Transformational, Transactional, and Laissez-Faire or Passive-Corrective factor (see

Appendix B). Due to the theoretical importance of distinguishing between the three factors, especially between the two active types of leadership (transformational and transactional), rather than only distinguishing between active and passive leadership, it was decided to use the three-factor solution in this study.

Factor 1 (Transformational Leadership Style) included all the items of the Idealised Influence (Attributes), Idealised Influence (Behaviour), Inspirational Motivation, Intellectual Stimulation, and Individualised Consideration sub-scales (Transformational Leadership sub-scales of the MLQ), as well as the items of the Contingent Reward sub-scale. Factor 2 (Transactional Leadership Style) consisted of the items of the active Management-by-Exception sub-scale and Factor 3 (Passive-Corrective Leadership Style) consisted mainly of the items of the passive Management-by-Exception and the Laissez-Faire sub-scales.

It was found by den Hartog et al. (1997) that three similar factors in a study to investigate whether the three main leadership concepts as defined by Bass (1985) could be found in the collected MLQ data of 1200 employees from eight organisations. The first factor included all the Transformational dimensions, while the second factor included the Contingent Reward and active Management-by-Exception Transactional dimensions. The third factor, or Passive Leadership, was a combination of the passive Management-by-Exception and the Laissez-Faire dimensions. This last factor referred to leadership that is either passive or, in the extreme, avoidant.

The only difference between the findings of the present study and those of den Hartog et al. (1997) is that the Contingent Reward dimension clustered with the Transformational factor and not with the Transactional factor as per Bass' (1985) theoretical model. In their study regarding women and Transformational and Contingent Reward Leadership, Yammarino et al. (1997) also found that the magnitudes of correlations between Transformational leadership and performance outcomes were similar to the correlations between Contingent Reward leadership and the same outcomes. They came to the conclusion that these two forms of leadership are similar. Avolio et al. (1999) reported on a number of researchers that questioned the split between components of Transformational Leadership from Contingent

Reward leadership. They mentioned various reasons for the positive correlations between Transformational and Transactional Contingent Reward leadership scales. The first is that both Transactional and Transformational leadership consist of active and constructive forms of leadership, secondly, that effective leaders display elements of both Transactional and Transformational leadership, and thirdly, that the honouring of agreements builds trust and perceptions of reliability and consistency among employees and their leaders. All of this contributes to the high levels of trust and respect related to Transformational Leadership. Bass (1997) also reported that numerous reported factor analysis indicated a distortion of the boundaries between Contingent Reward and Individualised Consideration. He explained this by pointing out that both involve helping followers to fulfil their needs, Contingent Reward focuses on motivating followers by means of material rewards and resources, while Individualised Consideration emphasises personal growth and recognition.

From Table 8 it is clear that the Contingent Reward sub-scale correlated positively with all four the Transformational sub-scales — Idealised Influence (0.49), Inspirational Motivation (0.46), Intellectual Stimulation (0.45), and Individualised Consideration (0.39). Furthermore, the weak positive correlation of 0.20 between the Contingent Reward and the active Management-by-Exception sub-scale and no correlation with the passive Management-by-Exception sub-scale supported the decision to cluster the Contingent Reward sub-scale with the four Transformational sub-scales.

The decision to cluster the passive Management-by-Exception sub-scale with the Laissez-Faire sub-scale, is supported by the weak correlation of 0.17 between the active and passive Management-by-Exception sub-scales and the strong positive correlation of 0.42 between the passive Management-by-Exception and Laissez-Faire sub-scale. All five sub-scales of the Transformational Leadership cluster had weak negative correlations with both the passive Management-by-Exception and Laissez-Faire sub-scale (see Table 8).

Table 8 Correlations between the Sub-scales of the MLQ.

	II	IM	IS	IC	CR	MBE-A	MBE-P
Idealised Influence (II)	1.00						
Inspirational Motivation (IM)	0.67 <0.001***	1.00					
Intellectual Stimulation (IS)	0.54 <0.001***	0.49 <0.001***	1.00				
Individualised Consideration (IC)	0.52 <0.001***	0.43 <0.001***	0.43 <0.001***	1.00			
Contingent Reward (CR)	0.49 <0.001***	0.46 <0.001***	0.45 <0.001***	0.39 <0.001***	1.00		
Management-by-Exception (Active) (MBE-A)	0.23 <0.001***	0.11 0.013*	0.11 0.021*	0.15 0.001**	0.20 <0.001***	1.00	
Management-by-Exception (Passive) (MBE-P)	-0.07 0.146	-0.11 0.014*	-0.05 0.235	-0.13 0.004**	-0.01 0.896	0.17 <0.001***	1.00
Laissez-Faire (LF)	-0.22 <0.001***	-0.29 <0.001***	-0.12 0.011**	-0.24 <0.001***	-0.18 <0.001***	-0.03 0.499	0.42 <0.001***

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Internal Consistency

Societal Questionnaire

The internal consistency coefficients of the sub-scales in the Societal Questionnaire are presented in Table 9. Hanges and Dickson (2004) reported Cronbach alphas for the GLOBE Societal (as is) Questionnaire ranging from 0.66 to 0.88. Booysen (1999) reported Cronbach alphas ranging from 0.36 to 0.81 for the adapted questionnaire, which was also used in the present study. Based on the information provided in Table 9, it is evident that in the present data set, the Cronbach alphas of the Uncertainty Avoidance, Gender Egalitarianism, and Performance Orientation sub-scales are dubious and results obtained with these sub-scales should be interpreted with caution.

Table 9 Internal Consistency Coefficients of the Societal Questionnaire

Sub-scale	No. of items in scale	*N*	Cronbach α
Uncertainty Avoidance	4	477	0.54
Assertiveness	4	477	0.66
Gender Egalitarianism	5	477	0.55
Future Orientation	5	477	0.70
Power Distance	5	477	0.60
Individualism/Collectivism	8	477	0.60
Humane Orientation	5	477	0.78
Performance Orientation	3	477	0.52

Multifactor Leadership Questionnaire (MLQ)

The reliability coefficients of the MLQ are presented in Table 10. Although it was decided to cluster the MLQ into the abovementioned three leadership styles, the reliability coefficients of all the sub-scales are presented for purposes of comparability. The Cronbach alpha's obtained in the present study compared favourably with those reported by Mester, Visser, Roodt and Kellerman (2003) that were obtained on a sample of 52 South African Managers: 0.59 for Idealised Influence, 0.73 for Inspirational Motivation, 0.67 for Intellectual Stimulation, 0.54 for Individualised Consideration, 0.46 for Contingent Reward, 0.76 for Management-by-Exception (Active), 0.44 for Management-by-Exception (Passive), and 0.52 for Laissez-Faire. The data used by these authors were, however, based on descriptions by subordinates, not by participants themselves, as in the present study. All three leadership clusters performed adequately or acceptably in the present study, since Clark and Watson (1995) indicated that reliabilities in the 0.605 and 0.705 range have been characterised as good or adequate.

Table 10 Internal Consistency Coefficients of the MLQ

Sub-scale	No. of items	*N*	Cronbach α
Idealised Influence	8	476	0.70
Inspirational Motivation	4	477	0.75
Intellectual Stimulation	4	477	0.64
Individualised Consideration	4	477	0.59
Contingent Reward	4	477	0.70
Management-by-Exception (Active)	4	477	0.70
Management-by-Exception (Passive)	4	477	0.48
Laissez Faire	4	477	0.49
Leadership styles (3 clusters):			
Transformational leadership	24	416	0.85
Transactional leadership	4	458	0.63
Passive leadership	8	441	0.61

SOCIETAL QUESTIONNAIRE

Descriptive statistics

Results of descriptive statistical analyses for the total sample on all the cultural value dimensions of the Societal Questionnaire are reported in Table 11. The mean scores of the cultural value dimensions are graphically presented in descending order in Figure 11. According to Figure 11, South African managers rated Individualism/Collectivism the highest ($\bar{x}$ = 5.15), Humane Orientation second ($\bar{x}$ = 5.06), Performance Orientation third ($\bar{x}$ = 5.04), Uncertainty Avoidance fourth ($\bar{x}$ = 4.79), Future Orientation fifth ($\bar{x}$ = 4.62), Power Distance sixth ($\bar{x}$ = 4.55), Assertiveness seventh ($\bar{x}$ = 4.18) and Gender Egalitarianism the lowest ($\bar{x}$ = 3.50). Descriptive statistics on all the cultural value dimensions differentiated according to the four sub-culture groups and gender are presented in Tables 12 and 13.

Table 11 Descriptive Statistics for the Cultural Value Dimensions of the Societal Questionnaire (Total Sample)

Cultural value dimension	*n*	$\bar{x}$	SD	Min	Max
Uncertainty Avoidance	422	4.79	0.99	1.75	7.00
Assertiveness	422	4.18	1.09	1.00	6.75
Gender Egalitarianism	422	3.50	0.98	1.00	5.80
Future orientation	422	4.62	1.13	1.00	7.00
Power Distance	422	4.55	1.02	1.20	6.80
Individualism/Collectivism	422	5.15	0.77	2.63	7.00
Humane Orientation	422	5.06	1.04	1.80	7.00
Performance orientation	422	5.04	0.97	2.00	7.00

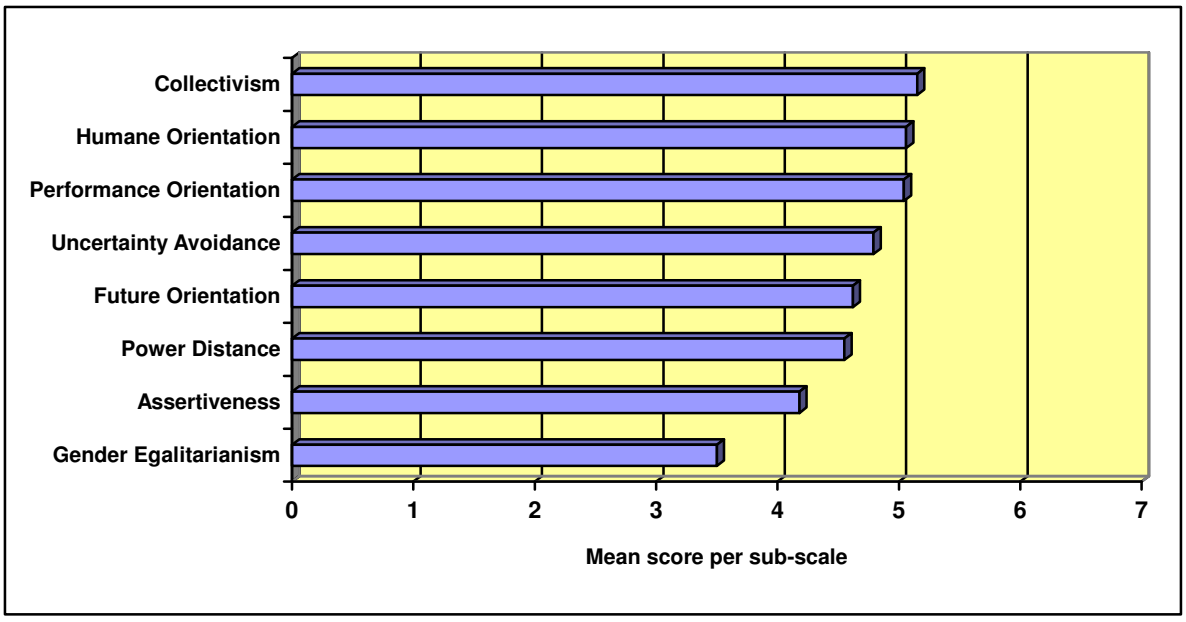

Figure 11 Mean Scores of Cultural Value Dimensions in Descending Order (Total Sample)

Based on the descriptive statistics for the various cultural value dimensions of the four sub-culture groups (see Table 12), Indian managers displayed the highest Uncertainty Avoidance ($\bar{x} = 5.14$) and Coloured managers the lowest ($\bar{x} = 4.31$); White managers rated Assertiveness

the highest ($\bar{x}$ = 4.59) while Indian managers rated this dimension the lowest ($\bar{x}$ = 3.60); although all four sub-culture groups rated Gender Egalitarianism very low, White managers had the highest score ($\bar{x}$ = 3.62) and Black managers the lowest ($\bar{x}$ = 3.33); Indian managers displayed the highest Future Orientation ($\bar{x}$ = 5.14) and Coloured managers the lowest ($\bar{x}$ = 3.99); Coloured managers rated Power Distance the highest ($\bar{x}$ = 4.66), while Indian managers rated it the lowest ($\bar{x}$ = 4.42); Indian managers indicated the highest average of 5.51 for Individualism/Collectivism, and White managers the lowest ($\bar{x}$ = 4.46); for Humane Orientation Indian managers scored the highest ($\bar{x}$ = 5.46) and White managers the lowest ($\bar{x}$ = 4.32); the highest score for Performance Orientation was almost identical for White ($\bar{x}$ = 5.26) and Indian managers ($\bar{x}$ = 5.25), while Coloured managers had the lowest score ($\bar{x}$ = 4.69).

Table 12 Descriptive Statistics for the Cultural Value Dimensions of the Societal Questionnaire Differentiated According to the Four Sub-culture Groups

Cultural value dimensions	*n*	Sub-Culture Group	$\bar{x}$	SD	Min	Max
Uncertainty Avoidance	118	Black	4.76	0.91	1.75	6.75
	98	White	4.91	0.85	2.75	6.50
	97	Coloured	4.31	1.14	2.00	6.50
	109	Indian	5.14	0.88	2.00	7.00
Assertiveness	118	Black	4.20	1.12	1.00	6.75
	98	White	4.59	0.98	1.75	6.75
	97	Coloured	4.38	1.03	2.25	6.75
	109	Indian	3.60	0.97	1.25	5.75
Gender Egalitarianism	118	Black	3.33	1.04	1.00	5.40
	98	White	3.62	0.93	1.40	5.40
	97	Coloured	3.52	0.94	1.40	5.60
	109	Indian	3.56	0.96	1.60	5.80

Table 12 (Continued)

Cultural value dimensions	*n*	Sub-Culture Group	$\bar{x}$	SD	Min	Max
Future Orientation	118	Black	4.40	1.13	1.00	7.00
	98	White	4.92	0.79	2.40	6.80
	97	Coloured	3.99	1.14	1.60	7.00
	109	Indian	5.14	1.07	2.20	7.00
Power Distance	118	Black	4.58	0.94	2.60	6.60
	98	White	4.54	1.01	1.60	6.80
	97	Coloured	4.66	1.01	2.60	6.80
	109	Indian	4.42	1.13	1.20	6.60
Individualism/ Individualism/Collectivism	118	Black	5.47	0.70	3.13	7.00
	98	White	4.46	0.62	3.38	6.38
	97	Coloured	5.03	0.64	2.63	6.25
	109	Indian	5.51	0.63	3.75	6.75
Humane Orientation	118	Black	5.34	1.03	2.20	7.00
	98	White	4.32	0.92	1.80	6.60
	97	Coloured	5.01	0.95	2.00	6.80
	109	Indian	5.46	0.89	2.40	7.00
Performance Orientation	118	Black	4.96	1.00	2.00	7.00
	98	White	5.26	0.83	2.00	7.00
	97	Coloured	4.69	1.11	2.33	7.00
	109	Indian	5.25	0.83	3.00	7.00

The descriptive statistics for the cultural value dimensions differentiated according to gender are indicated in Table 13. According to the results, male managers displayed the highest scores for Uncertainty Avoidance ($\bar{x}$ = 4.83), Assertiveness ($\bar{x}$ = 4.29), Future Orientation ($\bar{x}$ = 4.69), Individualism/Collectivism ($\bar{x}$ = 5.21), and Performance Orientation ($\bar{x}$ = 5.11).

Female managers rated highest for Gender Egalitarianism ($\bar{x}$ = 3.63). The two genders scored almost similarly for Power Distance and for Humane Orientation.

Table 13 Descriptive Statistics for the Cultural Value Dimensions of the Societal Questionnaire Differentiated According to Gender

Cultural value dimensions	*N*	Gender	$\bar{x}$	SD	Min	Max
Uncertainty	225	Male	4.83	0.91	2.25	6.75
Avoidance	197	Female	4.74	1.07	1.75	7.00
Assertiveness	225	Male	4.29	1.08	1.25	6.75
	197	Female	4.04	1.09	1.00	6.75
Gender	225	Male	3.39	1.01	1.00	5.60
Egalitarianism	197	Female	3.63	0.92	1.20	5.80
Future	225	Male	4.69	1.12	1.00	7.00
Orientation	197	Female	4.54	1.14	1.60	6.60
Power Distance	225	Male	4.54	1.07	1.20	6.80
	197	Female	4.55	0.97	1.60	6.80
Individualism/	225	Male	5.21	0.72	3.50	6.75
Collectivism	197	Female	5.07	0.83	2.63	7.00
Humane	225	Male	5.06	1.04	1.80	7.00
Orientation	197	Female	5.05	1.05	1.80	7.00
Performance	225	Male	5.11	0.90	2.33	7.00
Orientation	197	Female	4.96	1.04	2.00	7.00

Investigating alternative data groupings

From a constructionist viewpoint, it could be argued that the grouping of participants into Black, Coloured, White, and Indian groups was artificial and inappropriate. As described in Chapter 1, these categories originally constituted part of a multitude of Apartheid legislation

that was aimed at separating Whites and Blacks. Subsequently, the same categories were maintained by the current ANC Government, as a means of administering and invigilating affirmative action in employment and other social spheres.

Similar considerations to the above could be raised about male-female distinctions. Consequently, an alternative classification was sought through cluster analysis to sort the sample into empirically derived groups on the basis of their scores on the Societal Questionnaire and not on the basis of their cultural or gender grouping. The clusters so identified would be naturally occuring groups (for instance, a cluster consisting of high Individualism/Collectivism, medium Power Distance, and low Future Orientation scores, and so forth). However, this does not resolve the issues of interactions between the clusters. The various clusters could then be compared on the dependent variables by means of ANOVA and *t* tests.

Cluster analysis includes a number of different algorithms and methods for grouping similar objects into respective categories. It is an exploratory data analysis tool which can be used to discover structures in data without providing an explanation of why they exist (Statsoft, 2005).

Results of the cluster analysis, however, showed that no clusters could be identified in the sample. A possible reason for this is that the mean scores obtained on the various dimensions of the Societal Questionnaire were of a similar range – most of the scores were between 3.5 and 6 – and the cluster analysis could not differentiate adequately between high, low, and medium scores (see Figure 12).

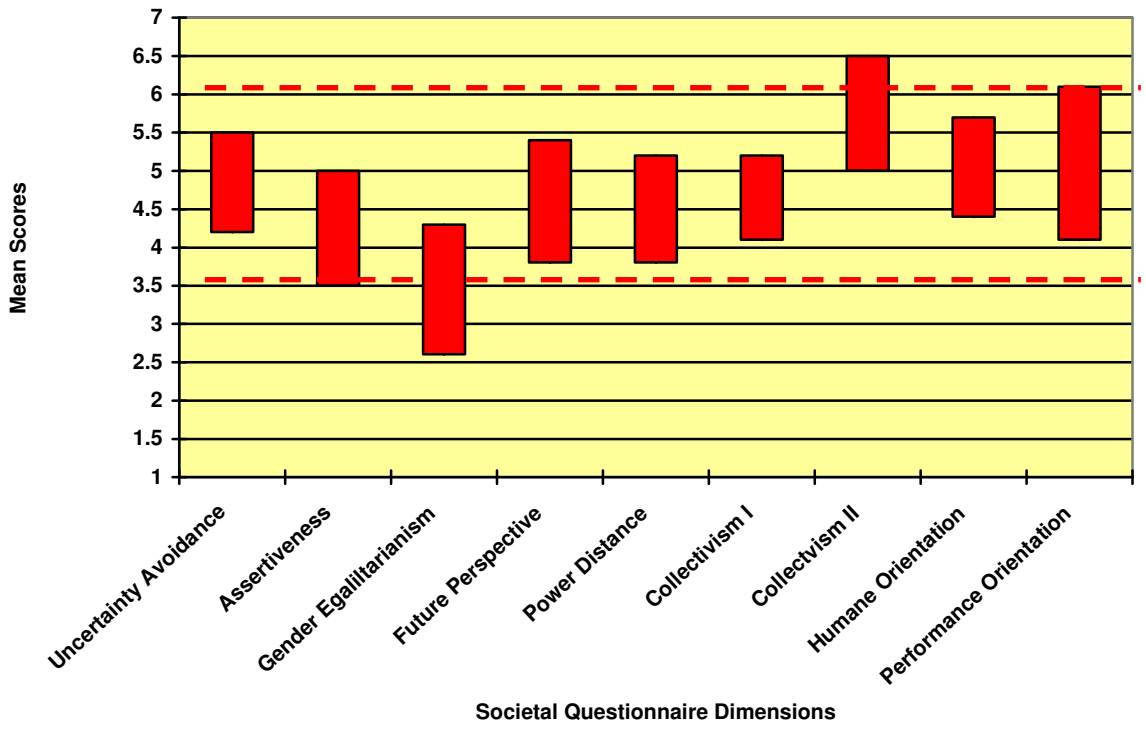

Figure 12 Schematic Plot of Cultural Value Dimensions of Societal Questionnaire

An interpretation of the results of the cluster analysis could be that there are no empirically justifiable groups in the sample and that classification of Black, Coloured, Indian, and White groupings are artificial. One should, however, be mindfull of the constructionist viewpoint that researchers often interpret results in anticipation of the findings they are expecting to find. It could also be that the cluster analysis did not identify empirically derived groups, purely because of restriction of range in the mean values obtained with the Societal Questionnaire. As a consequence, it was decided to retain the sub-cultural groupings in the analysis of results, but to include effect size, as a measure of practical signficance, in the calculations. Due to the large sample size of the present study (n = 477), it is possible that very small effects could be found to be statistically significant. Although the level of statistical significance indicates that a non-chance relationship between the variables is unlikely, it does not indicate the magnitude of the relationship. It is, therefore, useful to calculate the effect size as an index of the strength of the relationship or 'practical significance' (Abrami et al., 2001). The effect size (*d*) was only calculated for statistically

significant relationships. As indicated in Chapter 5, an effect size around 0.20 is considered to be small, an effect size around 0.50 as medium, and an effect size around 0.80 as large.

Analysis of results

Analysis of variance was used to compare the means obtained from the cultural value dimensions (dependent variables) with the independent variables, namely the various cultural groups, gender, age, educational level, management level, number of years full-time work experience, number of years experience as manager, exposure to formal Western management training, and possible interactions between the independent variables to determine whether there are any reliable differences among them. It was, however, not possible to include all the possible interactions between the independent variables, because some of the interactions were confounded. In cases where reliable differences existed, *post hoc* comparisons were done, using least square means (LSM).

The results of the ANOVA between the subgroups on the Uncertainty Avoidance cultural value dimension are presented in Tables 14 and 15. From Table 14 it can be seen that there were statistically significant differences ($p < 0.001$) only between the different sub-culture groups on this dimension (and on none of the biographical variables). The effect size (d) was calculated as an indication of the practical significance for statistically significant relationships.

The Indian group had the highest score for Uncertainty Avoidance (LSM = 5.17), which was statistically significantly higher ($p < 0.01$) than that of the Black group (LSM = 4.83), with a small to medium effect size; and statistically significantly higher ($p = 0.001$) than that of the Coloured group (LSM = 4.26), with a large effect size. The Coloured group, which had the lowest score (LSM = 4.26), was also statistically significantly lower ($p < 0.001$) than that of the White group (LSM = 4.94), with a medium to high effect size; and statistically significantly lower ($p < 0.001$) than the score of the Black group (LSM = 4.83), with a medium effect size (see Table 15).

Table 14 Analysis of Variance between Subgroups on Uncertainty Avoidance.

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	15.66	<0.001***
Gender	1	0.01	0.924
Age	4	1.57	0.180
Educational level	2	1.62	0.199
Management level	1	0.66	0.416
Exposure to formal management training	1	2.25	0.134
Number of years full-time work experience	2	0.75	0.474
Number of years as manager	2	0.99	0.373
Gender x Educational level	2	2.24	0.108
Gender x Number of years as manager	2	2.05	0.131

*** $p < 0.001$

Table 15 Least Square Means: Sub-culture Group and Uncertainty Avoidance

	LSM	Black		Coloured		Indian	
		p	***d***	***P***	***d***	***p***	***d***
Black	4.83						
Coloured	4.26	<0.001***	0.61				
Indian	5.17	0.010**	0.36	<0.001***	0.97		
White	4.94	0.435	—	<0.001***	0.73	0.097	—

** $p < 0.01$
*** $p < 0.001$

The results of ANOVAs between subgroups on the Assertiveness cultural value dimension are depicted in Tables 16, 17, 18 and 19. Table 16 indicates statistically significant differences on Assertiveness between the different sub-culture groups ($p < 0.001$), between the different gender groups ($p < 0.05$), and between the various educational level categories ($p < 0.001$).

Table 16 Analysis of Variance between Subgroups on Assertiveness.

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	15.65	<0.001***
Gender	1	6.23	0.013*
Age	4	2.02	0.091
Educational level	2	15.77	<0.001***
Management level	1	0.19	0.660
Exposure to formal management training	1	1.09	0.298
Number of years full-time work experience	2	0.85	0.427
Number of years as manager	2	0.35	0.707

* $p < 0.05$
*** $p < 0.001$

Table 17 Least Square Means: Sub-culture Group and Assertiveness

	LSM	Black		Coloured		Indian	
		p	***D***	***p***	***d***	***p***	***d***
Black	4.38						
Coloured	4.42	0.767	—				
Indian	3.79	<0.001***	0.60	<0.001***	0.64		
White	4.75	0.012*	0.38	0.027*	0.33	<0.001***	0.97

* $p < 0.05$
*** $p < 0.001$

From Table 17 it is clear that the Indian group had the lowest score for Assertiveness (LSM = 3.79). This score was statistically significantly lower ($p < 0.001$) than that of the White group (LSM = 4.75) with a large effect size; statistically significantly lower ($p < 0.001$) than the Coloured group (LSM = 4.42) with a medium effect size; and statistically significantly lower ($p < 0.001$) than that of the Black group (LSM = 4.38) with a medium effect. The White group (LSM = 4.75) was also statistically significantly higher ($p < 0.05$) than both that of the Black group (LSM = 4.38) and the Coloured group (LSM = 4.42); however, the effect size for both these relationships was small.

Table 18 Least Square Means: Gender and Assertiveness

	LSM	Male	
		p	***d***
Male	4.46		
Female	4.20	<0.001***	0.26

*** $p < 0.001$

Based on the results of Table 18, males had a statistically significantly higher Assertiveness score than females, although the effect size was small.

Table 19 Least Square Means: Educational Level and Assertiveness

	LSM	Grade 12		Bank Exams	
		p	***D***	***p***	***d***
Grade 12	4.33				
Bank Exams	4.73	0.005**	0.41		
Tertiary Qualifications	3.95	0.003**	0.38	<0.001***	0.79

** $p < 0.01$
*** $p < 0.001$

Respondents who indicated that they completed banking-related qualifications had the highest score on Assertiveness (LSM = 4.73). This score was statistically significantly higher ($p < 0.001$) than that of respondents with tertiary qualifications (LSM = 3.95) with a large effect size ($d = 0.79$). Respondents with a Grade 12 qualification (LSM = 4.33) had a statistically significantly higher ($p < 0.01$) score than respondents with a banking-related qualification (LSM = 4.73) and respondents with a tertiary qualification (LSM = 3.79). The effect sizes for both these relationships were small.

The results of the ANOVA between the subgroups on Gender Egalitarianism are presented in Tables 20 and 21. The only statistically significant difference on this dimension ($p < 0.05$) was between the various educational level categories. Although all three the educational

categories obtained relatively low scores for this dimension, respondents with tertiary qualifications obtained the lowest levels of Gender Egalitarianism (LSM = 3.33). This value was statistically significantly lower ($p < 0.01$) than that of respondents with a Grade 12 qualification (LSM = 3.68) and respondents with banking-related qualifications (LSM = 3.60; $p < 0.05$). The effect sizes for both these significant relationships were small (see Table 21).

Table 20 Analysis of Variance between Subgroups on Gender Egalitarianism

Independent variable groupings	Df	F Value	Prob > F
Sub-culture group	3	1.34	0.262
Gender	1	3.03	0.082
Age	4	1.53	0.194
Educational level	2	4.34	0.014*
Management level	1	0.03	0.862
Exposure to formal management training	1	0.01	0.936
Number of years full-time work experience	2	1.09	0.339
Number of years as manager	2	0.08	0.924
Culture group x Number of years as manager	6	1.60	0.145

* $p < 0.05$

Table 21 Least Square Means: Educational Level and Gender Egalitarianism

	LSM	Grade 12		Bank Exams	
		p	*d*	*p*	*d*
Grade 12	3.68				
Bank Exams	3.60	0.573	—		
Tertiary Qualifications	3.33	0.005**	0.37	0.049*	0.28

* $p < 0.05$
** $p < 0.01$

Table 22 Analysis of Variance between Subgroups on Future Orientation

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	25.95	<0.001***
Gender	1	2.59	0.108
Age	4	1.48	0.209
Educational level	2	0.81	0.444
Management level	1	3.83	0.051
Exposure to formal management training	1	1.31	0.253
Number of years full-time work experience	2	0.31	0.731
Number of years as manager	2	0.92	0.398

*** $p < 0.001$

Table 22 indicates that there was a statistically significant difference ($p < 0.001$ level) on Future Orientation between the four culture groups. From Table 23 it is evident that the Coloured group had the lowest score for Future Orientation (LSM = 3.97). This was statistically significantly lower ($p < 0.001$ level) than the scores of both the Indian (LSM = 5.14) and the White groups (LSM = 5.01) with very large effect sizes, and statistically significantly lower ($p < 0.01$ level) than the score of the Black group (LSM = 4.41) with a small effect size. The score of the Black group was also statistically significantly lower ($p < 0.001$) than that of the Indian group (LSM = 5.14) with a medium effect size and the White group (LSM = 5.01), also with a medium effect size.

Table 23 Least Square Means: Sub-culture Group and Future Orientation

	LSM	Black		Coloured		Indian	
		p	*d*	*p*	*d*	*p*	*d*
Black	4.41						
Coloured	3.97	0.004**	0.42				
Indian	5.14	<0.001***	0.70	<0.001***	1.12		
White	5.01	<0.001***	0.58	<0.001***	1.00	0.145	—

** $p < 0.01$
*** $p < 0.001$

The results of the ANOVAs between the subgroups on the Power Distance cultural value dimension are presented in Tables 24, 25, 26 and 27. Table 24 indicates a statistically significant difference ($p < 0.05$) between the educational level categories on Power Distance. There were also statistically significant differences ($p < 0.05$) between the interaction of educational level categories and gender groups, as well as the interaction between the various culture and gender groups ($p < 0.01$).

Table 24 Analysis of Variance between Subgroups on Power Distance

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	1.65	0.177
Gender	1	1.06	0.304
Age	4	0.76	0.549
Educational level	2	4.18	0.016*
Management level	1	0.44	0.505
Exposure to formal management training	1	2.22	0.137
Number of years full-time work experience	2	0.69	0.502
Number of years as manager	2	1.20	0.303
Gender x Educational level	2	3.99	0.019*
Sub-culture group x Gender	3	4.25	0.006**

* $p < 0.05$
** $p < 0.01$

Table 25 Least Square Means: Educational Level and Power Distance

	LSM	Grade 12		Bank Exams	
		p	*d*	*p*	*d*
Grade 12	4.31				
Bank Exams	4.50	0.194	—		
Tertiary Qualifications	4.68	0.004**	0.37	0.201	—

** $p < 0.01$

From Table 25 it is clear that respondents with a tertiary qualification had the highest Power Distance score (LSM = 4.68), and this score was statistically significantly higher ($p < 0.01$) than the score of respondents with a Grade 12 qualification (LSM = 4.31), but with a small effect size. Male respondents with a Grade 12 qualification (LSM = 4.22) had a statistically significantly lower score ($p < 0.01$) than male respondents with a bank-related qualification (LSM = 4.79), and female respondents with a tertiary qualification (LSM = 4.72), both with a medium effect size.

Table 26 indicates that the score for male respondents with a Grade 12 qualification was also statistically significantly lower ($p < 0.05$) than that of male respondents with a tertiary qualification (LSM = 4.65), with a small effect size. The Power Distance scores of male respondents with a banking-related qualification (LSM = 4.79) (medium effect size), as well as male respondents with a tertiary qualification (LSM = 4.65) (small effect size) were also statistically significantly higher (at the 0.05 level) than female respondents with a banking-related qualification (LSM = 4.20). Within the female sample, the score of respondents with a banking-related qualification (LSM = 4.20) was statistically significantly lower ($p < 0.05$ level) than the score of respondents with a tertiary qualification (LSM = 4.72), with a medium effect size.

The information depicted in Table 27 indicates a statistically significant difference ($p < 0.05$) between the Power Distance scores of the White male group (LSM = 4.87), and the Black female group (LSM = 4.30), with a medium effect size. There was also a statistically significant difference ($p < 0.01$) between the scores of the White male group (LSM = 4.87) and the Indian male group (LSM = 4.22), with a medium effect size. The score for the White female group (LSM = 4.23) was statistically significantly ($p < 0.05$) lower than that of the Coloured female group (LSM = 4.72), with a small to medium effect size, and statistically significantly lower ($p < 0.01$) than the White male group (LSM = 4.87) with a medium effect size. The score for the Coloured female group (LSM = 4.72) was statistically significantly higher ($p < 0.05$) than that of the Indian male group (LSM = 4.22), with a medium effect size.

Table 26 Least Square Means: Gender x Educational Level and Power Distance

	LSM	M Grade 12		M Bank Exams		M Tertiary Qual		F Grade 12		F Bank Exams	
		p	*d*	*p*	*d*	*p*	*d*	*P*	*d*	*p*	*d*
Male Grade 12	4.22										
Male Bank Ex	4.79	0.004**	0.58								
Male Tertiary	4.65	0.011*	0.43	0.441	—						
Female Grade 12	4.40	0.305	—	0.052	—	0.155	—				
Female Bank Ex	4.20	0.945	—	0.011*	0.60	0.032*	0.45	0.344	—		
Female Tertiary	4.72	0.004**	0.50	0.674	—	0.674	—	0.082	—	0.015*	0.52

* $p < 0.05$
** $p < 0.01$

Table 27 Least Square Means: Sub-culture Group x Gender and Power Distance

	LSM	Black M		Black F		Clrd M		Clrd F		Indian M		Indian F		White M	
		P	*d*	*p*	*d*	*p*	*d*	*p*	*d*	*p*	*D*	*p*	*D*	*p*	*d*
Black M	4.52														
Black F	4.30	0.273	—												
Clrd M	4.62	0.640	—	0.154	—										
Clrd F	4.72	0.321	—	0.058	—	0.633	—								
Indian M	4.22	0.100	—	0.696	—	0.055	—	0.015*	0.50						
Indian F	4.52	0.978	—	0.281	—	0.678	—	0.353	—	0.134	—				
White M	4.87	0.075	—	0.012*	0.58	0.231	—	0.466	—	0.002**	0.66	0.107	—		
White F	4.23	0.141	—	0.724	—	0.076	—	0.019*	0.49	0.978	—	0.143	—	0.003**	0.65

* $p < 0.05$
** $p < 0.01$

Results of the ANOVA between the subgroups on the Individualism/Collectivism cultural value dimension are presented in Tables 28 to 32. Table 28 shows that there were statistically significant differences on the Individualism/Collectivism dimension between the four sub-culture groups ($p < 0.001$), between the various categories of the number of years as manager ($p < 0.01$), as well as the interaction between the four sub-culture groups and gender groups ($p < 0.01$), and the interaction of the four sub-culture groups and management level categories ($p < 0.01$).

Table 28 Analysis of Variance between Subgroups on Individualism/Collectivism

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	36.92	<0.001***
Gender	1	2.01	0.157
Age	4	0.05	0.996
Educational level	2	0.06	0.941
Management level	1	1.04	0.309
Exposure to formal management training	1	1.72	0.190
Number of years full-time work experience	2	0.66	0.518
Number of years as manager	2	5.26	0.006**
Age x Sub-culture group	12	1.07	0.387
Sub-culture group x Gender	3	5.02	0.002**
Age x Management level	4	1.64	0.163
Sub-culture group x Management level	3	3.88	0.009**

** p < 0.01
*** p < 0.001

The Individualism/Collectivism score of managers with more than 11 year experience as manager (LSM = 4.85) was statistically significantly lower than that of managers with six to ten years experience as manager (LSM = 5.11; $p < 0.05$) and those with one to five years experience as manager (LSM = 5.24; $p < 0.01$). It has already been established from the information presented in Figure 10 that 82.71% of the Black managers and 80.80% of Indian managers had less than 10 year's managerial experience. The distribution in the sample could

account for the higher Individualism/Collectivism scores in the two groupings with less experience as managers and, as such, these results will not be further discussed in Chapter 7.

Table 29 Least Square Means: Sub-culture Group and Individualism/Collectivism

	LSM	Black		Coloured		Indian	
		p	*d*	*p*	*D*	*p*	*d*
Black	5.37						
Coloured	4.94	<0.001***	0.68				
Indian	5.47	0.291	—	<0.001***	0.84		
White	4.51	<0.001***	1.36	<0.001***	0.68	<0.001***	1.52

*** $p < 0.001$

Table 30 Least Square Means: Number of Years as Manager and Individualism/Collectivism

	LSM	1 – 5 Years		6 – 10 Years	
		p	*d*	*P*	*d*
1 – 5 Years	5.24				
6 – 10 Years	5.11	0.130	—		
11+ Years	4.85	0.001***	0.61	0.028*	0.41

* $p < 0.05$
*** $p < 0.001$

From Table 31 it is evident that White female managers had the lowest score on the Individualism/Collectivism dimension (LSM = 4.38). This score was statistically significantly lower than the scores of all of the other subgroups, except the White male managers. Most of these differences had large effect sizes, with the largest effect size between the White female and the Indian female managers. Indian female managers obtained the highest Individualism/Collectivism score (LSM = 5.65). This score was statistically significantly higher than the scores of all of the other subgroups, except the Black male managers. The effect sizes for these statistically significant differences ranged from medium to large. The Individualism/Collectivism score of Black male managers (LSM = 5.49) was statistically

significantly higher than the scores for Coloured male and female managers, as well as White male and female managers. Effect sizes ranged from medium to large. Coloured male managers' Individualism/Collectivism score (LSM = 5.06) was statistically significantly higher, with a medium effect size than the score obtained by White male managers (LSM = 4.63), which in turn was statistically significantly lower than the score obtained by Black female managers and Indian male and female managers.

Differences on the Individualism/Collectivism scores obtained from the sub-culture group and management level interaction are presented in Table 32. Indian middle managers obtained the highest score (LSM = 5.55), which was statistically significantly higher than that of Coloured junior and middle managers and White junior and middle managers (LSM = 4.27); all differences had large effect sizes. White, middle managers had the lowest Individualism/Collectivism score (LSM = 4.27). This score was statistically significantly lower than that of all of the other subgroups. The statistical differences between these categories had large effect sizes. The score obtained by White junior managers (LSM = 4.74) was statistically significantly lower than the scores of Black junior and middle managers and Indian junior and middle managers — all with large effect sizes.

The results of the ANOVA between the subgroups on the Humane Orientation cultural value dimension are presented in Tables 33 and 34. From Table 33 it can be seen that there were statistically significant differences ($p < 0.001$) between the different sub-culture groups on this dimension. Indian managers had the highest score for this dimension (LSM = 5.34) and White managers the lowest (LSM = 4.21). This score was statistically significantly lower ($p < 0.001$) than that of the Black, Coloured, and Indian managers, all with large effect sizes. The score of the Coloured managers (LSM = 4.92) was statistically significantly lower ($p < 0.01$) than that of the Indian managers (LSM = 5.34), with a medium effect size. On this dimension, there is convergence between the scores of the Black and Indian managers (Table 34).

Table 31 Least Square Means: Sub-culture Group x Gender and Individualism/Collectivism

	LSM	Black M		Black F		Clrd M		Clrd F		Indian M		Indian F		White M	
		p	*d*	*p*	*d*	*p*	*D*	*p*	*d*	*p*	*d*	*p*	*d*	*P*	*d*
Black M	5.49														
Black F	5.24	0.051	—												
Clrd M	5.06	0.001**	0.68	0.205	—										
Clrd F	4.81	<0.001***	1.08	0.003**	0.68	0.080	—								
Indian M	5.29	0.110	—	0.738	—	0.095	—	0.001**	0.76						
Indian F	5.65	0.223	—	0.005**	0.65	<0.001***	0.93	<0.001***	1.33	0.009**	0.57				
White M	4.63	<0.001***	1.36	<0.001***	0.97	0.003**	0.68	0.219	—	<0.001***	1.04	<0.001***	1.61		
White F	4.38	<0.001***	1.76	<0.001***	1.36	<0.001***	1.08	0.002**	0.68	<0.001***	1.44	<0.001***	2.01	0.062	—

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Table 32 Least Square Means: Sub-culture Group x Management Level and Individualism/Collectivism

	LSM	Black Jnr		Black Middle		Clrd Jnr		Clrd Middle		Indian Jnr		Indian Middle		White Jnr	
		p	*d*	*p*	*d*	*p*	*D*	*p*	*d*	*p*	*d*	*p*	*d*	*p*	*d*
Black Jnr	5.32														
Black Middle	5.42	0.442	—												
Clrd Jnr	4.99	0.016*	0.52	0.002**	0.68										
Clrd Middle	4.88	0.003**	0.70	<0.001***	0.85	0.458	—								
Indian Jnr	5.38	0.622	—	0.817	—	0.004**	0.62	0.001**	0.79						
Indian Middle	5.55	0.089	—	0.283	—	<0.001***	0.89	<0.001***	1.06	0.221	—				
White Jnr	4.74	<0.001***	0.92	<0.001***	1.08	0.096	—	0.358	—	<0.001***	1.01	<0.001***	1.28		
White Middle	4.27	<0.001***	1.66	<0.001***	1.82	<0.001***	1.14	<0.001***	0.97	<0.001***	1.76	<0.001***	2.03	0.002**	0.73

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Table 33 Analysis of Variance between Subgroups for Humane Orientation

Independent variable groupings	Df	F Value	Prob > F
Sub-culture group	3	18.94	<0.001***
Gender	1	0.22	0.643
Age	4	0.27	0.899
Educational level	2	2.09	0.125
Management level	1	0.09	0.765
Exposure to formal management training	1	1.91	0.167
Number of years full-time work experience	2	0.12	0.890
Number of years as manager	2	0.79	0.453
Age x Sub-culture group	12	1.13	0.333
Sub-culture group x Exposure to Management Training	3	1.89	0.131

*** $p < 0.001$

Table 34 Least Square Means: Sub-culture Group and Humane Orientation

	LSM	Black		Coloured		Indian	
		p	*d*	*p*	*d*	*p*	*d*
Black	5.13						
Coloured	4.92	0.176	—				
Indian	5.34	0.175	—	0.007**	0.44		
White	4.21	<0.001***	0.97	<0.001***	0.75	<0.001***	1.20

** $p < 0.01$
*** $p < 0.001$

Results of the ANOVA between the subgroups on the Performance Orientation cultural value dimension are presented in Tables 35 to 40. Table 35 shows that there are statistically significant differences on this dimension between the various cultural groups ($p < 0.001$), the different educational level categories ($p < 0.01$), the various management levels ($p < 0.05$), as well as with the interaction between the gender groups and educational level categories ($p < 0.01$), and the interaction between the various management level categories and number of years as manager categories ($p < 0.01$).

Table 35 Analysis of Variance between Subgroups for Performance Orientation

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	8.41	<0.001***
Gender	1	0.16	0.693
Age	4	0.44	0.782
Educational level	2	5.07	0.007**
Management level	1	6.41	0.012*
Number of years full-time work experience	2	0.07	0.936
Number of years as manager	2	0.31	0.732
Gender x Educational level	2	6.04	0.003**
Management level x Years as manager	2	5.93	0.003**

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Table 36 Least Square Means: Sub-culture Group and Performance Orientation

	LSM	Black		Coloured		Indian	
		p	*d*	*p*	*d*	*p*	*d*
Black	4.94						
Coloured	4.60	0.021*	0.37				
Indian	5.26	0.033*	0.35	<0.001***	0.72		
White	5.18	0.136	—	<0.001***	0.63	0.568	—

* $p < 0.05$
*** $p < 0.001$

According to the results presented in Table 36, Indian managers had the highest score on this dimension (LSM = 5.26), which was statistically significantly higher ($p < 0.001$) than that of Coloured managers (LSM = 4.60) with a medium effect size. The score of the Indian managers was also statistically significantly higher ($p < 0.05$) than that of Black managers (LSM = 4.94) with a small effect size. Coloured managers had the lowest score (LSM = 4.60), which was statistically significantly lower than that of Black managers ($p < 0.05$) with a small effect size, Indian managers ($p < 0.001$) with a large effect size, and White managers ($p <$

0.001) with a large effect size. On this dimension, there is convergence between the scores of the White and Indian managers.

Table 37 Least Square Means: Educational Level and Performance Orientation

	LSM	Grade 12		Bank Exams	
		p	*d*	*p*	*d*
Grade 12	5.09				
Bank Exams	5.13	0.772	—		
Tertiary Qualifications	4.76	0.007**	0.36	0.007**	0.40

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Based on the results presented in Table 37, managers with banking industry related qualifications had the highest score (LSM = 5.13) on this dimension. This score was statistically significantly higher ($p < 0.01$) than that of managers with tertiary qualifications (LSM = 4.76), with a small effect size. From Table 38 it is obvious that middle managers had the highest score on Performance Orientation (LSM = 5.15), which was statistically significantly higher ($p < 0.001$) than that of junior managers (LSM = 4.84) with a small effect size.

Table 38 Least Square Means: Management Level and Performance Orientation

	LSM	Junior	
		p	*d*
Junior	4.84		
Middle	5.15	<0.001***	0.34

*** $p < 0.001$

Table 39 shows that female managers with banking-related qualifications had the highest score on Performance Orientation (LSM = 5.43). This score was statistically significantly higher ($p < 0.01$) with a medium effect size than that of male managers with banking-related

qualifications (LSM = 4.84), as well as male managers with tertiary qualifications. The score was also statistically significantly higher ($p < 0.05$), with a small effect size, than that of female managers with a Grade 12 qualification (LSM = 4.99), and female managers with tertiary qualifications (LSM = 4.63) ($p < 0.001$), with a large effect size. Female managers with tertiary qualifications had the lowest score (LSM = 4.63) on this dimension, which was statistically significantly lower ($p < 0.05$), with a small effect size than the score of female managers with a Grade 12 qualification, and male managers with a Grade 12 qualification (LSM = 5.19) ($p < 0.001$), with a medium effect size.

According to Table 40, junior managers with more than eleven years managerial experience had the lowest score on this dimension (LSM = 4.53). This score was statistically significantly lower ($p < 0.05$) than the score of junior managers with one to five years managerial experience (LSM = 5.13) with a medium effect size, middle managers with six to ten years managerial experience (LSM = 5.17) with a medium effect size and middle managers with more than eleven years managerial experience (LSM = 5.30) with a large effect size.

Table 39 Least Square Means: Gender x Educational Level and Performance Orientation

	LSM	M GRADE 12		M Bank Exams		M Tertiary Qual		F Grade 12		F Bank Exams	
		p	*d*	*p*	*d*	*p*	*d*	*p*	*d*	*p*	*d*
Male Grade 12	5.19										
Male Bank Ex	4.84	0.055	—								
Male Tertiary	4.90	0.054	—	0.739	—						
Female Grade 12	4.99	0.219	—	0.418	—	0.564	—				
Female Bank Ex	5.43	0.250	—	0.007**	0.65	0.008**	0.58	0.029*	0.48		
Female Tertiary	4.63	<0.001***	0.61	0.256	—	0.051	—	0.031*	0.39	<0.001***	0.87

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Table 40 Least Square Means: Management Level x Years as Manager and Performance Orientation

	LSM	Jnr 1-5		Jnr 6-10		Jnr 11+		Middle 1-5		Middle 6-10	
		p	*d*	*p*	*d*	*p*	*d*	*p*	*d*	*p*	*d*
Jnr 1-5	5.13										
Jnr 6-10	4.86	0.172	—								
Jnr 11+	4.53	0.018*	0.66	0.237	—						
Middle 1-5	4.98	0.232	—	0.546	—	0.074	—				
Middle 6-10	5.17	0.785	—	0.135	—	0.012*	0.70	0.221	—		
Middle 11+	5.30	0.384	—	0.057	—	0.004**	0.84	0.098	—	0.490	—

* $p < 0.05$
** $p < 0.01$

CORE AND PERIPHERAL CULTURAL VALUES QUESTIONNAIRE

Descriptive statistics

Descriptive statistical analyses on the total sample of the Core and Peripheral Cultural Values Questionnaire are presented in Table 41 and Figure 13. Results differentiated according to sub-culture group are presented in Table 42 and Figure 14, and results differentiated according to gender are presented in Table 43. Respondents had to indicate how easy or difficult they think it would be for members of their own sub-culture group to change the mentioned cultural value dimensions as a result of inter-cultural contact. The higher the mean value, the more difficult it would be to change.

Table 41 Descriptive Statistics for the Core and Peripheral Cultural Values Questionnaire (Total Sample).

Cultural value dimension	*N*	($\bar{x}$)	SD	Min	Max
Uncertainty Avoidance	476	4.05	1.31	1.00	7.00
Gender Egalitarianism	476	3.83	1.48	1.00	7.00
Future orientation	476	3.87	1.43	1.00	7.00
Power Distance	476	4.04	1.39	1.00	7.00
Individualism/Collectivism	476	3.93	1.41	1.00	7.00
Humane Orientation	476	4.19	1.38	1.00	7.00
Performance orientation	476	3.77	1.43	1.00	7.00

Table 41 indicates that South African managers rated the Humane Orientation cultural value ($\bar{x}$ = 4.19) as the value most difficult to change, and the Performance Orientation cultural value ($\bar{x}$ = 3.77) as the value that would be easiest to change during inter-cultural contact. Figure 13 depicts the mean scores of the total sample ranked in descending order.

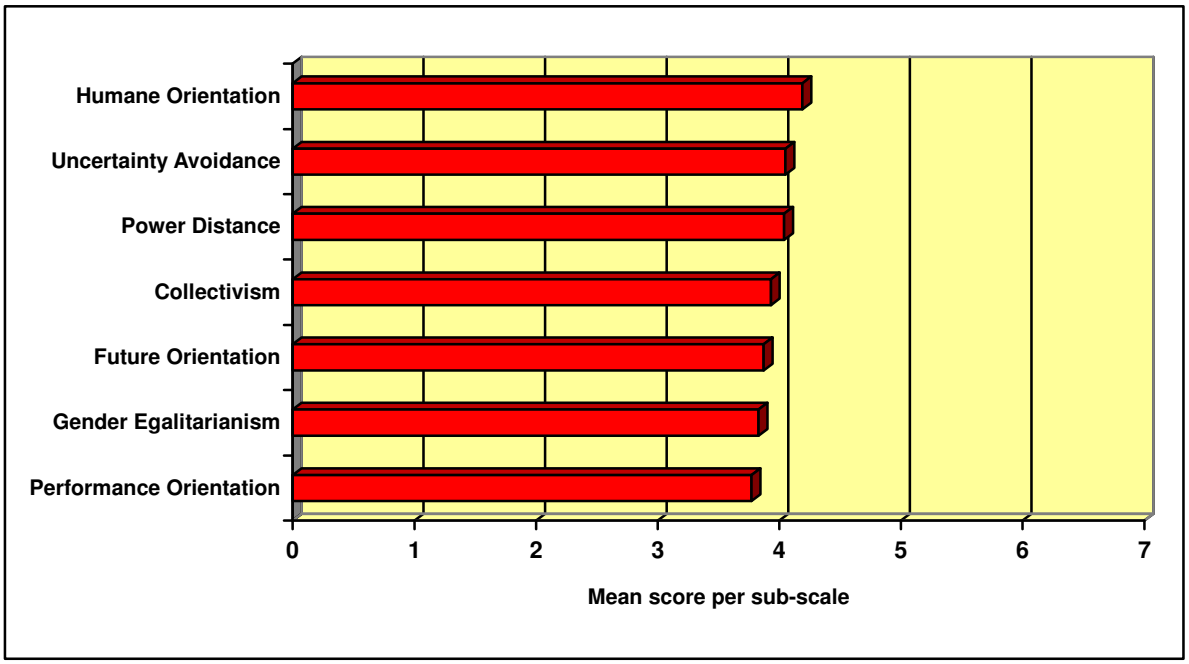

Figure 13 Mean scores of Cultural Value Dimensions on Core and Peripheral Cultural Values Questionnaire in Descending Order (Total Sample)

From Figure 13 is clear that although the Humane Orientation cultural value has been indicated as the value most difficult to change and the Performance Orientation cultural value as the value easiest to change during inter-cultural contact, the scores obtained on all the cultural values are not only very close, but there is an indication of central tendency, with all the scores very close to the seven-point scale midpoint of four.

Table 42 Descriptive Statistics for the Core and Peripheral Cultural Values Questionnaire (Differentiated according to Sub-culture Group).

Cultural value dimension	*n*	Sub-culture Group	$(\bar{x})$	SD	Min	Max
Uncertainty Avoidance	132	Black	3.90	1.53	1.00	7.00
	107	White	4.30	1.19	2.00	7.00
	112	Coloured	4.03	1.17	1.00	6.00
	125	Indian	4.00	1.25	1.00	7.00

Table 42 (Continued)

Cultural value dimension	*n*	Sub-culture Group	($\bar{x}$)	SD	Min	Max
Gender Egalitarianism	132	Black	3.86	1.63	1.00	7.00
	107	White	4.05	1.28	1.00	7.00
	112	Coloured	3.54	1.39	1.00	7.00
	125	Indian	3.88	1.52	1.00	7.00
Future orientation	132	Black	3.75	1.46	1.00	7.00
	107	White	4.19	1.25	1.00	7.00
	112	Coloured	3.76	1.44	1.00	6.00
	125	Indian	3.83	1.51	1.00	7.00
Power Distance	132	Black	4.05	1.58	1.00	7.00
	107	White	4.24	1.15	2.00	7.00
	112	Coloured	3.95	1.34	1.00	7.00
	125	Indian	3.94	1.39	1.00	7.00
Individualism/Collectivism	132	Black	3.92	1.50	1.00	7.00
	107	White	4.27	1.15	2.00	7.00
	112	Coloured	3.65	1.38	1.00	7.00
	125	Indian	3.90	1.50	1.00	7.00
Humane Orientation	132	Black	4.14	1.51	1.00	7.00
	107	White	4.50	1.18	2.00	7.00
	112	Coloured	4.06	1.43	1.00	7.00
	125	Indian	4.08	1.34	1.00	7.00
Performance orientation	132	Black	3.56	1.42	1.00	7.00
	107	White	4.21	1.25	1.00	7.00
	112	Coloured	3.48	1.43	1.00	7.00
	125	Indian	3.90	1.48	1.00	7.00

From Table 42 and Figure 14 it is evident that most of the scores are around the midpoint of four of seven-point scale. Nonetheless, managers from all four sub-culture groups indicated that the Humane Orientation cultural value would be the most difficult to change during inter-cultural contact.

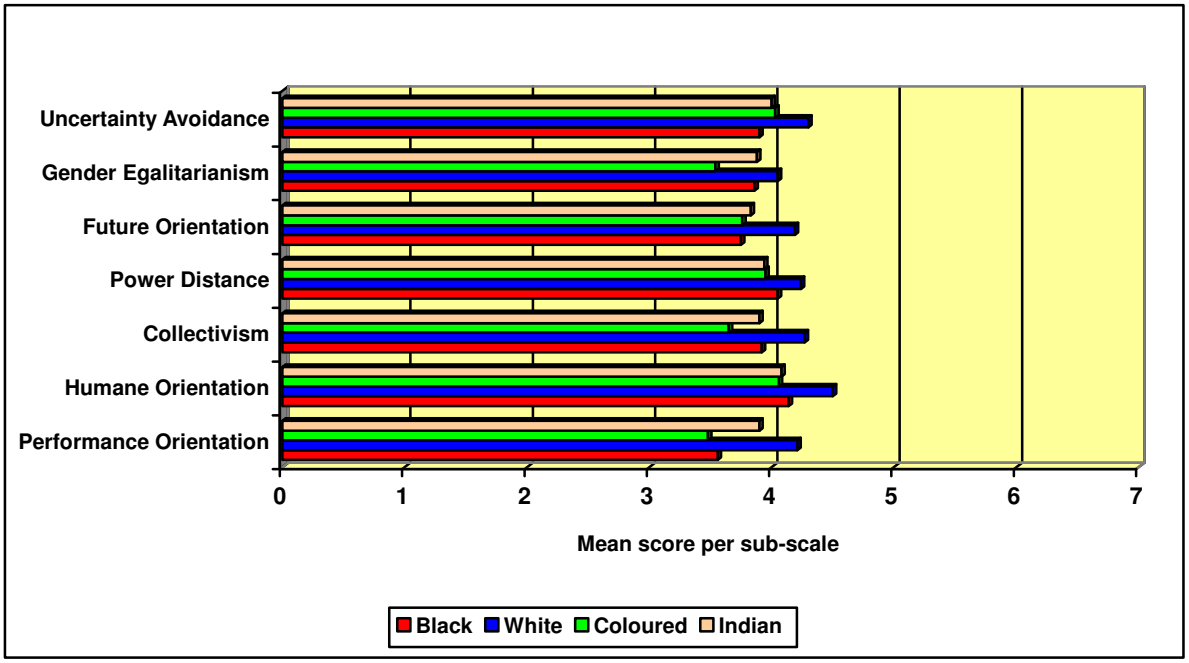

Figure 14 Mean Scores of Cultural Value Dimensions on Core and Peripheral Cultural Values Questionnaire in Descending Order (Differentiated according to Sub-culture Group)

According to the information provided in Table 43, most of the scores are around the midpoint of four of the seven-point scale. However, both male and female managers indicated that Humane Orientation would be the most difficult to change during inter-cultural contact.

Analysis of results

Analysis of variance was used to compare the means obtained from the cultural value dimensions (dependent variables) with the independent variables, namely the various cultural groups, gender, and possible interactions between culture and gender to determine whether

there are any reliable differences among them. In cases where reliable differences were found, post hoc comparisons were done, using Least Square Means.

No reliable differences existed on the Gender Egalitarianism, Future Orientation, Power Distance, and Humane Orientation dimensions between any of the independent variables.

The results of the ANOVA between the subgroups on the Uncertainty Avoidance cultural value of the Core and Peripheral Cultural Values Questionnaire are presented in Tables 44 and 45. The only statistically significant difference on this dimension ($p < 0.001$) was between the categories of the sub-culture group and gender interaction.

Table 43 Descriptive Statistics for the Core and Peripheral Cultural Values Questionnaire (Differentiated according to Gender).

Cultural value dimension	*n*	Gender	$(\bar{x})$	SD	Min	Max
Uncertainty Avoidance	245	Male	4.02	1.45	1.00	7.00
	231	Female	4.08	1.13	2.00	7.00
Gender Egalitarianism	245	Male	3.79	1.53	1.00	7.00
	231	Female	3.88	1.42	1.00	7.00
Future orientation	245	Male	3.83	1.47	1.00	7.00
	231	Female	3.92	1.38	1.00	7.00
Power Distance	245	Male	4.07	1.51	1.00	7.00
	231	Female	4.00	1.24	1.00	7.00
Individualism/Collectivism	245	Male	3.90	1.49	1.00	7.00
	231	Female	3.96	1.32	1.00	7.00
Humane Orientation	245	Male	4.28	1.51	1.00	7.00
	231	Female	4.09	1.22	1.00	7.00
Performance orientation	245	Male	3.73	1.54	1.00	7.00
	231	Female	3.83	1.30	1.00	7.00

Table 44 Analysis of Variance between Subgroups for Uncertainty Avoidance.

Independent variable groupings	DF	F Value	Prob > F
Sub-culture group	3	1.52	0.209
Gender	1	0.03	0.862
Sub-culture group x Gender	3	4.19	0.006**

** $p < 0.01$

From Table 45 it is clear that the Black male managers interpreted this cultural value as not very difficult to change, with a LSM of 3.63. This value was statistically significantly lower ($p < 0.001$) than that of White male managers (LSM = 4.41) with a medium effect size. It was also statistically significantly lower ($p < 0.01$) than that of Black female managers (LSM = 4.32) with a medium effect size, Coloured male managers (LSM = 4.26) with a small to medium effect size, and White female managers (LSM = 4.20, $p < 0.05$) with a small effect size. The value of Coloured female managers (LSM = 3.84) was also statistically significantly lower ($p < 0.05$) than that of Black female managers (LSM = 4.32) with a small effect size, and White male managers (LSM = 4.41) with a small effect size.

The results of the ANOVA between the subgroups on the Individualism/Collectivism cultural value of the Core and Peripheral Cultural Values Questionnaire are presented in Tables 46 and 47. From Table 46 it can be seen that there are statistically significant differences ($p < 0.05$) between the different sub-culture groups on this dimension. Of the four cultural groups (see Table 47), significant differences existed between the White, Coloured and Indian managers. White managers (LSM = 4.27) indicated that this cultural value would be more difficult to change ($p < 0.01$) than Coloured managers (LSM = 3.65) with a small effect size, and Indian managers (LSM = 3.89, $p < 0.05$) with a small effect size.

Table 45 Least Square Means: Sub-culture Group x Gender and Uncertainty Avoidance

	LSM	Black M		Black F		Clrd M		Clrd F		Indian M		Indian F		White M	
		P	*d*	*P*	*d*	*p*	*d*	*p*	*d*	*p*	*d*	*p*	*d*	*p*	*d*
Black M	3.63														
Black F	4.32	0.003**	0.53												
Clrd M	4.26	0.007**	0.49	0.811	—										
Clrd F	3.84	0.348	—	0.046*	0.37	0.086	—								
Indian M	3.98	0.104	—	0.160	—	0.257	—	0.524	—						
Indian F	4.02	0.083	—	0.212	—	0.325	—	0.447	—	0.890	—				
White M	4.41	<0.001***	0.60	0.719	—	0.555	—	0.019*	0.44	0.077	—	0.108	—		
White F	4.20	0.013*	0.44	0.615	—	0.800	—	0.133	—	0.368	—	0.454	—	0.389	—

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Table 46 Analysis of Variance between Subgroups for Individualism/Collectivism

Independent variable groupings	df	F Value	Prob > F
Sub-culture group	3	3.64	0.013*
Gender	1	0.29	0.592
Sub-culture group x Gender	3	1.17	0.322

* $p < 0.05$

Table 47 Least Square Means: Sub-culture Group and Individualism/Collectivism

	LSM	Black		Coloured		Indian	
		p	*d*	*p*	*d*	*p*	*d*
Black	3.95						
Coloured	3.65	0.090	—				
Indian	3.89	0.710	—	0.183	—		
White	4.27	0.090	—	0.001**	0.44	0.041*	0.27

* $p < 0.05$
** $p < 0.01$

The results of the ANOVA between the subgroups on the Performance Orientation cultural value of the Core and Peripheral Cultural Values Questionnaire are presented in Tables 48 and 49. From Table 48 it is clear that there are statistically significant differences ($p < 0.001$) between the different sub-culture groups on this dimension. Of the four cultural groups (see Table 6.46), White managers (LSM = 4.21) indicated that this cultural value would be more difficult to change ($p < 0.001$) than Coloured managers (LSM = 3.49) with a medium effect size, and Black managers (LSM = 3.56) with a small effect size. Indian managers (LSM = 3.91) indicated that this cultural value would be more difficult to change ($p < 0.05$) than Coloured managers (LSM = 3.49) with a small effect size.

Table 48 Analysis of Variance between Subgroups for Performance Orientation

Independent variable groupings	Df	F Value	Prob > F
Sub-culture group	3	6.19	<0.001***
Gender	1	0.54	0.463
Sub-culture group x Gender	3	0.50	0.681

*** $p < 0.001$

Table 49 Least Square Means: Sub-culture Group and Performance Orientation

	LSM	Black		Coloured		Indian	
		p	*d*	*p*	*d*	*P*	*d*
Black	3.56						
Coloured	3.49	0.682	—				
Indian	3.91	0.054	—	0.023*	0.30		
White	4.21	<0.001***	0.46	<0.001***	0.51	0.106	—

* $p < 0.05$
*** $p < 0.001$

COMPARISON OF RESULTS OF PRESENT STUDY WITH THE RESULTS OBTAINED BY BOOYSEN (1999)

Booysen (1999) investigated the differences and similarities regarding the above-mentioned cultural value dimensions with the Societal Questionnaire between White and Black managers from the financial services sector in South Africa. Although the present study utilised the same questionnaire within the same industry, the sample is different from that of Booysen, since it included Indian and Coloured managers, for a more holistic view of the cultural values of South African managers belonging to all four sub-culture groups. From Table 50 it is evident that, although there were statistically significant differences between the results on five of the eight cultural value dimensions, the effect sizes for all these significant differences were small. The average scores for Uncertainty Avoidance, Assertiveness, and Power Distance in the present study were all significantly lower than the average scores of Booysen's study, while the average scores of Individualism/Collectivism and Humane Orientation in the present study were statistically significantly higher than that obtained by Booysen.

The results of only White and Black managers in the two studies were compared in Table 51. The only statistically significant difference was on Power Distance, where the average score of White managers ($\bar{x} = 4.54$) in the present study was statistically significantly lower ($p < 0.05$) than the average score of White managers in Booysen's study ($\bar{x} = 4.80$). The effect size

for this statistically significant difference was small. Since the average scores of the cultural value dimensions between White and Black managers did not change statistically significantly since 1998, despite all the socio-political changes taking place in the country and in organisations, the assumption can be made that the differences reported in Table 50 are probably due to the inclusion of Indian and Coloured managers in the present study.

Table 50 Comparison of Results obtained with the Societal Questionnaire in Present Study with those obtained by Booysen (1999) on the Total Sample

Cultural value dimension	Present Study			Booysen (1999) Study			*t* test for two independent groups			
	n	$\bar{x}_1$	SD	*n*	$\bar{x}_2$	SD	*t*	df	*p*	*d*
Uncertainty Avoidance	422	4.79	0.99	263	4.95	0.86	2.23	683	0.026*	0.18
Assertiveness	422	4.18	1.09	263	4.60	1.12	4.81	683	0.000***	0.35
Gender Egalitarianism	422	3.50	0.98	263	3.41	0.99	1.16	683	0.246	—
Future orientation	422	4.62	1.13	263	4.74	1.01	1.44	683	0.150	—
Power Distance	422	4.55	1.02	263	4.76	1.02	2.62	683	0.009**	0.20
Individualism/Collectivism	422	5.15	0.77	263	4.83	0.88	4.84	683	0.000***	0.48
Humane Orientation	422	5.06	1.04	263	4.75	1.13	3.59	683	0.000***	0.26
Performance orientation	422	5.04	0.97	263	5.17	0.98	1.69	683	0.091	—

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Table 51 Comparison of Results obtained in Present Study with those obtained by Booysen (1999), differentiated by Sub-culture Group

Cultural value dimension	Sub-Culture group	Present Study			Booysen (1999) Study			*t* test for independent groups			
		n	$\bar{x}_1$	SD	*n*	$\bar{x}_2$	SD	*t*	df	*p*	*d*
Uncertainty Avoidance	Black	118	4.76	0.91	119	4.75	0.90	0.08	235	0.932	—
	White	98	4.91	0.85	144	5.11	0.80	1.83	240	0.068	—
Assertiveness	Black	118	4.20	1.12	119	4.39	1.10	1.31	235	0.190	—
	White	98	4.59	0.98	144	4.78	1.11	1.40	240	0.164	—
Gender Egalitarianism	Black	118	3.33	1.04	119	3.26	1.14	0.49	235	0.623	—
	White	98	3.62	0.93	144	3.53	0.83	0.77	240	0.443	—
Future orientation	Black	118	4.40	1.13	119	4.38	1.05	0.14	235	0.888	—
	White	98	4.92	0.79	144	5.04	0.87	1.10	240	0.269	—
Power Distance	Black	118	4.58	0.94	119	4.72	1.18	1.01	235	0.315	—
	White	98	4.54	1.01	144	4.80	0.87	2.07	240	0.040*	0.30
Individualism/ Collectivism	Black	118	5.47	0.70	119	5.40	0.76	0.73	235	0.463	—
	White	98	4.46	0.62	144	4.36	0.66	1.19	240	0.233	—
Humane Orientation	Black	118	5.34	1.03	119	5.36	1.05	0.15	235	0.882	—
	White	98	4.32	0.92	144	4.24	0.93	0.66	240	0.511	—
Performance orientation	Black	118	4.96	1.00	119	5.04	1.13	0.57	235	0.566	—
	White	98	5.26	0.83	144	5.28	0.28	0.23	240	0.819	—

* $p < 0.05$

Table 52 Comparison of Results obtained in Present Study with those obtained by Booysen (1999), differentiated by Gender

Cultural value dimension	Gender	Present Study			Booysen (1999) Study			*t* test for two independent groups			
		n	$\bar{x}_1$	SD	*n*	$\bar{x}_2$	SD	*t*	df	*p*	*d*
Uncertainty Avoidance	Male	225	4.83	0.91	172	5.00	0.93	1.82	395	0.067	—
	Female	197	4.74	1.07	91	4.87	0.74	1.19	286	0.235	—
Assertiveness	Male	225	4.29	1.08	172	4.80	1.05	4.72	395	0.000***	0.45
	Female	197	4.04	1.09	91	4.22	1.16	1.24	286	0.215	—
Gender Egalitarianism	Male	225	3.39	1.01	172	3.30	0.97	0.90	395	0.370	—
	Female	197	3.63	0.92	91	3.60	1.00	0.24	286	0.809	—
Future orientation	Male	225	4.69	1.12	172	4.90	1.00	1.96	395	0.051	—
	Female	197	4.54	1.14	91	4.50	0.98	0.30	286	0.761	—
Power Distance	Male	225	4.54	1.07	172	4.81	0.97	2.62	395	0.009**	0.26
	Female	197	4.55	0.97	91	4.67	1.10	0.89	286	0.375	—
Individualism/Collectivism	Male	225	5.21	0.72	172	4.91	0.87	3.65	395	0.000***	0.48
	Female	197	5.07	0.83	91	4.67	0.84	3.75	286	0.000***	0.58
Humane Orientation	Male	225	5.06	1.04	172	4.67	1.12	3.54	395	0.000***	0.34
	Female	197	5.05	1.05	91	4.89	1.14	1.13	286	0.260	—
Performance orientation	Male	225	5.11	0.90	172	5.31	0.94	2.13	395	0.033*	0.24
	Female	197	4.96	1.04	91	4.92	1.00	0.31	286	0.757	—

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

In the comparison of the results between male and female managers (Table 52) in the two studies, there were statistically significant differences on five of the eight cultural value dimensions. The average score of male managers on Assertiveness in the present study ($\bar{x}$ = 4.29) was significantly lower ($p < 0.001$) than that of male managers in Booysen's (1999) study ($\bar{x}$ = 4.80) with a small effect size. The average Power Distance score of male managers

in the present study ($\bar{x}$ = 4.54) was also statistically significantly lower ($p < 0.01$) than that of male managers in Booysen's study ($\bar{x}$ = 4.81) with a small effect size, while the average of male managers in the present study on Performance Orientation ($\bar{x}$ = 5.11) was also statistically significantly lower ($p < 0.05$) than that of male managers in Booysen's study ($\bar{x}$ = 5.31), again with a small effect size. On the Individualism/Collectivism dimension, the average scores for both male ($\bar{x}$ = 5.21) and female managers ($\bar{x}$ = 5.07) in the present study were statistically significantly higher ($p < 0.001$) that that of male ($\bar{x}$ = 4.91) and female managers ($\bar{x}$ = 4.67) in Booysen's study. The effect size for the statistically significant difference between male managers was small, while the effect size for the statistically significant difference between female managers was medium. Based on the discussion of the results of Table 51, it is clear that here too the statistically significant differences could be ascribed to the inclusion of Indian and Coloured managers in the present study.

MULTIFACTOR LEADERSHIP QUESTIONNAIRE

Descriptive statistics

Descriptive statistical analyses for the total sample on the dimensions of the MLQ, as well as composite scores for the three leadership styles, are presented in Table 53. Results of the individual MLQ sub-scales are reported only for comparative purposes and will not be discussed. As indicated before, the exploratory factor analysis of the functioning of the MLQ in the present study indicated the presence of three leadership factors, namely Transformational, Transactional and Passive-Corrective. According to Table 53, South African managers evaluated themselves as more Transformational ($\bar{x}$ = 3.13) than Transactional ($\bar{x}$ = 2.17), or Passive-Corrective ($\bar{x}$ = 0.86) on a four-point scale. The same pattern was also evident in Tables 54 and 55, where managers belonging to all four sub-culture groups, as well as male and female managers, rated themselves as more Transformational than Transactional or Passive-Corrective.

Table 53 Descriptive Statistics for the Dimensions of the MLQ (Total Sample)

Dimension	*N*	$\bar{x}$	SD	Min	Max
Idealised Influence	477	3.06	0.50	0.75	4.00
Inspirational Motivation	477	3.25	0.51	1.25	4.00
Intellectual Stimulation	477	3.09	0.52	1.25	4.00
Individualised Consideration	477	3.20	0.53	1.00	4.00
Contingent Reward	477	3.10	0.55	1.25	4.00
Management-by-Exception (Active)	477	2.39	0.84	0.00	4.00
Management-by-Exception (Passive)	477	1.10	0.68	0.00	3.25
Laissez-Faire	477	0.61	0.63	0.00	3.50
Leadership styles					
Transformational leadership	477	3.13	0.41	1.12	4.00
Transactional leadership	477	2.39	0.85	0.00	4.00
Passive-Corrective leadership	477	0.86	0.55	0.00	3.17

Analysis of results

Analysis of variance was used to compare the means obtained from the three leadership style clusters (dependent variables) with the independent variables, namely the various cultural groups, gender, age, educational level, management level, number of years full-time work experience, number of years experience as manager, exposure to formal western management training, and possible interactions between the independent variables to determine whether there are any reliable differences among them. It was, however, not possible to include all the possible interactions between the independent variables, because some of the interactions were confounded. No reliable differences were found on any of the three leadership style clusters between any of the independent variables.

Table 54 Descriptive Statistics for the Dimensions and Composite Scores of Leadership Styles of the MLQ, differentiated according to the Four Sub-culture Groups

Cultural value dimensions	*n*	Sub-Culture Group	$\bar{x}$	SD	Min	Max
Idealised Influence	118	Black	3.09	0.53	0.75	4.00
	98	White	3.14	0.48	1.88	4.00
	97	Coloured	3.06	0.52	1.62	4.00
	109	Indian	2.95	0.43	1.75	3.87
Inspirational Motivation	118	Black	3.33	0.51	1.25	4.00
	98	White	3.11	0.48	1.75	4.00
	97	Coloured	3.26	0.47	1.75	4.00
	109	Indian	3.29	0.54	1.50	4.00
Intellectual Stimulation	118	Black	3.12	0.54	1.25	4.00
	98	White	2.98	0.52	1.50	4.00
	97	Coloured	3.07	0.47	1.75	4.00
	109	Indian	3.16	0.55	1.75	4.00
Individualised Consideration	118	Black	3.21	0.52	1.00	4.00
	98	White	3.25	0.45	1.75	4.00
	97	Coloured	3.24	0.58	1.50	4.00
	109	Indian	3.11	0.56	1.25	4.00
Contingent Reward	118	Black	3.11	0.60	1.50	4.00
	98	White	3.04	0.53	1.25	4.00
	97	Coloured	3.21	0.49	2.00	4.00
	109	Indian	3.06	0.55	1.25	4.00

Table 54 (Continued)

Cultural value dimensions	*n*	Sub-Culture Group	$\bar{x}$	SD	Min	Max
Management-by-Exception (Active)	118	Black	2.44	0.83	0.50	3.75
	98	White	2.23	0.82	0.00	4.00
	97	Coloured	2.49	0.82	0.75	4.00
	109	Indian	2.37	0.88	0.75	4.00
Management-by-Exception (Passive)	118	Black	0.95	0.66	0.00	2.75
	98	White	1.18	0.64	0.00	2.50
	97	Coloured	1.07	0.70	0.00	3.00
	109	Indian	1.20	0.71	0.00	3.25
Laissez-Faire	118	Black	0.58	0.61	0.00	3.00
	98	White	0.64	0.62	0.00	3.50
	97	Coloured	0.66	0.65	0.00	3.00
	109	Indian	0.58	0.63	0.00	3.33
Leadership Styles						
Transformational leadership	118	Black	3.15	0.42	1.12	4.00
	98	White	3.03	0.35	2.00	3.96
	97	Coloured	3.20	0.40	2.29	3.87
	109	Indian	3.12	0.42	1.79	3.96
Transactional leadership	118	Black	2.43	0.82	0.50	3.75
	98	White	2.25	0.84	0.00	4.00
	97	Coloured	2.52	0.81	0.75	4.00
	109	Indian	2.38	0.90	0.00	4.00
Passive-Corrective leadership	118	Black	0.78	0.52	0.00	2.75
	98	White	0.88	0.53	0.00	2.62
	97	Coloured	0.89	0.56	0.00	2.62
	109	Indian	0.88	0.59	0.00	3.12

Table 55 Descriptive statistics for the Dimensions and Composite Scores of Leadership Styles of the MLQ, differentiated according to Gender

Cultural value dimensions	*n*	Gender	$\bar{x}$	SD	Min	Max
Idealised Influence	225	Male	3.06	0.51	0.75	4.00
	197	Female	3.08	0.48	1.75	4.00
Inspirational Motivation	225	Male	3.24	0.50	1.25	4.00
	197	Female	3.27	0.52	1.75	4.00
Intellectual Stimulation	225	Male	3.09	0.52	1.25	4.00
	197	Female	3.09	0.54	1.67	4.00
Individualised Consideration	225	Male	3.10	0.56	1.00	4.00
	197	Female	3.32	0.48	2.00	4.00
Contingent Reward	225	Male	3.09	0.54	1.50	4.00
	197	Female	3.11	0.56	1.25	4.00
Management-by-Exception (Active)	225	Male	2.34	0.81	0.50	4.00
	197	Female	2.44	0.87	0.00	4.00
Management-by-Exception (Passive)	225	Male	1.16	0.65	0.00	2.75
	197	Female	1.03	0.71	0.00	3.25
Laissez-Faire	225	Male	0.59	0.59	0.00	3.00
	197	Female	0.64	0.67	0.00	3.50

Table 55 (Continued)

Cultural value dimensions	*n*	Gender	$\bar{x}$	SD	Min	Max
Leadership Styles						
Transformational leadership	225	Male	3.11	0.42	1.12	4.00
	197	Female	3.15	0.39	1.92	3.96
Transactional leadership	225	Male	2.34	0.79	0.50	4.00
	197	Female	2.46	0.89	0.00	4.00
Passive-Corrective leadership	225	Male	0.87	0.53	0.00	2.75
	197	Female	0.84	0.58	0.00	3.12

CORRELATIONS BETWEEN THE SOCIETAL QUESTIONNAIRE AND THE MLQ

The sub-scales of the Societal Questionnaire were correlated with the three leadership style clusters of the MLQ to explore the possible relationships between the various cultural value dimensions and Bass and Avolio's (Avolio et al., 1999; Bass, 1985) Full Range Model of Leadership. Although a few statistically significant relationships can be seen in Table 56, the correlations between the sub-scales were very small and therefore the assumption could be made that these statistically significant relationships were due to the large sample size. Only four correlations were higher than 0.1, and these were between Transformational leadership and the Individualism/Collectivism sub-scale ($r = 0.126$, $p < 0.01$), and between Transformational leadership and the Performance Orientation sub-scale ($r = 0.118$, $p < 0.01$). There was a negative correlation ($r = -0.105$, $p < 0.05$) between Passive-Corrective leadership and the Humane Orientation sub-scale, and between Passive Corrective Leadership and the Future Orientation sub-scale ($r = -0.101$, $p < 0.05$).

Table 56 Correlations between the Societal Questionnaire and the MLQ

MLQ	Societal Questionnaire							
	Uncertainty Avoidance	Assertiveness	Gender Egalitarianism	Future Orientation	Power Distance	Individualism/ Collectivism	Humane Orientation	Performance Orientation
Transformational leadership	-0.02	0.062	0.042	-0.013	-0.015	0.126	0.090	0.118
p	0.735	0.173	0.36	0.774	0.738	0.006**	0.049*	0.010**
Transactional leadership	0.061	0.095	0.042	-0.071	-0.038	-0.013	-0.032	0.033
p	0.185	0.037*	0.357	0.121	0.406	0.774	0.491	0.466
Passive-Corrective leadership	0.012	-0.02	-0.052	-0.101	0.064	-0.093	-0.105	-0.058
p	0.792	0.661	0.259	0.028*	0.162	0.043*	0.021*	0.205

* $p < 0.05$
** $p < 0.01$

CONCLUDING REMARKS

From the descriptive statistics on the sample provided in this chapter, it is evident that the numbers of respondents sampled according to sub-culture group, gender, and management level were relatively comparable. The availability of detailed lists of names, stratified according to sub-culture group, gender, and management level, made it possible to include comparable numbers of male and female managers within each management level belonging to the four sub-culture groups in the sample. As indicated earlier on, Hofstede (1998) argued that samples for cross-cultural studies like this one, need not be representative of the national population, but that they should be functionally equivalent, or matched to ensure that researchers compare like with like.

The psychometric properties of the various measuring instruments were also reported and discussed. Construct validity was determined by means of a factor analysis and internal consistency was assessed by means of Cronbach's coefficient alpha. The factor analysis of the Societal Questionnaire showed that two of the identified six factors contained items of more than one sub-scale. Although the sub-scales contained in these two factors were positively correlated, a decision was made to retain the original nine sub-scales of the Project-GLOBE Questionnaire for purposes of comparability of the results with that of published data of Project-GLOBE. Cronbach alphas for the Societal Questionnaire ranged from 0.52 to 0.78. The factor analysis of the MLQ yielded three factors that were almost similar to Bass' (1985) theoretical model, namely a Transformational, Transactional, and Laissez-Faire factor. However, the Transformational factor included the Contingent Reward sub-scale, while the Laissez-Faire factor included the Management-by-Exception (Passive) sub-scale. The Cronbach alphas of the three leadership styles ranged from 0.61 to 0.85.

Results obtained with the Societal Questionnaire, MLQ, and Core and Peripheral Cultural Values Questionnaire were presented by means of descriptive statistics, ANOVA, least square means, effect size, t tests, and correlations. The interpretation of these results will be discussed in Chapter 7 in terms of the literature overview presented in Chapters 2, 3, and 4.