# THE EFFECT OF SELECTED VARIABLES ON LEADERSHIP BEHAVIOUR WITHIN THE FRAMEWORK OF A TRANSFORMATIONAL ORGANISATION PARADIGM

by

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Ef 3:20

## TABLE OF CONTENTS

			Page
LIST C LIST C SUMM OPSOI	OF TAE IARY	BLES	xiii xiv xviii xx
СНАР	TER 1	: INTRODUCTION TO STUDY AND BACKGROUND	
	1.1	INTRODUCTION	1
	1.2	BACKGROUND OF THE STUDY	4
	1.3	SUMMARY	5
CHAP <sup>-</sup>	TER 2	: RESEARCH SETTING AND -OBJECTIVES	
	2.1	INTRODUCTION	7
	2.2	DEFENCE TRANSFORMATION IN DEMOCRATIC CONTEXT	7
	2.3	CULTURE AND VALUE SYSTEMS	9
	2.4	ORGANISATIONAL CULTURE AND LEADERSHIP	11
	2.5	CULTURAL DIFFERENCES AND TRANSFORMATIONAL BEHAVIOUR	13
	2.5.1 2.5.2 2.5.3 2.5.4 2.5.5	High power distance vs empowerment Inspirational motivation vs short term orientation Individualised consideration vs masculinity Inspirational motivation vs individualism Uncertainty vs intellectual stimulation and change	13 13 14 14 14
	2.6	LEADERSHIP AND LOCUS OF CONTROL	15
	2.7	AIM OF THE STUDY	16
	2.8	CONCLUSION	18

## CHAPTER 3: CULTURE, VALUES AND WORK RELATED VALUES -A THEORETICAL OVERVIEW

3.1	INTRODUCTION					
3.2	CULTURE					
3.2.1 3.2.2 3.2.3	Di	oncept def mensions urther pron		20 23 28		
	3.2.3.1 3.2.3.2	Trom Hofst	penaars ede	28 31		
	3.: 3.:	2.3.2.1 2.3.2.2 2.3.2.3 2.3.2.4	Power Distance Uncertainty avoidance Individualism - collectivism Masculinity	33 36 37 41		
	3.2.3.3	Lesse	em	46		
3.2.4	Cu	ulture and	the world of work	48		
	3.2.4.1 3.2.4.2		concept of "work" nisational culture	48 50		
	3.:	2.4.2.1 2.4.2.2 2.4.2.3	Overview Factors influencing organizational culture Culture types in organizations	50 52 54		
3.2.5	Cu	ulture in Af	frica	57		
	3.2.5.1 3.2.5.2	Diver Afroc	sity entric or Eurocentric	57 58		
3.3	VALUES					
3.3.1 3.3.2 3.3.3 3.3.4	De Th	•	, development and change of values between values and other related concepts	61 62 63 64		
	3.3.4.1 3.3.4.2 3.3.4.3 3.3.4.4	Value Value	es and norms es and attitudes es and the self-concept es and personality traits	64 65 65 66		

		<ul><li>3.3.4.5 Values and needs</li><li>3.3.4.6 Values and interest</li></ul>	66 67
	3.3.5	Functions of values	67
	3.4	THE PROTESTANT ETHIC	
	3.4.1 3.4.2 3.4.3 3.4.4 3.5	Protestant Ethic, Capitalism and the theory of Max Weber Dimensionality of the Protestant Ethic Critique against Weber's theory Utilitarian value of the Protestant Ethic WORK VALUES	68 69 70 70
	3.5.1 3.5.2 3.5.3 3.5.4 3.5.5 3.5.6	Introduction Concept definition Classification of work values Origin and development of work values The nature of work values at white- and blue collar workers Evaluation of work related values	71 71 73 74 75 76
	3.6	CONCLUSION	79
СНАР	TER 4	: LOCUS OF CONTROL: TO LEAD OR TO BE LEAD	
	4.1	INTRODUCTION	81
	4.2	DEFINITION OF THE CONCEPT	81
	4.3	LOCUS OF CONTROL AND SOCIAL DOCTRINE	82
	4.4	LOCUS OF CONTROL AND PERFORMANCE RELATED BEHAVIOUR	83
	4.4.1 4.4.2 4.4.3 4.4.4	General Control and success in non-western countries Locus of control and leadership/management performance Gender-related achievement differences	83 85 88 90
	4.5	THE NATURE OF LOCUS OF CONTROL IN CERTAIN GROUPS OF PEOPLE	91
	4.5.1 4.5.2	Impoverished people Ethnic groups	92 92

	4.6		HE RELATIONSHIP BETWEEN LOCUS OF CONTROL AND ERTAIN ORGANISATIONAL BEHAVIOUR VARIABLES					
	4.6.1 4.6.2 4.6.3 4.6.4		Genera Motiva Job sa Risk-ta	tion tisfaction	on	93 95 95 96		
	4.7	MEAS	URING	LOCL	IS OF CONTROL	97		
	4.7.1 4.7.2 4.7.3			y of the	e construct of locus of control neasuring locus of control	97 97 98		
	4.8	SUMM	ARY			101		
СНАР	PTER 5	:	LEAD	ERSHI	5			
	5.1	INTRC	NTRODUCTION					
	5.1.1 5.1.2	1.2 Leadership defined				103 104		
	5.2					106		
	5.3	THE N	EED F	OR AN	I AFRICAN APPROACH TO LEADERSHIP	108		
	5.4	THE R	OLE C	F LEA	DERSHIP IN FORMING A CULTURE	111		
	5.5	FROM THEOI		SICAL	TO CONTEMPORARY: THE LEADERSHIP	114		
	5.5.1 5.5.2		Introdu Classio	uction cal theo	ories	114 114		
		5.5.2.1 5.5.2.2			ait approach ioural theories	114 116		
			5.5.2.2 5.5.2.2 5.5.2.2	2.2	Michigan studies Ohio state studies The managerial grid	116 117 117		
		5.5.2.3	5	Situati	onal or contingency approaches	118		
			5.5.2.3	8.1	Fiedler's leadership contingency theory	119		

# University of Pretoria etd – Beukman, T L (2005)

		.2.3.2	House's path-goal theory	120		
	5.5	.2.3.3	Hersey and Blanchard's situational leadership	120		
	5 5	.2.3.4	theory	120		
	5.5	.2.3.4	Leadership substitutes	122		
5.5.3	The	e changir	ng nature of organizations	123		
	5.5.3.1	Char	nges in basic assumptions	123		
	5.5.3.2	The I	learning organisation	124		
	5.5.3.3	Char	nges in structure	125		
	5.5.3.4	Tean	nwork	126		
5.5.4	Orc	anisatio	nal change and the implications for future			
	-	, dership		127		
	5.5.4.1	Char	nging organisational structures and the importance			
	0.01111		arning	127		
	5.5.4.2		use of power and empowerment	128		
	55	.4.2.1	The mechanistic strategy	129		
			The mechanistic strategy			
	5.5	.4.2.2	The organic strategy	130		
	5.5.4.3	Bour	ndary management	131		
	5.5	.4.3.1	The authority boundary	132		
	5.5	.4.3.2	The task boundary	133		
	5.5	.4.3.3	The political boundary	133		
	5.5	.4.3.4	The identity boundary	133		
	5.5.4.4	Crea	ting psychological climate	136		
	5.5.4.5		iding vision and direction	136		
	5.5.4.6		n management to leadership	137		
	5.5.4.7		nge related leadership demands for South Africa	138		
5.6	CURREN		GHTS ON AFRICAN MANAGEMENT/LEADERSHIP	139		
5.6.1	Intr	oduction		139		
5.6.2			vs exclusivism	140		
5.6.3		untu		142		
5.6.4			nt and wealth	144		
5.6.5			nal effectiveness	145		
5.6.6	-		trategy versus strategy formulation	146		
5.7	TRANSFO	ORMATIO	ONAL LEADERSHIP	146		
5.7.1	The Full-Range Model Of Leadership 146					

# University of Pretoria etd – Beukman, T L (2005)

5.7.2		Non-Transactional, Transactional And Transformational Styles			
		5.7.2.1 5.7.2.2		aissez-faire (LF) style sactional leadership	149 149
		5.7.2 5.7.2		Contingent reward Management-by-exception	150 151
		5.7.2.3	Trans	sformational leadership	151
		5.7.2 5.7.2 5.7.2 5.7.2	2.3.2 2.3.3	Individualised consideration Intellectual stimulation. Inspirational Motivation. Idealised Influence.	152 152 152 153
	5.8	ORGANISA	TIONA	L CHANGE IN THE SA AIR FORCE	154
	5.8.1		• •	eratives For A More Transformational To Leadership In The SAAF	154
		5.8.1.1 5.8.1.2	guide (Whit	titutional and transformational imperatives and lines for Department of Defence leadership e Papers) structural and cultural changes	154 155
	5.8.2 5.8.3 5.8.4	Basi Cultu Full I	c Princi <sub>l</sub> ure Of T Range I	Culture Change Process ples On Which The New Leadership The SAAF Is Built Leadership Development In The In Air Force	157 163 164
	5.9	A MOTIVATIONAL PERSPECTIVE ON LEADERSHIP			
	5.10	MEASURE	MENT (	OF LEADERSHIP BEHAVIOUR	166
	5.11	SUMMARY	& CON	ICLUSION	166
CHAF	PTER 6	: VARIABL BEHAVIC		IMPORTANCE IN THE STUDY OF LEADERSHIP	
	6.1	INTRODUC	TION		168
	6.2	MAIN INDE	PENDE	ENT VARIABLES	168
	6.2.1	Gene	der		168

6.2 6.2 6.2 6.2	2.4         Rel           2.5         Edu           2.6         Occ	e iguage igion ucational Qualifications cupational Level (Rank) pulation Group	170 171 171 172 173 174
6.3	3 NUISANC	E VARIABLES	176
6.4	4 CONCLUS	SION	176
CHAPTE	R 7: PSYCH	OMETRIC CONSIDERATIONS OF THE STUDY	
7.1	I INTRODU	CTION	178
7.2	2 VALIDITY		178
7.3	3 SURVEY	OF WORK VALUES	179
7.3 7.3		nposition Of The Scale idity Of The Survey Of Work Values	180 181
7.4	1 INTERNA	L CONTROL INDEX	185
7.4 7.4		nposition Of The Scale idity Of The Internal Control Index	186 187
7.5	5 VALIDITY	OF THE VALUE SURVEY MODULE	192
7.6	6 THE MUL	TIFACTOR LEADERSHIP QUESTIONNAIRE	196
7.6 7.6 7.6	5.2 Des 5.3 Init	ckground scription al Development Of The MLQ ctor Analysis Of The MLQ	196 196 197 197
7.7	7 RELIABIL	ITY	207
7.7 7.7		iability Defined nputing Reliability	207 207
	7.7.2.1 7.7.2.2 7.7.2.3 7.7.2.4	Split-half reliability Test-retest reliability Parallel forms reliability Judgemental reliability	207 207 208 208

		7.7.2.5	5	Interna	l consistency		208
	7.7.3 7.7.4 7.7.5 7.7.6 7.7.7		Reliab Reliab Reliab Reliab	ility Of <sup>-</sup> ility Of <sup>-</sup> ility Of <sup>-</sup>	The Survey C The Internal ( The Value Su	eliability and validity Of Work Values Control Index Irvey Module Of Hofstede or Leadership Questionnaire	210 211 212 212 213
	7.8	SUMM	1AR Y				213
СНАР	PTER 8	:	RESE	ARCHI	METHODOL	OGY AND DESIGN	
	8.1	INTRO	DUCT	ION			215
	8.2	RESEARCH STRATEGY					215
	8.2.1 8.2.2 8.2.3 8.2.4 8.2.5	Research Design Post Hoc (A Posteriori) Qua Survey Research Design And Construction Of Instruments Included In The			Posteriori) Qu arch Construction C	Of Questionnaires	216 217 221 222 223
		8.2.4.1 8.2.4.2				Index (ICI) of Duttweiler (1984) elated values	223 223
			8.2.4.2	2.1	The Survey c	of Work Values of Wollack <u>et al</u> (1971)	224
				8.2.4.2 8.2.4.2		Purpose of the scale Composition of the scale	224 224
			8.2.4.2	2.2	The Value Su	urvey Module of Hofstede (1980)	224
		8.2.4.3	3	Evalua	uation Of Leadership Behaviour		225
			8.2.4.3	3.1	The Multi-fac of Bass <u>et al</u>	tor Leadership Questionnaire (MLQ) (1997) 225	
				8.2.4.3 8.2.4.3		Advantages of using the MLQ Factor structure of the MLQ	225 226
	8.2.6		Admin	istering	The Questio	nnaire	226
	8.3	THE F	POPUL	ATION			227
	8.4	SAMP	LING F	ROCE	DURF		228

	8.5	STATISTICAL METHODS IN DATA PROCESSING			
	8.5.1 8.5.2		ntroduct Descripti	on ve Statistics	230 230
		8.5.2.1	M	easures of central tendency	231
			3.5.2.1.1	The Mean	331
		-	3.5.2.1.2		231
		8	3.5.2.1.3	The Median	231
		8.5.2.2	Meas	ures of variation	232
		8	3.5.2.2.1	Standard deviation	233
		8	3.5.2.2.2	The standard error of the mean	233
		8.5.2.3	Fr	equency tables	233
		8.5.2.4		oss Tabulation	233
	8.5.3	(	Correlatio	on statistics	234
	8.5.4	ļ	Analysis	Of Variance	234
	8.5.5			ant Analysis	235
	8.5.6		Student's	-	236
	8.5.7	1	Non-Para	ametric Statistics	237
		8.5.7.1	Ma	ann-Whitney U-test	237
		8.5.7.2	Kr	uskal-Wallis One-way analysis of variance for	
			ind	dependent groups	238
	8.5.8	١	Non-Para	ametric Measures Of Association	238
	8.5.9	Ν	Aultiple F	Regression	239
	8.6	CONCL	USION		240
СНАР	PTER 9	: [	DESCRI	PTION OF SAMPLE CHARACTERISTICS	
	9.1	I	NTROD	JCTION	241
	9.2			PTION OF THE SAMPLE BY MEANS OF NCY TABLES	241
	9.3	SUMM	ARY		248

## CHAPTER 10: PRESENTATION OF RESULTS

10.1	INTRODUC	CTION		249		
10.2	STATISTICS OF ASSOCIATION					
10.3	INFERENT	TAL ST	ATISTICS	262		
	10.3.1	Gen	der	262		
		5.1.1 5.1.2	Student's T-test Mann Whiteney U-test	262 269		
	10.3.2	Осси	upational level	270		
	10.3 10.3	.2.1 .2.2	One-way analysis of variance Kruskal-Wallis one-way analysis of variance	270 276		
	10.3.3	Ρορι	ulation group	278		
	10.3 10.3	.3.1 .3.2	One-way analysis of variance Kruskal-Wallis one-way analysis of variance	278 293		
	10.3.4	Worl	< experience	294		
	10.3 10.3	.4.1 .4.2	One-way analysis of variance Kruskal-Wallis one-way analysis of variance	294 301		
	10.3.5	Age		302		
	10.3 10.3		One-way analysis of variance Kruskal-Wallis one-way analysis of variance	302 306		
	10.3.6	Relig	gion	307		
	10.3	.6.1	One-way analysis of variance	307		
	10.3.7	Educ	cational qualifications	312		
	10.3 10.3	9.7.1 9.7.2	One-way analysis of variance Kruskal-Wallis one-way analysis of variance	312 316		
10.4	PRACTICA	L SIGN	NIFICANCE RE LEADERSHIP DEVELOPMENT	318		

	10.5	10.5 FREQUENCY DISTRIBUTIONS						
		10.5.1 10.5.2 10.5.3 10.5.4	The Internal Control Index The Value Survey Module	319 325 327 329				
	10.6	DESC	RIPTIVE STATISTICS	333				
	10.7	MULT	IPLE REGRESSION	336				
		10.7.1 The MLQ 10.7.2 The Leadership Outcomes 10.7.3 Transformational Leadership 10.7.4 Transactional Leadership						
	10.8	SUMM	IARY	355				
CHAP	TER 1	1:	CONCLUSIONS AND RECOMMENDATIONS					
	11.1	INTRO	DUCTION	356				
	11.2	RESE	ARCH DESIGN					
	11.2.1 11.2.2 11.2.3		The Research Method Administering the Questionnaire Representativeness of the Sample	358 358 359				
	11.3	CONC	CLUSIONS BASED ON THE LITERATURE STUDY	359				
	11.4	CONC	CLUSIONS BASED ON EMPIRICAL RESEARCH	362				
	11.4.2Pow11.4.3Uno11.4.4Mas11.4.5Intr11.4.6Loc11.4.7Lea		Individualism Power Distance Uncertainty Avoidance Masculinity Intrinsic and Extrinsic Work Value Dimensions Locus of Control Leadership SEQUENCES AND IMPLICATIONS FOR THE DEVELOPMENT	363 364 365 366 366 367 369				
			MPLEMENTATION OF EFFECTIVE LEADERSHIP PRACTICES POLICIES IN A TRANSFORMATIONAL PARADIGM	371				
	11.5.1		Role Of Senior Leadership	371				

# University of Pretoria etd – Beukman, T L (2005)

11.5.2	Human Resources Policy	371
11.5.3	Leadership Development	372
11.5.4	Employee Motivation	373
11.5.5	The Use Of Power	375
11.5.7	Principles For The Transformation Of The SAAF's Leadership	
	Culture	375
11.6 SON	IE FINAL COMMENTS	376

## REFERENCES

378

APPENDICES:

- A SURVEY QUESTIONNAIRE
- B SURVEY RESPONSE SHEET

# LIST OF FIGURES Page

#### CHAPTER 5: LEADERSHIP

Figure 5.1	Leadership model of causes, mediators and results.	105
Figure 5.2	Framework for the classification of leadership theories.	115
Figure 5.3	The leadership grid.	118
Figure 5.4	Optimal leadership profile.	148
Figure 5.5	SAAF Culture Change Process.	161

#### CHAPTER 7: PSYCHOMETRIC CONSIDERATIONS OF THE STUDY

Figure 7.1	Scree Plot: Survey of Work Values.	182
Figure 7.2	Scree Plot: Duttweiler ICI.	190
Figure 7.3	Scree Plot – eigenvalues: Value Survey Module.	195
Figure 7.4	Scree Plot – eigenvalues: MLQ.	203

## CHAPTER 8 : RESEARCH METHODOLOGY AND DESIGN

Figure 8.1	A Counterbalanced Quasi-Experimental Design.	220
i igule 0. i	A counterbalanced Quasi-Experimental Design.	220

## LIST OF TABLES

#### Page

### CHAPTER 3: CULTURE, VALUES AND WORK RELATED VALUES

Table 3.1	Available research strategies for comparative studies.	27
Table 3.2	Summary of differences in relationships to people.	30
Table 3.3	Levels of uniqueness in mental programming.	31
Table 3.4	Summary of Power Distance Index (PDI) implications and	
	consequences for organisations.	35
Table 3.5	Summary of Uncertainty Avoidance Index (UAI)	
	implications and consequences for organisations.	37
Table 3.6	Summary of the effect of modernisation on attitudes.	38
Table 3.7	Summary of Individualism Index (IDV): differences	
	in organisational and socio-economic context.	39
Table 3.8	Integrated picture of the general Masculinity Index (MAS)	
	societal norm.	42
Table 3.9	Summary of connotations of Masculinity Index (MAS)	
	differences in organisational context.	43
Table 3.10	Summary of Hofstede's (1980) national culture	
	dimensions.	45
Table 3.11	Cultures as described through the "four worlds of work".	47
Table 3.12	Differences in accent between African and Western	
	cultures.	59

#### CHAPTER 4: LOCUS OF CONTROL: TO LEAD OR TO BE LEAD

Table 4.1	Level of internality per country.	87
Table 4.2	Summary of leadership related differences between	
	Internals and externals.	89
Table 4.3	Summary of research studies confirming the validity of	
	the locus of control construct.	98

#### CHAPTER 5: LEADERSHIP

Table 5.1	Differences between management and leadership.	107
Table 5.2	Culture-embedding Mechanisms.	113
Table 5.3	Leadership styles according to follower maturity.	121
Table 5.4	Leadership styles according to follower maturity.	131
Table 5.5	A leader's guide to important organisational boundaries.	135
Table 5.6	Model for transition from management to leadership.	138
Table 5.7	Exclusivism vs Inclusivism: Differences between Whites	
	and Africans.	142
Table 5.8	A comparison of Western and African leadership paradigms.	145

Table 5.9	DOD core values.	158
Table 5.10	SA Air Force core values.	162

## CHAPTER 7: PSYCHOMETRIC CONSIDERATIONS OF THE STUDY

Table 7.1	Kaiser-Meyer-Olkin Measure and Bartlett's Test of		
	Sphericity for the Survey of Work Values.		181
Table 7.2	Rotated Component Matrix for Survey of Work Values.		183
Table 7.3	Total Variance Explained: Survey of Work Values.		185
Table 7.4	Field Test and Gainesville Principle Axis Factoring with		
	Interaction Eigenvalues, Percents of Variation, and		
	Cumulative Pertcentages.		187
Table 7.5	Field Test of Gainesville Two Factor Varimax Rotation		
	Communalities and Factor Loadings.		188
Table 7.6	Kaiser-Meyer-Olkin Measure and Bartlett's Test of		
	Sphericity for the Internal Control Index.		189
Table 7.7	Total Variance Explained: ICI.		190
Table 7.8	Rotated Component Matrix: ICI.		191
Table 7.9	Total Variance Explained: ICI.		192
Table 7.10	Eigenvalues: Extracted factors – Value Survey Module.		193
Table 7.11	Rotated Factor Matrix: – Value Survey Module.		193
Table 7.12	Kaiser-Meyer-Olkin Measure and Bartlett's Test of		
	Sphericity for the Value Survey Module.		194
Table 7.13	Eigenvalues: Extracted Factors for Value Survey Module.		194
Table 7.14	Rotated Component Matrix: – Value Survey Module.		195
Table 7.15	Means, Standard Deviations, and Intercorrelations Among		
	MLQ Factor Scores.		198
Table 7.16	Summary of First Factor Analytic Findings for Items Most		
	Representative of Each Factor (Rater Form).		199
Table 7.17	Kaiser-Meyer-Olkin Measure and Bartlett's Test of Sphericity	/	
	for the MLQ.		201
Table 7.18	Initial Eigenvalues: MLQ.		202
Table 7.19	Rotated Component Matrix: MLQ.	204	
Table 7.20	Standardised leadership factors of the MLQ.		206
Table 7.21	Median Intrascale Item Intercorrelations, Coefficient Alpha		
	Reliabilities, and Test-Retest Reliabilities.		211
Table 7.22	Reliability of the Survey of Work Values.		211
Table 7.23	Reliability of the Internal Control Index.		212
Table 7.24	Reliability of the Value Survey Module.		212
Table 7.25	Reliability of the Multifactor Leadership Questionnaire.	213	

CHAPTER 8 :	RESEARCH METHODOLOGY AND DESIGN
-------------	---------------------------------

Table 8.1	Composition of SAAF workforce per rank.	228
		220

### CHAPTER 9 : DESCRIPTION OF SAMPLE CHARACTERISTICS

Table 9.1	Frequency distribution: Gender.	242
Table 9.2	Frequency distribution: Age.	242
Table 9.3	Frequency distribution: Home language.	243
Table 9.4	Frequency distribution: Religion.	244
Table 9.5	Frequency distribution: Educational qualification.	245
Table 9.6	Frequency distribution: Occupational level.	245
Table 9.7	Frequency distribution: Population Group.	246
Table 9.8	Frequency distribution: Ethnic group.	247
Table 9.9	Frequency distribution: Work experience.	247

### CHAPTER 10: PRESENTATION OF RESULTS

Table 10.1	Bravais-Pearson correlation coefficients: The twenty three	
	Dimensions.	250
Table 10.2	Bravais-Pearson correlation coefficients: Leadership and	
	Internality.	261
Table 10.3	Statistical inferences - Student's T-test (group statistics).	262
Table 10.4	Student's T-test: Levene's test for equality of variance.	264
Table 10.5	T-test for equality of means – Gender.	266
Table 10.6	Mann Whitney U-test: Gender.	269
Table 10.7	One-Way analysis of variance: Occupational Level	
	<ul> <li>Tests of homogeneity of variance.</li> </ul>	271
Table 10.8	One-Way Analysis of Variance – Occupational level.	272
Table 10.9	Kruskal-Wallis one-way analysis of variance: Occupational	
	Level.	277
Table 10.10	One-way analysis of variance – Levene's test for homogeneity:	
	Population Group.	278
Table 10.11	One-way analysis of variance: Population Group.	279
Table 10.12	Scheffé Test: Population Group.	284
Table 10.13	Kruskal-Wallis one-way analysis of variance: Population Group.	393
Table 10.14	One-Way analysis of variance – Levene's test for homogeneity:	
	Work Experience.	395
Table 10.15	One-way analysis of variance: Work Experience.	396
Table 10.16	Kruskal-Wallis one-way analysis of variance: Work Experience	301
Table 10.17	One-way analysis of variance: Age.	302
Table 10.18	Kruskal-Wallis One-Way Analysis of Variance: Age.	306
Table 10.19	One-way analysis of variance - Levene's test of homogeneity of	
	variance: Religion.	307

Table 10.20	One-way analysis of variance: Religion.	308
Table 10.21	One-way analysis of variance - Levene's test of homogeneity of	312
	variance: Educational Qualifications.	
Table 10.22	One-way analysis of variance: Educational Qualifications.	313
Table 10.23	Kruskal-Wallis one-way analysis of variance: Educational	
	Qualification.	317
Table 10.24	Transformational leadership and transactional leadership by	
	nominal value: Questions 1 to 4 of the leadership questionnaire.	318
Table 10.25	Frequency distributions – Survey of Work Values.	320
Table 10.26	Frequency distributions – Internal Control Index.	325
Table 10.27	Frequency distributions – Value Survey Module.	327
Table 10.28	Frequency distributions – MLQ.	329
Table 10.29	Descriptive statistics – questionnaire factors.	334
Table 10.30	Regression – MLQ: Descriptive Statistics.	336
Table 10.31	Multiple regression-MLQ.	337
Table 10.32	Multiple regression - variables entered/removed.	339
Table 10.33	Multiple Regression model summary – MLQ.	339
Table 10.34	Multiple Regression – ANOVA.	340
Table 10.35	Multiple Regression – Coefficients.	341
Table 10.36	Multiple Regression – Beta Coefficients.	341
Table 10.37	Bravais-Pearson product moment correlation.	342
Table 10.38	Multiple regression – variables entered/removed.	342
Table 10.39	Multiple regression – variables entered/removed.	343
Table 10.40	Multiple regression – ANOVA.	343
Table 10.41	Multiple regression – ANOVA.	344
Table 10.42	Multiple regression for transformational leadership: Bravais-	
	Pearson product-moment correlations.	344
Table 10.43	Multiple regression – variables entered/ removed:	
	transformational leadership.	347
Table 10.44	Multiple regression model summary – transformational	
	Leadership.	348
Table 10.45	Multiple regression (transformational leadership) – ANOVA.	349
Table 10.46	Multiple regression (transformational leadership) – Coefficients.	349
Table 10.47	Multiple regression (transformational leadership) – variables	
	excluded.	350
Table 10.48	Multiple regression (transformational leadership) - Bravais-	
	Pearson product-moment correlations.	351
Table 10.49	Multiple regression (transactional leadership) – variables	
	entered/ removed.	352
Table 10.50	Multiple regression model summary – Transactional leadership.	353
Table 10.51	Multiple regression (transactional leadership) – ANOVA.	353
Table 10.52	Multiple regression (transactional leadership) – Coefficients.	354
Table 10.53	Multiple regression (transactional leadership) – variables excluded.	354

#### SUMMARY

#### THE EFFECT OF SELECTED VARIABLES ON LEADERSHIP BEHAVIOUR WITHIN THE FRAMEWORK OF A TRANSFORMATIONAL ORGANISATION PARADIGM

by

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The analysis of cultural and value-related differences and the development of a workable and effective leadership culture for business in South Africa takes place against the backdrop of a unique socio-political history. Since 1992 the process of political and social transformation that affects all organisations in South Africa, including the public service, is a process of radical change and involves the unification of individuals from many diverse cultures. The public service, directed by the principles of reconciliation, restructuring and development, finds itself within a process of both structural and cultural transformation. The culture change process of the SA Air Force, one of the Arms of Service and the organisation on which this study focussed, involve the transformation of policies, practices and behaviour (especially leadership practices) towards a culture being much more transformational and participative than what it was in the past.

The question under study was whether a transformational leadership approach is suitable for the African social and work environment. South African organisations are still being conceptualised and structured in a largely Western mould. Yet, the appropriateness and application of Western-centric leadership and management theories and philosophies in all other cultures are increasingly being challenged. Through focussing on work-related values and locus of control orientation, the researcher wished to uncover the common ground between eurocentric and indigenous African philosophies, principles and practices (which underlie the SA reality) as part of the challenge to find a workable approach for effective leadership in South Africa. The research investigated the appropriateness of the elements of a transformational leadership approach (as opposed to the task focussed transactional approach) to fit the huge array of cultural identities in the African world of work.

Self-administered questionnaires were used to obtain feedback from 509 respondents, all being leaders at different levels in the organisation. The survey data included preferences on work-related values as expressed by both the Survey of Work Values (Wollack, Goodale, Wijting & Smith, 1971) and the Value Survey Module (Hofstede, 1980), locus of control orientation as expressed by the Internal Control

Index (Duttweiler, 1984)) and leadership behaviour as expressed by the Multifactor Leadership Questionnaire (Bass & Avolio, 1997). Statistical methods for data analysis included analysis of variance, discriminant analysis, correlation statistics, non-parametric statistics, multiple regression and descriptive statistics.

The research has shown that the answer for developing a workable, practical approach for effective leadership in Africa is neither singular, nor simplistic. The research findings do not support the argument of building a unique African leadership model which is purely based only on indigenous African values, thereby rejecting all tested and proven western principles and philosophies. The search for a suitable leadership model for a transforming South Africa should not run the risk of only focusing on either African- or Western-specific cultural value systems. Instead, the existence of culture-universal values impacting on effective leadership processes were confirmed. Many of the so-called humanistic African values proposed, are reported not to be truly African, but rather universal in nature. It was also found that many of these culture-universal characteristics could be associated with the principles of transformational leadership. The validity of adopting a transformational leadership culture for the military was also confirmed.

Respondents have shown an awareness of a large power distance and a tendency towards high uncertainty avoidance as well as a strong collectivistic orientation. Support was also found for the fact that business success is not only achieved through masculine influence. In terms of Upward Striving, Pride in Work and Job Involvement as work value dimensions, employees across all culture groups were found to attach a high value to the intrinsic rewards of work in shaping work-related behaviour.

Despite the general tendency towards internality, Africans provided significantly lower scores on internality than all the other population groups. However, the results in this study have firmly rejected the notion that most organisational behaviour theory is limited to only internals. Although internality predicts more natural transformational behaviours, the critical factor remains whether leaders have the ability to ensure the required outcomes of extra effort and follower satisfaction. This can be achieved by both internals and externals.

The research established the fact that, also in the African context, leadership styles differ in terms of follower effectiveness and that higher levels of employee participation and involvement, inspirational motivation and individualised consideration (i.e. transformational behaviours) lead to higher levels of follower performance and effectiveness across all four culture groups.

#### OPSOMMING

#### DIE UITWERKING VAN GESELEKTEERDE VERANDERLIKES OP LEIERSKAPSGEDRAG BINNE DIE RAAMWERK VAN 'N TRANSFORMASIONELE-ORGANISASIEPARADIGMA

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Die ontleding van kulturele en waarde-verwante verskille en die ontwikkeling van 'n werkbare en doeltreffende leierskapkultuur vir besigheid in Suid-Afrika vind plaas teen die agtergrond van 'n unieke sosio-politieke geskiedenis. Sedert 1992 behels die politieke en sosiale transformasieproses wat alle organisasies in Suid-Afrika, insluitend die staatsdiens, raak, 'n proses van radikale verandering en omvat dit eenwording van individue uit uiteenlopende kulture. Die staatsdiens, wat gerig word deur beginsels van versoening, herstrukturering en ontwikkeling, bevind homself midde in 'n proses van sowel strukturele as kulturele transformasie. Die kultuurveranderingsproses van die SA Lugmag, een van die weermagsdele en die organisasie waarop hierdie navorsing fokus, behels die transformasie van beleid, praktyke en gedrag (veral leierskappraktyke) tot 'n kultuur wat baie meer transformasioneel en deelnemend is as in die verlede.

Die vraagstuk wat spesifiek ondersoek is, is die feit of 'n transformasioneleleierskapbenadering geskik is vir 'n Afrika sosiale en werksomgewing. Suid-Afrikaanse organisasies word steeds gekonseptualiseer en gestruktureer volgens 'n hoofsaaklik Westerse formaat. Tog word die geskiktheid en toepassing van Westers-sentriese leierskap- en bestuursteorieë en -filosofieë op alle kulture toenemend bevraagteken. Deur te fokus op werkverwante waardes en lokus van kontrole-oriëntasie poog die navorser om die gemeenskaplike te vind tussen eurosentriese en inheemse Afrikafilosofieë, -beginsels en -praktyke (wat die SA werklikheid onderlê) as deel van die uitdaging om 'n werkbare benadering tot doeltreffende leierskap in Suid-Afrika te vind. Die navorsing het die geskiktheid van die elemente van 'n transformasionele-leierskapbenadering (in teenstelling met 'n taakgerigte transaksionle benadering) om die groot aantal uiteenlopende kultuuridentiteite in die Afrika werkswêreld te pas, ondersoek.

Selfgeadministreerde vraelyste is gebruik om terugvoer van 509 respondente, wat almal leiers op verskillende vlakke in die organisasie is, te verkry. Die opnamedata sluit voorkeure in ten opsigte van werkverwante waardes soos gemeet deur deur die Werkwaardesopname (Wollack, Goodale, Wijting & Smith, 1971) en die Waardeopnamemodule (Hofstede, 1980)), lokus van kontrole-oriëntasie soos gemeet deur die Internebeheerindeks (Duttweiler, 1984) en leierskapgedrag soos gemeet deur die Multifaktorleierskapvraelys (Bass & Avolio, 1997). Die statistiese metodes vir dataontleding sluit in variansie-ontleding, diskriminantontleding, korrelasiestatistiek, nie-parametriese statistiek, meervoudige regressie en beskrywende statistiek.

Die navorsing het getoon dat die antwoord vir die ontwikkeling van 'n werkbare, praktiese benadering tot effektiewe leierskap in Afrika nie enkelvoudig of eenvoudig is nie. Die navorsingsbevindings ondersteun nie die argument ten gunste van 'n unieke Afrikaleierskapmodel wat slegs gebaseer is op inheemse Afrikawaardes en waarvolgens alle beproefde en bewese Westerse beginsels en filosofieë verwerp word nie. Die soektog na 'n geskikte leierskapmodel vir 'n transformerende Suid-Afrika moet nie aan die risiko blootgestel word om net te fokus op 'n Afrika- of Westersspesifieke kulturele waardesisteem nie. In plaas daarvan is die bestaan van kultuuruniversele waardes wat 'n impak op doeltreffende leierskapprosesse het, bevestig. Heelwat van die sogenaamde humanistiese Afrikawaardes, het geblyk nie werklik slegs van Afrika te wees nie, maar eerder universeel van aard. Daar is ook gevind dat baie van die kultureel-universele eienskappe verbind kan word met die beginsels van transformasionele leierskap. Die geldigheid daarvan om 'n transformasionele-leierskapkultuur vir die militer te aanvaar, is ook bevestig.

Respondente het 'n bewustheid van 'n groot magsafstand ("*power distance*") getoon en 'n geneigdheid tot hoë onsekerheidsvermyding ("*uncertainty avoidance*") asook 'n hoë vlak van kollektivisme. Steun is ook gevind vir die feit dat besigheidsukses nie beperk is tot manlike invloed nie. Ten opsigte van Opwaartse Strewe, Werkstrots en Werkbetrokkenheid as werkwaardedimensies, is daar gevind dat werknemers van alle kultuurgroepe hoë waarde heg aan die intrinsieke belonings van werk in die vorming van werk-verwante gedrag.

Ten spyte van die algemene geneigdheid tot internaliteit, het swartes betekenisvol laer tellings behaal vir internaliteit as die ander bevolkingsgroepe. Die resultate van hierdie navorsing verwerp egter die idee dat die meeste organisatoriese gedragsteorieë beperk is tot interns. Hoewel internaliteit meer natuurlike transformasionele gedrag voorspel, bly die kritieke faktor of leiers oor die vermoë beskik om die vereiste uitkomste van ekstra poging en werknemertevredenheid te verseker. Dit kan bereik word deur sowel interns as eksterns.

Die navorsing het verder bevestig dat leierskapstyle selfs in die Afrikakonteks verskil opsigte volgelingdoetreffendheid hoër ten van en dat vlakke van werknemerdeelname -betrokkenheid, en inspirerende motivering en geïndividualiseerde konsiderasie (dws transformasionele gedrag) lei tot hoër vlakke van volgelingprestasie en -doeltreffendheid by al vier kultuurgroepe.

### CHAPTER 1

### INTRODUCTION TO THE STUDY AND BACKGROUND

#### 1.1 INTRODUCTION

In order to ensure successful achievement of set objectives, any organisation has to combine and utilise all its available resources in the most effective and efficient manner. In most organisations, the work force constitutes a substantial part of these resources. Despite technological progress, including automation, the worker still occupies a central place in the production process and the human factor still serves as the basis for profitability and level of service. Although all resources are essential for success, people, according to Hall and Goodale (1986: 3), are generally regarded as the employer's core resource. Effectiveness, ie the level of success achieved by the organisation, is therefore closely related to the optimum functioning of the people employed by the organisation.

As a result of the pressure on organisations for change and transformation, management of the human resource component is becoming more and more important. A thorough knowledge of the people employed by an organisation is becoming essential. The human being is complex and dynamic, as every individual behaves in a unique way, influenced by factors such as habits, needs, motives, objectives, ambitions, cultural background, values and norms. These aspects, in turn, are influenced by various factors within and outside the organisation. Therefore, it is natural that every individual will be affected in a unique way by change within his/her organisation.

It is commonly accepted that, in the past, organisations assumed large portions of the work force to be similar and that anyone different simply had to adapt to the majority group (De Beer, 1997). In today's organisation this approach has changed to one where employees are regarded as many different individuals, each of whom have to be acknowledged as adding value to the organisation in a unique way. The importance of valuing and respecting individual differences in the quest of companies to outperform their competitors, receives more and more support (Jamieson & O'Mara, 1991; Peters & Waterman, 1982).

The above mentioned applies to all types of organisations and enterprises (Schein, 1992), none more so than those in South Africa battling to get to grip with the transformational changes brought about by new political and social priorities. De Beer (1997) emphasises that for South Africa, having a strong history of stereotyping people in all spheres of society, this transition will by no means be an easy one. The crippling effect of Apartheid as a socio-economic

system on the economy and all social structures in South Africa, and the dramatic turnaround in the early nineties, are not new to anyone familiar with the recent history of and political developments in the country during the past decade. The system of Apartheid, characterised by members of various racial and ethnic cultures being regarded as too different to develop together, resulted in a deeply entrenched social paradigm preventing people in general (and specifically the minority white community) to see the need for a deep and thorough understanding of these differences. This resulted in the highly biased and discriminating approach of separate development where "nonwhite" citizens were increasingly disadvantaged and deprived of developmental opportunities and social rights. Although the country has always had a population of huge variety, this diversity was not reflected in the composition of companies' employee numbers. However, the 1994 democratic elections brought about significant changes in organisational policies in respect of selection and appointment of members from all population groups. The process of change is ongoing towards a future of balanced representation (Hirschowitz, 2000). No one has remained unaffected, and old paradigms and assumptions regarding people's abilities and potential are continuously being challenged. The challenge for workers and employers to work together more effectively and productively in the same work place will thus become increasingly demanding. In addition to this South Africa is also expected to become a competitive role player in the global market and as such an example for the rest of Africa. This will not be achieved over night. Despite an increasing number of the world's multinational corporations already returning to South Africa, Hodgetts & Luthans (1997) foresee difficult times for the years ahead.

In this regard Theron (1992: 1) sees the survival of South Africa as a modern industrial complex in the era of increased integration as dependent "to a large extent on the ability of its people who think differently and have different values and beliefs to.... strive towards the attainment of common goals". The ongoing process of integrating all ethnical groups with different cultural backgrounds and values into one united socio-economic community in South Africa calls for an effective analysis of these value differences. It forms a natural prerequisite for people to work together in teams for the attainment of individual and organisational goals. The challenge is to enable people, with different cultural backgrounds, preferences, perceptions and needs, to work together as effectively as possible. In the RSA, the merging of diverse cultures in the workplace culminates in management having to pay more and more attention to these differences when dealing with personnel and personnel-related problems.

When analysing the nature of leadership behaviours and the factors influencing these behaviours in an African context, one has to keep track of the fact that "African" is not just different to "Western", but that the term "African" in South Africa represents a huge variety of ethnic, cultural and sub-

cultural groups. These include nine major ethnic groups, each with its own cultural identity and language. There seems to be consensus that there is a fundamental conflict of cultures between blacks and whites and that organisational behaviour varies across cultures (Becker, 1974; Hammond-Took, 1986; Hofstede, 1980). However, Erwee (1988) points out that the question as to what proportion of this variability in organisational behaviour is caused by cultural determinants, became a contentious issue resulting in conflicting viewpoints. Although Human & Hofmeyer (1985) acknowledge a cultural gap between whites and blacks, they stress the fact that culture's influence on the behaviour of blacks should not be overemphasised, as most black managers deliberately "westernise" their behaviour as much as they can in the white organisation. To them a black person's conformity to tribal cultural values is situational as he may only display traditional behaviour when expected by his family. In contrast with this Hammond-Tooke (1986) rejects the fact that a black is urbanised and westernised once he has changed his geographical location. To him urbanisation is a result of fundamental structural and cultural changes which will, amongst others, involve the adoption of ..... "new, or alternate perceptions, concepts and symbolic structures".

Despite the many disagreements, findings of researchers (Moerdyk & Coldwell, 1990; Erwee, 1988; Biesheuvel, 1987) generally indicate that the eurocentric approach of explaining the behaviour of all cultural groups in terms of Western knowledge and paradigms (which are not relevant to these groups) will not suffice in a heterogeneous cultural composition in South Africa. Instead of the old ethnocentric<sup>1</sup> approach (Van der Walt, 1997), the country should continuously seek to move towards a society characterised by ethnorelativism, where the potential and value in terms of organisational performance of all groups and cultures are regarded as inherently equal. The ethnocentric approach in the "old South Africa" resulted in major imbalances in the SA business world. In 1999 Smit and Cronje reported that less than 2% of top and middle management was black and that only a handful of blacks have managed to establish themselves as top executives. They further indicated that if middle and top management were singled out and compared, there were 541 top-and middle-level managers per 10 000 members of the white workforce, with only two of these managers per 10 000 blacks, a ratio of 270:1. The same figure for Coloureds was 10 and 95 for Indians. These figures should further be put into perspective against a ratio of more than three blacks for each white member of the overall South African population.

It is clear that whites still dominate the professional, managerial and other skilled positions. As early as 1988, Erwee investigated the reasons for this type of occupational structure by focussing on a theoretical framework that indicates the structuring of relevant variables, and then reports on a number of variables

<sup>&</sup>lt;sup>1</sup> The belief that one's own group, culture or subculture is inherently superior to other cultures and groups.

(most of which are still valid today) responsible for the slow advancement of black leaders in South Africa. The most important of these are:

- The role of the physical environment (including aspects like poor education, lack of geographic mobility and sociological factors).
- Organisational policies (such as selection and blocking of promotion).
- The impact of culture (through different values, attitudes and behaviour).
- Individual perceptions or personality factors.

Despite a significant amount of South African research on variables influencing cross-cultural employee behaviour and specifically career advancement of blacks, this area of research still seems to be fragmented owing to the lack of a holistic integrated theoretical model. Various research questions posed by Erwee (1988:16) have not yet been properly researched, which indicate how much basic research still needs to be done. Examples are the following:

- To which extent do the cultural paradigms between black and white employees differ with regard to their perception of time and individualism versus collectivism, etc.?
- How does the organisational behaviour of black and white employees vary?
- How can cultural diversity be used as an organisational resource?
- Do black leaders have an external locus of control?

Research based on the above-mentioned questions should be done with the specific aim of explaining how diversity can be utilised as a valuable organisational resource for leaders at all levels. An understanding of, and more importantly, the acceptance of ethnical and cultural differences became a prerequisite for fast economic and social development in post-apartheid South Africa.

#### 1.2 BACKGROUND OF THE STUDY

Since 1992 the enormous changes South Africa has experienced – changes driven mainly by the extreme diverse composition of the South African population - have been discussed, philosophised and written about at length. The radical change, from a society of "apartheid" in the past to a multi-racial society of equal opportunity for the future, has far-reaching implications for most organisations.

In this way the South African public service, directed by the principles of reconciliation, restructuring and development, also finds itself within a process of transformation. Seen against the background of the fundamental political change after the 1994 election and the resulting integration of military personnel in the South African National Defence Force (SANDF), the Department of Defence (DOD) is currently undergoing a process of transformation according to which the SANDF will also adopt a new organisational paradigm (see chapter 2). The SA Air Force, one of the arms of service, is committed to these changes implemented by the DOD and is the organisation on which this study will focus. In reaction to the change imperatives the SA Air Force has already been restructured according to the image of the newly transformed DOD organisation.

This new organisation regards the following objectives as important:

- Establishment of a professional work ethic.
- Improvement of morale and productivity.
- Improvement of services rendered.
- Establishment of new, and more participative, organisational structures.
- Development of a new organisational culture.
- Increased focus on human resource development.
- Establishment of a learning organisation.
- Thorough management of change and diversity.

The process of transformation in the DOD is thus not limited to mere modifications to the previous dispensation, but implies radical change. It is an all-embracing programme and involves change to organisational structures, labour practices, management philosophies, leadership principles as well as change in human behaviour, through the establishment of a new value-driven culture. Transformation of the SA Air Force organisation (as part of the DOD) will therefore have far-reaching implications for managing and leading the human component of its resources.

#### 1.3 SUMMARY

The study of cultural and value-related differences and the development of a workable and effective leadership culture for business in South Africa takes place against the backdrop of a unique socio-political history. In the process of rebuilding a multi-racial society, also in the world of work, the diversity of the SA population calls for a proper understanding of all human factors influencing leaders' ability to lead their organisations and their people towards higher levels of productivity and competitiveness. This also applies to the public sector in general and the Department of Defence (DOD) in particular. In the next chapter the research setting will be discussed in more detail, where after the research objectives will be presented.

## CHAPTER 2

### **RESEARCH SETTING AND OBJECTIVES**

#### 2.1 INTRODUCTION

The most important phase in the process of moving to a truly democratic South African society was completed in April 1994 with the national elections. All systems, including those of defence and national security, were influenced by this radical turn-around of political control and social changes. Shifting priorities in government spending, the rapidly decreasing probability of external/conventional military threats to the country and societal demands for a more representative defence management structure, have all contributed to the increasing pressure on the Department of Defence (DOD) to undergo a fundamental transformation.

#### 2.2 DEFENCE TRANSFORMATION IN DEMOCRATIC CONTEXT

The establishment of a new government has brought about different policies and priorities. Strategically the biggest threat to South Africa's stability lies with socio-economic challenges - poverty, unemployment, poor education, the lack of decent housing and the absence of adequate social services. In order for government to address these concerns successfully, it needs to free financial resources by especially reviewing the spending on those areas that have traditionally absorbed big chunks of the budget, such as defence. Furthermore, the pressure on governments all over the world to subscribe to the principles of disarmament and to redirect spending to the upliftment of people and democracy (De Vries, 1999), holds especially true for developing countries, of which South Africa is generally regarded as being part of. Transformation also saw a change in the role of the SANDF (and SAAF). Apart from having to defend the country against external aggression, its role as a peacekeeping force in the region became more prominent. A vital part of transforming the DOD is therefore to determine the most effective way of providing these functions. A smaller defence structure will be faced with the task of doing more with less, a challenge which could only be achieved by unleashing the creative and innovative potential of the workforce (Hall, 1994) through effective leadership practices, supported by constantly focussing on identifying and understanding core values and especially work-related values (also see Chapter 3). In the multi-cultural South African milieu, leaders will therefore have to break away from traditional patterns of leadership where "one style fits all".

The DOD that came into being with the change in government, is the result of the amalgamation of a variety of different defence structures and a stronger civilian component. Naturally it was to be expected that the face presented by the DOD would also change, especially with regard to the management structures. A change from the traditional military structures to something congruent with the political and social requirements of today, would see more black and more female representation in the top and senior management structures of the DOD (De Vries, 1999). This would indicate to society at large that the DOD is a true product of all the people of the country and it would therefore contribute significantly to its credibility.

The White Paper on the transformation of the Public Sector (1995) lays down clear guidelines for changes in management philosophy and practice for the public sector that are also applicable to the DOD and the National Defence Force. These guidelines include the following:

- The introduction of new and more open, flexible and participative organisational structures, concentrating less on the application of rules and more on the creative use of consultation and team work.
- Structural changes will need to be accompanied by a major shift in organisational culture, from a rule culture to one that is focussed more on the achievement of tasks and the meeting of needs.
- The effective mobilisation, development and utilisation of human resources with a high level of motivation and morale will be critical for the success of the transformation process in general.
- The DOD, like all other public institutions, will increasingly become rainbow workplaces, representative of the cultures and people of South Africa. The leaders of tomorrow will therefore need to be skilled in handling the complex processes of change in this environment of increased diversity.

In addition to the above-mentioned, the white paper also calls for an increased empowerment of the work force (as part of total quality management) through delegation, training and transformational leadership. Furthermore, all these changes and requirements will need to be supported by parallel changes and adjustments in the way the DOD is managed, led and controlled. One cannot ignore the fact that the DOD was (and to a certain extent still is) staffed in the majority by people who were part and parcel of a defence structure with an entrenched culture, functioning in almost complete autonomy. The future DOD will be totally different. It is therefore of the utmost importance that the transformation of the DOD should address entrenched mindsets and possible resistance to the required changes. The unique and new composition of the DOD's manpower in general and the SAAF specifically, from different social and organisational cultures, will pose enormous challenges to supervisors and leaders at all levels. Followers will have to be led into the new direction by focussing on a common vision and developing and supporting a set of shared values.

### 2.3 CULTURE AND VALUE SYSTEMS

When dealing with human (and therefore employee) behaviour one is almost always confronted with the issue of cultural and value-related differences. Culture not only influences individual behaviour, but can also be regarded as the collective personality of a group or society. It determines the unique identity of a group (Hofstede, 1980: 26) and can be regarded as the "interactive aggregate of personal characteristics" that influences the response of each member of the group to the environment (Guilford, 1959).

This "personality" consists of and is formed by, amongst others, values - a construct used to explain one's tendency to select or prefer one alternative to another in a given situation. The definition provided by Rokeach (1972: 159) is "... an enduring belief that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence". Therefore, values often dictate the choice of appropriate behaviour. The best way to describe a particular culture is to study the unique visible behavioural patterns associated with the culture in order to make deductions about the complex array of underlying values. Hodgetts et al (1997:96) calls it the "acquired knowledge that people use to interpret experience and generate social behaviour". Culture affects how people think (Theron, 1992) and how they behave (Mead, 1994: 6-14). Therefore, it has a clear perceivable and visible component (ie. behaviour) and a more complex and abstract invisible component. Kluckhohn (1951: 86) defines this visible part as "patterned ways of thinking, feeling, .....traditional ideas and especially their attached values".

As organisational transformation entails the influencing and change of human behaviour, the effect of cultural and value differences cannot be ignored. One of the fundamental characteristics of the South African work force is multiculturalism. Today the SAAF population is becoming more and more representative of this diversity of cultures, having to work together and interact in a number of different work roles, thus presenting leaders with increasingly difficult and complex problem solving and decision making dilemmas. If leaders do not develop a sense of urgency for understanding the unique cultural preferences of the groups and individuals they work with, they will soon experience an inability to inspire and motivate ordinary followers to extraordinary levels of performance. In this regard Hofstede (1993) also refers to the need of American organisational leaders for understanding and addressing the needs of work groups from diverse cultures.

The huge amount of culture (and value-) related research, writings and discussions found in literature today indicate that the study of the construct is no easy task. The reason for this could arguably be found in the extreme complex nature of the construct itself. It is made up of many variables and components and is manifested in many different ways. Not only is it abstract in nature, but the difficulty to define it unambiguously has led the concept of culture to be the subject of considerable academic and social debate over the years. The difficulty in providing and accepting a single common description is portrayed in the example used by Schein (1992, p8). In discussing culture with colleagues, he often found that they agree "it" exists and that "it" is important in its effects, but then indicates that ......"we have completely different ideas of what 'it' is". He also had colleagues telling him ......"pointedly that they do not use the concept of culture in their work, but when I ask them what it is they do not use, they cannot define 'it' clearly". A detailed description of culture as a social and organisational determinant of individual and group behaviour as well as a formal definition thereof, which will serve as a point of departure and reference for this research, will be provided in Chapter 3.

In exploring the differences in thinking and social action between members of different modern nations and to understand value differences across national cultures, Hofstede (1980) studied 116 000 employees in more than 40 countries and identified four main dimensions on which country cultures differ. They were labelled and defined as follows (Hofstede, 1991):

Power distance:-

The degree of inequality in power between a less powerful individual (I) and a more powerful other (O) in which I and O belong to the same (loosely or tightly knit) social system.

Uncertainty-avoidance:-

The extent to which a society feels threatened by uncertain and ambiguous situations and to which feelings of uncertainty about the future are harboured.

Individualism-collectivism:-

A situation in which people are supposed to look after themselves and their immediate family only and/or a situation in which people belong to in-groups or collectivities which are supposed to look after them in exchange for loyalty. Masculinity-femininity:-

A situation in which the dominant values in society are success, money and things (masculinity) or caring for others and the quality of life (femininity).

Theron (1992: 132) regards Hofstede's study as "the most comprehensive, expansive, all encompassing research on international differences in work-related values". After identifying the four dimensions by means of theoretical reasoning and massive statistical analysis, Hofstede, in association with Bond (Hofstede and Bond, 1988: 4-21) identifies a fifth dimension that Hofstede calls "long-term-short-term orientation". It refers to the degree to which people emphasise values associated with the future (such as persistence) versus values focussing on the past or present (such as tradition). The nature of the Hofstede value dimensions and its research base will be discussed in more detail in Chapter 7.

Culture-related studies are not new in an African context either. For example, a work-value study on Western-oriented and tribal-oriented black employees was done in South Africa (Orpen, 1978: 99-111). The differences found were explained in terms of the differences in cultural backgrounds of these two groups. However, where many other previous studies (i.e. Trompenaars, 1993; Hodgetts & Luthans, 1997) have focussed on the effect of cultural differences on management techniques and approaches, this study will attempt to analyse the effect of culture (specifically value differences) on leadership and follower behaviour in a transformational paradigm. As it is so difficult to fully understand and describe other cultures from an own-culture-perspective, the study will have a strong focus on the effect of cultural and value differences.

#### 2.4 ORGANISATIONAL CULTURE AND LEADERSHIP

Since organisational culture sits at the very core of the organisation's functioning and performance (Theron, 1992: 29), it stands to reason that any significant change in its environment necessitates a change in its culture in order to ensure sustained effective functioning. The changes to particularly the political and social environment of the DOD (and therefore the SAAF), also require the introduction and internalisation of a new culture (and shared value system) within the organisation. DOD leaders will be fundamental in creating, developing and maintaining a healthy organisational culture and climate. They should serve as behavioural models and play an important role to ensure that shared beliefs and values are established throughout the DOD.

As indicated earlier, the culture of an organisation cannot be influenced or changed without influencing the values of employees and particularly the shared values that apply in such an organisation. Values, and thus work-related values, form an integral part of the current culture in an organisation. In the mid-nineties the SAAF began to focus on the importance of developing a core set of work-related values and the fact that these values play an important role in the way in which leaders influence the behaviour of followers. By this time it was clear that the quality of the SAAF's leadership was an absolute predictor of its success and a prerequisite to ensure durability and continuity of optimal performance. Institutionalising appropriate leadership practices became more and more important in order to bring the organisation in line with the guidelines of the DOD.

Culture, and therefore values, and effective leadership are inseparable concepts since organisational culture is to a very large extent determined by leadership through firstly, the behaviours of leaders being imitated by followers, and secondly through those aspects in organisational life which leaders control and thereby influence follower behaviour (Drennen, 1992; De Beer, 1997). These aspects are typically:

- What leaders pay attention to, measure and control.
- Leaders' reactions to critical incidents and organisational crises.
- Deliberate role modelling and coaching.
- Criteria used for the allocation of rewards and status.
- Organisational design and structure.
- Organisational systems and procedures.
- Formal statements of organisational philosophies, creeds and charters.

The above-mentioned covers a wide range of issues in organisational functioning and therefore has a direct and profound influence on the culture of the organisation. As it is the leaders of the organisation who control and influence these issues, they directly influence and even determine the culture to a very large extent.

There is no better example than South Africa for the forging of a new leadership paradigm. The new SANDF came into being with the integration of seven different armed forces into one and this integration brought together different leadership and social cultures. The situation necessitated a review of leadership practices as well as the renewing of the organisational culture in order to allow it to harmonise with environmental and international requirements. To achieve this, the SAAF has embarked on a road of focussing on transformational leadership (see Chapter 5) rather than the often ineffective transactional approach, as experienced by both leaders and followers in the organisation. The appropriateness of a transformational leadership approach in a cross-cultural work environment such as the SA Air Force has, however, not been tested and investigated properly.

#### 2.5 CULTURAL DIFFERENCES AND TRANSFORMATIONAL BEHAVIOUR

Although Bass & Avolio (1993: 118) suggest that there is a constant interplay between culture (and therefore values) and leadership, and that ".....the reliance on developing transactional leadership styles will clearly fall short of the leadership challenges confronting most organisations today", certain seemingly opposing factors regarding transformational leadership and workrelated values also exist, which call for a hypothesis that one leadership style or approach will not suffice across a range of different cultures. It proves the necessity of examining and understanding the nature of dominant values influencing leader and follower behaviour. The most important of these factors will subsequently be discussed.

### 2.5.1 HIGH POWER-DISTANCE VS EMPOWERMENT

In explaining the nature of a transformational leadership culture, Bass <u>et al</u> (1993: 118) suggest that, in an organisational culture which is highly innovative and satisfying, one would likely find leaders who build on assumptions such as "... people are trustworthy and purposeful; everyone has a unique contribution to make; and complex problems are handled at the lowest level possible". It follows thus that these assumptions could only be justified if followers share a common set of work values that indicate that they are willing to assume responsibility for own actions and for making own decisions. Workers supporting a high Power-Distance culture, accept a hierarchical or unequal distribution of power in organisations (Schermerhorn, Hunt & Osborn, 1994) which suggests that lower level workers sharing these cultural values would prefer seniors to take important decisions - something not highly valued by transformational leaders.

#### 2.5.2 INSPIRATIONAL MOTIVATION VS SHORT-TERM ORIENTATION

In a transformational culture leaders inspire followers through exhibiting a sense of vision and purpose (Bass, <u>et al</u>, 1993: 118) and empowering others to take responsibility for achieving the vision. Charlton (1992: 50) cites two reasons why leaders should provide and portray a positive vision or image of the future. Firstly, it motivates people and enables them to find their own roles within the organisation. Secondly, it provides a sense of focus as to where the organisation is going. It should be borne in mind that, in accordance with the national cultures framework of Hofstede and Bond (1984: 417-433), some people have a short-term orientation and emphasise values that focus on the past or present, such as social obligations and tradition. This is in contrast with long-term, future-oriented values such as thrift and persistence and could pose difficult challenges to leaders wanting to create and foster a culture of

creative change, improvement and growth where people are encouraged to focus on a shared vision of the future.

#### 2.5.3 INDIVIDUALISED CONSIDERATION VS MASCULINITY

By paying attention to the individual needs and potential abilities of followers, transformational leaders continuously encourage them to develop beyond their present jobs and abilities. Individualised consideration (Bass et al, 1994) refers to the importance leaders assign to supporting, mentoring and coaching individual followers to higher levels of performance. Charlton (1992: xiii) pictures this individualised consideration as "....meeting the cry of the human heart, ....putting the humanity back into organisations". The leadership philosophy of the DOD also clearly states that leadership at all levels of the organisation should first and foremost be people centred in the belief that subordinates inherently have both the willingness and potential to do what needs to be done and to be empowered to do so. However, the development of a leadership culture where each individual is regarded as an important contributor to the success of a team will be difficult in an organisation where the so-called masculine traits, such as assertiveness, independence, competitiveness and insensitivity to feelings are regarded as dominant values (as is commonly found in many Western organisations today).

#### 2.5.4 INSPIRATIONAL MOTIVATION VS INDIVIDUALISM

In a transformational culture, leaders do not only provide vision, but also inspire followers by communicating high expectations of both the individual and the team as a whole. They express the importance of teamwork and highlight the successes and achievements of the team. In contrast with this approach, in an individualism prone culture people focus more on working as individuals rather than on working together in groups. Schermerhorn <u>et al</u> (1994: 83) provide an example of an individualistic culture where employees want their seniors to be experts as well as to be decisive and authoritarian. According to them, Latin American employees may feel uncomfortable with a boss who delegates too much authority to them. Such preferences could prove to be difficult to accommodate with a leadership approach where participative procedures and employee involvement take priority, as is required by the DOD transformation guidelines.

#### 2.5.5 UNCERTAINTY VS INTELLECTUAL STIMULATION AND CHANGE

"Uncertainty-avoidance" as a work value dimension of Hofstede (1980) is the degree to which people in a society prefer structured versus unstructured situations. One of the characteristics of a transformational leader is his or her

ability to prompt careful problem solving through intellectual stimulation. This is achieved by questioning assumptions and by encouraging followers to look at old problems in new ways. It inevitably brings about change and it is therefore anticipated that such leaders will be faced with difficult situations when working with followers showing a high preference for uncertainty-avoidance.

The above mentioned factors (among many others) indicate that the success of a transformational approach towards leading subordinates will be influenced by preferences regarding certain work-related values which form part of the current organisation culture and sub-cultures. Identifying and understanding these values will support leaders in choosing an appropriate leadership style in a given situation. As leaders need to be attentive to cultural (and therefore value related) differences, this study will focus on the analysis of these differences and the influence thereof on effective transformational leadership behaviour.

## 2.6 LEADERSHIP AND LOCUS OF CONTROL

One of the dimensions of culture which finds itself at the centre of human existence involves the role people assign to their natural environment. In his need for survival man is in constant interaction either against or with the environment. This environment also includes the people around us and those having an influence on our very existence and behaviour.

The construct of Locus of Control is used by Trompenaars (1993: 125) to describe the abovementioned interaction. The inner-directed believes that nature (i.e. the environment) can be influenced by imposing one's will upon it. This is a kind of culture that sees the organisation "...as a machine that obeys the will of its operators". The outer-directed culture perceives the environment as something that man is part of and where man "... must go along with its laws, directions and forces".

Initial research (Rotter, 1966: 9-17) suggests that an internal orientation towards the environment and others is typical of more successful Americans and that an external orientation (or locus of control) is typical of relatively less successful Americans. This notion is supported by a study of almost 3000 working males (Andrasani and Nestel, 1976: 164) that indicated that internally-oriented individuals earned higher compensation, had higher status occupations and were more satisfied with their jobs. Despite these findings Trompenaars (1993: 128) states that this is not applicable to non-American cultures and that an approach of adapting to external pressures and influences could also prove effective. Outer directed may not always mean to leave outcomes to luck or fate, but could also mean to be directed by external

influences that has for example proven to be best options or decisions in the past.

In the modern era reconciliation of both internal and external control has become important. This is particularly essential in the multi-cultural South African workforce. In the transformed SAAF, where the focus is moving away from rule-controlled employees, to followers being led in a transformational way with individual consideration, intellectual stimulation and participative procedures being the determinants of effective follower behaviour, it is essential to keep in mind that when one inner-directed person wants to control and effect the environment, all other parties become the environment (Trompenaars, 1993). Inner-directed individuals feel successful when they experience that their way of thinking have won over those of others. This is clearly not in line with the principles and objectives of the new DOD. A transformational leader, for example, will typically stress how much he has learnt from his mistakes and from the feedback received from others - which is outer-directed behaviour. Inner-directed behaviour, nevertheless, remains important especially in a military environment where strategies have to be put in place in order to sustain a competitive advantage and to prevent the environment having a negative effect on the performance and sustained competence of the organisation. A clear understanding of the nature of locus of control and the effect of an internal or external orientation on leader and follower behaviour is thus essential. The SA Air Force which, during the last five years, was fiercely promoting the value of a transformational approach towards leadership will, as a results of an ever increasingly diverse population, have to distinguish more and more between the different needs of internal and external oriented leaders and followers. Theron (1992:12) refers to the importance of this by noting that "internal and external loci of control have direct and exhaustive effects on organisations". His explanation of external behaviour, i.e. "... being compliant with the wishes and demands of both superiors and subordinates, consider good relationships of utmost importance, are natural followers, and are easy to supervise", as opposed to internal behaviour, i.e. ".....believing that they can control outcomes and rewards and exert more control in the work setting than externals", is a clear indication of the need for applying a full range of leadership styles, varying from transactional to transformational in nature.

A comprehensive analysis of variables affecting leadership behaviour in organisations will therefore not be complete without paying attention to the important construct of locus of control.

## 2.7 AIM OF THE STUDY

"The survival of mankind will depend to a large extent on the ability of people who think differently to act together" (Hofstede, 1980).

Having briefly discussed the political and social changes taking place in South Africa and influencing the behaviour of all leaders and other individuals in organisational life, the context of this research could well fall within the scope of the above-mentioned quote as well as the question: should one lead differently in different cultural settings? The need to learn more about the cross-cultural differences in behaviour and the effect of these differences on individual and work team performance coincides with the rapid cultural diversification of the South African workforce. A major shift in the composition of new entrant numbers will be in favour of black ethnic groups, Indians, Coloureds and especially female members of all population groups.

"Are current leadership and management models valid for explaining the behaviour and motivation of culturally different work groups?" This question, posed by Jung & Avolio (1999) holds special truth for the changing composition of the SA workforce. The answer of Hofstede (1980) is that ".....psychological, philosophical and managerial models are far from universal, as is often believed, but are deeply culture bound".

The aim of the study is to do a detailed analysis of work-related values, locus of control, and leadership behaviour in a multicultural South African workforce and their interrelations within the ambit of a transforming military organisation. The critical questions to be answered are two-fold. Firstly, the researcher wishes to determine whether leadership theories and practices developed in the western world can merely be applied in the African world of work. Secondly, the analysis will strongly focus on the effect of culture (specifically value differences) on transactional and transformational leadership behaviour displayed by leaders and their followers, so as to determine the appropriateness of the DoD's choice of transformational leadership as a suitable approach to be institutionalised across all cultural groups in the organisation.

Research into culture and leadership generally focuses on two approaches. Firstly, cultures are studied to determine whether or not there are significant differences in leadership behaviours across them, in other words whether cultural differences prompt different leadership behaviours (Trompenaars, 1993, Hofstede, 1980). In the second approach culture is treated as a key contextual variable (Pierce & Newstrom, 2000). Here the key question is whether or not the effectiveness of leadership behaviour is culture specific (Jung & Avolio, 1999; Dorfman, Howell, Hibino, Lee & Tate, 1997). Although behavioural differences in terms of leadership between cultures will be analysed in this study, the researcher will at the same time ensure a strong focus on those cultural elements (i.e. values) influencing effective and less effective leadership behaviours.

### 2.8 CONCLUSION

Since 1992 the process of transformation that affects organisations in South Africa in general and the civil service (on which this study will focus) in particular, has been a process of radical change and involves, inter alia, the grouping together of various individuals from diverse cultures. Cultural diversity, as well as the effective management thereof in the workplace, could be regarded as the single most important challenge facing South African human resource managers and leaders at all levels for the first decade of the new millennium. The diversity of the South African work force and the resultant challenges and demands it puts to HR managers and leaders were referred to in chapter 1. In the African context, South Africa could be referred to as a special case where a process of social transformation has to result in the integration and empowerment of all culture groups, including the previously disadvantaged, mostly black, majority of the South African population. One of the first obstacles in the new political dispensation in South Africa for the past ten years was to overcome and change traditional and conservative mindsets and negative assumptions regarding abilities, potential and needs of those people not belonging to one's own cultural group, especially white resistance to black advancement into positions of leadership and management. Getting rid of these restraints through changing perceptions, stereotypes and attitudes will be a major step ahead, but real progress in South Africa towards improving productivity and becoming a respected competitor in the global arena, will only become a reality once leadership acquire a proper understanding of ethnic and cultural differences and how they can unleash the strengths of this diversity towards higher levels of individual and group performance. Van der Walt (1997) reaches the same conclusion: "Not only do we have to passively accept cultural differences, but we have to positively value them ... a future together will only be possible if we are willing to identify and acknowledge the weak and strong points in each other." Research on the development of a workable and effective leadership model, which can be applied across all cultural boundaries in South Africa, is necessary and long overdue, given the transforming social and political circumstances in the country. The literature study as well as empirical research will focus on the attainment of the objectives as set out in this chapter.

### CHAPTER 3

## CULTURE, VALUES AND WORK-RELATED VALUES - A THEORETICAL OVERVIEW

A fish only discovers its need for water when it is no longer in it. Our own culture is like water to a fish. It sustains us.

Fons Trompenaars

#### 3.1 INTRODUCTION

As a determinant and regulator of individual and group behaviour, both within organisations and in social life, the concepts of culture and values have been the subject of numerous a discussion, probably due to its largely invisible and complex nature. The multicultural composition of the South African population, together with social and political changes as discussed in the previous chapter, has led to these concepts becoming more and more important and being researched vigorously during the past two decades (Erwee, 1988; Hodgetts et al, 1997; De Beer, 1997; Goduka, 1998; Smit et al, 1999; Sarros, 2001). Seen against the background of the country striving towards (1) becoming a global competitor, (2) attracting important foreign investors' interest as well as (3) playing a leading role in the economic and social upliftment on the African continent, the role of various cultures in shaping those behaviours which will enhance organisational effectiveness have to be analysed and studied continuously. It applies to all spheres of organisational life. Leaders have to direct organisations through difficult times of change and turmoil and have to deal with the complex issues of cultural diversity. It could be argued that understanding the richness of this diversity and being able to apply this knowledge to the economic benefit of the organisations they serve, have become one of the most important challenges of leaders in Africa.

Change, as is currently experienced in the South African business environment, often entails transforming people's basic values and beliefs (Smit <u>et al</u>, 1999). It thus makes simple sense to identify those elements of different cultures that can be meaningfully integrated into an effective and productive work culture. In this regard Schein (1992) argues that planned change in organisations cannot be understood without considering culture as a primary

source of resistance to change. This chapter will predominantly investigate culture and values as social constructs, specifically in an African context.

In Chapter 2 it was indicated that work-related values is one of the behavioural variables that will be subjected to close scrutiny in the study. In this chapter the concept of work-related values as an important element of organisational culture will be discussed. Aspects that will be raised include, amongst others the development and classification of work-related values, the change of these values as well as the measurement thereof.

In order to put the discussion into perspective, it will also be appropriate to investigate the nature of "work" and values in general. As values to a significant extent form the building blocks of culture in groups, societies and organisations, no discussion of work-related values will be complete without firstly examining the all important notion of culture. Previous culture related research, the general dimensions of culture, the uniqueness of cultural differences between African societies and the West as well as culture's relationship to leadership, especially within a transformational paradigm in South Africa, will be investigated.

As the Protestant work ethic played such an important role in the development of work-related values (Furnham, 1984), it will also be essential to address this issue briefly.

## 3.2 CULTURE

## 3.2.1 CONCEPT DEFINITION

The complexity of the construct *culture* and the difficulty in defining it, is evident from the approaches that authors follow to describe it: ... "there are many ways of examining cultural differences" (Hodgetts, <u>et al</u>, 1997), "I found leaders struggling with the concept of culture, ... the concept is hard to define, hard to analyse and measure, and hard to manage" (Schein, 1992), "it is not directly accessible to observation but (only) inferable from verbal statements and other behaviours" (Levitin, 1973), "no single definition ...... is likely to do justice to its complexity" (Williams, 1968), "there are many theories on culture" (De Beer, 1997).

To describe the difficulties we face in understanding culture, Hofstede (1980) compares the construct with the intangibles of the physical sciences, a field where one usually finds that there are definitions on which scholars have virtual consensus. However, according to the General Hierarchy of Systems (Boulding, 1956) in the social sciences man deals with systems that are at a much higher level of complexity, that are much more difficult to define and have consensus on. In discussing culture as "mental programming" Hofstede

(1980) draws an analogy between the social scientist approaching social reality and the blind men from the Indian fable approaching the elephant: "..... the one who gets hold of a leg thinks it is a tree, the one who gets the tail thinks it is a rope, but none of them understand what the whole animal is." He concludes that in the study of social reality one would not find objectivity. Social scholars will always be subjective and they should at least try to be "intersubjective". In approaching the social construct ("elephant") scholars will always be like blind men unless they join forces in approaching it from many different angles and by doing so discover much more than one can do alone.

What is also important in the study of social reality is that it stands in contrast with physical elements that are dead and can accept any description researchers wish to assign to them. These elements cannot decide and cannot define themselves. In the human world, however, Schutz (1970) argues that we find social systems that have already defined themselves and that have already decided how the world should be interpreted. As the "object" of study in this case has its own reasoning ability, researchers may describe and label it as they wish, but they cannot be expected to accept (like the dead physical object) our definitions. In this regard Trompenaars (1993) concludes that all we can do is to try to understand. This in turn means that we have to start with the way they (the objects or systems) think and then build from there. One always has to keep in mind that groups and organisations actively select, interpret and define their own environments.

As the concept of culture is so broad and complex, there are as many definitions for culture as there are theories on it. A general thread running through all the descriptions is that it refers to shared concepts of life and that it guides behaviour of individuals and groups through strongly held beliefs and values. To be able to get to a common description and to give a precise and formal definition of culture, a few different viewpoints will be offered from literature.

Culture has much to do with the individual's learning process. No one is born with a specific culture in the way they come into the world with a preference for, for example, right or left-handedness. People are born into a society that teaches them its culture (Schermerhorn, Hunt & Osborn, 1994). Culture therefore, does not exist within one person but belongs to and is shared by a collection of people. It forms the "boundaries" between different groups of people.

On the one hand culture is a perception, but is also descriptive in nature (Robbins and Coulter, 1999). A culture is perceived by individual members on the basis of what they see or hear. It has a shared aspect - members tend to describe their culture in similar terms disregarding their own different backgrounds. Whether they like it or not is not important - the description of their own perception of the culture they belong to is of more importance. It

furthermore represents a way of coping with the reality of the environment (Mbau, 1986). Through the process of traditionalisation it is transmitted consciously or unconsciously from one generation to another.

Culture is unique to each society or group of people. It could therefore be regarded as the personality of the group. It constitutes to a human collectivity what personality is to an individual (Smit <u>et al</u>, 1999). Similar to Guilford's (1959) definition of personality as "the interactive aggregate of personal characteristics that influence the individual's response to the environment", Hofstede (1980) views culture as "the interactive aggregate of common characteristics that influence a human group's response to its environment". It thus plays a role in determining the identity of a human group. Bohannan (1969) and Barnouw (1973) indicate that cultural traits are even measurable through the use of personality tests.

Culture and cultural values could be described by referring to the playing rules of a sports match (Van der Walt, 1997). These rules are not visible but they influence the entire game and the behaviour of those participating in it. After naming several examples of cultural differences to explain the analogy, he comes to the following conclusions:

- Culture gives identity there is no aspect of human life that does not fall under the potential influence of culture.
- Your own culture is normal for yourself. You are normally not aware of your own culture or of the fact that it might be unfamiliar or strange to others.
- One of the best ways to come to grip with one's own culture is to seriously study other cultures. One cannot separate self understanding from understanding others. "To reach the one, you have to start with the other and *vice versa*".

Schein (1992) brings many of the various aspects together and puts strong emphasis on the shared "taken-for-granted basic assumptions" held by group members. His perspective of culture is that it is a phenomenon that is undetachable from leadership and that the process of creating, developing, manipulating and changing a culture is much clearer when brought down to the level of the organisation. He is convinced that, if we want to understand the complex aspects of organisational life, we should move away from superficial definitions. After discussing the importance of shared learning taking place in a group, he presents a definition for culture which could be regarded as representative of most other points of view:

"A pattern of shared basic assumptions that the group learned as it solved problems of external adaption and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems."

The general conclusion to be drawn from the various explanations of culture is that certain "things" are shared or held in common in groups. There should therefore be a history of shared experience that furthermore implies a certain degree of structural stability in terms of group membership. The "shared things" mentioned above are those phenomena that are commonly associated with culture and include the following:

Values:

These are publicly declared tendencies of a group to prefer certain states of affairs over others (Hofstede, 1980).

• Group norms:

It refers to a mutually agreed upon "rule" or "standard" that guides behaviour and that is expected to be followed by team members. They are determined and developed by the collective will of the group's members (Schermerhorn, 1999), normally from interaction between members (Smit <u>et al</u>, 1999) and could include issues such as expected attendance, high performance or levels of commitment.

Visible behavioural regularities:

These include the language people use when interacting, customs and traditions as well as certain rituals that are employed – the ways in which the members of a group eat, dress, greet one another or teach their offspring (Schermerhorn <u>et al</u>, 1994).

Group philosophy

Schein (1992) also refers to broad policies and ideological principles that guide a group's actions towards employees, customers and other stakeholders. As an example the "HP Way" of Hewlett-Packard can be used.

### 3.2.2 DIMENSIONS OF CULTURE

For as long as the phenomenon "culture" has been studied and analysed, at both group, organisational and national levels, researchers have attempted to identify categories (or dimensions) along which different cultures could be compared with each other and which could be used to contribute to a better description and understanding of the culture of a particular group or collectivity (i.e. Parsons, 1977; Hofstede, 1980; Kluckhohn, 1962; Krech, Crutchfield & Lieson, 1969). For Kluckhohn (1962: 317-318) the existence of categories in culture is the result of societies responding differently to the same demands and problems they face.

The most basic one-dimensional approach for the cultural ordering of societies is to rank them in their degree of economic evolution from traditional towards modernity. This ties up quite well with the notion of "evolutionism" and Naroll (1970: 1242) provides the following list of characteristics in societies that evolve together:

- The command of the environment from weak to strong
- Occupational specialisation from generalists to specialists
- Organisations from simple to complex
- Population patterns from rural to urban
- The distribution of goods from wealth-sharing to wealth-hoarding
- The leadership from consensual to authoritative
- The behaviour of elites from responsible to exploitative, and
- The function of war from vengeance to political.

Hofstede (1980: 45) refers to four more characteristics added to the list by Driver (1973):

- The increases in population density
- Gross national or tribal product
- Knowledge
- The number of words in the language

Krech et al (1969: 346) provide a two-dimensional explanation of the nature of culture. They divide culture in an explicit and implicit dimension where the former refers to the typical directly observable behaviour of the members of a society. They use the term "cultural arrangements" which societies adopt to in order to solve problems. The explicit part of culture consists of consistent behavioural patterns in a given situation. These patterns or arrangements are formed and influenced by both the physical environment (viz climate, natural resources, geographical region) and other cultural groups (i.e. through the exchange of ideas which can be used for solving problems. The implicit dimension of culture is a manifestation of wants, interpersonal responses traits, attitudes, values, beliefs and norms, which together give meaning to explicit behaviour. Amongst others, it entails the cognitive element of culture i.e. ideas, knowledge, superstitions, myths and legends. Values form an integral part of the implicit dimension of culture and is regarded as a set of beliefs which members of a society share and which they use to distinguish the desirable from the undesirable or the good from the bad (Krech et al,

1962: 350). In his discussion of the difference between norms and cultural values Theron (1992) refers to the former as those standards of conduct, that are accepted by members of a society. Cultural values on the other hand, are an especially important "class of beliefs" that are shared by the members of a society.

A number of multidimensional classifications of culture exist. In their "General Theory of Action" Parsons and Shils (1951: 77) offer five pattern variables (choices between pairs of alternatives), which determine all human action:

- Affectivity versus Affective neutrality
- Self-orientation versus Collectivity-orientation
- Universalism versus Particularism
- Ascription versus Achievement
- Specificity versus Diffuseness

A similar set of cultural dimensions, but with a specific focus on how people differ culturally in the way they handle relationships and interact with one another, is presented by Trompenaars (1993). This research will be discussed in more detail in section 3.2.3.1, but the main considerations are the following:

- Universalism vs. particularism
- Individualism vs. collectivism
- Neutral vs. affective
- Specific vs. diffuse
- Achievement vs. prescription

Schermerhorn (1999: 102) regards the "dimensions" of culture as those variables along which members of various cultures differ. Some of the more popular ones include language, use of space, time orientation, religion and the role of contracts.

Hofstede (1980: 42) provides a description of four possible research strategies of which one could be regarded as a search for dimensions in culture. The strategies are formed by comparing and combining (1) the distinction between a focus on similarities and a focus on differences with (2) the distinction between levels of analysis. A summary of this classification is provided in Table 3.1.

Cells 1 and 2 represent studies that are concerned with micro-level<sup>1</sup> variables and their relationships as measured within societies. These studies focus on either similarities or differences amongst societies. Although Cells 3 and 4

<sup>&</sup>lt;sup>1</sup> Individuals within societies.

studies also focus on either similarities or differences among societies, they do so on the basis of ecological variables<sup>2</sup> and their relationships.

By following the strategy in Cell 4 and by means of a factor-analytic approach Hofstede (1980) arrives at four dimensions of national culture, which will be discussed in more detail in section 3.2.3.2. These dimensions (also referred to as work-related values) are the following:

- Power Distance
- Uncertainty Avoidance
- Individualism
- Masculinity

Three dimensions for the analyses of cultures, that closely tie in with these four dimensions were identified by Inkeles and Levinson (1969) in a study of modal personality and character on national level. They are described as follows:

- The relation to authority
- Conceptions of the self (this includes the individual's concepts of masculinity/femininity
- The nature of primary dilemmas and conflicts as well as the ways in which a society is accustomed to deal with them, including the expression and control of aggression.

Hofstede (1980: 47) draws the parallels between these three dimensions and those determined by himself. His "power distance" is related to the first dimension, that is "relation to authority". He associates the second dimension with two of his own dimensions (individualism and masculinity) and regards Inkeles and Levinson's third dimension as related to uncertainty avoidance.

<sup>&</sup>lt;sup>2</sup> Variables measured at the level of societies.

	Research strategy	Research examples
Concerned with micro-level variables within societies	Cell 1 Studies which try to prove the universality of micro-level laws (a nomothetic-etic orientation)	Haire, Ghiselli & Porter (1966): Study of managerial thinking <u>Hickson, Hinings, McMillan &amp; Schwitter (1974)</u> : Study about the relationship between organisation structure and context (which try to confirm the "culture-free" thesis")
Focuses on similarities between societies		
Concerned with micro-level variables within societies	Cell 2 Studies which try to show differences among societies, illustrating the uniqueness of each.	<u>Child &amp; Kieser (1979)</u> : Studies trying to refute the "culture-free" thesis. <u>Osgood, May &amp; Miron (1975)</u> : Studies showing the different affective meanings of words that individuals in different cultures attach to them.
Focuses on differences between societies		
Concerned with ecological variables between societies AND	<b>Cell 3</b> Ecological variables are used in these studies to determine types of subsets of culture that are similar aming themselves but differ from other types or subsets.	<u>Adelman &amp; Morris (1967)</u> : Study that created (through factor analysis) subsets of nations of lowest, intermediate and high development level. <u>Russet (1968)</u> : Study dividing countries into Afro-Asian, Western, Latin American and Eastern European clusters through Q-analysis.
Focuses on similarities between societies		
Concerned with ecological variables between societies AND Focuses on differences between societies	Cell 4 Studies concerned with determining dimensions of societies and laws at the level of societal variables. These strategies are also called "inter- cultural"	Hofstede (1980): Study that identified four dimensions of national cultures in over 40 countries through a factor-analytic approach

 Table 3.1:
 Available research strategies for comparative studies.

(Source: Adapted from Hofstede, 1980: 43)

### 3.2.3 FURTHER PROMINENT CULTURE RELATED RESEARCH

### 3.2.3.1 Fons Trompenaars

Trompenaars (1993) uses his research data (collected over a period of more than fifteen years in fifty countries) to call into question the misconception that Western (American) management techniques and philosophy represent universal truth and applicability and the notion that there is "one best way" of managing and organising (p2).

The core of his research deals with the international cultural differences that managers face in their work and culminates in the identification of seven critical polar dimensions of cultural differences. In his attempt to expand on the understanding of cultural differences and their impact on business outcomes, Trompenaars offers a framework for describing these differences by referring to three universal sources of challenges faced by all mankind, namely:

- people's relationships with other people;
- people's attitudes towards time; and
- people's attitudes towards their environment

The "relationships" heading accounts for five of the cultural dimensions in the model. Briefly they are the following:

Universalism vs. particularism:

The extent to which a culture believes that "good and right" always apply, i.e. rules and consistency in relationships are emphasised, versus a culture where much more attention is given to flexibility and the bending of rules for unique circumstances.

 Individualism vs collectivism: The extent to which people view themselves primarily as individuals (individual freedom is emphasised) versus people viewing themselves as part of a group with a focus on group interest and consensus.

- Neutral vs affective (emotional): The degree to which members of a culture believe that their interactions with others should be objective, reserved and detached versus the expression of emotions and feelings in interactions.
- Specific vs diffuse:

The degree to which the involvement of the whole person in a business relationship is valued (i.e. in-depth relationship) versus broader and more superficial relationships.

Achievement vs prescription:

A distinction between status in relationships being earned based on performance and what was accomplished and status being awarded according to social standing or connections (who you know).

The time dimension of culture refers to the relative emphasis on or orientation to the present time versus the past and future. A particular distinction is drawn between a *sequential* view of time (a series of continuous and passing events) and a *synchronic* view (there is an interrelatedness amongst past, present and future so that the present is shaped by ideas about the future as well as memories of the past. In cultures with a stronger synchronic view a greater sense of urgency is found. In these cultures time can be "lost" and problems should thus be attended to as quickly as possible. For members of a culture with a sequential view time is conceived of as a line of sequential events passing them at regular intervals. These people tend to schedule very tightly with a strong emphasis on punctuality<sup>3</sup>.

The role people assign to their natural environment (also referred to as locus of control) forms the last dimension of Trompenaars' culture model. People have developed two major orientations towards nature. Inner-directed people (internals) view themselves as being separated from nature and believe that they can impose their will on their environment, thus controlling it for personal advantage. Outer-directed people (externals) see themselves as part of nature and feel that they are subject to the laws, directions and forces of the environment.

De Beer (1997) applies Trompenaars' culture dimensions to the South African context and comes to the conclusion that South Africa is a country with seemingly opposing cultural identities. She argues that those of European descent seem to reflect specific interaction, rules, neutrality, achievement, and control whereas the African culture seems to reflect more interaction, more connectedness and more flexibility.

Table 3.2 provides a summary of the polar differences in the relationship dimensions as discussed above.

<sup>&</sup>lt;sup>3</sup> Punctuality is defined as "a person arriving at the agreed moment of passing time increments" (Trompenaars, 1993: 112).

	Cultural Dimension	Description	Examples			
1	Universalism	Universal concept on what is right	USA, British, Dutch, German,			
	VS		Scandinavian			
	Particularism	Focus on unique circumstances, relations and obligations	South Korea, Venezuela, Russia,			
			Indonesia, China			
2	Individualism	People regard themselves as individuals	Canada, USA, Germany,			
	VS		Netherlands, Norway			
	Collectivism	People regard themselves as part of a group	Nepal, Egypt, Kuwait, Greece,			
			South Korea			
3	Neutral	Objective and detached interaction	Japan, Indonesia, UK, Norway,			
	VS		Netherlands			
	Emotional	Emotional expression in interaction	Italy, France, USA			
4	Specific	Involvement and interaction prescribed	Australia, Netherlands, UK,			
	VS		Switzerland, Sweden			
	Diffuse	A range of involvement	China, Nepal, Indonesia, Nigeria,			
			Kuwait			
5	Achievement	Individual judged on recent accomplishments	USA, Norway, Canada, Ireland,			
	VS		Denmark, UK			
	Ascription	Status is attributed to the individual	East Germany, Nepal, Nigeria,			
			Oman, Thailand, Russia, Phillipines			

# Table 3.2: Summary of differences in relationships to people.

(Source: Adapted from Trompenaars (1993) and De Beer (1997)

### 3.2.3.2 Geert Hofstede

The well known cross-cultural research of Hofstede (1980) and later in association with Bond (Hofstede & Bond, 1988) introduced five cultural dimensions, each of which were seen as a construct<sup>4</sup> in itself. It serves as a useful framework for studying, identifying and analysing cultural differences, especially across nations.

The first four dimensions were detected and described after a comparative study with a Western bias of the values of more than 116 000 employees and managers in 64 different national subsidiaries of the IBM corporation (i.e. people working in different countries but for the same multinational company). The fifth dimension (which Hofstede labels *Long-term* versus *Short-term Orientation*) was added after an Eastern bias was deliberately introduced in a further study (Hofstede & Bond, 1988) involving male and female students from 23 countries, using the Chinese Value Survey (CVS). National values were thus also studied from an eastern point of view. The data from this study showed a significant correlation with three of the first four dimensions (i.e. power distance, individualism and masculinity).

The importance of culturally influenced "mental programmes" in the collaboration of members of international and multinational organisations form the basis of Hofstede's (1980) research. The research examines the differences in thinking patterns and social action between people that are caused by differences in the mental programmes they carry around. As mental programmes are partly unique for individuals but also partly shared with others, they can be found at three levels of uniqueness: the universal, collective and individual level. A summary of these levels is reflected in Table 3.3.

LEVEL	DESCRIPTION	DEVELOPMENT
Universal	level. Mental programming that is shared by almost all mankind.	inherited. It refers to that part of human genetics that is common

### Table 3.3: Levels of uniqueness in mental programming.

<sup>&</sup>lt;sup>4</sup> A construct refers to a subject of study that is not directly accessible to observation but (only) inferable from verbal statements and other behaviours and useful in predicting still other observable and measurable verbal and nonverbal behaviour. "Constructs do not 'exist' in an absolute sense: we define them into existence" (Hofstede, 1993).

Table 3.3: (Continued)

Table 3.3: (Cor		
Collective	Collective mental programming is different to the universal level as it refers to programming being shared by some (not all, or almost all) people. People belonging to a given group share certain mental programming. It distinguishes these people from members belonging to another group. Most studies of culturally different behaviours, rituals, preferences, etc. focus on this level. Examples include language, physical distance maintained from other people and general human activities shared by members of a group such as greeting, eating, and showing respect.	Most mental programming on this level is learned. It is evident from the fact that people going through the same learning process, share similar programming despite the fact that they do not have the same genes.
LEVEL	DESCRIPTION	DEVELOPMENT
Individual	As all people are mentally programmed differently, the individual level is the truly unique part. Because of this individuality of individuals, a wide range of individual behaviours may be found within a particular group (or culture).	At least part of the mental programming is considered to be inherited. This is deducted from the fact that children of the same parents that are raised in similar environments may show clear differences in capabilities and temperament.

(Source: Hofstede, 1980: 15)

Although the collective level refers to those behaviours and activities that are common to a certain group of people, Albert (1968: 291) declares that anthropologists are still not sure which phenomena are collective (specific to a culture) and which are relevant to humans universally. Similarly, the lines between individual characteristics and cultural traits of collectivities are not clearly defined either (Redfield, 1962: 439).

On the individual level mental programmes are developed during early childhood (inherited or learned after birth) after which they are continuously reinforced in schools and organisations. It is argued that these mental programmes are most clearly expressed in different values (Hofstede, 1991).

Owing to a certain amount of mental programming<sup>5</sup> that each person carries and which is stable over time, the same person will show more or less the same behaviour in all similar situations. Human behaviour can thus not be seen as random but rather predictable to some extent. It is because of this predictability that one can assume that a person will behave consistently in similar situations. The study of culture evolves around this consistency in human behaviour which is caused by the existence of previously formed stable mental programmes and which contains a component of national culture.

The four empirically determined dimensions on which members of different national culture groups differ as revealed by Hofstede's (1980) research (which will also be used in this study) will now be discussed briefly.

## 3.2.3.2.1 Power distance

The extent to which power in institutions and organisations (as reflected by the values of the more powerful and the less powerful members of the particular group) is evenly distributed, is referred to as *power distance*. It has its origin in the so-called dominance behaviour of the human species, also found among certain animal species such as cats, chickens, birds and fish. This dominance behaviour is a result of inequalities between people which, in turn, occur in a variety of areas, i.e. physical and mental abilities, social status and prestige, wealth, power and privileges. However, inequalities in all the areas do not necessarily go together. People excelling in sport, for example, normally enjoy high status (at least in their own community), but guite often do not enjoy wealth, nor do they have much power. Although Mulder (1971) suggests that power equilibrium inside organisations is reached through a process in which followers try to reduce the power distance between themselves and their seniors while bosses try to maintain or enlarge this distance, Hofstede (1980) argues that the level of power distance at which power equilibrium will be reached is socially determined.

The more powerful members see their status and positions as being protected by a certain order of inequality (Theron, 1992). The exact opposite is true for less powerful members. Their convictions are based on the principle of equality in the workplace where all people depend on each other. In contrast with the inaccessibility of the more powerful, less powerful members view both seniors and subordinates as people like themselves and therefore expect all members to be accessible to each other, including their superiors. *Power distance* refers to the extent and degree to which an organisation's employees accept the idea that there should be an unequal distribution of power in

<sup>&</sup>lt;sup>5</sup> In the study of cultures our mental programs are analised. Although it is possible that these mental programs are physically determined by states of the brain cells (Hofstede, 1980), they are not directly observable. In observing behaviour, words and deeds, all we can do is to infer from it the presence of stable mental programs. They are intangible and the term we use to describe them is *constructs*.

organisations and that they rightfully have different levels of power (Moorhead and Griffin, 1989).

In his study, Hofstede (1980) derived a Power Distance Index (PDI) from country mean scores on three questions in the survey, which were then validated against other survey data such as different questions used with other populations. The three survey questions dealt with the following:

- i. Perceptions of the superior's style of decision-making
- ii. Perceptions of colleagues' fear to disagree with superiors
- iii. The type of decision-making that followers prefer in their boss.

It was found that PDI-scores differed significantly across occupations. This is particularly true for countries with a low country PDI. As far as gender is concerned, differences on PDI were found to be inconsistent.

Various authors (Galtung, 1966; Blais, 1974; Playford, 1976) have debated the effects of status consistency, overall equality/inequality and social structures. Referring to the unequal distribution of status, wealth and power, Hofstede (1980) states that there are almost no modern societies where there are no disadvantaged groups in terms of physical and mental abilities, people who, as a result, earn less and enjoy life less than other members of the same society. This holds particular truth in terms of challenges in a developing South African society, recovering from the effects of groups having been undernourished and undereducated prior to political changes towards the end of the previous century. The occurrence of (majority) groups being kept outside the recognised institutions of the country's social structure, also filtered into organisations, where the already natural inequality of power and abilities (found in almost all organisations) were further reinforced (also see Chapter 2).

Cotta (1976) sees the unequal distribution of power as the very essence of the existence of organisations, where this distribution of power is formalised in the form of a hierarchy. Objective factors (i.e. expertise of both parties, or the task at hand) as well as subjective factors (personalities and values) play a role in determining the power relationship between senior and subordinate (Hofstede, 1980). Even though bosses are considered to be the more powerful ones in the working relationship, the differences in the exercise of hierarchical power is a result of the value systems of both seniors and followers and not only those of seniors, which means that authority can only exist where it is matched by obedience. Power Distance is defined as a measure of the interpersonal power between subordinate and senior as perceived by the subordinate. In the work of Mulder <u>et al</u>, (1971) power is defined as "the potential to determine or direct (to a certain extent) the behaviour of another person/other persons more so than the other way round". Hofstede's (1980) definition is not much different: "the power distance between a boss B and a subordinate S in a

hierarchy is the difference between the extent to which B can determine the behaviour of S and the extent to which S can determine the behaviour of B". Without necessarily excluding other criteria, the Power Distance norm can be used for characterising different cultures.

Table 3.4:	Summary	of	Power	Distance	Index	(PDI)	implications	and
	consequences for organisations.							

LOW PDI	HIGH PDI
Flatter organisation pyramids – hierarchy means an inequality of roles, established for convenience.	Tall organisation pyramids – Hierarchy means existential inequa- lity.
Less centralisation.	Greater centralisation.
Subordinates are people like me.	Superiors consider subordinates as being of a different kind.
Superiors are people like me.	Subordinates consider superiors as being of a different kind.
Latent harmony between the powerful and the powerless.	Latent conflict between powerful and the powerless.
Smaller proportion of supervisory personnel.	Large proportion of supervisory personnel.
Smaller wage differentials.	Large wage differentials.
High qualifications of lower strata.	Low qualification of lower strata.
Manual work same status as clerical work.	White-collar jobs valued more than blue-collar jobs.

(Source: Adapted from Hofstede, 1980)

It is important to note that the concept of Power Distance inside organisations influences the nature of authority relations in other areas of life, i.e. early family socialisation as well as schools and other social institutions. In addition to this Hofstede (1980) also cites empirical evidence for the fact that large inequalities in power have a positive influence on the increase of inequalities in other areas such as social status, prestige and wealth. In a study of organisations in five countries Tannenbaum, Kavčič, Rosner, Vianello & Wieser (1974) proved that greater differences in power could be associated with greater differences of rewards and privileges.

## 3.2.3.2.2 Uncertainty avoidance

Uncertainty about the future is a basic part of organisational life. The second dimension of national culture, called *uncertainty avoidance*, refers to a collectivity's tolerance for this uncertainty, to the extent to which members of a society feels threatened by this unpredictability and the extent to which they employ strategies to cope with or avoid these ambiguous situations. In organisations this is done through the domains of technology (all human artifacts used to defend ourselves against natural uncertainties), law (rules made to serve as protection against the uncertainties in the behaviour of others) and religion (rituals to assist in accepting those uncertainties we cannot defend ourselves against).

Hofstede (1980: 153) found three indicators for uncertainty tolerance which together produce a country Uncertainty Avoidance Index (UAI) namely rule orientation, employment stability and stress. High levels of anxiety and aggressiveness are typical characteristics of societies measuring high on this cultural dimension. On the other hand people viewing and accepting life as containing inherent uncertainty normally form part of weak uncertainty avoidance culture. Where societies with a strong uncertainty avoidance inclination show a strong inner drive to work hard, the opposite is true for societies showing a weaker uncertainty avoidance. For them, as few as possible rules should exist to govern and restrict work place behaviour and daily life. A summary of implications and consequences of the Uncertainty Avoidance Index (UAI) for organisations is presented in Table 3.5.

The *uncertainty avoidance* dimension is built on the fact that societies adapt to and cope with uncertainty in different ways. Theron (1992: 24) describes these strategies as "strict codes of behaviour". Other examples of coping strategies are the provision of greater career stability and the establishment of formal rules, which do not tolerate deviant ideas.

Table 3.5:	Summary	of	Uncertainty	Avoidance	Index	(UAI)	implications	and
consequences for organisations.								

LOW UAI	HIGH UAI
Hard work is not a virtue per se.	Inner urge to work hard.
Less structuring of activities.	More structuring of activities.
There should be as few (written) rules as posible – if rules cannot be kept, we should change them.	Need for more (written) rules and regulations – if rules cannot be kept, we are sinners and should repent.
Deviance is not felt as threatening; greater tolerance.	Deviant persons and ideas are dangerous; intolerance.
More willingness to take risks in life – managers more willing to make individual and risky decisions.	Concern with security in life – managers less willing to make individual and risky decisions.
Managers more involved in strategy.	Managers more involved in details.
Managers more interpersonal oriented and flexible in their style. High labour turnover.	Managers more task-oriented and consistent in their style. Lower labour turnover.
More ambitious employees.	Less ambitious employees.

(Source: Adapted from Hofstede, 1980)

### 3.2.3.2.3 Individualism - collectivism

The relationship between the individual and the rest of his/her group or collectivity (i.e. the way people live together) that is found in a given society constitutes Hofstede's (1980) third dimension of national culture, known as *Individualism*. Although some countries show both high individualism and high power distances, the Individualism Index (IDV) correlates negatively with the Power Distance Index (PDI) as it was discussed in section 3.2.3.2.1.

The relationship between the individual and the group he or she belongs to is associated with animal gregariousness. It is a further fundamental dimension for the analysis of societal differences. These differences in "gregariousness" of people are for example evident from the differences in family structures – family units vary in complexity from small nuclear families to much larger extended families where husband, wife and children are joined by grandparents and other "indirect" family members such as uncles, aunts and cousins. Blumberg and Winch (1972) refer to the decrease in family complexity as a development from traditional to modern. This argument of an association between the degree of individualism or collectivism and the degree of

modernity of the society concerned is supported by the findings of Hofstede (1980). He highlights the fact that among his four empirically determined culture dimensions the one that relates most closely to a country's level of economic development is the individualism-vs-collectivism dimension.

The evaluation of individualism as a cultural dimension in terms of its moral correctness or acceptability has also initiated extensive debate amongst academics. As an example the importance of individualism as a national cultural characteristic in China and the United States of America could be compared. In China an anti-individualistic, pro-collectivistic ethos is find, which regards strong individualism as evil and selfish (Ho, 1978). In this culture the well-being of the group is regarded as being much more important than being inner-directed. In sharp contrast with this view American greatness is strongly ascribed to the predominantly individualistic culture that prevails. What is important for cultural analysis in the (South) African context is that Western cultures cannot necessarily be associated with individualism (as is often the case) and non-Western cultures with collectivism (Hofstede, 1980).

The effects of modernisation on cultural attitudes is discussed by Triandis (1971:8). He discussed these effects by referring to the differences in internal versus external control with regard to environmental influences (locus of control)<sup>6</sup>. The most important characteristics are summarised in Table 3.6.

Modern man's beliefs	Traditional man's beliefs
Man can be the master over nature and his environment.	Man feels at the mercy of obscure environmental factors. Sees himself under the influence of external, mystical powers.
Man can control the reinforcements he receives from his environment and is optimistic about it.	Man believes that one obtains a part of what is good by chance or by pleasing the gods.
Man believes in determinism.	Considers planning as a waste of time.
He competes with standards of excellence.	Looks at the world with suspicion.
He uses broad ingroups	He has narrow ingroups. Identifies with parents and receives direction from them.

 Summary of the effect of modernisation on attitudes.

(Source: Adapted from Triandis, 1971: 8)

<sup>&</sup>lt;sup>6</sup> A comprehensive discussion of the psychological construct locus of control will follow in Chapter 4.

The effect of individualism on employee behaviour and thus organisational performance is one of the concerns of this study and is also addressed by Hofstede (1980) with particular reference to emotional dependence, moral involvement and organisation size. Where a collectivist norm prevails in society a greater dependence of members on organisations is expected. It was also found that there is a positive correlation between organisation size and individualism (Ingham, 1970), which is supported by the findings of Hofstede (1980).

Although the introduction of technologies developed in Western individualist countries into more collectivist countries strongly influence a shift in societal norms, it is also true that the collectivist values of the more traditional poor societies inhibit their ability to accommodate the transfer of technology from an individualistic environment and therefore has a negative impact on the economic development of these countries. A number of typical behavioural indicators influenced by a society's position on the individualism/collectivism continuum are represented in Table 3.7. In an organisational setting where its culture is being transformed towards higher levels of workforce engagement, collaboration and participative approaches of leaders, these differences become important as will be discussed in detail in Chapter 5.

SOCIO-ECONOMIC DIFFERENCES				
Low IDV	High IDV			
Individual initiative is socially frowned upon; fatalism.	Individual initiative is socially encouraged.			
In society, people are born into extended families or clans, which protect them in exchange for loyalty.	In society, everyone is supposed to take care of himself and his or her immediate family.			
"We" consciousness.	"I" consciousness.			
Collectivity orientation.	Self-orientation.			
Identity is based in the social system.	Identity is based in the individual.			
Belief in group decisions.	Belief in individual decisions.			
Value standards differ for ingroups and outgroups; particularism	Value standards should apply to all; universalism.			
Company provisions, i.e. training, physical conditions regarded as important.	Employees' personal life regarded as more important.			

Table 3.7: <u>Summary of Individualism Index (IDV)</u>: <u>Differences in organisational</u> <u>and socio-economic context</u>.

### Table 3.7: (Continued)

ORGANISATIONAL DIFFERENCES					
Low IDV	High IDV				
Employees expect organisation to defend their interests.	Employees are expected to defend their own interest.				
Emotional dependence on company.	Emotional independence from company.				
Large company more attractive.	Small company more attractive.				
More importance attached to training and use of skills in jobs.	More importance attached to freedom and challenge in jobs.				
Managers aspire to conformity and orderliness.	Managers aspire to leadership and variety.				
Managers rate having security in their position more important.	Managers rate having autonomy more important.				
Managers endorse "traditional" points of view, not supporting employee initiative and group activity.	Managers endorse "modern" points of view on stimulating employee initiative and group activity.				
Group decisions are considered better than individual decisions.	Individual decisions are considered better than group decisions.				
Duty in life appeals to students.	Enjoyment in life appeals to students.				
Managers choose duty, expertise, and prestige as life goals.	Managers choose pleasure, affection and security as life goals.				
People thought of in terms of ingroups and outgroups; particularism.	People thought of in general terms; universalism.				
Social relations predetermined in terms of ingroups.	Need to make specific friendships.				
More years of schooling needed to do a given job.	Fewer years of schooling needed to do a given job.				

(Source: Adapted from Hofstede, 1980: 230-238)

The concept of individualism has serious implications for teamwork and leadership. If teamwork is defined as "an attitude of mutual commitment in which everyone takes responsibility for the overall results, not just for their individual contributions or those of their own work groups" (Davis, 2000: 89), a strong individualistic culture would inhibit the potential value of effective

teamwork in the work place. As individualists are often seen as people who do not conform, who criticise the social order and who often threaten formal authority, the relationship between individualism and society has always been uneasy. The characteristics of independence of thought and a high degree of self-reliance pose unique challenges to transformational leaders' ability to positively influence the behaviour of followers towards higher levels of collaboration and teamwork. A more detailed discussion of this dilemma and the concept of aligned individualism will follow in Chapter 5.

## 3.2.3.2.4 Masculinity - femininity

The fact that different societies cope differently with the duality of the sexes manifests in the fourth national culture dimension, namely *Masculinity versus Femininity*. It indicates the extent to which a society's values are more masculine or more feminine. Masculinity in a society is associated with assertiveness, aggression, ambition and competitiveness while a feminine value inclination is associated with affection, nurturance, compassion and understanding. In this type of society a stronger emphasis on people, caring, and interdependence between members of the collectivity is found. A similar division of sex-role stereotypes is reported by Williams, Giles & Edwards (1977) where dominant male behaviour is associated with autonomy, aggression, exhibition and dominance and female behaviour with affiliation, helpfulness and humility.

Due to the statistical biological differences between men and women (i.e. the average man is taller and stronger, has a faster metabolism and recovers faster from fatigue than the average women), societies tend to divide most activities between men and women and to choose certain behaviours as being more suitable for male members and others to be more suitable for females. These common patterns of role distribution lead to males being dominant in political and economic matters.

Sex-role development takes place through a process of socialisation – there are certain socialising forces in the forming of culture patterns according to which men and women learn their place and role in society. The most prominent of these forces are the following:

 The family. In all different types of families (nuclear, extended and one-parent) children experience their parents and other adults as different sexes who perform different roles.

<u>norm</u> .	
LOW MAS	HIGH MAS
People orientation where you don't try to be better than others – small and slow is valued.	Money and things orientation with a focus on being the best – big and fast is valued.
Quality of life and environment are important.	Performance and growth are important.
Work to live.	Live to work.
Service and interdependence ideal.	Achievement and independence ideal.
Intuition.	Decisiveness.
Sympathy for the unfortunate.	Sympathy for the successful achiever.
Men need not be assertive but can also take caring roles.	Men should behave assertively and women should care.
Sex roles in society should be fluid.	Sex roles in society should be clearly differentiated.
Differences in sex-roles should not mean differences in power.	Men should dominate in all settings.

 Table 3.8:
 Integrated picture of the general Masculinity Index (MAS) societal norm.

(Source: Adapted from Hofstede, 1980)

- The socialisation process continues during the school years with the influence of teachers and class peers.
- The further development of sex-role socialisation is facilitated through the media in the form of children's literature and later on by television and the press.

In the South African labour context the division of labour based on sex and the stereotyping of jobs as being typical masculine or feminine has become a contentious and sensitive point of discussion. On the one hand, it is a result of a drive towards an equal-opportunity, non-discriminatory work place and on the other hand the traditional view that business success is achieved through masculine influence. McGregor (1967: 23) cites the strong bias against female managers in business organisations as follows:

"The model of the successful manager in our culture is a masculine one. The good manager is aggressive, competitive, firm, just. He is not feminine; he is not soft or yielding or dependent or intuitive in the womanly sense. The very expression of emotion is widely viewed as a feminine weakness that would interfere with effective business processes."

LOW MAS	HIGH MAS
Managers relatively less interested in leadership, independence, and self- realisation.	Managers have leadership, independence, and self- realisation ideal.
Belief in group decisions.	Belief in the independent decision maker.
Weaker achievement motivation.	Stronger achievement motivation.
Achievement defined in terms of human contacts and living environment.	Achievement defined in terms of recognition and wealth.
Work less central in people's lives.	Greater work centrality.
People prefer shorter working hours to more salary.	People prefer more salary to shorter working hours.
Company's interference in private life rejected.	Company's interference in private life accepted.
Lower job stress.	Higher job stress.
Theory X (employees dislike work) strongly rejected.	Theory X gets some support.

Table 3.9:	Summary	of connotations	of Masculinity	/ Index	(MAS)	differences
	ational context.					

(Source: Adapted from Hofstede, 1980)

In the light of modern business stressing the importance of openness and expression of emotion (traditional feminine values), Hofstede (1980: 268) expresses the warning that a process of barring women from certain jobs could (negatively) affect the functioning of the organisation. In terms of leadership, where effective transformational behaviour is characterised by

(amongst others) the skills of caring, empathy and concern (Bass & Avolio, 1997), a biased support of a masculine approach in the work environment could prove to be a blockage for organisational performance.

Table 3.10 summarises the most important cultural differences as is evident from Hofstede's dimensions (Hofstede, 1991, Schermerhorn, 1999).

	Dimension	Extent	Description	Examples
1	POWER DISTANCE	High	A culture where followers are afraid of expressing disagreement with their seniors. People accept a hierarchical or unequal distribution of power.	Singapore, Hong Kong, Thailand, Malaysia, <b>South Africa</b>
		Low	A culture of high interdependence between superior and subordinate – a consultative decision style is preferred.	Denmark, Austria Israel, Norway
2	COLLECTIVISM         Collectivism         Refers to a society, which calls for greater emotional dependence of members on their organisations. People prefer to work together in groups.		Argentina, Chile, Peru, South Korea, Malaysia	
		Australia, USA, UK, <b>South Africa</b>		
3	FEMININITY VS MASCULINITYFemininityRefers to taking care, being affectionate, compassionate and understanding.		Sweden, Norway, Denmark	
		Masculinity	Refers to economic achievement, being aggressive, ambitious and competitive. Masculine traits such as assertiveness and insensitivity to feelings are emphasised.	Australia, USA, Canada, <b>South</b> <b>Africa</b> , Germany
4			Greece, Japan	
			South Africa	
		Low	under direct control. The degree to which people prefer structured versus unstructured situations.	Argentina, Peru, Singapore, Den- mark,
5	TIME ORIENTATION	Short term Orientation	Short term considerations are emphasised by members of society. Values that focus on the past or present, i.e. tradition and social obligation.	Australia, Canada
		Long term Orientation	Members of society have a greater concern for the future. Values associated with the future such as persistence.	Hong, Kong, Thailand

(Source: Adapted from Hofstede, 1991; Schermerhorn, 1999)

### 3.2.3.3 Ronnie Lessem

Using the functions described in Carl Jung's typological theory Lessem (1993) proposes a model of cultural types, suggesting that in the organisational environment people may be quartered into four "worlds" of work or management (summarised in Table 3.11). As each one of these is represented in South Africa, it could be used for addressing culture-related issues in the South African workplace.

*World 1: Western empiricism.* Having its roots in Britain, it functions as the dominant business philosophy in both North America and Britain. It is believed (Lessem, 1996b) that this is also the prevalent philosophy guiding South African management practice.

*World 2: Northern rationalism.* This world of work where the natural entrepreneurial drive of ordinary people manifests in constructive activities, has its roots predominantly in France but also to a lesser extent in other European regions such as Scotland, Northern Italy and Scandinavia.

*World 3: Eastern idealism.* The underlying philosophy of the eastern idealism is that "...every idea and every situation in the world leads irresistibly to its opposite, unites with it to forth a more higher and more complex whole" (Lessem, 1993).

*World 4: Southern humanism.* The concept of humanism is strongly rooted in Africa, but also in Greece, Italy, Spain and Ireland. For Lessem (1996a) "... the human group lies at the heart of a humanistic approach to business".

Lessem (1993) points out that the Western Empiricism and Northern Rationalism strongly impacted on the South Arican culture. The South African whole is made up by the British cultural heritage, while the American, Dutch and German influence was also significant. It is further believed that in South Africa the humanistic approach is stronger supported and preferred by the black man than the white. Furthermore the African culture is regarded as more communal (collective) than individual. The concept of ubuntu is strongly related to this perspective.

It should be emphasised that Lessem (1993) appears to take little account of the proper empirically determined models of cultural dimensions made available by both Hofstede (1980) and Trompenaars (1993). Of particular importance is the fact that nowhere Lessem's (1990, 1993, 1996a, 1996b) theory of the "fourworlds" model shows any sign of having any empirical research base of its own. No evidence of systematic research to verify his model empirically could be found.

	escribed infough the four words of work.							
Cultural Dimension	Description	Focus	Orientation	Examples				
	Description	rocus	Onemation	Examples				
World 1	1	1	-	_				
	All knowledge is acquired through	Learn by doing	Competition	America, Australia,				
(Western Empiricism)	experience, observation and factual			Canada				
	information (inductive)							
World 2								
	Reason in itself is a source of knowledge	Bureaucracy	Co-ordination	France, Scotland,				
(Northern Rationalism)	superior to, and independent of sense -			Prussia (Europe)				
	(deductive)							
World 3								
	The spiritual or ideal is of central importance	Development	Co-operation	Japan				
(Eastern Idealism)	in reality.							
	Life is dynamic, evolutionary and creative							
World 4								
	The realisation of the essential dignity and	Social –	Co-creation	Africa, Southern Italy				
(Southern Humanism)	worth of man	community						

# Table 3.11: Cultures as described through the "four worlds of work".

(Source: Lessem, 1993; De Beer, 1997)

## 3.2.4 CULTURE AND THE WORLD OF WORK

### 3.2.4.1 The concept of "work"

Work is regarded as an important and unavoidable part of human life, so much so that each individual is organising his daily life around work (Van der Merwe, 1984). For most individuals it forms part of their lives since early adulthood, often stretching beyond the retirement age of 65. Work influences a number of other aspects of the worker's life. As an example the amount of time available to spend at home with his family is determined by the nature of his work. The income he has from his work also influences standard and style of living as well as the size of the family he can afford.

Various meanings are coupled to the word "work" and it is therefore understandable that a variety of definitions are found in explanatory dictionaries. One of the several explanations that are found in the Oxford Dictionary, namely "action involving effort or exertion directed to a definite end, especially as a means of gaining one's livelyhood", correlates with the meaning of the word "work" as it will be used in this chapter.

Biesheuvel (1984) indicates that "earning one's living" does not necessarily only mean to work for money. Here housewives are used as an example of people who receive no salary for the task they do, yet "... housework involves considerable effort directed towards family living". A definition that is in accordance with this approach is that of O'Brien (1984) namely "... the expenditure of effort in the performance of a task", although it is also mentioned that the general use of the term "work" refers to a situation of employment.

Several authors agree that in actual fact work is unpleasant and that people often do not like or enjoy it. Neff (1977) for example, is of the opinion that, despite all the benefits work holds for people, it also always shows a darker side. In a paradoxical way he continues to explain man's experience of work over the years "...although through work man has achieved a culture and thereby set himself apart from all other beings, one of his persistent dreams has been to free himself from the need to work".

Biesheuvel (1984) also indicates that, despite the diverse nature of work, one important generalisation could indeed be made, and that is that the human being do not like work very much and will avoid it as far as possible. It correlates with the view of Freud (1930) that "... as a path to happiness work is not valued very highly by man. They do not run after it as they do after other opportunities for gratification. The great majority work only when forced by necessity, and this natural human aversion to work gives rise to the most difficult social problems." This stands in sharp contrast with the Protestant work ethic, which will be discussed in section 4.4.3.

Following the previous negative experience of work, one can refer to the comparison of work and leisure made by Neff (1977). He notes that people often look forward to the end of the working day and week when they can thankfully return to the pleasure of private life. In this regard the granting of annual paid leave is valued as highly as an increase in normal pay. The importance of leisure in relation to work is further emphasised by stating that "...whatever positive meaning work may be thought to possess, it is almost an article of faith that leisure ought to be valued at least as highly" (p 57).

As an introduction to the differences between work and leisure, Biesheuvel (1984) mentions that the consumption of energy *per se* is not unpleasant. As examples, physical types of sport like athletics, gymnastics, hunting and jogging are used. However, the following differences between work and leisure exist:

- Above-mentioned activities differ from work in the sense that the effort that is put into it comes forward freely and naturally.
- Activities of leisure is an expression of what people <u>want</u> to do and not what they <u>have</u> to do.
- Work is regarded as a "life sentence" which take up the largest part of each day. With leisure one can become involved or give up the activity whenever one wants to.
- A person is free to choose his leisure activities whereas the tasks he has to complete at work are normally given. Although a person chooses his own career, what is expected of him is not always in line with his expectations.
- It is more difficult for a person to change his work than what it is to change his choice of leisure.

Neulinger (1981) investigated the relation between leisure and mental health and found that leisure should not be regarded as mere free time or "not-work", but that it is an activity of the human being and not a "freedom from activity". To some people it may even be an important condition for selfactualisation and could therefore be seen as a requirement for mental health. He continues by describing leisure as "... not <u>notwork</u>". It is not something that is left over after work. It refers to a state of mind where one is at peace and comfortable with oneself and what one is doing. It therefore refers to doing those things one wants to do and chooses to do.

From above mentioned views of work and leisure it becomes clear that work in general is regarded as being more unpleasant than leisure. It is precisely this apparent contradiction between man's dislike of work on the one hand, and the fact that people are working hard - often even more than what is required - on the other hand, that is raising the question what it is that drive or motivate them to work, or stated differently, which values people hold regarding work in general. These work-related values will be described further in section 3.5.

### 3.2.4.2 Organisational culture

### 3.2.4.2.1 Overview

Culture presents itself at different levels and not only at national level. Within a national culture it is experienced that similar organisations offering the same products or services could have completely different, but unique characters of their own. These characters or "personalities" (Drennen, 1992) are in fact often found to be stable to such an extent that new employees joining the organisation would change rather than the organisation itself. The concept of organisational culture, often referred to as corporate culture (Schermerhorn et al, 1994) is found to be accountable for this stability (Baron & Greenberg, 1990). This system of mutually shared beliefs, attitudes, values and expectations develop within an organisation and strongly influence the behaviour and actions of its members (Schein, 1990). Not only does the organisation's culture act as a description of it's character, it also plays a significant role in the lives of it's members. Their lives are shaped through the influence of culture on processes such as decision-making, performance appraisal, promotion and retrenchment. (Hickman & Silva, 1986). The definition suggested by Deal and Kennedy (1983) indicates that culture in an organisation defines and describes the "rules of the game": "... a core set of assumptions, understandings, and implicit rules that govern day-to-day behaviour in the workplace ... Until newcomers learn the rules, they are not accepted as full-fledged members of the organisation ... conformity to the rules becomes the primary basis for reward and upward mobility".

Organisational culture as a psychological concept is relatively young and has been developed since the 1960's when organisational psychology started to become differentiated from industrial psychology. The concept was applied to organisations for two reasons, firstly to explain variations in patterns of organisational behaviour and secondly to highlight levels of stability in group and organisational behaviour (Theron, 1992). It acts as a guideline for distinguishing one organisation from another. According to Robbins & Coulter (1999) organisational culture is a perception which is based on what employees see or hear within the organisation. It is also seen as more descriptive (how employees perceive the characteristics of the organisation) than evaluative (whether they like it). In any organisation culture performs a number of functions (Robbins, 1998). Apart from creating distinctions between organisations, it conveys a sense of identity for its members. Furthermore it acts as the "social glue" that holds the organisation together through the provision of appropriate standards for what employees should do. The important role of corporate culture in giving direction to everyone is emphasised by Case (1996). In an organisational paradigm with wide spans of control, flattened structures and empowered employees and teams, the company culture provides shared meaning and thus a common forward focus. Robbins (1998) provides a summary of the seven primary characteristics that capture the essence of an organisation's culture:

- i. Innovation and risk taking The degree to which risk taking and innovation are encouraged.
- ii. Attention to detail The degree to which precision, analysis and attention to detail is expected.
- Outcome orientation The degree to which results or outcomes are considered to be more important than techniques and processes used to achieve these outcomes.
- iv. People orientation
   The degree to which the effects of management decisions on employees are considered to be important.
- v. Team orientation The degree to which work activities are organised around teams rather than individuals.
- vi. Aggressiveness The degree to which people are aggressive and competitive rather than easygoing.
- vii. Stability The degree to which maintaining the status quo is encouraged rather than growth.

The interaction between national and organisational cultures seems to be an issue that has not yet been fully debated and the relationship between the two has not received much attention in literature. It has not been completely neglected, but literature presents opposing points of view. The limited agreement is clearly reflected in the different views of Hodgetts <u>et al</u>, (1997), Hofstede (1980) and Robbins (1998). Hodgetts <u>et al</u> (1997) point out that

there is a widely held belief that "organisational culture tends to moderate or erase the impact of national culture". However, Hofstede's (1980) research found that the national cultural values that people bring to the workplace will not be easily changed by the influence of the organisation, thus providing evidence that just the opposite may be true. Robbins (1998) is of the same opinion and mentions that differences in national cultures must be taken into account when behaviour in organisations is to be predicted.

While Cray & Mallory (1998) portray an uncertainty in respect of the link between national and corporate cultures, Adler (1991) also approves the notion that national culture has a greater impact on employees than does the culture of their organisation and that national culture is more influential in the understanding of human behaviour at work than corporate culture. However, as a possible link between the two, Cray <u>et al</u> (1998) refer to the effect that founders' involvement and participation in the national culture may have on the nature of their organisations' culture.

## 3.2.4.2.2 Factors influencing organisational culture

Although there are a number of factors having a direct or indirect impact on the forming and development of organisational cultures, clarity does not exist as to which of these have the dominant influence. Theron (1992) mentions that the size of the organisation is often found to be the most important variable influencing the choice of culture. In contrast to small organisations, larger ones are perceived to offer more opportunities for advancement, more effective planning and better control. In addition better structuring of activities is possible, but they are often more authoritarian.

The strong-minded influence of a dominant leader plays a powerful role in shaping a company's culture (Drennen, 1992) especially if this person is the owner or founder of the business. Schein (1983) regards founders as the "ultimate source" of an organisation's culture. As they often have a clear vision of the company's future and what it should do, they have a major impact on the early corporate culture. Robbins (1998) refers to this process as institutionalisation when an organisation "takes on a life of its own" apart from any of its members. It results in a common understanding about which modes of behaviour are appropriate and acceptable. Although dominant leaders do play a significant role through being able to make decisions affecting virtually everyone in the company, "dominance" is not the key factor (Drennen, 1992). When a new leader takes over everything could change. Only when practices and the "way of doing things" go on beyond the working lifetime of the leader having introduced it, it becomes part of the psyche and personality of the organisation.

The role of history in establishing and maintaining culture cannot be denied. Because people prefer stability and structure to their lives, they find comfort in a well-known environment (Drennen, 1992). Tradition therefore contributes largely to the shaping of company culture. It is precisely this factor that makes it difficult for company cultures to be changed dramatically.

The nature of a business (technology, services or products) is another factor having a prime influence on culture. Differences in technology require different ways of communication and organisational design (Dessler, 1986). Several factors such as the nature of the work and the workforce, the length of the line of command, the ratio of managers to subordinates and indirect to direct labour play a role in determining the design of the organisation. Therefore, it is to be expected that, when a change in technology is experienced, old skills become redundant and a change in the company's culture (or even elimination of a whole part of it) will result.

According to Theron (1992) people, because of differences in psychological contracts, play a significant role in pushing an organisation's culture in a certain direction. This is especially true for the individual orientation of key people in the organisation. A psycho-analytic study of corporate manager personalities by Maccoby (1976) delivered evidence for the existence of four character types which may determine the dominant culture, namely the jungle fighter needing power, the company man, the gamesman and the craftsman. Theron (1992) further notes that a correspondence between the psychological contract (the individual's expectations) and the organisation's culture should lead to a more satisfied individual.

A few other factors impacting on company culture are mentioned (Baron & Greenberg, 1990; Drennen, 1992; Theron (1992), Trompenaars, 1993; Robbins, 1998):

The industry and its competition

Rapid and continuous change and constant product innovation, for example, is so important to some industries that it has become part of the company culture. For others, where work processes and patterns remain the same over periods of several years, change has become a much more traumatic experience (Drennen, 1992).

Customers

Because customers can move their business at any time if they do not get what they need or want, their needs and levels of satisfaction could largely dictate certain parts of company culture (Drennen, 1992). Selection practices

During the selection process judgment of how well candidates will fit into the organisation takes place. Companies are constantly looking for those people having values which are consistent with those of the organisation (Robbins, 1998).

Information and control systems

Many jobs have been completely transformed (and have even become redundant with the introduction of computerised information and control systems. Employees' fear for increased complexity could, in addition, have negative effects on morale (Drennen, 1992).

• The environment

The critical role of the organisation's environment in determining its culture is emphasised by Theron (1992). Market demands and environmental change require companies to be increasingly flexible and adaptable. For each organisation it is important to find a niche for itself in its industry and marketplace (Baron and Greenberg, 1990).

Procedures and policies

While the importance of company policy and procedures as guidelines for employee conduct and job completion cannot be denied, it could easily result in employees exercising no initiative and result in the organisation becoming more and more inflexible (Drennen, 1992).

• Employees' views of organisations' purpose and goals

When employees start to believe that the organisation is really serious about its purpose and future, and that they have a place in it, they start to identify with the organisation (Trompenaars, 1993).

#### 3.2.4.2.3 Culture types in organisations

Harrisson & Stokes (1993), drawing heavily on the work of Handy (1991), developed a concept of four archetypal organisational cultures as a framework for understanding the dynamics of different organisations viz Power, Role, Achievement and Support cultures. An instrument for measuring the existence of these cultures was also developed (Harrison, 1993). The Power-orientation is based on the fact that there is an inequality of access to resources<sup>7</sup>. These resources are used by leaders to either satisfy or frustrate the needs of others and, in doing so, control their behaviours. In this culture people is motivated by rewards and punishments. Leadership is firm and is based on strength and justice. On the condition that followers are loyal, leaders will be fair and generous – compliance is rewarded. The dark side of the Power-orientation is when there is a tendency to abuse power for personal gain, thus ruling by fear (Harrison <u>et al</u>, 1993).

By using names derived from the Greek mythology, Handy (1991) describes the same four cultures. He refers to the Power-culture as the club (or Zeus) culture and defines it as "clubs of like-minded people" where empathetic initiative and personal contact is at the order of the day. It is an excellent culture when speed of decision is required. The Power-orientation works well in young entrepreneurial companies where leaders have a certain vision and purpose in mind. A mutual dependence exists in this situation: followers depend on leaders for direction and leaders need the loyal service of followers. The larger the organisation becomes, the more difficult it is to sustain a power oriented culture. Unless good structures and work systems are in place, the larger organisation becomes ineffective.

The Role-culture is found in organisations where a system of structures and procedures are in place to provide protection to subordinates as well as stability to the organisation (Harrison <u>et al</u>, 1993). There is a clear definition of members' duties and rewards and as a result people will perform those functions which they are rewarded for. This culture could function well in a stable environment where life is predictable (where it is assumed that tomorrow will be like yesterday) and is characterised by values like order, dependability, rationality, stability, justice and consistency. This means that organisations with a Role-orientation have difficulty in aligning themselves with external changes and demands. Despite this it is still found that many large organisations today reflect strong elements of the Role-culture. Handy (1991) calls it the Apollonian culture<sup>8</sup>. A Role culture often corresponds with the structure of a bureaucracy, which is based on positional (rather than personal or expert) power (Theron, 1992: 44).

There is an obvious and inherent weakness in this culture which results from the very impersonal nature thereof. The assumption is that people cannot be trusted and therefore people at lower levels are not empowered to use own discretion or to make their own decisions. The over-control of followers result in people being not willing to take risks or to question rules when it seems necessary.

<sup>&</sup>lt;sup>7</sup> A resource can refer to anything one person controls that another person wants (Harrison <u>et al</u>, 1993).

<sup>&</sup>lt;sup>8</sup> Apollo was the Greek god of order and rules (Handy, 1991: 23).

The use of external rewards and punishments to motivate people towards performance is a typical characteristic of both Power- and Role-oriented organisations. In sharp contrast with this, the Achievement-orientation operates on the assumption that many people like their work, want to be successful and enjoy the interaction with colleagues. In this culture commitment comes from these intrinsic satisfactions. Members are treated like willing contributors and their ideas and suggestions are welcomed and paid attention to. Handy (1991) calls it the task (or Athenian) culture. According to him, in this culture the expertise is recognised as the only base of power and influence. Talent, creativity and innovation is needed. The focus in this type of organisation always is the solution of problems. Some typical characteristics of the Achievement orientation are the following (Harrison <u>et al</u>, 1993):

- i. The total person is engaged in the workplace.
- ii. People experience that they are not just working for themselves, but that there is something bigger to strive for.
- iii. Supervision and direction by seniors is not needed.
- iv. There is a strong focus on teamwork and a sense of camaraderie.
- v. A sense of urgency, where people "live on the edge" is experienced.
- vi. A clear, unambiguous and clearly understood mission is emphasised, which aligns and focuses everything both leaders and followers do.
- vii. There is a belief that people do not make mistakes on purpose a mistake serves as an opportunity to learn and develop.

Similar to the Power- and Role-cultures, the Achievement organisation also employs systems and structures with the difference that they are changed as the mission requires – they serve as guidelines, not laws (Harrrison <u>et al</u>, 1993).

The fourth culture viz Support-orientation, is one of mutual trust between individual and organisation. There is an affective climate where warmth and even love is experienced. People feel cared for and believe that they are valued as human beings. They do not only come to work because they like their work, but also because there is a caring relationship between them and the people they work with. Although a pure form of the Support-orientation is rarely found, the culture normally develops in small organisations where people know each other personally and where they've had enough time to build personal relationships. Harrison <u>et al</u>, (1993) also provide some other characteristics found in organisations with a Support orientation:

- i. People help each other beyond formal job descriptions and requirements.
- ii. They like to spend time together and do not only communicate about their work, but also about personal issues and concerns.
- iii. Employees are regarded as inherently good and are treated as such.
- iv. In the interest of harmony, conflict is avoided. In most companies this is a weakness as difficult and unpleasant issues are normally ignored or not paid attention to immediately.

Handy (1991:31) calls his last culture the existential (or Dionysian) culture, named after Dionysus, the Greek god of Wine and Song. While in the other three cultures the individual is subordinate to the organisation and is there to help the organisation to achieve its goals, we find in this culture that the individual expects from the organisation to help him fulfill his purpose. The culture is normally preferred by professionals who want to preserve their own identity and do not want to recognise a boss.

Apart from the fact that authors describe models (with types) of organisational culture, the existence of sub-cultures within a particular organisational culture are also referred to (Schermerhorn, <u>et al</u>, 1994).

## 3.2.5 CULTURE IN AFRICA

## 3.2.5.1 Diversity

The study and analysis of culture in Africa and African management is faced with African society's most important characteristic, namely the ethnic diversity of people making up and contributing to the collective notion of "the (South) African way" of management. Ethnic differences are predominantly culturally based because culture is a reflection of the knowledge, beliefs, customs, morals and values of an ethnic group (Theron, 1992: 53). These differences impact on corporate governance and as a result of the fact that different ethnicities differ in their perceptions of work and the work environment (Clegg & Redding, 1990: 187), the demands on effective leadership become more complex. Cultural differences exist in the work environment because employees bring their ethnic (cultural) differences to the

work place. The fact that culture provides the context for employee behaviour, is emphasised by Kast & Rosenzweig (1985: 589): "organisational systems are cultural answers to the problems encountered by humans in achieving their collective ends". Slabbert and Welsh (1979: 10) define ethnicity as "a group that is bounded off from other comparable groups or population categories in the society by a sense of its difference which may consist in some combination of a real or mythical ancestry and a common culture and experience". The relation between ethnicity and culture is also reflected in Cross's (1971: 487) definition: "ethnic groups are groups defined in relation to cultural features".

The multi-cultural composition of the South African labour market was referred to in Chapter 2. Interpreted from the theoretical frameworks provided by Hofstede (1980) and Trompenaars (1993) it becomes clear that certain characteristics and preferences of some South African subcultures could stand in total contrast with regards to the importance and relevance of many business and leadership principles and requirements for business excellence (see further discussion in section 5.3). However, being aware of the multitude of cultural and ethnic differences is not enough. An analysis of those values that are required to accomplish organisational goals (Cox, 1993: 11) and to take a company into the global market (van der Colff, 2001: 16) is needed. The complexity of the work force, which is directly related to the diverse nature of the South African society, needs to be understood in order for it to be successfully managed. Furthermore, an understanding of the effect of these cultural differences on the selection of appropriate leadership approaches and behaviours is needed. Cox (1993) emphasises that the urgency of getting to the right answers in respect of the management of diversity is reflected in the question practicing managers of organisations ask more than any other, namely how the bottom-line performance of organisations is affected by diversity and the management thereof. The answer is not an easy or singular one, but what needs to be accepted is that, if South African organisations want to achieve business excellence, leadership has to appreciate the diversity in organisational cultures as a given reality.

#### 3.2.5.2 Afrocentric or Eurocentric

South African organisations are conceptualised and structured in a largely Western mould (Van der Wal, 2001: 14). Cultures of many organisations are still ignoring the fact that the largest proportion of the population is African, and not European or American. As a result many employees cannot identify with systems, structures and processes in their organisations and they find that there is little congruence between the goals of the work force and those of the organisation.

In comparing African and Western cultures, Van der Walt (1997: 10) describes the African culture as "communalistic" rather than "naturalistic". One of the important values impacting on motivation, morale and levels of satisfaction in organisations, is the individual's perception of his own existence in relationship to others. In contrast to Western belief, man in Africa is not an individual who can make arrangements and agreements to his own advantage. His relationship to others is of primary importance and only as a member of society he has the right of existence. There is an absolution of the society (it always comes first) instead of the individual.

Table 3.12. Differences in accent between Aincart and Western cultures.	
AFRICA	THE WEST
Communal self	Individual self
The community comes before the individual (I am because we are – I exist because I am part of the community.)	The individual comes before the community (we are because I am).
Interdependency	Independency
Survival of the group	Survival of the strongest individual
Group security	Personal security
Group satisfaction	Individual satisfaction
Cooperation and harmony	Competition
Affiliation	Ownership
Common duties	Individual rights

Table 3.12: Differences in accent between African and Western cultures.

(Source: Van der Walt, 1997: 18)

The debate of whether to develop and follow a unique African way of solving problems and managing South African companies or to integrate proven Western values and principles in the (South) African context is an ongoing one. The danger in introducing effective organisational change in developing third-world countries lies in cultural bias. It is an inherent problem and, according to Jedlicka (1987: 64) could come from both the existing culture of the country finding itself in the change process and international countries offering help in the change process. When change assistance is offered to a third world (African) country there is always the possibility of introducing a Western bias into the process. This bias will not necessarily be a negative one, but what is vital is to incorporate the best of both organisational change might continue to be an inhibiting factor for the future, Jedlicka (1987) is convinced that it is not an insurmountable barrier. What is required is that

people involved in organisational change have a thorough understanding of the effects of culture in the change process.

Van der Walt's (1997) point of view is that neither Eurocentrism nor Afrocentrism could provide the ultimate solution in South Africa. With reference to the debate around the importance of excellence versus relevance, he is convinced that the one cannot exclude the other. Both can be regarded as relative terms. When looking at the Eurocentric importance of standards and excellence, one needs to clearly determine the criteria for excellence as well as define the context in which it is used. As an example he mentions that, according to Western standards, South Africans could do academic work of high standing quality, but it could be totally irrelevant and meaningless for the South African situation. Despite this, a pure Afrocentric approach to South African problems is not appropriate either. Van der Walt (1997: 42) notes that the belief held by many Africans that going back to the past as the only way of regaining their lost identity, is no longer possible. In this regard he refers to the many examples of Agyeman (1996) where a number of African countries realised that the modern African culture has become so intertwined with the Western, that going back is not an option.

From what is happening in Africa one could form the impression that Western and African cultures are already in a process of influencing one another (a process of acculturation so that they are not sharply distinguishable from one another any more) and that the issue at hand is not whether either should dominate, but rather which attributes of both should be supported and reinforced to enhance organisational effectiveness and competitive performance in the global arena. Although significant differences in values, beliefs, expectations and customs do exist across cultures (Hofstede, 1980; Lessem, 1993; Trompenaars, 1993) one cannot generalise on any of these differences. Van der Walt (1997: 16,49) even go as far as to argue that the African culture and the Western culture do not exist - there is too huge a diversity in each. It is possible to find Westerners who from time to time would fit into the African trend much better and vica versa. The perception of time could serve as a good example. With some Western nations a mix of typical Western and African time views is found. They tend to be more Western oriented in their public appearance, but more African in personal life. Similarly it is argued (Van der Walt, 1997: 49), that there can be no question of one (single) traditional African view of time. Agyeman (1996) confirms this by referring to some Africans calling strongly for Africanisation while they are already exercising certain practices which are completely alien to the traditional African culture.

The differences in practicing science between West and Africa are also brought into the discussion and a religious dimension is introduced too (Van der Walt, 1997: 60). He regards the autonomous power of man over his environment as one of the most important Western values. Through the application of science and technology man can do with the environment what he wants to. Quite often science knowledge is regarded as more important than any other form of knowledge, which has indeed led to huge wealth in the West. For the African, science can never be regarded as something separated from religion – the spiritual side of reality cannot be ignored. Wealth for Western man is measured in terms of science knowledge and commercial wealth. Development is only seen as technological and economic development. This in itself points to the poor side – poor in human relations, poor in the experience of real human fellowship. To bring the two cultures together, Van der Walt (1997) once again suggests a "to and fro affirmative pluralism" in which the two cultures influence each other in a correcting way. This, of course, can only happen in intense dialogue with each other where one group does not try to enforce its own culture on the other.

## 3.3 VALUES

## 3.3.1 INTRODUCTION

Although there is sometimes confusion as to what is precisely meant with values, researchers in general agree that values could be regarded as the central theme in the study of human behaviour, as well as the foundation on which the employee's personality and outlook on life are based. In this regard, Rokeach (1973: ix) states that the concept of values is the core concept in the study of all social sciences. It is the most important dependent variable in the study of culture, society and personality and the most important independent variable in the study of social attitudes and behaviour. This fact is emphasised by stating that it would be difficult to conceive of a human problem that would not be better illuminated if reliable value related data concerning it, were available. One can even argue that it is possible to translate differences between cultures, social classes, occupations, religions or political orientations into questions concerning differences in the individual's underlying values and value systems (Theron, 1992).

Authors also underline the fact that managers should have a thorough understanding of the important role of values in human functioning and behaviour. "The executive who will take steps to better understand his own and other men's values can gain an important advantage in developing workable and well-supported policies" (Guth and Tagiuri, 1965: 124). In this regard Sikula (1973) adds that a significant volume of research was done to underline the fact that individual behaviour is best understood when it is brought into relation with personal values and value systems.

Rokeach (1973) divides the divergent interpretations of various researchers for the term "value", into two different general views, namely:

- A value is regarded as an internal conviction that an individual holds. This is seen as a psychological value.
- It could also be seen as the value an individual assigns to objects outside his existence.

## 3.3.2 DEFINITION

Various definitions and interpretations for the concept values are found in literature. A generally accepted definition is that of Rokeach (1973: 5), namely "...an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode or end-state of existence". It therefore implies a long-term conviction as well as applicability for both individuals and groups. Values also serve as criteria or standards according to which evaluations are made: "... value as criterion is usually the more important usage for purposes of social scientific analysis" (op cit, p 4).

In the first part of this chapter the concept of culture was discussed as a system of shared meaning which dictate how and what we do and what we regard as important (what we value). Through culture(s) that we belong to such values are organised into "mental programmes" (Hofstede, 1980). These mental programmes strongly influence the behaviour of people within organisations. Culture and values are therefore two inseparable concepts. Schein (1992) suggests that culture in organisations reflect those values that managers want to reinforce and institutionalise in their organisations. We find common shared values at the very heart of the organisation (Schermerhorn, et al, 1994).

The aspect of preference associated with a value, when confronted with a choice between alternatives, is stressed by various authors such as Sikula (1973: 6-7) and Allport (1961: 454). According to Sikula, values are descriptive in terms of what the individual regards as important. They indicate the preferences, likes and dislikes for particular things, conditions and situations. They represent the individual's opinions of what is acceptable, fair, desirable or just. The importance of the "desirable" component of values for understanding the value concept is underlined by several others (Southam, 1980; Guth et al, 1965).

Values can be explicit or implicit in nature. In this regard Williams (1979) notes that the extent of explicitly of a value is in relation to the social acceptability thereof. Highly explicit values can be directly stated by a person and its application in making judgments can be illustrated. Other values are less explicit and "...social actors may even resist making them explicit" (p 17).

Van Pletsen (1986) explains that certain values exist very clearly and precisely within an individual's perceptual framework and that these values can be expressed unambiguously in words. In contrast with this there are other values that appear unconsciously and that could only be described by an outsider observing the person's behaviour. This conscious and unconscious nature of values (Combs, Richards & Richards, 1976) is also described as a function of situational factors. Van Pletsen (1986) continues by saying that values constitute a combination of affect and concept and that people do not only experience a factual perception of their environment. Values posses cognitive, affective and directive aspects and they are not committed to objects. These components of values are further elaborated on by Roux (1982). The assessment of what is right or wrong and which end state is being strived for, is made on the cognitive level. Based on this assessment preference is assigned to certain values. Emotional feel for or against a particular form of behaviour or state of existence represents the affective component of a value. When the preference given to a particular value manifests in certain behaviour, the behavioural component of values come into play.

From the relevant literature sources, it is evident that the central aspect of values is the preference which an individual has for a certain option (since certain approaches or ideas are more important to him than others), as well as their directive and behaviour forming characteristics.

Additional aspects dealt with in this section are the development of values, the change of values, the distinction between values and related concepts, as well as the function of values in organisational life.

## 3.3.3 THE FORMING, DEVELOPMENT AND CHANGE OF VALUES

The community in which the individual finds himself is primarily responsible for the forming of his values. A person's values are learnt right from his childhood years and are determined by socio-cultural factors (Robbins, 1986). Van Pletsen (1986) agrees that the initial internalisation of values takes place at a very young age in the family when the child learns to evaluate himself and to ask himself why he is doing certain things the way he does. At a later stage this process could also be influenced by other groups of people. This fact was also illustrated through research done by Krech, <u>et al</u> (1969), which clearly indicated that the political views of first year students correlated significantly more with that of their parents than was the case with second and third year students.

The values of adults are predominantly formed by experiences during childhood years (Cherrington, 1980). These values also include work-related values. Children aquire a strong work ethic when their parents apply strict

discipline, require obedience and expect them to assume responsibility for tasks assigned to them. Guth <u>et al</u>, (1965) also refer to the important role of the social group from which the family comes in the forming of values. Child rearing practices are regarded as "expressions" of both family values and the values of the social group the family belongs to. A child is therefore born into an environment consisting of various influencing reference groups each contributing to the development of a unique set of individual values.

Researchers like Krech <u>et al</u>, (1969) indicate that values are not rigid entities and that additional information regarding a particular subject could lead to an individual's values being changed. His normal development also influences the development of his value system. Long-term changes in values, attitudes and behaviour take place based on objective feedback regarding the individual's own and other's attitudes and values (Rokeach, 1979). For this a certain level of openness for others is necessary. Through feedback the individual becomes aware of the different ways in which he is being observed by others (Combs <u>et al</u>, 1976).

# 3.3.4 DIFFERENCE BETWEEN VALUES AND OTHER RELATING CONCEPTS

During the initial discussion of the term 'value' reference was already made to the fact that a considerable number of interpretations are found. One reason for the variety of interpretations that is forwarded by Van Pletsen (1986) is that quite often a clear differentiation is not made between values and other psychological terms that relate to values. To eliminate possible confusion, it is necessary to refer to the following terms and constructs.

## 3.3.4.1 Values and norms

Certain unwritten rules and regulations normally exist with which an individual should comply if he wants to be accepted as a member of a given group or society. These rules are known as norms and have their origin outside the individual. In contrast, values are settled within the individual. He then uses these "internal rules" to determine what he regards as acceptable and what not.

Van Pletsen (1986) mentions two basic similarities between values and norms. Firstly both serve as prescriptions or standards for behaviour. In the second place both have their origin in the society the individual comes from. Whereas an individual makes a value his own (internalise), a norm still belongs to the society. Both values and norms therefore determine behaviour. The difference however, is that values are applicable for all situations whilst norms only prescribe behaviour for specific situations (Rokeach, 1973).

## 3.3.4.2 Values and attitudes

In literature a definite distinction is drawn between the two concepts. Whereas an attitude could be regarded as a conviction regarding a certain object, a value refers to a conviction in respect of certain patterns of behaviour being strived for. According to Rokeach (1973) a value gives direction to behaviour and takes up a more central place in a person's personality. An individual's attitude towards a specific object is therefore determined through his value system.

Southam (1980) summarises the differences between values and attitudes as follows:

- An attitude represents various beliefs that are focused on a specific object or situation, whereas a value is a single belief that guides actions and judgements with regards to specific objects and situations, with a certain "ultimate end-state of existence" in mind and not just immediate objectives.
- A value, in contrast to an attitude, is a prerequisite for action, "not only a belief about the preferable, but also a preference for the preferable".
- A value, in contrast with an attitude, is a standard to guide the actions, attitudes, comparisons, evaluations and justifications of one self and others.

#### 3.3.4.3 Values and the self-concept

The relation between the two concepts are indicated amongst others by Liedtka (1989). Certain principles which make up the self-concept dictate which goals the decision maker pursues, who one is and what one regards as appropriate and comfortable for oneself. One's experience leads to these images and they are the products of both the self-perception and the value system of the individual.

The above stated view supports that of Rokeach (1973) in that he states: "... the function served by a person's values are to provide him with a comprehensive set of standards to guide actions, justifications, judgments and comparisons of self and others and to serve needs for adjustment, ego

defence, and self actualisation. All these diverse functions converge into a single, overriding, master function namely to help maintain and enhance one's total conception of oneself".

Values therefore seem to contribute to the forming and development of the individual's total self-image as well as assisting in the maintenance thereof.

## 3.3.4.4 Values and personality traits

Reference has already been made to the relationship that exists between values and personality and that values serve as the foundation on which one's personality is built. Disregarding the complexity of personality as a psychological construct, it is clear to social researchers that it does not stand in isolation from one's values. This indissoluble relationship between values and personality is strongly underlined by Guth et al (1965) and could be summarised as follows:

- Values are not only closely related to personality, they are part of it.
- Values serve as a guidance system used by a personality when faced with choices of alternatives.
- Values form a very stable feature of an individual's personality, especially if some values are clearly dominated by others.

In the Psychological Dictionary of Gouws, Louw, Meyer and Plug (1979) a personality trait is described as a constant trend or characteristic of a person which is responsible for the consistency of behaviour. Van Pletsen (1986) sees personality as a collection of personality traits. These personality traits are very stable which implies that personality is also relatively rigid. Furthermore he is of the opinion that a personality could also be regarded as a value system or a group of value systems. A person that is, for example psychologically classified as an introvert could describe himself as someone who consistently assigns much value to wisdom and an "intellectual life", rather than to friendships, prestige and friendliness in general.

#### 3.3.4.5 Values and needs

Although values and needs correspond in certain situations, the two constructs can also be differentiated. Value and need are synonymous when a person feels that he has to do something and that he would also really like to do it. Values are the cognitive representation and assimilation of needs, where these needs not only represent those of the individual but also those of the community and society (Rokeach: 1973). Combs <u>et al</u> (1976) reserve the term need for the "most basic , fundamental striving" of an organism. Values on the other hand are referred to as the ends and means an individual chooses to follow as avenues to need fulfilment.

For Osipow (1973) the fundamental difference between values and needs lies in the origin of the two concepts, where the social component is dominant with values while needs are more intrinsic to the individual himself.

#### 3.3.4.6 Values and interest

As is the case with values, interest too fulfils a guiding function. However, the difference lies in the fact that interest only refers to an aspect of behaviour or a part of a state of existence (Roux, 1982). He further notes that interests are not necessarily ordered in related systems or orientations.

#### 3.3.5 FUNCTIONS OF VALUES

A proper summary of the functions of values is presented by Combs <u>et al</u> (1976). They describe values as criteria used when the individual has to make choices between activities and that they are used as criteria for both judgement and preference. The accuracy with which a person's behaviour could be predicted, thus depends on the degree to which such a person's value system is known to others. Van Pletsen (1986) elaborates further on thus and says that people are sensitive for the value systems of others around them - based on this they classify these people into groups and treat them according to the value systems they reveal. These value systems create expectation with regards to how they are going to behave or react.

The view of Rokeach (1979) regarding values is also one of guidance and direction. In our efforts to satisfy our own needs, human values provide us with a set of standards. They play an important role in determining the acceptability of behaviour, both to ourselves and to others. They "... insofar as possible, enhance self esteem, that is, to make it possible to regard ourselves and to be regarded by others as having satisfied societally and institutionally originating definitions of morality and competence". All the functions of values could be strung together into one overbearing master function which has in view the maintenance and enhancement of the self concept.

Values also play a significant role in the perception of certain phenomena and events. Combs <u>et al</u> (1976) highlights experiments done to prove that people remember words easier when these words relate to their own value system than words that are of less importance to them.

## 3.4 PROTESTANT ETHIC

# 3.4.1 PROTESTANT ETHIC, CAPITALISM AND THE THEORY OF MAX WEBER

The classic theory of Weber (1958) gave rise to the initial association between Protestant Ethic and behaviour in the workplace. The Protestant Ethic was also referred to as Puritan-, Work- or Calvinistic Ethic. Weber was one of the first authors on this subject, and to describe the attitude of early 17<sup>th</sup> century Puritans towards work and money, he coined the term Protestant Ethic. He also regarded work as a religious duty; not merely as an essential function to maintain living standards: "In the concrete calling on individual pursued, he saw more and more a special command of God to fulfil these particular duties, which the Devine III had imposed on him" (Weber, 1958: 85).

The calling to which Weber is referring forms the continuous and basic theme of the Protestant Ethic. He defines this calling as "an obligation which the individual is supposed to feel and does feel towards the context of his professional activity no matter in what it consists, in particular no matter whether it appears on the surface as a utilisation of his personal powers, or only of his material possessions (i.e. capital)... the fulfilment of worldly duties is under all circumstances the only way to live acceptably to God."

It was also believed that each person had a duty towards the increase of his own capital (Tawney, 1958), something that stood in sharp contrast with the prevailing economic conditions. This caused the lower class to stand together in a close unit or work force with definite objectives, values and rules which ultimately served as the basis for the development of capitalistic principles. It is obvious that the Protestant Ethic provided moral support for the increase of capital and wealth.

Several quotation from the Bible are also used by the supporters of the Protestant Ethic to underline above mentioned point of view. Van Pletsen (1986) mentions Proverbs 10 verse 4 as a good example: "Being lazy will make you poor, but hard work will make you rich"<sup>9</sup>. Although the previous evidence indicate that the Protestant Ethic had a significant influence on the origin of capitalism, Weber (1958) notes that it did not have much influence on the maintenance and survival of capitalism.

While Bosman (1980) regards the calling aspect as having a central role in the Protestant Ethic, other scholars of the subject emphasise the intrinsic aspect of work. Wollack <u>et al</u> (1971) declare that "work as its own reward" probably forms the most widely accepted description of the Protestant Ethic. The value of work does not only lie in the eventual attainment of external material rewards but could rather be found in the fact that it provides the best use of a

<sup>&</sup>lt;sup>9</sup> Good News Bible: 1976.

person's time. Therefore, the person being high on Protestant Ethic will gain considerable satisfaction from being involved in his work and doing his job to the best of his ability. This multi-dimensional nature of the Protestant Ethic is clearly reflected in the work of Wollack <u>et al</u> (1971) and will subsequently be discussed briefly.

#### 3.4.2 DIMENSIONALITY OF THE PROTESTANT ETHIC

The assumption of Wollack <u>et al</u> (1971) is that the Protestant Ethic consists of several dimensions. They then divide the Protestant Ethic into intrinsic and extrinsic sub-dimensions.

Three dimensions encompass the intrinsic aspects of work, i.e. the internal personal value a person gains from work in general. Those are the following:

- Pride in work
- Work involvement
- Activity preference

Considerable value is also placed on the extrinsic rewards from work. The following dimensions reflect the extrinsic nature of the Ethic:

- Attitude towards earnings
- Social status of the work

Wollack <u>et al</u> (1971) also indicate two dimensions which could be seen as a combination of the above mentioned duality, namely:

- Upward strive
- Responsibility to work

A more comprehensive explanation of the various dimensions will be provided in Chapter 7 in the discussion on the measuring instruments of the study.

All authors however, do not support the view of Weber (1958) of the Protestant Ethic. The most important critique against his theory will subsequently be discussed.

#### 3.4.3 CRITIQUE AGAINST WEBER'S THEORY

The first critique leveled against Weber's theory comes from Tawney (1958) himself. He argues that Weber's conclusions leave scope for more than one interpretation. He further notes that ..."there was action and reaction, and, while Puritanism helped to mould the social order, it was, in its turn, moulded by it".

Samuelson's (1976) critique reflects the incompleteness of Weber's theory: "Max Weber's celebrated emphasis on the 'Protestant Ethic' as both cause and effect of capitalistic development... did fit some facts... Yet the 'buts' that have to be applied to the Weber thesis are many and serious." He adds that Weber also exaggerated the differences between Catholics and Calvinists. During the Middle Ages the Catholics were, just like the Calvinists, focussed on profit and financial gain. Cherrington (1980) levels similar critique against Weber's theory. He cannot assent to the findings regarding the relation between the Protestant belief and work-related values. His research on forms of religion and work-related values indicated that only persons who were members of the Mormon religion were different based on their Protestant Ethic scores (Cherrington, 1980).

Whereas Weber's (1958) theory indicate that the origin of capitalism should be seen from a religious point of view, Robertson (1933) is of the opinion that capitalism rather originated from the material circumstances of society. He elaborates further on this by saying that the Protestant church did not support the development of capitalism out of their own free will, but that the principle was supported as a result of pressure.

## 3.4.4 UTILITARIAN VALUE OF THE PROTESTANT ETHIC

In light of the considerable criticism voiced against the Protestant theory, the question that arises involuntarily is whether it has any utilitarian or application value today. The answer seems to be positive.

Several researchers (Bosman, 1980; Van Pletsen, 1986) indicate that clear applicational value for the theory does exist within the field of organisational psychology. Both these authors note that the individual's behaviour and daily actions are guided through his psychological values originating from society. As a result of the very nature thereof, the Protestant Ethic can be deterministic for the value that a person assigns to work in general and therefore it will influence his work behaviour.

In a study undertaken by Bosman (1980) on the similarity between the characteristics of an entrepreneur and the values associated to the Protestant Ethic, he identifies several common aspects, amongst others high performance motivation, average to high power need, a low need for affiliation, perseverance, self-confidence, time consciousness and creativity.

It is clear that the Protestant Ethic could certainly be used and applied when work-related behaviour is studied, even in modern day organisations. However, Van Pletsen (1986) warns that it would be naïve to unnecessarily cling to the Protestantism and Calvinism when the values flowing from the Protestant Ethic are being described.

## 3.5 WORK VALUES

#### 3.5.1 INTRODUCTION

In order to ensure a clear picture of the concept work values (or work-related values) from the outset, the subsequent discussion will be introduced by a description/definition of work values. As already indicated at the beginning of this chapter, aspects such as the classification (or dimensions) of work values, its origin and development, change in work values and the measurement thereof will be broached in the discussion. Some biographical correlates will also be referred to.

## 3.5.2 CONCEPT DEFINITION

As is the case with the concept value or psychological value, various definitions of the concept "work values" are presented by different authors. However, it is evident that the idea of an "attitude towards or orientation with regard to work" constitutes a central element of most interpretations. One of the most significant aspects that comes to the fore from the theories of work and work motivation, is that workers differ with regard to the reasons they have for working and the needs they want to satisfy through work. Biesheuvel (1984) supports this fact and argues that it is not everyone who looks for the satisfaction of higher level personality needs through the work they do and that it is in fact "... an intellectualist fallacy that everyone seeks opportunities for responsibility, independence and creativity in his job". Zagoria (1974) too does not regard all workers as being alike, "... they come in assorted shapes, sizes, education and experience, attitudes and ambitions. Some work for a living, for others working is a living. He continues by mentioning that some regard work as the central goal in life, whereas others think about work as a way of providing for the daily necessaries and then regard time away from work as the real joy in life.

In Super's (1973) description of work values he emphasises on the various motivators that drive the individual to work. Work values are regarded as values extrinsic to as well as intrinsic in work satisfaction and this may be seen as ..."the by products or the outcomes of work as well as those which men and women seek in their work activity". The driving force of work values

is also underlined by Steers and Rhodes (1979). The belief by individuals that being involved in work related activities is an important aspect of life (almost irrespective of what the nature of the job is) forms a major pressure to attend work. The concept is given a wider scope by Cherrington (1980) in that it is not that work in itself is important – it is also important to be involved in doing a good job.

The individual upholds a certain evaluative disposition or inclination regarding work in general. Work values could be referred to as the orientation an individual holds with regards to work in general (Van Pletsen: 1986). It consists of a strong affective component and is evaluative in nature – "work is good" or "work is bad". It forms a judgment of the idleness, whether or not, of the human being and does not relate to the specific job in which the individual finds himself, or the particular task he is busy with at a given point in time. Van Pletsen (1986) warns further that work values as a personality variable should be distinguished from the so-called "work value items" which refer to the items that holds a certain value for the worker such as promotion, acknowledgement and salary.

In order to provide a clearer image of the concept work values, the definitions of a few authors are quoted:

- "A set of concepts which mediate between a person's affective orientation and classes of external objects offering similar satisfaction" (Zytowski, 1970).
- "Work values are an index of a person's attitudes towards work in general, rather than his feelings about a specific job" (Wollack <u>et al</u>, 1971).
- "Work values refer to the usefulness, or general worth that a person assigns to some behaviour or conception of work (e.g. physical effort and length of time on task/job) and nonwork activities (e.g. leisure, benefits, and rewards)" (Wayne, 1989).

To summarise, it could be said that work-related values are indicative of an individual's (worker's) inner attitude or way of thinking towards his work, on condition that it does not merely apply to his own post or a certain task, but rather to work in general.

3.5.3 CLASSIFICATION (OR DIMENSIONS) OF WORK VALUES

As far as the classification of work values is concerned, a considerable number of opinions exist, ranging from one-dimensional to multi-dimensional views. A few authors' opinions will be discussed.

In a single-dimensional view of work values Morse & Weiss (1955) used only one item to measure the value individuals assign to work:

"If by some chance you inherited enough money to live comfortably without working, do you think that you would work any way or not?"

This item used by the researchers only values the role of monetary gain from one's work and does not try to explore other motivating factors in the world of work.

Various authors viewed work values from a two-dimensional frame of reference. As such Wollack <u>et al</u> (1971: 331-338) provide a two-dimensional approach and divide the Protestant Ethic in intrinsic and extrinsic aspects of work. With regards to the "Survey of Work Values" of Wollack <u>et al</u> (1971) Stone (1975: 218) makes the assumption that "...the greater the degree to which a worker simultaneously prefers activity, takes pride in his work, etc. the greater his 'overall' degree of belief in the Protestant Ethic value system". Blood (1969) also regards work values as a two-dimensional construct. He compiled a Protestant Ethic questionnaire consisting of eight items. These items were divided into two factors (four items each) i.e. the Protestant Ethic and the non-Protestant Ethic.

By following a two-dimensional approach Cherrington (1980) referred to the dimensions as (1) moral importance of work and (2) pride in craftsmanship. The moral importance of work is measured by items such as "Rich people should feel obliged to work even if they don't have to" and "Hard work makes you a better person" whereas pride in craftsmanship is measured by items such as "Even if you do not like work, you should do your best" and "A worker should produce good work, whether his supervisor is there or not.

In contrast with the preceding views, Ginzberg, Ginsberg, Axelrad and Herma (1951) add a third dimension to work values namely the notion of concurrent work values. According to these authors intrinsic work values relate to the reaching of goals in the work place (i.e. self actualisation and responsibility). For them extrinsic work values relate to the reward of work (i.e. salary and prestige). Concurrent work values do not necessarily refer to work itself, but rather to the work situation, i.e. interpersonal relationships.

For the purposes of this study, a two-dimensional approach as well as a multidimensional approach will be followed in the analysis of work values. The Survey of Work Values of Wollack <u>et al</u> (1971) will serve as a two-dimensional instrument. In adition to this instrument the Value Survey Module of Hofstede (1980) will be applied as a multi-dimensional measure of work-related values. These instruments and their research bases will be discussed further in Chapter 7.

#### 3.5.4 ORIGIN AND DEVELOPMENT OF WORK VALUES

As mentioned earlier, values are generally formed during the childhood years through the influence of a person's family. According to Cherrington (1980) and Morrow (1983), the same applies to work values. Research results of Cherrington (1980) show that the parental home has a significant influence on the establishment and development of the work values of a group of employees.

Van Pletsen (1986: 88) mentions that work values represent a personality variable and that it is formed together with the personality of the individual. They are not inherited characteristic – they are learnt. Furthermore in this regard he refers to eight management principles that contribute considerably to a positive change in and development of work values in an organisation. These eight principles are as follows:

- Commitment to excellence and positive work values should be supported by the organisational climate.
- The organisation's expectations and required quality of work should be communicated clearly to employees.
- The value and exaltedness of work and service delivery should be explained to employees.
- Through effective delegation responsibility of employees must be ensured.
- Through individual choice and participation personal involvement of employees must be promoted.
- The organisation should make use of performance assessment when providing feedback with regards to work achievements.
- Effective work performance should be rewarded.
- Employees should be continuously supported to ensure personal growth and development.

It is clear from these principles that the organisation and direct work environment could have a substantial influence on determining and developing the work-related values of employees.

Most research point to the fact that work values in general are in a changing process, changing away from the Protestant Ethic values to more contemporary work values. This change, according to Wayne (1989: 793) has already started in the sixties and appears to be continuous.

Referring to the general change in work values, Cherrington (1980: 8) states the following: "Many managers have complained that today's work-force does not have the same values as previous generations... The evidence indicates that the claims of these managers are generally correct." One of the reasons for this change in work values is the fact that the meaning of work has changed (p 6). He ascribes this changing nature of work to a number of factors, namely the shortened working week, the change in power position between employer and employee following the forming of unions, changing labour legislation as well as technological advancement changing the nature of work.

The possible implications of changes in work-related values for organisations have been researched by Cooper, Morgan, Faley & Kaplan (1979). They come to the conclusion that companies are being managed different than in the past. It is clear that, although management practices and personnel policies are continuously being changed and adapted, the values and expectations of employees have been evolving at an even faster pace. In order to keep up with employees' changing values, companies will have to increase the pace and appropriateness of their efforts to change. The important role of leadership practices and approaches in these changes will be discussed in Chapter 5.

# 3.5.5 THE NATURE OF WORK VALUES AT WHITE- AND BLUE COLLAR WORKERS

Literature shows that the work values of white- and blue-collar workers differ, but that this difference was much more clear in the past than is the case today. As early as the sixties, this subject was researched by amongst others, Turner and Lawrence (1965), Seeman (1967) and Friedlander (1964). To all of these researchers the basic difference lies in the nature of work values in the sense that the work values of white collar workers were more intrinsic in nature as opposed to those of blue collar workers which were generally extrinsically oriented.

The real interests and needs of blue-collar workers are found outside the work setting and in order to be able to fulfil these needs they view their jobs merely as a means of "obtaining the financial resources" (White & Ruh, 1973: 506). To them the extrinsic values salary, fringe benefits and relationships with coworkers are far more important than for white collar workers who find the value of work predominantly intrinsic (Pennings, 1970: 398).

Both Turner <u>et al</u> (1965) and Hofstede (1984) find the reasons for above mentioned differences in factors such as occupation, education and the influence of the employee's reference group as these factors are also instrumental in the forming of the individual's work values.

#### 3.5.6 EVALUATION OF WORK-RELATED VALUES

An examination of the relevant literature clearly shows that the evaluation or measurement of work values is problematic. Cook, Hepworth, Wall and Warr (1981: 123-170) explain twenty-nine different measuring instruments, each measuring a form of work value. This fact in itself indicates incontrovertible difficulty with regard to the evaluation of work values.

Schenk (1987: 30) ascribes the huge variety of instruments already developed for work value measurement to various factors, namely the shortcomings in a number of methodological approaches, the inexact definition of concepts, the absence of a universal set of values and the changing nature of value systems. Handy (1970) and Rokeach (1973) also highlight the use of unscientific methodology and the lack of standardisation in the use of psychological constructs.

Dreyer (1990: 36) provides a meaningful classification of work value measuring instruments in three broad groups namely:

- Instruments with the Protestant Ethic as basis, i.e.:
  - i. <u>Survey of Work Values</u> (1971) of Wollack, Goodale, Wijting and Smith.
  - ii. <u>Protestant Ethic Scale</u> (1971) of Mirels and Garrett.
  - iii. <u>Work Involvement</u> (1979) of Warr, Cook and Wall.
  - iv. <u>Work Environment Preference Schedule</u> (1973) of Gordon.
  - v. <u>Meaning and Value of Work Scale</u> (1975) of Kazanas, Hannah and Gregor.

- Instruments with contemporary values as basis, i.e.:
  - i. <u>Higher Order Need Strength</u> (1971) of Hackman and Lawler.
  - ii. <u>Job Diagnostic Survey: Individual Growth Need Strength</u> (1974) of Hackman and Oldman.
  - iii. Higher Order Need Strength (1979) of Warr, Cook and Wall.
- Instruments with a combination of the two work value systems as basis i.e.:
  - i. <u>Beliefs About Work</u> (1977) of Buchholz.
  - ii. <u>Work Values Inventory</u> (1970) of Super.
  - iii. <u>Central Life Interests</u> (1956) of Dubin.
  - iv. <u>Manifest Needs Questionnaire</u> (1976) of Steers and Braunstein.
  - v. <u>Work Preference Questionnaire</u> (1975) of Fineman.
  - vi. <u>Minnesota Importance Questionnaire</u> (1971) of Gay, Weiss, Hendel, Dawid and Lofquist.
  - vii. <u>Protestant Ethic</u> (1969) of Blood

The huge variety of instruments available for the measurement of work values hamper the choice of the most suitable instrument for the purposes of this investigation. However, there are also various other factors further influencing the choice. The most important of these are the following (the researcher also made use of these in the selection of the most appropriate instruments):

- The aim of the research, i.e. the type of information the researcher wants to obtain,
- The validity and reliability of the instruments as well as the extent of previous application in the South African context.
- The researcher's own preference and view of the concept work values and the applicability of the Protestant Work Ethic in the investigation environment.

After thorough studying of the available instruments and their previous application in social research, the researcher decided (as stated earlier) on the use of a combination of two different work value questionnaires, namely:

- i. The "Survey of Work Values" questionnaire of Wollack <u>et al</u> (1971) which is based on their intrinsic-extrinsic division of work related value dimensions.
- ii. The "Value Survey Module" of Hofstede (1980)

The Work Value Survey Module was originally developed by Hofstede (1980) in subsidiaries of a large multinational corporation, anonymously called HERMES, spread in countries worldwide. In the development and standardisation of the questionnaire over a period of six years employees in 40 different countries (including South Africa) were taken up to participate in a massive sample of 116 000. While differing on the concept of nationality (Hofstede, 1990: 103), the samples from different countries were homogeneous with regard to demographical variables. He included 120 questions in his questionnaire (which was later refined and reduced to the Value Survey Module) and the responses were evaluated by means of a five-point Likert scale. To allow for possible value development over time the survey data were collected twice over a four-year interval.

In order to be able to correlate the scores found with different instruments and also to test their convergency, Hofstede (1980: 68) also administered other tests of values and personality. They were:

- The Allport-Vernon-Lindzey Study of Values (AVL)
- L.V. Gordon's Survey of Interpersonal Values (SIV)
- L.V. Gordon's Survey of Personal Values (SPV)
- L.V. Gordon's Personal Profile (GPP)
- G.W. England's Personal Values Questionnaire (PVQ)
- F.E. Fiedler's Least Preferred Co-Worker (LPC)
- W.C. Schutz's FIRO-B

The results of these comparisons indicated that the questions of the Value Survey Module (VSM) measured the same types of constructs as other value tests. It was also clear that the convergence between the VSM-scores and other test scores compared favourably with other correlations between different test scores. Where the highest correlation found amongst other test scores was .48 (that between SIV – Benevolence and AVL – Social) the Recognition item score of Gordon's SIV and a score calculated from the VSM's items "importance of recognition" and "importance of advancement" provided the best correlation between any two instruments found (Hofstede, 1980: 68).

Hofstede's (1980) Value Survey Module, through large-scale statistical analysis, yielded four clear dimensions (previously discussed) on which national country cultures differ, namely

- Power Distance
- Uncertainty Avoidance
- Individualism
- Masculinity

The VSM data were vigorously validated against other similar studies. Comparison of the four VSM-culture dimensions with a total of 38 other studies indicated in each of these a significant correlation with one or more of the four dimensions. Scores on each of these dimensions could be given to each of the 40 countries included in the survey.

The methodology in respect of the work value measurement followed in this research as well as a detailed discussion of the instruments used is provided in Chapter 7.

## 3.6 CONCLUSION

This chapter was devoted to a theoretical overview of some important concepts in this study, i.e. culture and its dimensions, organisational culture, values, the Protestant Ethic and work-related values. Although culture is commonly regarded as a broad and complex concept, it was described as the patterns of behaviours that members of a society adopt in order to effectively cope with environmental demands and to solve their problems. Culture guides the behaviour of individuals and groups through strongly held beliefs and values. Therefore, it does not exist within one person but belongs to and is shared by a collection of people. The dimensions of culture were discussed by referring to one-, two- and multi-dimensional approaches. The prominent culture related research of Trompenaars (1993), Hofstede (1980) and Lessem (1993) were compared.

Culture as it presents itself at the level of the organisation (organisational culture) was referred to as the relatively stable "personalities" of organisations. It represents the system of mutually shared beliefs, attitudes, values and expectations developed within an organisation, which strongly influence the behaviours and actions of its members. The forming and development of organisational culture with all the factors influencing it was discussed and it was pointed out that the influence of dominant leaders in an organisation plays a powerful role in shaping its culture.

Attention was given to the importance of understanding culture in Africa where society is characterised by ethnic diversity and "non-Western" traditions and

values. It became clear that an understanding of the effect of cultural differences on the selection of appropriate leadership practices and approaches is essential. The difficulties in defining a unique and suitable South African way of solving problems (also those in organisations) within the forces of Western versus African values and belief systems were highlighted.

Finally, after referring to the Protestant Ethic the concepts of values and workrelated values were defined and discussed. The all important dimensions of work-related values of Hofstede (1980) were also referred to. Attention was drawn to the development and dimensions of work-related values as well as the evaluation of these values.

## CHAPTER 4

## LOCUS OF CONTROL: TO LEAD OR TO BE LED

No matter the experiences one has, if they are not perceived as the results of one's own actions, they are not effective for altering the ways in which one sees things and consequently functions

Herbert Lefcourt

## 4.1 INTRODUCTION

Locus of control is the second behavioural variable to be examined in this study. In Chapter 1 attention has already been drawn to the importance to management of having knowledge on locus of control in an organisational context and of the way in which knowledge of this nature may be employed to the advantage of the organisation.

In this chapter the concept 'locus of control', and, in particular, its relationship to behaviour in the organisational set-up, will be discussed. Aspects of the concept locus of control, that will be addressed are, inter alia, a clear definition of the concept, the nature of locus of control among certain geographical groups, the relationship between locus of control and other organisational variables such as motivation, performance and job satisfaction, as well as the measurement of locus of control. Furthermore, the effect of locus of control on preferences in terms of leadership behaviour will also be discussed. Within a new organisational paradigm, based on transformational leadership principles, participative management, empowerment of workers to the lowest level and increased focus on group achievement, as opposed to individual achievement, a detailed knowledge of the impact of locus of control on both leadership and follower behaviour becomes essential and will therefore be discussed.

## 4.2 DEFINITION OF THE CONCEPT

A study of various definitions of the term, locus of control, has made it clear that the concept is indicative of the degree to which an individual is convinced that he can determine his own fate (i.e. whatever happens to him) or exert an influence or control over it himself. People therefore see the ability to exert control over specific events as being present either in themselves or in the environment. Those who attribute control over events to themselves have an internal locus of control and those who attribute this control to forces in the environment, have an external locus of control.

The psychological construct of locus of control originated in Rotter's theory of social learning (1954). He explains locus of control as "internal versus external control of reinforcements". When an individual's perception is that his own behaviour and attitudes will result in a positive reward, internality is indicated. However, when his perception is that external factors, outside his control (such as destiny or luck) are responsible for rewarding behaviour, externality is indicated. The concept was developed in an effort to explain why certain individuals are inclined to ignore reinforcing events (Phares, 1976). The fact that these individuals did not react to reward or punishment, as predicted, is attributable, according to Phares, to a generalised expectation that their own actions would not have contributed to the procurement of reward or the avoidance of punishment.

Lefcourt (1976: 2) regards individuals as actors who determine their own fates and states that it is precisely this perception of the ability 'to do something' that gives rise to the concept of observed control.

The direction of control underpins the construct and is adequately summarised by Spector (1988: 335): "a generalised expectancy that rewards, reinforcements or outcomes in life are controlled by one's own actions (internality) or by other forces (externality)." While internals attribute the control of events to themselves, externals believe that their lives are controlled by external forces and therefore have a locus of control outside themselves. The personal controllability of outcomes are also highlighted by the definition of O'Brien (1983: 7): "refers to a generalised expectancy about the extent to which reinforcements are under internal or external control."

From the above definitions it is clear, therefore, that locus of control (or control of reinforcement) is indicative of the degree to which individuals believe that, as Lefcourt (1976: 2) puts it, "...they are actors and can determine their own fates within limits". It is regarded as a general expectation concerning behaviour, whereby behaviour is linked to reinforcement and refers to the controllability of events in life.

## 4.3 LOCUS OF CONTROL AND SOCIAL DOCTRINE

In response to the above definitions one can justifiably ask whether locus of control (and especially the internal locus of control) is an important variable in the prediction of behaviour, in other words, whether the results of a person's own actions play a role in changing the person's view of events and the way in which he consequently behaves.

Many researchers such as Phares (1957), James, (1957) Rotter (1966) and Lefcourt (1976) have already written at length about the topic. The way in which interaction takes place between internal cognitive processes in children is discussed by Rotter (1966: 2). According to him, the child does not assimilate new knowledge if action-result sequences are seen as random, in other words, "he will not learn from his experiences unless he believes that these experiences are lawfully related to his own actions. If events are only randomly paired, there would seem to be little reason for attending to them with an intent to learn".

If the individual is convinced that he has little control over the rewards or punishment he receives, he has little reason to adapt his behaviour in an effort to change the probability that the event will occur again. If this is the case, rewards and punishment will lose a great deal of their value as reinforcers, since they will not be more effective in reinforcing or weakening the person's response (Crandall, Katkovsky and Crandall, 1965: 92). In organisational context this will bear significant consequences for the attempts of leaders to ensure certain behavioural outcomes from followers through the offering of rewards for expected performance or the application of punishment for non-expected behaviours or unacceptable performance. The effects of using such a transactional approach in leadership will be further discussed as well as compared with transformational leadership behaviours in Chapter 5.

Lefcourt (1976: 31) calls attention to the different convictions people have about locus of control and states that these differences do indeed correspond with the degree to which they learn by their own experiences: "The fatalists perceive no contingency between action and outcome, while those espousing internal control beliefs readily perceive such contingencies."

From the above-mentioned viewpoints it is evident that the way in which people behave and alter and adapt their behaviour indeed bears a significant relation to the degree to which they themselves are responsible for what happens to them.

## 4.4 LOCUS OF CONTROL AND PERFORMANCE-RELATED BEHAVIOUR

## 4.4.1 GENERAL

In the previous section it was shown that certain cognitive activities, such as social learning, occur more frequently in individuals with an internal orientation with respect to control than in individuals who have an external orientation. According to Lefcourt (1976: 66), one possible interpretation of these findings is that locus of control may merely be a diagnostic indicator of a person's natural capacity to perform, in other words, the more intelligent and

performance-orientated a person is, the greater the possibility that he will see himself as an active, effective person.

Available empirical research data on the correlation between locus of control and achievement behaviour reveal some discrepancies. Stephens (1973), states that the correlation between different evaluations of locus of control and successful behaviour often contains many inconsistent and "weird" results. However, most research results suggest that there is a positive relationship between the two variables. Franklin (1963: 1684) found, for example, that internality is related to the amount of time high school pupils spent on homework. James (1965) likewise reports that individuals, who are internally oriented, are more persistent in their efforts to solve complex problems.

A considerable amount of attention has been devoted by Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld and York (1966) to the performance of high school children. They have found that scholastic achievement among these children can best be predicted by measuring the child's view on whether the results he obtains are determined by his own efforts. The results of this investigation are summarised by Coleman (1971: 28) himself as follows: "The importance of attitudes such as this is the effect such an orientation toward the environment can have on other resources, by creating an active, driving stance toward the environment rather than a passive one. Sugaestive evidence of its importance is provided by a striking result: those 9<sup>th</sup>-grade Negroes who gave the 'hard work' response scored higher on the verbal achievement test, both in the North and South, than those whites who gave the 'good luck' response, even though ... the average Negro scored from 2.7 to 3.8 years (in different regions) behind northern urban whites from other regions."

Although discrepancies occur in some research results, the opinions of the different authors named above actually clearly show that a sense of personal control is in fact a determining factor in achievement-orientated behaviour, or, as Lefcourt (1976: 77) puts it: "...that the engagement in achievement activity or long-range skill-demanding tasks is unlikely if one views himself as being at the mercy of capricious external forces."

Two obvious reasons for internals to perform better on the job than externals are provided by Spector (1982). Firstly, internals hold stronger expectancies that effort will result in good performance and that good performance will lead to rewards. In situations where rewards follow good performance internals exert greater effort. Secondly internals seek new and relevant information more actively and therefore perform better than externals on complex tasks which, in turn, should lead to better performance by internals when complex information and learning is involved. Although several other studies (Heisler, 1974; Valecha, 1972; Andrisani & Nestel, 1976), support the above relation, Spector (1982) warns that it should be kept in mind that the better performance of internals will only be applicable for situations where they perceive that effort will lead to valued rewards. This means that in the absence of rewards for performance the performance-reward expectancies of internals and externals might show no differences.

As a result of the clearly positive internality-achievement relation as discussed above, certain jobs appear to be more suitable for internals and others for externals (Spector, 1982). Internals are expected to perform better on the following jobs/tasks :

- Jobs requiring complex information processing and frequent complex learning,
- Tasks requiring initiative and independence of action,
- Jobs requiring high motivation,
- Highly technical or skilled jobs,
- Professional jobs
- Managerial or supervisory jobs

As locus of control is negatively related to anxiety (Joe, 1971; Archer, 1979), Spector (1982) warns that this interrelatedness complicates research findings on locus of control and performance and argues that it could well be the influence of anxiety that cause internals to be better learners than externals.

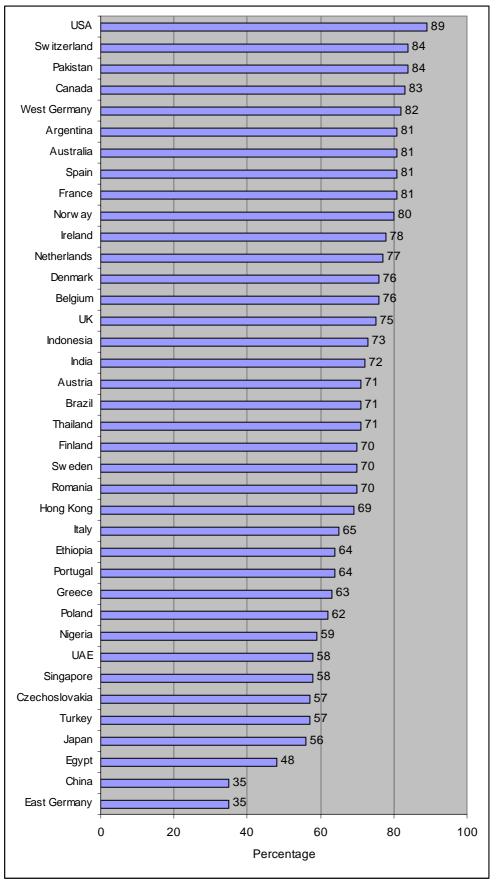
## 4.4.2 CONTROL AND SUCCESS IN NON-WESTERN CULTURES

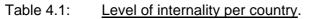
The internal-external items devised by Rotter (1966) were used by Trompenaars (1993) to assess the relationship of 15 000 managers with natural events and found very significant differences between geographical areas. Unfortunately a South African sample was not included – Nigeria, Ethiopia and Egypt were the only three African countries to be included. When respondents' answers to the following two questions are anylised (see Table 4.1) countries such as the USA (89%), and Germany (82%) are found to be almost completely internalised:

- A. What happens to me is my own doing.
- B. Sometimes I feel that I do not have enough control over the directions my life is taking.

While most European countries (except East Germany, probably due to many years of communism) score high, the managers of other countries, such as Japan and China, in contrast, are far more likely to believe in external control.

The American view is characterised by control over outside circumstances. However, Trompenaars (1993) stresses the fact that this is not necessarily the case in non-American cultures, where it is believed that outer-directed does not mean fate-directed and that there are indeed economically effective ways of adapting to external influences. For managers of more outer-directed countries such as Japan and Singapore it is not seen as a personal weakness to acknowledge external forces like direction from customers, market forces or new technologies. For them the ideal is to fit themselves advantageously to an external force. The result is that "scanning the business environment" comes naturally and it does not have to be taught, as is the case in the USA and Western Europe. For them business survival and economic performance depend on the ability to form a winning relationship with external niches and conditions.





(Source: Trompenaars, 1993: 128)

# 4.4.3 LOCUS OF CONTROL AND LEADERSHIP/-MANAGEMENT PERFORMANCE

Leadership is a behavioural construct that can be studied from two points of view, namely the style of the leader and the resultant behaviour/reaction of the follower. Therefore, it follows logically that when locus of control is studied, it should be done with regards to the behaviour of both leader and follower.

Various research results confirm that the appropriateness of a leadership style is influenced by the subordinate's locus of control and that internals and externals prefer different styles of leadership. In a study of the moderating effect of locus of control on the relation between supervisory style and satisfaction with supervision, Runyon (1973) reports internals to be more satisfied with supervision (than were externals) under a participative style. As leaders they also preferred a participative style to a directive one. Externals were found to prefer and to be more satisfied with a directive style. A laboratory study of Cravens and Worchel (1977) observing subjects working under either a coercive or noncoercive supervisory style yielded similar results. Internals were less satisfied with the coercive style than externals. However, no differences were found with the noncoercive style. Spector (1982) provides a summary of the effect of locus of control on follower preferences in respect of leadership. Because internals are less conforming and compliant than externals they "look to themselves for direction; externals look to others." Being more compliant and more likely to follow directions, externals would therefore probably be easier to supervise. Where the social demands of coworkers are in conflict with those of supervisors though, compliance might be dependent on the relative strength of influence.

A laboratory study of Anderson & Schneier (1978) on the leadership behaviours of internals and externals confirmed the notion that the two types prefer different supervisory styles: internals are more action oriented and externals more socially oriented. The following differences were reveiled:

- Groups led by internals outperformed those led by externals.
- Internals were more likely to emerge as group leaders.
- Internal leaders were better class performers than external leaders.
- While internal leaders were more task oriented, external leaders were more socially oriented.

A summary of leadership-related differences between internals and externals reflecting locus of control-authoritarianism parallels is provided in table 4.2.

Table 4.2:	Summary	of	leadership-related	differences	between	internals	and
	externals.						

	INTERNALS	EXTERNALS
1.	Prefer supervisors who engage in participative approaches (also tend to be participative supervisors)	Prefer supervisors who are directive (also tend to be directive supervisors)
2.	Rely more on personal persuasion with own subordinates	Rely more on coercion with subordinates
3.	Seem to be more concerned with task related aspects of the job	Seem more concerned with social aspects of the job

(Source: Adapted from Spector, 1982: 491-493)

It is generally accepted that group effectiveness is largely dependent on the quality of its leadership (Rutter, 1995; Ristow, Amos & Staude, 1999). Quality of leadership, however, is not easily defined and, as effective leadership could only be evaluated against groups doing (or not doing) what needs to be done, the behaviour of both leaders and followers, as well as the situation at hand (Bass, 1990) should be studied when determining the effectiveness of leadership. Leadership effectiveness in this study will be evaluated along a full range of leadership styles varying from transactional on the one end to transformational on the other (see Chapter 5 for a detailed discussion of these styles). Although the classification of leaders as either transactional or transformational was initialised by Burns (1978), Bass (1990) as well as Pruijn & Boucher (1994) found transformational leadership to be an extension of and a more enlightened, personalised and participative approach to the transactional style and that the two extremes are not necessarily mutually exclusive. Transactional leaders are prescriptive, expect compliance to rules, regulations and guidelines and followers are compensated/rewarded for expected behaviour. They only intervene when desired outcomes are not met and when deviations in expected behaviour are detected. Transformational leaders are much more actively involved with followers and engage the full person of the follower (Burns, 1978). In their quest to lead the team through continuous environmental and organisational change they provide meaning and challenges to followers' work. To help individuals and teams cope with complex task demands they also encourage creativity and innovation through questioning assumptions and by reframing problems (Bass & Avolio, 1994). The opposing organisational demands for compliance (preferred by externals) on the one hand, and complex task performance (focussed on by internals), on the other lead to obvious conflict in terms of those locus of control characteristics which will contribute towards more effective leadership. In this regard Spector (1982) mentions that, in the world of work becoming increasingly complex, organisations might have to sacrifice compliance for skill. Both the internal's initiative and the external's compliance are necessary.

These qualities are often not found in the same individual - leaders are thus left with the challenge to find ways of managing employees in complex job settings by allowing personal control (empowerment) while still striving for and achieving organisational objectives. The issue of which of a transformational or transactional approach would be the more effective is still not clear. Although Bass et al (1994) describe transformational leadership as more effective in terms of resultant follower effort and satisfaction, inner-directed leaders (who are generally regarded as more successful in the organisational context) prefer work relationships where their own way of thinking can win over those of others (Trompenaars, 1993), which is clearly more aggressive, directive and transactional in nature. It stands in sharp contrast with Spector's (1982) notion that internals prefer participative approaches when leading subordinates. This study will be concerned with the moderating effect of locus of control on both transactional and transformational leadership styles as well as on the effectiveness of these styles as reflected by the levels of (dis-)satisfaction of followers with these styles.

# 4.4.4 GENDER-RELATED ACHIEVEMENT DIFFERENCES

Although males and females seem to attach different meanings to perceived causality, it is obvious that there is considerable confusion regarding the role of gender in locus of control and achievement relations. Evidence on gender-linked differences with regards to the relation between locus of control and achievement behaviour has been found by several researchers (Messer, 1972; Nowicki, 1973). In an experiment conducted to analyse the association between gender, locus of control and achievement test scores, Messer (1972) reported boys who assumed responsibility for success and females who assumed responsibility for failure to be the most likely to obtain high achievement test scores. Nowicki (1973) confirmed that externality could be related to achievement for females while internality was associated with the same achievement for males.

In contrast with the above findings, Wolfgang & Potvin (1973) describe internal females as showing higher achievement results than external females. For the male sample in this study no association between locus of control and achievement scores was found. These conflicting findings regarding gender, locus of control and achievement behaviour, confirm the fact that considerably more research and attention is needed in this area.

# 4.5 THE NATURE OF LOCUS OF CONTROL IN CERTAIN GROUPS OF PEOPLE

#### 4.5.1 IMPOVERISHED PEOPLE

The South African population comprises a large number of previously disadvantaged/poor people. The effect of this negative economic and socioeconomic environment might have an influence on locus of control and thus achievement behaviour, and needs to be investigated. The question whether the nature of locus of control in impoverished persons shows a certain tendency, is very clearly answered by Lefcourt (1976: 15). According to him helplessness and a sense of desperation are characteristics commonly found among these people. Their outlook on life can be described as follows: "To people who live in continuously adverse circumstances, life does not appear to be subject to control through their own efforts. Only through some outside intervention do events seem to be alterable, and such intervention is a rare occurrence." It would therefore seem as if people in such situations believe that they are at the mercy of external factors and that they have little control over their own desperate and unfortunate situation.

Lewis (1961: 171) provides a good example of this fatalistic approach when he writes about a certain man's failure as a shoemaker. This person comments on his situation as follows: "To me, one's destiny is controlled by a mysterious hand that moves all things. Only for the select do things turn out as planned; to those of us who are born to be tamale eaters, heaven sends only tamales. We plan and plan and some little thing happens to wash it all away. Like once, I decided to try to save and I said to Paula , 'Old girl, put away this money so that some day we'll have a little pile.' When we had ninety pesos laid away, pum! my father got sick and I had to give it all to him for doctors and medicines. It was the only time I had helped him and the only time I had tried to save! I said to Paula, 'There you are! Why should we save if someone gets sick and we have to spend it all!' Sometimes I even think that saving brings on illness! That's why I firmly believe that some of us are born to be poor and remain that way no matter how hard we struggle and pull this way and that. God gives us just enough to go on vegetating..."

The view expressed above by Lefcourt (1976) is confirmed by Joe (1971: 624). He points out that available data correspond with the theoretical expectation that individuals, who are restricted by obstacles in the environment and limited material opportunities, will develop an externally orientated outlook on life. Likewise, individuals of the lower classes and minority groups are inclined to have higher expectations of external control.

# 4.5.2 ETHNIC GROUPS

In order to determine whether there is any significant difference in locus of control among whites and blacks, Lefcourt and Ladwig (1965: 377 – 380) used Rotter's questionnaire, the Internal-External Control of Reinforcement (1966). From this research it transpired clearly that blacks attach more importance to external control than whites. To support these findings, the "Powerlessness Scale" of Dean (1969) was applied to the same group of people. Once again it was found that blacks were more externally and fatalistically orientated than whites, with only a few exceptions. In referring to the process of socialisation Theron (1992) states that the most pervasive social differentiation can be found along ethnic and racial lines and that ethnicity (also in South Africa) is of central importance in the study of locus of control. Although not all studies report differences, Lefcourt (1976) notes that whenever differences are found, the black sample reveal stronger external fatalistic expectations.

Studies by Battle and Rotter (1963) also indicate that Negroes and lower-class individuals generally have higher external scores than whites and middle-class individuals. These findings have been confirmed by Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld and York (1966) in a report on the equality of training opportunities. Likewise Dyal (1984: 214) reported American blacks with low-socio-economic status and less power to be more external than American whites. Other minority groups like the Mexicans, Native Americans and people of African descent were also found to be more externally oriented than whites. The underlying reasons for differences in locus of control across cultures are vested in what Cox (1993) calls fatalism. This fatalism is found to be much stronger in African cultures than in most European cultures. He confirms the higher externality of black Africans as opposed to high internality of white Africans.

It must be borne in mind that the trends described above are mostly based on research conducted in the USA. With regards to the nature of locus of control in South Africa, the research of Riordan (1981) provides clear proof of differences between ethnic groups. A high externality was found amongst the Asians, coloureds, Africans and the English-speaking whites. Only the Afrikaans-speaking whites were found to be high on internality. Lefcourt (1976: 25) points out that the control that is observed can be positively linked to access to opportunities. It has been found that blacks, Hispanics, Red Indians and other minority groups who do not have as much access to opportunities as the Caucasian groups in North American society have convictions that are orientated more towards fatalism and external control. Theron (1992) also ascribes the South African ethnic differences re locus of control to the political environment. For many years the political status quo was upheld by the minority Afrikaans group, who politically controlled the country and thereby also had an influence on the fate of other groups. The learned helplessness and powerlessness (high degree of externality) of migrant farm workers was largely caused by them being deprived from rights and privileges and being controlled by oppressive powerful others (Magwaza & Bhana, 1991: 162).

Although it is logical for members of many minority groups to be more externally oriented as a result of being more sensitive to the influence of racioethnicity on life events, Cox (1993) notes that the introduction of affirmative action has caused some white men in organisations historically dominated by white men to believe that they are now disadvantaged due to their group identity. Under affirmative action conditions these members may develop an external locus of control.

The highly diverse multi-cultural composition of the South African workforce continuously increases the importance for leaders and managers to understand individual differences and the effects thereof on employee behaviour and performance. The influence of ethnicity on the nature of locus of control among employees in the SAAF (with a particular emphasis on leader-/follower preferences) will also be investigated in this study. A detailed discussion of leadership and follower behaviour will follow in Chapter 5).

# 4.6 THE RELATIONSHIP BETWEEN LOCUS OF CONTROL AND CERTAIN ORGANISATIONAL BEHAVIOUR VARIABLES

# 4.6.1 GENERAL

Individual differences in locus of control have a significant and varied effect in organisations and have become an important variable for explaining human behaviour in organisational life. Some of these differences are mentioned and discussed by Spector (1982: 485) (he points out that, although his discussion is theoretical in nature, actual data exists that can validate many of his hypotheses):

Persons who believe in internal control should endeavour to exert more control in their work than those who believe in external control, on condition that control is seen as something that leads to the required results or rewards. For certain individuals control can be rewarding in itself and might therefore lead to these individuals attempting control for its own sake. Therefore, a "contingent reward" leadership style (see Chapter 5), that is characterised by a rewarding transaction between leader and follower, will not always be necessary for the motivation of internally oriented followers. For internals, control can manifest itself in areas such as work flow, operating procedures, assignments, relationships with supervisors and subordinates, job conditions, goal setting, work scheduling and organisational policy.

- Since those who believe in internal control make better use of information, they perform better in learning and problem-solving situations. They take more trouble to gather relevant information.
- Those who believe in external control are more prone to conforming and to yielding than those who believe in internal control. "Internals look to themselves for direction; externals look to others" (Spector, 1982: 486). Externals therefore, make more compliant followers or subordinates than internals.
- As a result of the more indulgent nature of externals, it will probably be easier to supervise them because they follow instructions more easily. According to Theron (1992: 93) externals, as a result of being more conforming and compliant than internals, would be easier to supervise. For them, following instructions would be easier than giving them. He predicts that externals are therefore more likely to be followers than leaders, while on the contrary, internals would make excellent leaders.

The organisational areas highlighted by various authors (Joe, 1971; Organ & Greene, 1974; Spector, 1982; Bass, 1990; Theron, 1992; Cox, 1993) where the use of internal versus external control would probably differ are amongst others, the following:

- Leadership behaviour
- Communication styles
- Interpersonal relationships (especially those between supervisors and followers)
- Risk-taking
- Motivation, and
- Job satisfaction

Spector (1982: 486) discusses certain job settings that are found to be more suitable for internals than externals. When a job, for example, is of a complex nature and demands higher levels of initiative and independent action, it would be more suitable for internals. Internals exhibit more initiative in their efforts to attain goals than do externals (Seeman, 1963). Simpler tasks of a compliant nature would suit externals better. It is also suggested that internals are better suited for professional and managerial jobs. They tend to attain higher occupations with greater autonomy and higher status than externals (O'Brien, 1984: 16).

# 4.6.2 MOTIVATION

Studies have been conducted by Organ and Greene (1974) on the relationship between locus of control and observed meaningfulness of behaviour. Meaningfulness is reasonably directly related to motivation as high scores during the investigation reflected high job motivation (use was made of a 10 item instrument that measures goal setting, task orientation, meaningfulness of work and task-related utilisation of time). Locus of control correlated negatively with this scale (r = -0.43). Internals therefore regard their work as more meaningful.

Spector (1982) draws attention to the fact that externals are not necessarily less orientated towards rewards or personal goals, but that internals will make a greater effort to earn rewards or achieve objectives since they are more inclined to believe that their efforts will be successful. If rewards do not follow performance, internals may adopt a more external stance (Theron, 1992). Therefore, when leaders are in control of internally oriented followers, the proper clarification of goals and outcomes will be essential. As a result of their higher levels of motivation, internals would do better on jobs where high motivation is required (Spector, 1982: 486).

According to the expectancy theory, effort will lead to good job performance, which in turn will lead to valued outcomes (O'Brian, 1984). In this regard Theron (1992) emphasises the role of rewards in the work-related behaviour of internals and externals. Because internals associate effort with performance levels and performance with attaining valued rewards, they believe that their own efforts will ultimately lead to valued outcomes and reinforcements. Externals regard performance and its outcomes as being influenced by factors beyond their control. Therefore externals are insensitive to pay incentives, while internals exert more effort for monetary rewards and other incentive systems (Spector, 1982).

The use of a transactional style in leading people, as it will be discussed in Chapter 5, could prove to be less effective with externally oriented followers. Motivation and the reward systems applied in organisations are often built on assumptions of internal locus of control (Cox, 1993). The underlying premise is that employees control their own rewards by the level of achieved performance.

# 4.6.3 JOB SATISFACTION

Writers such as Porter & Lawler (1965) and Salancik & Pfeffer (1978) indicate that internals generally display greater contentment than externals. Spector (1982) puts forward, among others, the following three reasons why internals should experience greater job satisfaction than externals:

- Since those who believe in internal control (internals) are inclined to take action more frequently than externals, the chances are greater that the dissatisfied internal will resign from the specific job he is not satisfied with. Therefore, there should be fewer dissatisfied internals than externals.
- Internals should perform better than externals. The resulting benefits of their good performance should lead to greater satisfaction among internals.
- Internals are inclined to progress faster and are more successful in their careers.

The positive effect of an internal control orientation on job satisfaction is not fully supported by O'Brien (1983). When age, income and education are being controlled statistically, he found that locus of control does not significantly predict job satisfaction. He does, however, agree with the notion that internals are more job involved than externals.

Turnover as a result of dissatisfaction in the workplace is also addressed by Spector (1982). There seems to be a complex relationship between locus of control and turnover. When internals experience the work environment as dissatisfying, they tend to take action, which results in a higher turnover than with externals. This is only true for a dissatisfying work environment. When work is experienced to be satisfying, internals will be more successful and will therefore exhibit the same turnover rate as externals. Externals on the other hand, even when dissatisfied, tend not to take action and would therefore be expected not to quit. Spector (1982) concludes that, for the correlation between job satisfaction and turnover, locus of control acts as a moderating variable. The correlation should be higher for internals than for externals.

# 4.6.4 RISK-TAKING

Although Lefcourt & Steffy (1970) reported that there is no relationship between locus of control and risk-taking, there seems to be some inconsistency in other research reports such as Julian, Lichtman and Ryckman (1968). They support the notion that internals would rather prefer choices with high probabilities of success as opposed to externals preferring choices with low probabilities of success. Likewise, in a dice-throwing situation Liverant and Scodel (1960) observe internals to be more cautious in their betting choices. They chose significantly more intermediate bets and significantly fewer lowprobability bets than did the externals. Strickland, Lewicki and Katz (1966) disagree with the finding that internals are more cautious in risk-taking and state quite the opposite. They argue (without providing statistical evidence) that because internals would be more likely "... to try to outwit the odds for reinforcement", they would show greater risk-taking behaviour.

# 4.7 MEASURING LOCUS OF CONTROL

#### 4.7.1 GENERAL

As in the case of many other psychological constructs, measurement of locus of control is subject to a great deal of criticism. Lefcourt (1976: 127) points out some of this criticism that is also associated with measuring locus of control, namely that there is a tendency to measure a specific construct with a single instrument: "One contributing factor to the common decline of interest in many an adequate construct derives from the mistaken tendency to identify a construct with some singular measurement device ....and subjects' scores on those instruments came to be taken as indications of the presence or absence of given traits; that is, individuals scoring high on an anxiety scale are said to be highly anxious or to have high anxiety."

It should also continuously be borne in mind that certain measuring instruments give only rough approximations of an individual's position with regard to a specific characteristic and that various error variables can occur which can lead to erroneous observations: "...there are a host of 'error' variables which can contribute to inaccuracy in any measurement device and therefore lessen the utility of that device for measuring actions or cognitions pertinent to a particular construct" (Lefcourt, 1976: 128). The factors which were taken into account when selecting the instrument for measuring locus of control in this study, are discussed in Chapter 7.

# 4.7.2 VALIDITY OF THE CONSTRUCT OF LOCUS OF CONTROL

As mentioned earlier, the concept of locus of control refers to the degree to which people either ascribe control of events to themselves or attribute control to outside forces (i.e. beyond their own control). According to Spector (1982) the basic validity of the concept itself therefore is concerned with the question as to whether internals perceive more often than externals that events are a result of their own actions. Several studies (Table 4.2) confirm that this is indeed the case. Researchers like Julian & Katz (1968) and Kahle (1980) report that internals not only perceive more control but that they are also actively seeking situations where more personal control is required.

Table 4.3:	Summary of research studies confirming the validity of the locus		
	of control construct.		

	FINDINGS	RESEARCHER(S)
1.	Internally oriented employees were more inclined to attribute the obtaining of their present jobs to their own actions.	Roark (1978)
2.	A higher tendency for perceiving more alternatives in a choice situation was found for internals than for externals.	Harvey, Barnes, Sperry & Harris (1974)
3.	Internally oriented members of manu- facturing employees more frequently attributed past job changes to their own initiative.	Hammer & Vardi (1981)
4.	A higher tendency exists amongst internals for choosing leisure activities where greater skill and more personal control are required.	Kabanoff & O'Brien (1980)
5.	In a setting where subjects could choose a task requiring either luck or skill, internals preferred skill as opposed to internals who preferred luck.	Kahle (1980)

An interactive relation between locus of control and experience seems to exist (Spector, 1982). This means that while a person's locus of control may influence his behaviour, the consequences of his behaviour may also affect his locus of control. The prediction is supported by Anderson (1977) after a study of the business performance of 102 victims of Hurricane Agnes. Internals whose performance improved during the study showed a shift towards higher internality; likewise externals whose performance deteriorated showed a shift towards higher externality. However, externals showing an improvement in business performance, did not move to internality, neither did internals showing a decrease in performance move to externality. Krolick (1979) reports that the sensitivity of locus of control to experience is more significant for internals than externals. In reaction to an experience of failure, the I-E scores of internals shifted in an external direction, yet those of externals did not shift in an internal direction following a successful experience.

# 4.7.3 INSTRUMENTS MEASURING LOCUS OF CONTROL

Over the years researchers have tried to change and improve the instruments that are used for measuring psychological constructs, with the result that there are various measuring instruments for specific constructs. This trend was also found in the case of locus of control. Various instruments have already been designed for measuring locus of control. The best known among these is probably the Internal-External Locus of Control Scale (I-E scale) of Rotter (1966). It is the most widely used instrument for measuring internality versus externality, comprising a 23-item forced option questionnaire with six extra items or so-called "filler items". Marks are awarded in the external direction so that a higher score means that one is more externally orientated. Theron (1992:90) indicates that from the resultant conceptualisation of factor analytic studies on the I-E scale, the internal, powerful others and chance (IPC) scales were developed. While the I-scale deals with the extent to which people believe that they control their own lives, the C-scale refers to the perception of chance control. The role of powerful others and their influence on one's life is reflected by the P-scale.

The criticism that Crandall, Katkovsky and Crandall (1965) level against the I-E scale of Rotter is aimed at the so-called agents of external control. On the I-E scale these "agents' are identified as luck, fate and impersonal and personal powers. Crandall <u>et al</u> (1965) prefer to regard "significant others" such as parents, teachers and peers as sources of external control. According to Lefcourt it is precisely these "agents' of control who have become a central question for some researchers.

In spite of the wide application of Rotter's I-E scale, various other researchers have also already made definite comments about inherent deficiencies in the instrument. Thus, for example, Gurin, Gurin, Lao and Beattie (1969), after a factor analysis of the responses of 1 695 students on the I-E scale, found various independent factors to exist. The first factor that was found was called "control ideology" by Gurin <u>et al</u>. This refers to the amount of control a person believes most people in the community have. The second factor, "personal control", refers to the degree of control a person believes he has himself.

Mirels (1970) also investigated the factor composition of the I-E scale and obtained similar results to Gurin <u>et al</u> (1969). Two factors were identified by means of the varimax rotation method. The first was related to the amount of control a person believes he personally has while the second was indicative of the extent to which a person believes a citizen can exercise control over political and international matters.

Since the development of the I-E scale various other measuring instruments have been developed for internal-external control. Some of these are the following:

 A forced-choice activity preference scale was composed by Schneider (1968). With the aid of this scale it was found that internally orientated men preferred skilled activities since these activities confirmed their expectations of internal control, whereas externally oriented men preferred so-called "random activities" since these activities bore no relation to individual performance.

- Dies (1968) developed a projective measuring instrument for evaluating internal versus external control based on TAT stories.
- The "internal control index" (ICI) was developed by Duttweiler (1984) as a new instrument for measuring locus of control in adults. She developed it in response to increasing criticism of previous instruments and attempted to eliminate the most important problems encountered with existing instruments. This index consists of 28 items and has a 5point interval response scale. In contrast with the I-E scale of Rotter, the items are internally oriented, in other words, higher scores are indicative of higher internality. This instrument, together with Duttweiler's (1984) criticism of the Rotter I-E scale, will be discussed in Chapter 7.

For the sake of completeness a number of other instruments for measuring locus of control are merely listed. They are as follows:

- Bialer's questionnaire on locus of control (Bialer, 1961);
- Crandall's questionnaire on responsibility for intellectual performance;
- Dean's estrangement scale (Dean, 1969);
- James's I-E scale (James,1957);
- The Nowicki-Strickland locus of control scale (Nowicki and Strickland, 1973);
- Reid-Ware's trifactor I-E scale (Reid and Ware, 1974); and
- Stanford's pre-school I-E scale (Mischel, Zeiss and Zeiss, 1974)

As regards the possible confusion and uncertainty that may exist in connection with the use of existing measuring instruments as opposed to the development of new instruments, Lefcourt (1976: p 137) recommends the following: "If the investigator's purposes are to expand upon the nomological network within which locus of control may operate, then devices such as Rotter's scale or Crandall's IAR may suffice despite the failings inherent in each of them. However, if one were seeking to use the construct to make sense of more clinical problems where precision is an issue, then due consideration should be given to the construction of measures that are appropriate to the given problem." After a careful analysis of the advantages and shortcomings of the various instruments available, the researcher selected the Internal Control Index of Duttweiler (1984) for the measuring of locus of control in this study.

#### 4.8 SUMMARY

This chapter has been devoted to a discussion of the psychological construct, "locus of control" with a special focus on its impact on employee and leader behaviour in the organisational context. If the bulk of the references to its definition and its connection with social learning are summarised, it would be fair to conclude that it refers to the degree to which people attribute the cause of events either to themselves or to the external environment. Internals are referred to as those perceiving control of events to be in themselves while externals ascribe control to outside (environmental) forces. Internals perceive more often than externals that events are a result of their own actions. Externals exert less effort to control their environment. Significant support was found for the idea that members from lower socio-economic classes are more externally oriented mainly because of limited (or a complete lack of) access to opportunities. Impoverished people seem to have a stronger belief that they are at the mercy of external factors and that they have little control over their situation.

As far as the effects of internality/externality on organisational behaviour variables are concerned, the existing research evidence suggests that locus of control may well be a very important personality variable in organisational theory. Internals are more action oriented and in general better performers than externals, which could be ascribed to the fact that they have a stronger belief that they have personal control over rewards and events. They make better use of information, are more suitable for complex, professional and managerial jobs and see their work as more meaningful. There seems to be a positive relationship between internality and both motivation and job satisfaction.

It seems clear that the locus of control construct plays a major role in leadership preferences and behaviour. Leadership should be studied from two points of view – the style of the leader and the behaviour of the follower. As followers, externals tend to be more satisfied with directive approaches to supervision. Internals will be more appropriate for participative styles. The same trends are found in the leadership styles used by internals and externals themselves. As supervisors, internals seem to be participative as opposed to externals who tend to be more directive. Organisational demands often require leaders to adopt a certain style of leadership. In the military, for example, where prompt and accurate carrying out of orders is often required, the leader-follower context would be more appropriate for externals owing to their preference for directive supervision.

When summarising the characteristics and preferences of internals and externals in organisational context, it seems as if most organisational behaviour theory is limited to internals only. That is, that only the behaviour of internals seems to validate organisational psychology theory. Examples of these are the following:

- Internals (as followers) prefer participative supervision and also demonstrate participative approaches as leaders.
- They seem to display clearer response to reinforcing rewards and incentives (while, although they want them, externals are often unresponsive to incentives).
- Internals show more initiative and are more effective when dealing with complex tasks and demands.

Finally, the chapter was concluded with a discussion of measuring locus of control. Despite the wide application of Rotter's (1966) I-E scale in research, a multitude of other instruments have been developed, some of which were specifically addressing the shortcomings of the I-E scale. The Internal Control Index, for example, was developed in an attempt to eliminate some of the most important problems encountered with existing instruments such as the I-E scale.

Up to this point a few brief references were made to the influence of certain work related values (and specifically locus of control) on leadership and follower preferences and behaviour. The next chapter is devoted to a comprehensive review of contemporary leadership theories and the development of an appropriate and effective leadership culture in the organisation studied.

# CHAPTER 5

### LEADERSHIP IN TRANSFORMATION

The need for leadership has never been so great. The stage for Armageddon and the consequent seeking for people of character has never been better set. Indeed the axiom behind successful human endeavour, be it a family, business, political, sporting, spiritual or national level, can be summed up in one word – Leadership

Guy Charlton

#### 5.1 INTRODUCTION

In Chapters 1 and 2 the aim of this study was discussed as an analysis of certain work-related values and its influence on leadership behaviour in a transformational organisation paradigm. Work-related values and the importance of culture in shaping organisational behaviour were discussed in Chapter 3, while Chapter 4 was dedicated to a theoretical overview of the construct locus of control.

Leadership has recently become a popular subject for research, debate and discussion with the result of numerous studies being found in business-related literature. This chapter will only serve as a brief overview of both classical and recent thoughts on leadership with particular reference to contemporary demands on today's leaders. The discussion will include the most important arguments for and against the development of a unique African leadership model (as opposed to the application of Western leadership theories and principles).

The SAAF will also be introduced as an organisation finding itself within the process of structural and cultural transformation. This will include a summary of changes in leadership approaches that have been implemented over the past eight years.

#### 5.1.1 BACKGROUND

The powerful impact of quality leadership on any community or enterprise cannot be denied. For thousands of years leadership has been the subject of numerous debates and over the last 60 years many theories of leadership have been developed. The quality of leadership in organisations is regarded as one of the basic factors influencing the survival of the human race (Bennis, 1988). The quality of life on earth has become dependent on the quality of leaders. Similarly, leadership determines the difference between average and successful organisations. Many examples can be found in the business world where the success or downfall of a company could be attributed to the actions of a specific leader (Smit <u>et al</u>, 1999). Theories have come and gone and, according to Blunt & Jones (1997), this is not the result of establishing new scientific substance to a theory; much rather have theories lost favour because they fell victim to changes in fashion in the broad field of management thinking. Most theories have only been assessed in terms of intuitive appeal of their explanations.

In the context of human functioning and behaviour strong leadership can probably be viewed as one of the most critical elements for ensuring organisational effectiveness and success. As an example Meyer (2004, 28) notes that the lack of effective leadership is considered to be the most common reason for an organisation losing valuable talent. Brough (1999: 6) indicates that the term leadership has been discussed and explained for many years but still needs to be explained in fuller detail. With the virtual business environment becoming a new paradigm it has become even more important to analyse and define the concept. With the demands of the business environment changing continuously, what we think or know about leadership is going to be severely tested in the new millennium.

Walters (1999: 10) highlights two reasons for the above-mentioned importance of strong leadership. Firstly, in a world becoming more and more complex someone has to stand up and decide what to do. Secondly, the majority of people prefer others to make the difficult decisions and would rather be led than to lead themselves.

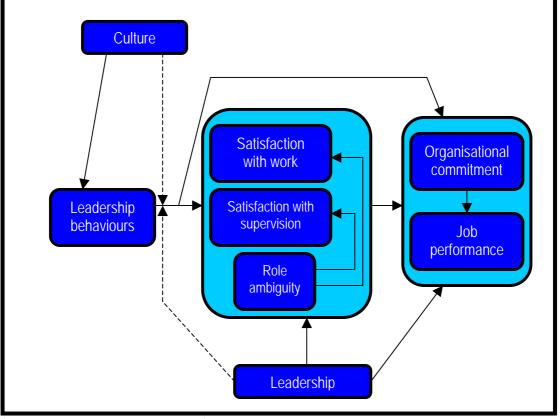
# 5.1.2 LEADERSHIP DEFINED

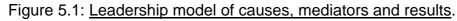
Many definitions of leadership exist. Charlton (1992) refers to the difference between management and leadership and concludes that leadership is any activity that involves facilitating productive behaviour of followers. Where managers rely on systems, leaders rely on people. Managers respond to meaning while leaders create meaning themselves. The many facets of leadership become clear in the description of Bass (1990): "Leadership has been conceived of as the focus of group processes, as a matter of personality, as a matter of inducing compliance, as the exercise of influence, as particular behaviours, as a form of persuasion, as a power relation, an instrument to achieve goals, as an effect of interaction, as a differentiated role, as initiation of structure and as many combinations of these definitions."

Some people regard good leadership as synonymous with popularity (Kruger: 1995), while others (i.e. Baron & Greenberg, 1990) more specifically describe

it as those actions and behaviours of leaders which positively influence the performance of others. In defining leadership Smit <u>et al</u> (1999) refer to all the people-related activities of managers. In the process of directing the behaviour of others they pay attention to elements such as motivating people as individuals and groups, managing conflict and communicating with followers. In essence leadership is seen as the managerial task of directing the activities of others so that organisational objectives can be attained.

Leadership could be seen as a set of causal leader behaviour variables impacting on followers' job satisfaction and role ambiguity (see Figure 5.1). These mediators, according to Dorfman, Howell, Hibino, Lee, Tate & Bautista (1997) represent the most immediate results of a leader's behaviour. The model also shows organisational commitment and job performance as outcome variables. Both job performance and organisational commitment are affected by job satisfaction and ambiguity. Job performance and ambiguity are also directly affected by leader behaviours. Furthermore job performance is directly influenced by organisational commitment. Dorfman <u>et al</u> (1997) note that the link between satisfaction and performance has not been investigated systematically in non-Western countries. The causal as well as moderating role of culture in leader behaviour was found to be consistent with other cross-cultural leadership models (Bass, 1990; Smith, Peterson, Bond & Misumi, 1992).





<sup>(</sup>Source: Dorfman <u>et al</u>, 1997: 181)

The leader's futuristic role within the reality of change and transformation is emphasised in Veldsman's (2004: 31) description: "... the act of creating possible futures and realising a shared, chosen desirable future with, through and for people. Leadership is about action to bring a new future into being. It is about making the future present tense." A leader in this sense acts as the custodian of people's future and impacts on followers' ideals, fears and aspirations.

Despite all the different attempts to define leadership, a common theme running through the definitions is that leadership is primarily a process involving influence – the exercise of influence for a specific purpose through altering the goal-related attitudes and actions of others. Effective leadership therefore, implies positive feelings between leaders and followers and is not only the result of influence vested in formal positions of authority. The importance of this fact will be discussed further in the section on transformational leadership (see Section 5.7).

# 5.2 LEADERSHIP VS MANAGEMENT

The new demands on organisations created by the external environment have forced managers to start shifting their focus and attention towards effectively influencing the behaviour of those people actually doing the work. Robinson (1989) sees this as a movement away from a pure management process towards leadership. A significant part of the rationale for this approach lies in the changing nature of organisations, both structurally and psychologically (refer Section 5.5.3.1 for a discussion of the changes in basic assumptions). Due to the delayering of organisational structures the management span of control is continuously increasing and managers find that more and more people are reporting to them. In addition to this, teamwork has become important with a strong emphasis on collaboration and commitment. The clear difference between management and leadership is reflected in Table 5.1.

Although leadership and management are seen as related concepts, the differences are distinct (Smit <u>et al</u>, 1999), and should be clearly distinguished. Managers are concerned with non-behavioural aspects such as strategy development, organisational design and the control of activities to achieve organisational goals. Leaders, in contrast focus on behavioural aspects. They energise people towards positive change and motivate them to commit and dedicate themselves to new directions. A suitable way of differentiating (Kotter, 1990) could therefore be to describe management as promoting stability and enabling the organisation to run smoothly, while leadership could be seen as the promotion of useful change. This distinction between management and leadership is presented in Table 5.1.

#### Table 5.1: Differences between management and leadership.

Management	Leadership
Planning and Budgetting	Establishing Direction
Establishing detailed steps and timetables for achieving needed	Developing a vision of the future, often the distant future, and
results, and then allocating the resources necessary to make	strategies for producing the changes needed to achieve that
that happen	vision
Organising and Staffing	Aligning People
Establishing some structure for establishing plan requirements,	Communicating the direction by words and deeds to all those
staffing that structure with individuals, delegating responsibility	whose co-operation may be needed so as to influence the
and authority for carrying out the plan, providing policies and	creation of teams and coalitions that understand the vision and
procedures to help guide people, and creating methods or	strategies, and accept their validity
systems to monitor implementation	
Controlling and Problem Solving	Motivating and Inspiring
Monitoring results vs. plan in some detail, identifying deviations,	Energising people to overcome major political, bureaucratic and
and then planning and organising to solve these problems	resource barriers to change by satisfying very basic, but
	unfulfilled, human needs
Order	Change
Produces a degree of predictability and order, and has the	Produces change, often to a dramatic degree, and has the
potential of consistently producing key results expected by	potential of producing extremely useful change (e.g. new
various stakeholders (e.g. for customers, always being on time;	products that customers want, new approaches to labour
for stockholders, being on budget)	relations that help make a firm more competitive)

(Source: Kotter, 1990: 6)

The establishment of strong leadership should not replace the management process, it should rather supplement it. After a study conducted in twenty-two different US industries on the relationship between corporate culture and long-term economic performance, Kotter & Heskett (1992) report that strong leadership supporting the management process formed an essential part of all major cultural changes observed. While management alone might be applicable in and suitable for an environment of stability and predictability (Robinson, 1989), leadership has as its primary function "the production of change" (Kotter, 1990). Purposeful change of any magnitude will be almost impossible without strong visionary leadership (Kotter <u>et al</u>: 1992).

The inseparable nature of management and leadership is illustrated by Smit et al (1999). In their discussion of the importance of people in the contemporary organisation they describe leadership as the human dimension of management. Well-designed tasks and work procedures and systematised production lines can no longer be considered to be the only factors that increase an organisation's productivity. On the contrary, people form the only part of the resources available to the manager that could be used to deploy the other resources towards organisational survival, effectiveness and higher productivity. Owing to their creativity, it is only people who can ensure that the organisational system is designed in such a way that it can adequately adjust and adapt to environmental changes. It is for this reason that factors concerning the individual (i.e. psychological, sociological and anthropological) are even more important than physical factors in attaining organisational goals and objectives. Successful management of an organisation is therefore dependent on the way people in the organisation are managed (Smit et al, 1999). This management of people is nothing else than leadership and includes factors such as interpersonal relationships, communication, motivation and teamwork.

# 5.3 THE NEED FOR AN AFRICAN APPROACH TO LEADERSHIP

The importance of leadership and specifically for organisations in a transforming South Africa has been emphasised in Chapter 1. Bass and Avolio (1997: 20) support this view by stating that "... numerous South African institutions have to change their whole base of operations and philosophy following the dismantling of apartheid. ... there are perhaps few other places in the world where transformational leadership is so much required, and the benefits are so enormous and visible."

The African business environment poses special management and leadership challenges. The uniqueness of South African conditions in terms of multicultural diversity and complexity necessitates the search for leadership solutions beyond the normal quick fix approaches. Most well known theories of improving organisational effectiveness and performance are based on Western management philosophy and, as the management of organisations in the true African business milieu has been largely neglected in most literature, no conclusive evidence exists that these theories can simply be applied in the current South African environment.

Many advocates of the African management movement view Western values as opposing and even alternative to African values. Mtembu (1996) argues that colonialism has eroded African values systems, while Boon (1996) stresses the importance of culture (in building a management model) as the embracing force around which everything else revolves: "... woe to the world if we all pursue a singular, grey and boring sameness. Our differences and traditions make us interesting and proud. Every good leader knows of the importance of culture... culture is not an independent thing, it is what we are as people." Mtembu (1996) regards the perceived failure of South African business to adopt a unique African style as a serious handicap.

As the object of leadership, namely people, is so immensely diverse, leadership has become a craft, an art of observing others and their behaviours and adapting one's own behaviour to positively influence those of others. For leaders to be able to develop their people into a motivated, inspired and productive workforce they will have to accept the challenge of understanding the diverse and unique composition of African value systems. Different individual values and attitudes form important indicators of leaders' abilities to motivate and inspire followers (see Section 5.7). These differences strongly affect leadership approaches and styles adopted by leaders. For example, to expect people to take responsibility and to be decisive in a culture where followers prefer their leaders to be the decision makers, will be of low motivational value and will eventually prove to be an ineffective approach. It is thus clear that a sound knowledge and understanding of the values and attitudes of followers is critical in ensuring required follower behaviour.

Although it has become fashionable for many researchers to argue that leadership processes and practices could only be effective when they reflect the characteristics of the culture in which they are found, some researchers began providing evidence that universal tendencies in effective leadership processes also exist (Dorfman & Ronen, 1991). The culture-universal (versus culture-specific) perspective of leadership constructs being comparable across cultures is also supported by Bass & Avolio (1993). Findings show commonalities in effective leadership behaviours across many different cultures. Similarly, Smith & Peterson (1988) reported that leader behaviours in terms of task- and relationship orientations were found to be effective not only in Western cultures, but also in more collectivist cultures. Charlton's (1992) research findings also suggest that there are certain competencies which effective leaders display (ie. establishing meaning, trust and the management of self) and that these are universally found, regardless of context. After comparing effective leadership behaviours in different countries representing

#### University of Pretoria etd – Beukman, T L (2005)

considerable cultural variation on numerous dimensions such as individualism/ collectivism, power distance and degree of industrialisation, Dorfman <u>et al</u> (1997) reported results which support the validity of both the universal and culture-specific perspectives in the cross-cultural study of leadership. In their study, three behaviours (leaders supportiveness, contingent reward and charismatic) proved to have universally positive impacts in all the countries studied. A leader demonstrating support and concern for followers was clearly found to be impactful in all the cultures.

It should also be noted that not all authors and researchers support the approach of building a unique African leadership model purely on African values. Thomas & Schonken (1998) mention that the argument for African management tends to be anecdotal and not empirical and that some of the arguments are simply inferior. Further concerns are that "... it is not clear whether the change in values proposed by African management writers is really possible, or in fact that the values proposed are truly African. Furthermore, the practicability of traditional African values in the modern workplace is at question." Referring to the culture-specific versus culture-universal leadership debate, Dorfman <u>et al</u> (1997) propose that the similarities and differences between cultures should be meaningfully integrated within contemporary theoretical frameworks so that it can simultaneously make sense for the culture under study.

Despite the positive characteristics of the African culture it is not perfect and does show (like all other cultures) shortcomings. According to Van der Walt (1997), there are a number of obstacles towards the development of an effective African approach to business success:

- Everyone's responsibility is nobody's responsibility. This comes as a result of the strong community focus.
- Nobody may progress further in the organisation than what his position by virtue of birth allows him, i.e. a carpenter earning more than his tribal chief must be brought back to the status that suits him.
- A fatalistic approach, which ascribes everything that happens to man to evil spirits or alarmed ancestors.
- Tolerance of what is bad all natural as well as man-made evil i.e. oppression,
- A wrong time conception and utilisation of time. For the African time is not watch-oriented but man-oriented – man does not use time but makes time to merely hang around useless and do nothing. The fact that best use should be made of time and that "time waits for nobody" still hasn't had a major influence on the people of Africa.

The search for a suitable leadership model for a transforming South Africa should therefore not run the risk of only focusing on African-specific cultural elements and characteristics. The focus should much rather be on finding and developing leadership approaches that could successfully integrate both Western and African culture elements. One model that could possibly provide (some) solutions for the multi-cultural South African scene is the "Full Range" model of leadership developed by Bass & Avolio (1994), of which the most important element is the transformational leadership style. Their research confirmed the universal notion of leadership effectiveness. When people from various national cultures are asked at the beginning of leadership development workshops what their ideal leader would be like, they describe the characteristics of a transformational leader (Bass, 1994). The model proposes that the transformational leader has the ability (irrespective of cultural setting) to shift followers to higher level needs, to transcend their own self-interest for the good of the group or organisation and to work harder than they initially expected to (Bass, 1994). A detailed discussion of transformational leadership will follow later in this chapter.

This study will focus on identifying those (work-related) values and locus of control orientations having an influence on follower behaviour and the subsequent behaviour required of leaders to guide them in a common direction, especially within an unpredictable, ever changing business, economic and political environment.

# 5.4 THE ROLE OF LEADERSHIP IN FORMING A CULTURE

The aspect of organisational culture has been philosophised and written about at length and therefore various perceptions with respect to defining it, exist. Schein (1990) seems to echo the most popular trend in defining the term as mutually shared beliefs, attitudes, values and expectations, which develop within an organisation and which strongly influence the behaviour and actions of its members. The organisation's culture acts as a description of its character and could be seen as its unique "personality" (Drennen, 1992). It serves as a guideline for distinguishing one organisation from another (Theron, 1992) and therefore conveys a sense of identity for its members.

Organisational culture consists of many interrelated facets and is therefore not easy to understand. What makes it so difficult to grasp is the fact that it consists of observable aspects (like language and customs), which are in turn determined by subjective aspects of culture like values, norms, convictions and attitudes. In their definition of culture Kroeber and Parsons (1958: 583) refer to patterns of values, ideas and other symbolic meaningful systems that serve as factors in the shaping of employee behaviour and the artifacts produced through this behaviour. As it is clear that organisational culture refers to behaviour (i.e. the way things are done in a specific organisation) it follows naturally that leadership plays a significant role in establishing and developing such a culture. Strong-minded dominant leaders play such a powerful role in shaping company culture that Schein (1983) regards founders as the ultimate source of an organisation's culture. Leadership in a large part forms the vehicle for influencing and changing the organisation's culture (Bass et al, 1993). Kotter et al (1992) have made similar observations. They report that in all the companies they have studied where significant culture changes took place, an absolute essential ingredient of the change seems to be the leadership of one or two people at the very top of the organisation. In all of the cases they have studied the single most visible factor that distinguished major cultural changes that succeeded from those that failed was competent top leadership. Major change began only after a leader with a good leadership track record was appointed to lead the company. Kotter et al (1992) suggest two basic reasons why a bottom-up approach does not succeed. Firstly, great power (which normally resides only at the top) is needed to overcome the resistance to change. The second reason is related to the interdependence inside organisations. This interdependence makes it difficult to "change anything a great deal without changing everything". It is often found that only those members at the top are in a position to initiate change of that scope (Kotter et <u>al</u> (1992).

The issue of how leaders create and transmit a particular culture is to a large extent a mysterious one. Schein (1992) explains this process (which consists of both conscious and unconscious elements) as being a result of the leader's ability to communicate major assumptions and values in a vivid and clear manner. The process of embedding and transmitting culture is divided into primary embedding mechanisms and secondary articulation and reinforcement mechanisms (see Table 5.2). The six primary embedding mechanisms create the so-called climate of the organisation while the secondary mechanisms build organisational ideologies and formalise what was initially learnt.

Table 5.2: Culture-embedding mechanisms.
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Primary Embedding	Mechanisms

Secondary Articulation and Reinforcement Mechanisms

What leaders pay attention to, measure and control on a regular	Organisation design and structure.	
basis.	Organisational systems and procedures.	
How leaders react to critical incidents and organisational crises.	Organisational rites and rituals.	
Observed criteria by which leaders allocate scarce resources.	Design of physical space, facades and buildings.	
Deliberate role modelling, teaching, and coaching.	Stories, legends and myths about people and events.	
Observed criteria by which leaders allocate rewards and status.	Formal statements of organisational philosophy, values and creed.	
Observed criteria by which leaders recruit, select, promote, retire and excommunicate the organisation's members		

(Source: Schein, 1992: 231)

One of the most powerful mechanisms that leaders use in communicating their beliefs is what they systematically pay attention to (including the things they do not pay attention to or react to). Their behaviours in crises bear particular importance because employee learning intensity is created through their heightened emotional involvement (Schein, 1992). Significant learning also takes place through observing what is rewarded and what is punished in the organisation.

According to Schein (1992) strong leadership does not only influence organisational culture, it creates it. Leaders in strong cultures act as role models who encourage employee commitment to the organisation's purpose and vision. Sarros (2001) reports that this is more the case for transformational leaders than for transactional leaders<sup>1</sup>. While transformational leaders change their cultures by realigning company culture with a new vision, transactional leaders work within their existing organisational cultures following rules, procedures and norms. After using the Multifactor Leadership Questionnaire (MLQ) on a sample of 1 918 Australian leaders, Sarros (2001) provided clear evidence that in most cases organisational culture is significantly influenced by strong leaders and that the opposite causal relationship is not applicable (only minimal amounts of leadership were accounted for by organisational culture).

<sup>&</sup>lt;sup>1</sup> See section 5.7 for a comprehensive discussion of the difference between transactional and transformational leadership styles.

# 5.5 FROM CLASSICAL TO CONTEMPORARY: THE LEADERSHIP THEORIES

#### 5.5.1 INTRODUCTION

Since the turn of the 19<sup>th</sup> century many studies have been done and theories developed on leadership and leadership effectiveness. All of these theories have focused on what it is that makes leaders effective. As leadership in essence is referred to as the ability of a person to effectively influence the behaviour (performance) of others, the various models researched and developed represent efforts to describe *how and why* some people positively influence the performance of others. A framework for the classification of these theories is provided in Figure 5.2. Irrespective what the approach is, the way a person is leading others, is predominantly influenced by his assumptions about human behaviour (Kruger: 1995) and the reasons why people work (Hall, 1994).

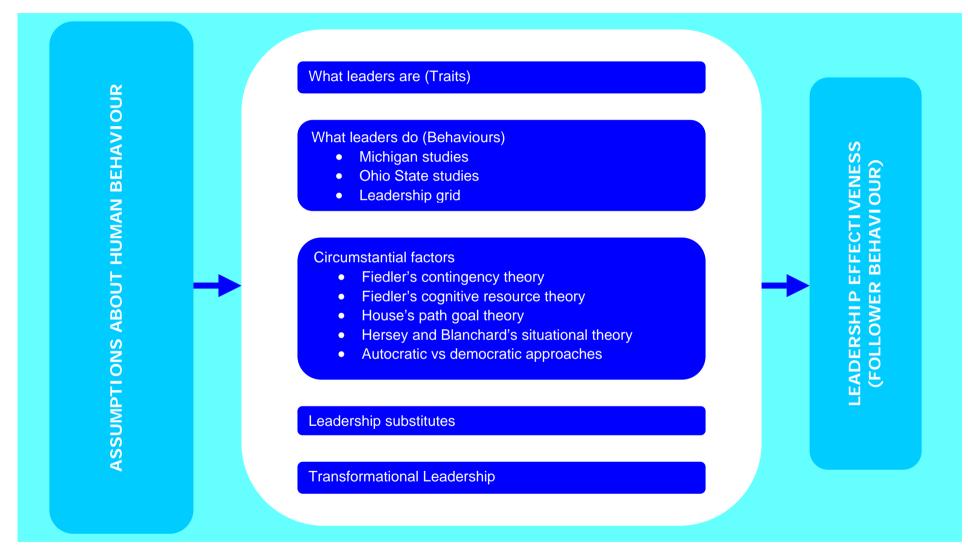
The theories that will be discussed below range from the "great man" or traits approach, through the behavioural descriptions of leadership to those being based on the appropriateness of styles within a given situation or context. The more resent perspectives on leadership resulting from changing organisational environments will be addressed in Section 5.5.4.

#### 5.5.2 CLASSICAL THEORIES

#### 5.5.2.1 The trait approach

The earliest approach used in the study of leadership is referred to as the "great man" theory and was based on the assumption that more effective leaders could be separated from less effective leaders based on the fact that those being effective possess certain traits (i.e. height, intelligence, integrity) that could be related to success. The argument was that once these characteristics have been identified they could be used to select leaders (Schermerhorn <u>et al</u>, 1994).





Although popular at a time, the trait approach has almost disappeared as a result of its inability to explain much about why relationships between some traits and leadership occurred (Parham: 1983). Individual traits do not predict who will become a leader and who not. Schein (1980) reports that traits correlating with success in one situation failed to do so in the next. Similarly, no consistent pattern could be found by Bennis & Nannus (1985).

# 5.5.2.2 Behavioural theories

While the traits approach to leadership studies was aimed at what leaders *are*, the behavioural theories focus on what leaders *do* to effectively influence the behaviour of followers. The hypothesis in these theories was that the actions of successful leaders differ from those of less successful leaders (Smit <u>et al</u>, 1999). Unlike traits, the opinion was that behaviours can be learnt or acquired and that individuals could thus be developed into more effective leaders. While the search for key characteristics in all effective leaders failed, it became clear from the studies mentioned below that effective and ineffective leaders differed with respect to their actions or styles of leadership.

# 5.5.2.2.1 *Michigan studies*

In the University of Michigan studies researchers were looking for leadership behavioural patterns that result in effective performance. Two basic styles of leadership were identified mainly based on the amount of control the leader wants to apply towards "getting the job done" (Stoner & Freeman, 1992). These two styles may be viewed as the two ends of a continuum, with any leader's style being found somewhere between the two ends. The *production-oriented* leader mainly focuses his attention to the activities for which he is responsible through careful supervision and strict control to ensure subordinate performance. These leaders apply pressure on subordinates to perform and pay most of their attention to outputs. Subordinates are merely seen as an extension of the organisational machinery and instruments to get the job done.

The *people-centered* leader is less concerned with the application of control and more with addressing follower needs and development. They place much emphasis on the welfare of subordinates. The approach is that output can only be improved by treating people in accordance with the belief that happy employees are productive employees.

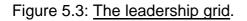
# 5.5.2.2.2 Ohio State studies

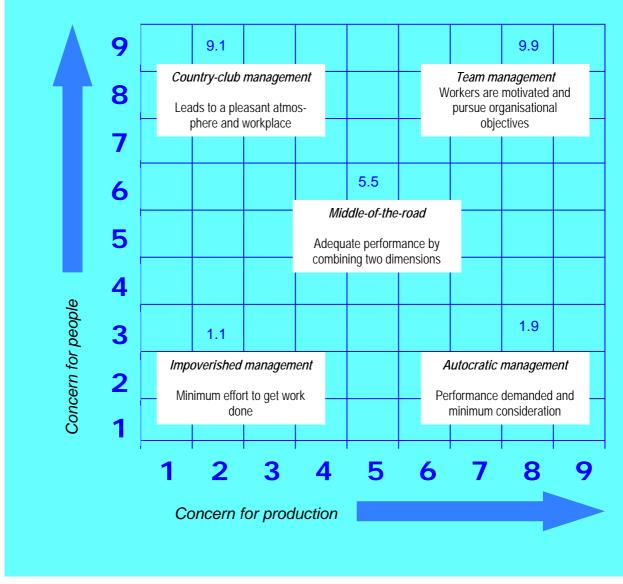
Similar studies were conducted at the Ohio State University which resulted in leadership differences being described along two dimensions, namely task-oriented (initiating structure) and employeeoriented or consideration (Baron & Greenberg, 1989). Structure initiating leaders ensure the achievement of results and targets through closely by closely monitoring and controlling the performance of subordinates. Typical activities associated with this approach are setting and clarifying goals, following rules, and organising work. Leaders with an employee orientation prefer to emphasise trust and work relations and are sensitive to followers' feelings and needs. The considerate leader believes in the importance of creating pleasant working conditions where people are happy, satisfied and motivated.

The above study found that a high task orientation leads to lower productivity due to unhappiness, absenteeism and low levels of job satisfaction. Although considerate leadership leads to higher levels of satisfaction, the researchers suggested a dual emphasis where the leader is high on both dimensions (Schermerhorn <u>et al</u>, 1994). This is possible because the two dimensions seem to be largely independent (Weissenberg & Kavanagh, 1972).

# 5.5.2.2.3 The managerial grid

Following the two previous behaviour models, Blake & Mouton (1978) developed the managerial grid, a two-dimensional perspective on leadership. The grid was developed to be used as an instrument for the identification of suitable styles towards which leaders could be trained and directed (Smit <u>et al</u>, 1999). On the grid a leader is positioned in terms of both concern for people and concern for production based on a score of one to nine on each of the dimensions. The nine possible positions on each dimension provide for 81 different leadership styles. The five most important styles are indicated in Figure 5.3. The ideal style is considered to be the top right position, where a production focus is optimised by an approach of participative and democratic management.





(Source: Smit <u>et al</u>, (1999)

# 5.5.2.3 Situational or contingency approaches

Critics of the behaviour theories have indicated that no single style is equally effective in all situations. One style is only valid under specific circumstances (Smit <u>et al</u>, 1999). Good leadership is not only the result of certain leadership traits and behaviours but could also be attributed to other factors such as span of control, group norms and values, time and organisational culture and climate. Situational leadership refers to the ability of a leader to adjust his style to the nature and requirements of the particular situation. In order to explain the direction in which leadership-related research developed, a few situational models will be discussed.

# 5.5.2.3.1 *Fiedler's leadership contingency theory*

Fiedler's contingency approach started the situation-based leadership research in the 1960's (Fiedler & Chemers, 1984). Fiedler's theory applies the same concepts used in the behaviour theories. The basic premise is that followers effectiveness is the result of a match between the style of the leader and three important elements in the situation, namely:

- The leader-subordinate relationship
- Task structuring
- The leader's power position

The amount of control that the situation allows the leader is also considered (Schermerhorn <u>et al</u>, 1999). In this regard the term *situational control* refers to the extent to which a leader can predict follower reactions as well as the outcomes of their actions and decisions.

In Fiedler's theory task or relationship orientation is seen as a trait that will result in either directive or nondirective behaviour, which in turn, will depend on whether the leader has high, moderate or low situational control. Based on this perspective a task-motivated leader will be nondirective in a high control situation and will be directive in a moderate and low control situation. In contrast, a relationshipmotivated leader will be directive in a high control situation and nondirective in a moderate and low control situation.

Recently Fiedler's contingency theory has been further developed towards a cognitive resource theory (Fiedler & Garcia (1987). In terms of this theory four specific situational contingencies determine whether a leader should use directive or nondirective bahaviour. These are:

- The abilities/competencies of the leader or subordinates
- Level of stress of the leader
- Leader experience
- Group support for the leader.

The issue of leader and subordinate ability has not been addressed by any of the previous theories, which makes this theory more useful than the others.

# 5.5.2.3.2 House's path-goal theory

House's theory (House & Mitchell, 1977) has its roots in the expectancy model of motivation (Schermerhorn <u>et al</u>, 1994) and is built on employee expectations. "Path-goal" refers to how the leader influences follower perceptions of work-related and personal goals (and the links between the two sets of goals). According to the path-goal theory the role of the leader is to clearly indicate objectives to be achieved and standards to be maintained in the process and then to clear obstacles from the path. The basic idea in the theory is that people expect their leaders to assist them in achieving valued goals through clarifying actual paths to rewards (Baron <u>et al</u>: 1990). It further suggests that leaders can adopt the following four basic styles which, are not mutually exclusive:

- <u>Instrumental</u>: The leader provides specific guidance and establish work schedules and rules.
- <u>Supportive</u>: The leader is focused on establishing good relations with followers and satisfying their needs.
- <u>Participative</u>: The leader consults with followers and permits them to participate in decisions.
- <u>Achievement-oriented</u>: In this approach the leader sets challenging goals and seeks improvements in performance.

Schermerhorn <u>et al</u> (1994) report that the path-goal theory has attracted notable research and that it presents some specific implications. Firstly, leadership behaviour could be changed through training to fit the situational contingencies. It is also possible to teach a leader to diagnose the situation and then to change the contingencies.

# 5.5.2.3.3 Hersey and Blanchard's Situational Leadership theory

The well-known situational leadership model (also known as the life cycle theory) of Hersey & Blanchard (1988) complements the view of other contingency approaches that there is no single best way of leading followers. In situational contingencies particular emphasis is placed on the maturity level or readiness state of the follower. The best leadership style in a given situation is determined by subordinate maturity. Maturity or readiness is determined by two dimensions namely task-related ability and motivation (achievement drive and willingness to accept responsibility and accomplish tasks) and develop in four phases. Through the model it is argued that the readiness of

followers to perform tasks prompt leaders to adjust their orientation in terms of task behaviours or relationship behaviours.

Different combinations of task and relationship behaviours result in four leadership styles, each representing a "best choice" of style for each of four different readiness states or levels. Table 5.3 indicates the phases of maturity development and the style appropriate to each follower readiness level. The situational leadership theory suggests that the effective leader is flexible and able to accurately diagnose situational demands and to assess changes in levels of follower readiness towards maturity. He then adapts his style accordingly.

Leadership	Follower	Behavioural focus
Style "Telling"	readiness Low follower readiness	A high task focus ensures the definition of roles for followers who are unable and unwilling to take responsibility.
"Selling"	Low to moderate readiness	Both task direction and personal support are high for followers who are unable but willing to take up responsibility.
"Participating"	Moderate to high readiness	Supportive behaviour with a lower task focus is provided to followers being able but unwilling. Through involvement in decision making processes the motivation levels of followers are increased.
"Delegating"	High readiness	Low levels of both task direction and personal support are provided when followers are able and willing to perform the task.

#### Table 5.3: Leadership styles according to follower maturity.

(Source: Hersey & Blanchard, 1988)

Hersey <u>et al</u> (1988) argue that a leadership style having been adapted to follower readiness, will not only lead to increased motivation but will also promote higher levels of maturity which in turn will require less leader control and supervision. More participation and freedom to solve problems independently can then be allowed.

The biggest inherent disadvantage of the situational theory is that the leader decides on the readiness level of subordinates, which is not transformational in nature. It does not allow for the basic assumptions that most employees strive towards a sense of commitment, involvement and ownership and that they have a desire to continuously learn and develop. The theory does not appear to be sensitive for the "Y-belief" (McGregor, 1960) that people want to do good work and feel good about themselves and the work they do and that they need constant feedback in this regard. A typical result would be that a follower finding himself in the "high readiness" area will soon move to the third quadrant (where he is still able but unwilling) if the leader proceeds with a delegating style with low (or no) personal support and encouragement. In contrast with the approach of choosing a style based on follower behaviour as suggested by Hersey et al (1988), Hall (1994) notes that competent managers align their leadership style with the belief that all their subordinates have an inherent willingness and ability to perform at a high level of productivity. Their style of leadership is therefore shaped by their basic beliefs about human competence and not by the readiness state (or maturity) of their followers. This is referred to as the self-fulfilling prophecy (Rosenthal, 1976)<sup>2</sup>. Having what might seem to be abnormally high expectations for followers is, in fact, the cornerstone of managerial competence.

# 5.5.2.4 Leadership Substitutes

The substitutes for leadership perspective argues that, because of the existence of certain individual, job, and organisational variables, hierarchical leadership may sometimes make no difference (Kerr & Jermier, 1978). These variables, called substitutes for leadership, often replace the influence of the leader. Leaders then become mere figureheads with little or no impact on follower behaviour. Kerr <u>et al</u> (1978) refer to four variables being able to substitute leader influence:

- A high level of subordinate knowledge and experience
- Highly structured jobs
- High levels of cohesiveness amongst employees
- Technology associated with certain jobs

<sup>&</sup>lt;sup>2</sup> The subtle yet powerful way in which, that what we expect of others so influences how we behave toward them, that we literally coax out of them those reactions and achievements we anticipate. Based on what we expect or belief of others, we adapt our own behaviour to such an extent that we almost ensure that we will get what we expect (Hall: 1993).

Schermerhorn <u>et al</u> (1994) describe the substitutes for leadership as a more generalised version of the situational approaches. The distinctive difference between the two, however, is that the substitutes perspective assumes that in some cases leadership becomes unnecessary and has no impact because it is replaced by other variables as mentioned above.

## 5.5.3 THE CHANGING NATURE OF ORGANISATIONS

In the previous section the initial approaches towards defining and understanding the leadership concept was briefly discussed. However, the fast rate of change in all spheres of life has had a fundamental impact on business organisations and the way they are managed and led today. For organisations to survive and to remain world class they simply have to stay in harmony with the demands of ever changing and turbulent environments. Arguably the most important characteristics of today's organisational environment are instability and uncertainty, which call for new leadership skills and competencies. It is within this fast changing and often unpredictable environment that the role of the leader started taking on a new dimension, one of shaping a vision which can provide focus and direction and create meaning in the work of followers (Blunt, 1991). It has become fashionable for leaders to lead from the front by being visible role models of everything they expect others to do (Kotter, 1990). In doing so they display desirable attitudes, values and beliefs. Conger (1991) refers to the importance of these organisational values and how it has become popular to include values such as fairness, trust, openness and honesty, commitment, quality and good customer service in the company's vision and mission statements. A few prominent characteristics of modern day organisations will be discussed in this section where after the new leadership demands based on these characteristics will be analysed in the next section (5.5.4).

### 5.5.3.1 Changes in basic assumptions

The importance of getting the best out of people has forced leaders to think differently about the inherent competence of people and to change their assumptions concerning employees' basic work motivation towards the belief that people have an intrinsic desire to feel good about work accomplishments (Bennis <u>et al</u>, 1985). For researchers such as Charlton (1992), Kouzes & Posner (1988) and Peters & Waterman (1982) the root of today's leadership crisis lies in employees being regarded as the source of problems when low productivity, commitment and credibility are encountered – when followers are seen as the ones to be changed, not management. In contrast, a productivity crisis should in the first place be seen in the context of leaders not being able to instil vision and a sense of meaning in their followers. Leaders should accept that productivity problems tell them more about themselves than about

their followers. The challenge, according to Charlton (1992), has become one of moving followers' perceptions from expectations (what the company owes me) to aspirations (what I can contribute to the company). The organisation desiring to maintain its best people will have to create quality of work life through ownership, personal development and autonomy.

The nature of managerial control is quickly undergoing significant changes away from the traditional rule-bound approach. Instead of creating multileveled hierarchical structures where people can control the behaviour of those on lower levels, there is stronger acceptance of the fact that employees carry an intrinsic longing for a meaningful connection between their own lives and the work they do. When company productivity is at stake, leaders start to realise the importance of worker participation, co-operation, and healthy relationships between employer and employee.

### 5.5.3.2 The learning organisation

In contrast with the industrial era thinking where the value of a firm was determined by physical and financial assets, Ohmae (1988) asserted that the fundamental asset of the 21<sup>st</sup> century organisation is likely to be its knowledge base and that this will be the key to success. A critical requirement will be to constantly respond to and take advantage of external changes. This has led to the formulation of the "learning organisation" as the ideal organisation form in the future.

Senge (1990) introduced the concept of the learning organisation and defined it as "organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together". The concept acknowledges the fact that organisations have to constantly learn in order to adapt, compete and survive. It is based on the premise that real learning forms part of a person's daily work as he deals with various problems, situations and people and does therefore not support the belief that learning capacity constitutes something that is limited and that those not having the necessary potential should be excluded from formal training programmes.

The learning organisation theory is furthermore based on the following principles (Meyer, 1999):

- Talent and capability can be identified, developed and nurtured in anyone.
- All employees have an enormous potential to perform.

- It is a myth that people with average capability necessarily perform accordingly.
- It is a misconception that if employees are not trained formally to perform certain tasks, they are then incapable of doing those tasks. Classroom settings are not the only opportunities for effective learning in the workplace. Learning and development should be an ongoing on-the-job part of employees' work.

After posing the question whether organisations as systems are able to learn in an ongoing way, Morgan (1997: 90) confirms that this is indeed possible, provided that these organisations are capable of firstly, scanning and anticipating change in the wider environment to detect significant variations, and secondly, developing an ability to question, challenge and change operating norms and assumptions. The key asset is a mind-set that embraces environmental change as a norm. Only through displaying the qualities of intellectual stimulation and inspirational motivation (see Section 5.7), will leaders succeed in creating true learning organisations.

The learning organisation concept wants to get rid of the vicious cycle formed by the fact that employees who are regarded as lacking the potential to be trained are seen to be incapable of learning. Instead, opportunities for learning should be provided to those people needing it the most and this becomes the task of leaders at all organisational levels. The new challenge is to regard all people as having the potential to develop to higher levels of competence and performance.

## 5.5.3.3 Changes in structure

The changes in assumptions about the workforce as described above, and specifically those regarding development and learning, require a new analysis of the way in which organisations are structured. Senge (1990) warns that the rate at which an organisation learns and the development of individual ability to learn within the organisation, will soon be its only source of competitive advantage. This means that any structure inhibiting this ability will eventually contribute towards self-destruction. Despite this threat high, multi-leveled hierarchies still dominate the way in which people are organised in the Western business world. A control orientation underpins these structures, which does not allow people to find work meaningful, to be creative and to express responsibility, commitment and ownership. These rigid structures had only one advantage, namely that the roles of managers and employees within them were simple, clear and relatively stable (Hirschhorn & Gilmore (1992). Company boundaries oriented and co-ordinated individual behaviour by making sure who reported to whom and who had which responsibilities. Recently (as the environmental characteristics of stability, predictability and certainty disappeared), the disadvantages associated with these structures became more than the benefits. To respond to the demands of fast-changing markets, global competition and increased uncertainty, companies started designing more flexible organisational structures where vertical hierarchies are replaced with horisontal networks (Hirschhorn <u>et al</u>, 1992). In this network of relationships the roles that people play and the work they do became more blurred and ambiguous. As functional boundaries disappeared and organisations became more flexible, the new boundaries that mattered and that managers have to pay attention to, were psychological in nature and are created in the minds of both managers and employees. These new boundaries will be discussed in Section 5.5.4.3.

#### 5.5.3.4 Teamwork

The synergistic value of teamwork as opposed to individual efforts, has led to organisations focussing increasingly more attention to the forming and development of strong effective functioning teams. Jobs are less clearly defined (Aguay, 1997) and people move from project to project as their skills are required. The continuing emphasis on employee collaboration and involvement is leading to self-managing teams being formed and leaders have to assume the roles of mentor coach and developer. Atwater & Bass (1994) list the following skills and abilities for effective team leaders:

- Knowledge of the group process
- Ability to think and react decisively
- Ability to articulate a position clearly and succinctly
- Subject knowledge and competence
- Sensitivity to group trends and needs
- Self-restraint and respect for others
- Ability to vocalise group sentiments
- Ability to repeatedly clarify objectives
- Persistence in achieving difficult objectives

# 5.5.4 ORGANISATIONAL CHANGE AND THE IMPLICATIONS FOR FUTURE LEADERSHIP

Effective leadership has already been referred to as the ability to positively influence the productive behaviour of the workforce by creating the conditions (both physically and psychologically) in which they willingly do what needs to be done. Therefore, in essence leaders need to be aware of those factors influencing the motivation of followers in the workplace and can thus not afford to ignore the changes described above. Some of the important implications for leadership will be discussed further in this section.

## 5.5.4.1 Changing organisational structures and the importance of learning

In a business environment of increased interdependence between employees as well as higher levels of involvement, hierarchical structures will have to be replaced with flatter horisontal structures. Van der Merwe (1991) argues that the structures traditionally designed to organise people toward the achievement of results will not serve us well in future. Charlton (1992) warns that in the new "information age" those being in control do not have all the answers and that the traditional control orientation only produced conditional responders. They will have no place in a business environment where the creation of better products and services has become a necessity to stay competitive.

The changes described in the previous section demand new and innovative paradigms of looking at people and their work. The successful leader will therefore have to spend more of his time on developing people competencies. Charlton (1992) notes that the outdated notion of rational management and a focus on methods of quantitative analysis and linear thinking have to be replaced by a better understanding of individual growth and development. They have to be students of human behaviour (Sarros, 2001). Leaders will have to learn how to exchange the need to be in control for the responsibility to give followers the choice to improve productivity through learning, growth and development. This will only be possible when they realise that commitment, motivation and competence is the result of developmental, inspiring leadership. Hall (1990) stresses the basic premise that people are inherently competent and that they can and want to do what needs to be done if leaders create the conditions for them to do so. Effective leadership will only be the result of a paradigm shift in the belief system of leaders regarding the inherent potential of their followers. For as long as managers see people as incompetent, a negative self-fulfilling prophecy of responding to this incompetence will be evoked because people perform as they are expected to perform.

Arguably the most important requirement for effective leaders of the future is found in the area of addressing the intrinsic need of people to learn and to develop their potential. This developmental role asks for a fundamental shift of mind on the part of management, a shift in the way that they see the inherent potential of their followers (Hall, 1990). Hofmeyr (1989) highlights the fact that an employee learns much more on the job itself than on formal training programmes and that most of this learning is prompted by the direct superior. The only way for leaders to meet the needs and expectations of their people for participation, involvement and personal growth is to take on and accept a developmental role through which people will be allowed to utilise their own skills and potential to perform (Human, 1989).

Due to the increasing importance of continuous learning and development of both individuals and teams and to develop effective learning organisations leaders should act as learning role models. They do this by admitting own mistakes, asking questions and encouraging innovation (Meyer, 1999). Not only should they support learning, they should actively demonstrate their commitment towards establishing a work environment where everyone is excited about development and improvement.

To be able to do this, leaders should realise and accept the fact that the daily work environment provides numerous learning opportunities that could add to and support the knowledge, skills and competencies already acquired through formal training. They should also demonstrate the belief that all their followers have an enormous capacity for continuous learning and improvement. In South Africa, given the critical skills shortage and training backlog, a fundamental leadership task is to identify learning needs and then to provide the appropriate on-the-job practical learning opportunities.

## 5.5.4.2 The use of power and empowerment

The products of all organisations are the consequence of employee behaviour (Kemp, 1998) and it is through the use of power and influence that leaders shape such behaviour from random to required and purposeful activity. Power could be defined as the ability to get someone to do something you want done in the way you want it to be done (French & Raver, 1962). It therefore refers to the control one person has over the behaviour of others and can be closely linked to the concept of leadership. Power is used to influence a behavioural outcome. It is derived from two sources, namely positional power (formal authority) and personal power. Personal power stands independent from personal position. It is the use of this personal power that has changed as a result of the changes in basic beliefs and assumptions about people's competence and the reasons why they work. Schermerhorn et al (1994) divide personal power into two bases, namely expertise and reference. Expert power refers to the ability to control the behaviour of others due to the possession of certain knowledge, expertise, and judgment that the other person needs but does not have. Access to information and organisational decision makers form important elements in this power base. With referent power the controlling ability is the result of followers wanting to identify with the power source. The quality of relationships plays a critical role – subordinates behave positively to maintain (and not interfere with) a pleasing boss-subordinate relationship. Bass <u>et al</u> (1994) refer to referent power as idealised influence, one of the so-called four (4) I's of transformational leadership (see Section 5.7). As the effectiveness of leadership is determined through, amongst others, follower satisfaction and extra effort future leaders will have to apply more personal power (both expert and referent) to effect positive behavioural change with followers.

The increased focus on employee involvement, ownership and learning calls for power to be shared in order to improve follower performance. This "giving away of power" is referred to as empowerment - the process of allowing people or groups to make decisions that affect them or the tasks they do. Through empowerment leaders help others to acquire and use the power they need to make those decisions affecting their own work. It therefore refers to an ability of leaders to make things happen through the involvement and participation of followers. Paradoxically, leaders do not have to give up (sacrifice) power so that followers can gain more power. Through the process of empowerment the total level of power in the group or organisation is increased. Schermerhorn et al (1994) emphasise the importance of empowering subordinates by stating that managers in progressive organisations, more than ever before, will be expected to be good at sharing power with and transferring it to those individuals with whom they work: "The concept of empowerment is part of the sweeping change being witnessed in today's industry." Power can no longer be considered to be something reserved for those in the higher levels of traditional multi-levelled organisations. Empowerment has become such an integral part of the successful leader's skills requirements that, according to Stewart (1989), organisations might find that "... the age of the hierarchy is over".

Consistent with this line of reasoning Quinn & Spreitzer (1997) add that traditional command-and-control hierarchies are increasingly less appropriate and that employees have to be empowered to take initiative, be creative and accept responsibility for their own actions. These authors distinguish between two strategies for empowerment, namely the mechanistic (top-down) and organic (bottom up) approaches.

### 5.5.4.2.1 The mechanistic strategy

In this strategy it is believed that empowerment is about delegating decision-making, but within a set of clear boundaries. Leaders have to start at the top where the organisation's mission, vision and values are clarified after which tasks, roles and rewards for employees are

specified. Responsibility is delegated and people are being held accountable for results.

#### 5.5.4.2.2 The organic strategy

The contrast between this strategy and the previous one is built on the implicit assumption that people can be trusted and that power can be shared (control can be shifted to where the work gets done). Here it is believed that empowerment is about risk taking, growth, and change. People need to be trusted and their imperfections tolerated. It is assumed that newly empowered employees will make mistakes. These mistakes form part of the learning process and should therefore not be punished. The empowerment process starts at the bottom where an understanding for the needs of employees is created. Empowered behaviour for employees should be modeled by seniors. Intelligent risk taking is encouraged and people are trusted to perform. Underlying this empowerment strategy are the principles of employee competence (Hall, 1990) as well as the principles of transformational leadership (Bass & Avolio, 1994). For people to be empowered they must first experience a sense of involvement, participation and personal impact on the work and work environment.

For the successful implementation of empowerment, Quinn & Spreitzer (1997) do not suggest a choice between the mechanistic or organic views. Neither perspective by itself provides a clear option. Both provide partial and incomplete pictures. Although risk, trust and initiative are vital in the empowerment process, it still needs to be done in a disciplined and controlled manner. Elements of both strategies are essential to sustain effective and sustainable employee empowerment.

Veldsman, (2004: 32) relates the process of effective empowerment to the building blocks of leadership culture and climate. These building blocks (based on different leadership patterns within the organisation) give rise to either enabling or disabling organisational cultures. These building blocks and their descriptions are listed in Table 5.4.

Table 5.4: Leadership styles according to follower maturity.

Building Block	Enabling Culture	Disabling Culture
World view: How do leaders see the world?	Inclusive, open-minded	Exclusive, closed-minded
Attitude: What value, positive or negative, must be placed on things, persons, events and outcomes?	Optimistic, confident	Pessimistic, anxious
Relationship: In what manner do leaders engage with others?	Warm, personal, close	Cold, impersonal, distant
Power: How and to what end is power taken up and exercised by leaders?	Empowering, enabling	Controlling, restrictive
Action: What style of action must leaders adopt?		Risk avoiding, mistake minimisation

(Source: Adapted from Veldsman, 2004)

The importance of understanding the human dynamics underpinning power and the "power struggle" is addressed by Charlton (1992). Power forms part of all human interactions and ought to be managed to the benefit of managers, followers and the organisation. Traditional views of power as a fixed sum (if one has more, the other has less) should be transformed to the concept of "giving power to get power". In such a scenario both leader and follower are willing to be mutually influenced by one another. When leaders share power through involvement and participation, their followers are more strongly attached to them. This leads to higher levels of commitment to the carrying out of responsibilities (Kouzes <u>et al</u>, 1988).

## 5.5.4.3 Boundary management

Changes in the nature of boundaries found in organisations require leaders to focus on relationship boundary management (Hirschhorn <u>et al</u>, 1992). According to them recognising such boundaries and then creating the right kind of relationships at the right time is the key to improved productivity,

innovation and effectiveness. Conflict created by clashes of opinion and perspectives can be healthy as these differences may signal that group members are approaching a boundary that needs to be managed (see table 6.5). Organisational flexibility depends on how well the creative tension within each boundary is maintained and managed. Apart from certain boundaries existing on an individual level, Kriek (2004) also refers to inter-team boundaries. These team boundaries are determined through defining the level at which it will allow outsiders to enter its boundaries. Often these "visitors" are allowed to become a part of the social context, but they can't enter the "work-boundary" of the team.

The psychological boundaries to be managed are discussed below (each boundary is typically characterised by necessary tentions and can be recognised by the feelings it evokes).

### 5.5.4.3.1 Authority boundary

In any organisation (even the most boundaryless) some people will always lead and provide direction while others follow and have the responsibility for execution. In these roles managers and subordinates meet at the authority boundary. This boundary poses the question: "Who is in charge of what?" In more flexible organisations followers may sometimes find themselves leading a team including the formal boss. Along authority boundaries two paradoxes are found. Firstly, being an effective follower means that subordinates have to challenge superiors. Secondly, being an effective manager sometimes requires openness and even vulnerability to criticism and feedback from followers. "Subordinates need to challenge in order to follow, superiors need to listen in order to lead" (Hirschhorn <u>et al</u>, 1992). Building trust is a critical requirement for managing the authority boundary effectively. Kriek (2004) cites six leadership behaviours expected to build trust between leader and follower:

• Openness:

A willingness to share information, thoughts and feelings. Reactions should also be consistent with the values of the team.

• Sharing:

Providing materials and resources for the team to reach its goals and objectives.

Empowerment:

Showing confidence through allowing followers to achieve the task in their own way. Respect:

Recognising the contribution of each member and showing a belief in the ability of followers to cope with the situation at hand.

• Co-operation:

Allowing people to take part in problem solving and decisionmaking processes.

 Dependability: Keeping to what was promised.

### 5.5.4.3.2 Task boundary

Due to the highly specialised division of labour and the resultant contradiction between this specialisation and the need for a shared mission and purpose, teams became an important form of work organisation. Because people with different (but complementary) skills are brought together to pursue a single common goal, team members must focus not only on their own work, but also on what other members do. Leaders have to manage the relationships of those involved at the task boundary. In flexible organisations individuals have to depend on others who have skills and resources which they cannot control. This means that their own performance may depend on what others do and that they cannot ignore the work of others any more.

### 5.5.4.3.3 Political boundary

As members of groups with different interests, needs and goals, especially in large organisations, people meet at the political boundary by asking the question: "What is in it for us?" When groups start defending their own interest the challenge for leaders will be to distinguish between and manage win-lose and win-win strategies in such a way that the effectiveness and coherence of the organisation as a whole is not undermined.

### 5.5.4.3.4 Identity boundary

Hirschhorn <u>et al</u> (1992) refer to the fact that in the boundaryless organisation people have a multitude of group identities at work. These identities may be rooted in particular occupations, membership of a local work group or their origins may be more personal as a result of membership of and experience within a particular race, gender or nationality.

While at the political boundary differences are based on interests, the differences at the identity boundary are strongly built on values. At this boundary members seek out people who seem to be like themselves, insiders are trusted but members are wary of outsiders. The question is: "Who is – and isn't – us?" The relationships based on identity are extremely energising and motivating. Leaders need to tap this energy source and then put it to the most productive use. The tention that needs to be managed is to create and maintain a high team spirit without devaluing the contribution of other groups.

Key questions				Necessary Tentions	Characteristic Feelings
"Who is in charge of what?"		BOUNDARY	AUTHORITY	How to lead but remain open to criticism. How to follow but still challenge superiors.	Trustful Open Rigid Rebellious Passive
"Who does what?"	BOUNDARY	TASK		to depend on others you don't control. To specialise yet understand other people's jobs.	Confident Competent Proud Anxious Incompetent Ashamed
"What's in it for us?"		BOUNDARY	POLITICAL	How to defend one's interests without undermining the organisation. How to differentiate between win-win and win-lose situations.	Empowered Treated fairly Powerless Exploited
"Who is – and isn't us?"	BOUNDARY	IDENTITY		to feel pride without devaluing others. To remain loyal without undermining outsiders.	Proud Loyal Tolerant Distrusting Contemptuous

(Source: Hirschhorn & Gilmore, 1992)

## 5.5.4.4 Creating psychological climate

Organisations do not only consist of people but are also made up of the interactions between people. Behaviour of followers is determined by the nature and quality of relationships. When people interact and communicate a psychological climate arises (Kemp: 1998). As leader behaviour acts as a stimulus for (and therefore makes a direct impact on) the behaviour of others, leaders have to develop the interpersonal skills of establishing a constructive and productive psychological climate. The interactional skills required to favourably influence the behaviour of employees are the following:

- Awareness of and sensitivity for the nature of their own interaction with others. Leaders need to realise the impact of their own actions on followers. Employees' behaviour is often a direct result of the way they are treated. A lack of initiative and commitment can therefore be the result of a demotivating influence and cannot merely be seen as faults on the side of workers themselves.
- The relationship skills of empathy, acceptance of diversity without prejudice, genuineness and sincerity.
- Communication skills the interpersonal process taking place between people in which everything said and done affects others, either to their benefit or their disadvantage.
- The ability to empower employees so that they can take risks, show initiative and make own decisions.

### 5.5.4.5 Providing vision and direction

In a world of rapid change and instability a crucial part of the contemporary leader's role has become one of creating meaning in terms of the future and a clear, well communicated vision. Committed employees need direction. Nadler, Shaw & Walton (1995: 73) define vision as "... a broad qualitative statement of what the organisation will be like in the future.....an image of a future state that is realistic and compelling and better than the present state". A positive and attractive, clearly understood vision serves as one of the most important motivators to stir followers into action (Charlton, 1992). It provides focus and transmits clarity of what is expected from employees. Visionary competence, according to Charlton (1992), has a two-fold purpose:

 It motivates people and enables individuals to find their own organisational roles, ... "it helps people to engage in a creative and purposeful venture".  It helps to get people's attention and provides a sense of focus as to the organisational direction.

Senge (1990) describes visionary leadership by referring to the principle of creative tension. This tension develops from the gap between current reality and where the organisation (or team) needs or wants to be in future. Leaders need to hold a picture of the ideal future and communicate it in practical terms to followers. Charlton (1992) warns that peoples' motivation is dependent on understanding the team's vision and that if there is no vision people will simply assume that there is no future for the team and will then soon look for alternatives. Leaders should establish a context for the creation of hope for a better future, which is a prerequisite for a sense of commitment purpose.

### 5.5.4.6 From management to leadership

The traditional management style making use of a slow chain-of command decision-making process typically found in multi-leveled bureaucratic organisations (Robinson, 1989) is characterised by managers telling employees what to do and then monitoring their performance through strict external controlling mechanisms such as policies, rules, regulations and fixed procedures. This style needs to be replaced by an approach capitalising on the inherent competence, creativity and need for learning, involvement, participation and ownership of employees (Charlton: 1992). To be able to do this, Robinson (1989) suggests the following requirements:

- Coaching and developing people
- Assist employees to become "self-managed"
- Participate in and encourage teams and teamwork
- Encourage innovation and risk taking
- Treat people as your number one competitive edge in the marketplace

The areas of difference in the movement away from a managerial focus towards a style of leading others dictate some requirements for leaders in the new organisational paradigm and are reflected in Table 5.6. **MANAGING OTHERS LEADING OTHERS Directing others** Guiding / Developing Competing Collaborating Using hierarchy → Using network Consistency/Sameness Diversity / Flexibility **→** "Slow" decision-making → "Fast" decision-making requiring permission using judgment Risk-averse **Risk taking** -> Individual contributor Team player → Being managed Self-management People as expense People as asset

 Table 5.6: Model for transition from management to leadership.

(Source: Robinson, 1989)

### 5.5.4.7 Change related leadership demands for South Africa

Despite the legacy of apartheid, low productivity and inadequate skill, South African business organisations have to face the challenges of increased international competition. Pretorius (2001) is convinced that leadership is the most critical factor that can make a difference and that will determine future success. In order to be successful, South African leaders should embrace change and accept it as an inevitability. To be able to capitalise on change and to be on the forefront of it, leaders should posses the following fundamental skills:

Strategic thinking

Not only should the leader be able to formulate a coherent strategy and vision for the organisation, but he should also be able to effectively communicate this to his followers.

Innovative thinking

This refers to the leader's ability to find new opportunities for growth and development and to instil the same inclination in each member of the team. Competition should be "out-innovated" (Pretorius, 2001)

Rational decision making

Leaders must be able to deal with operational problems and decisions successfully.

Pretorius (2001) contrasts successful leadership with traditional autocratic and transactional styles and states that effective leadership can be described as visionary and transformational. For him transformational leadership, difficult as it may be, is the only way to business success. Leadership should be principle centred and built on the values of quality service, teamwork, recognition of performance, participation, involvement and continuous people development. In order to do this, leaders need to learn how to trust people so that power can be shared and shifted to those who do the work.

## 5.6 CURRENT THOUGHTS ON AFRICAN MANAGEMENT/ LEADERSHIP

## 5.6.1 INTRODUCTION

Since 1994, when political power in South Africa shifted to a first democratic government, the issue of appropriate management models for business in Africa has formed the key point of many debates. Although the concepts driving the systems, structure and effectiveness of all business are universal and apply anywhere, Drucker (1990) argues that the context in which business operates (which is not universal) forms a more powerful reality and that South African leaders need to explore the notion that business success may be caused by different realities from one context to another.

South African management practices have been strongly influenced by both colonial heritage and American business thinking. Lessem (1993) points out that a purposefully differentiated and subsequently integrated approach to management needs to accompany economic transformation in South Africa and that our managers have to start recognising the full potential of the country's cultural, economic and personal variety.

## 5.6.2 INCLUSIVISM VS EXCLUSIVISM

The perceived relationship between an individual and his society became one of the most important differences between black and white South Africans (Koopman, 1993). While whites have primarily designed exclusive workplaces where individual development, ambition, and achievement enjoy primary importance (an exclusive value orientation), blacks do not see man as separate and independent from society. The individual's behaviour cannot be interpreted from a pure individualistic perspective. Each individual is expected to find his place in societal structure and to subordinate himself to societal needs. He does not live for himself, but for the community. For them organisations, in order to serve the needs of its people, are therefore required to be inclusive. The dilemma created in South Africa (Koopman, 1993) is that blacks (being regarded as more holistic and inclusive right brain thinkers) are forced into predominantly left brain workplaces characterised by analytical and exclusive environments. The result is that the use of exclusivist disciplinary rules and regulations comes into conflict with the black's inclusivist view of adherence or non-adherence to the requirements of societal norms. These value differences bear substantial significance in the military environment with its numerous rules, regulations, policies and procedures. As will be discussed later in this chapter, it should be noted that the SA Air Force has already started moving away from a traditionally rule bound culture towards one that is driven by a set of shared core values.

Koopman (1993) provides four basic behavioural differences, which result from above contrasting value systems:

- In an inclusivist world-view recognition and the fear of rejection is more important than rewards or punishment. It stems from the very roots of social relationships with other people. The fear of rejection and the need for belonging is rooted very strongly in social relationships within black communities. Therefore, to use social rejection as punishment holds much more corrective potential than any of the other rational punishments used in the white individualistic exclusive orientation.
- In black societies people have to earn the right to control people ("consent of the managed"). There is a much stronger emphasis on leadership than management. Where leadership is concerned with rewarding "communal effort" against common vision, management focuses on rewarding individual merit and position.
- Self-interest is seen as being subjective to communal interest.
- In an exclusive organisational environment a leader, once receiving power, becomes directive. For blacks there is a much stronger drive towards continuing participation.

In South Africa whites are individualistic exclusivists, while Africans are communal inclusivists (Koopman, 1993). The role of the community in shaping the behaviour of its members, even in the workplace, cannot be overemphasised and stand central to African culture. Philosophically, the community concept is strongly based on the concept of Ubuntu, which is discussed further on in this chapter. Communal morality forms the basis for the creation of shared values inside the organisation. For blacks, the workplace becomes an extension of the social community concept and this organisational community then should lay down the guidelines for both good and unacceptable behaviour within various disciplines such as teamwork and customer service. In the community, which is characterised by an organic structure, there should be a thick network of informal relationships for the creation of a collaborative and caring atmosphere. These relationships empower people to freedom and action and enable people to find meaning and satisfaction in their work (Mbigi, 1993). Ceremonies, rituals and symbols are of importance. Other characteristics of an inclusivist community-based value-system are respect for the elderly, supportiveness, c-operation, solidarity and a preference to focus on morals rather than roles and functions. There is a free flow of information and everyone has the right to be informed. In organisations, rules and regulations should be used for the facilitation of interpersonal relations and the promotion of the community's values and objectives, not for preserving the ascendancy of one group over another (Khoza, 1994). The differences between blacks and whites in terms of exclusivism and inclusivism are listed in Table 5.7. From these points as well as those mentioned above it becomes clear that if a misunderstanding and denial of these differences are allowed in the workplace, an environment for increased polarisation (and therefore low productivity and bad performance) will be created.

Koopman (1993) is convinced that, for South African companies to be compatible with a non-racial democracy and to develop effective and appropriate organisational governance, leaders have to take account of these value differences and to adopt a more inclusivist value system within their organisations. However, this should still be integrated with the Western values of efficiency and enterprise (Mbigi, 1993). Leaders will need to continuously create an understanding for South Africa's dual heritage. Visionary management is seen as the most appropriate in meeting the challenge of synthesising polarities and integrating ancient wisdom of the past with modern science. According to Mbigi (1993) organisational forms with an organic structural design (rather than mechanistic bureaucratic designs) may serve as a starting point for the design of relevant management theories for the South African firm. The extent to which the application of the principles of transformational leadership might satisfy this requirement will be referred to further on in this chapter (see Section 5.7)

<u>Africans</u> .	
Whites	Africans
Win/lose tactics within clearly defined structures and procedures are applied when managing conflict.	Within a framework of morals, the immediate family, supervisors and elders are involved in managing conflict.
Members enter into negotiations in order to control the outcome.	Members enter into a dialogue towards an outcome.
The outcome is in terms of "right- ness" and "wrongness".	The outcome is in terms of "fairness" and "unfairness" towards other members of society.
Inherent in this system is violence and disharmony according to sets of rules and standards.	Inherent in this system is a search for reconciliation and harmony so that acceptance amongst fellow human beings can be regained.

 Table 5.7:
 Exclusivism vs Inclusivism: Differences between whites and Africans.

(Source: Adapted from Koopman, 1993: 48)

## 5.6.3 Ubuntu

Events only have meaning in a specific context (Nzelibe, 1986). This is also applicable to the study of effective leadership in Africa. A meaningful analysis and description of leadership thought in the African business world can therefore only be done with reference to certain basic, traditional values and principles (Lessem, 1993). Implicitly, a direct conflict could be found between the fundamental assumptions of Western and African management thought. Whereas eurocentricism, individualism and modernity are emphasised in Western thinking, the characteristic elements of African management thought are traditionalism, communalism, ethnocentrism and teamwork. Many of these traits are rooted in the uniquely African concept of African Humanism or ubuntu as it is known. It has become a social construct so strongly part of African communities that the study of organisational behaviour in African business cannot ignore its influence on long-term business success and survival. For Mbigi (1993) the key to successfully get one's workforce on one's side lies in the African-grown concept of ubuntu.

A deep sence of interdependence lies at the heart of Africanism. For the African one's very sense of personhood is dependent upon how one is seen and regarded by others (Van der Merwe, 1993). Nobody in an African context lives for himself. Each one lives for the community. This belief has given rise to the truly African unique concept of ubuntu as captured by the Tswana saying "Motho ke motho ka batho" (Van der Walt, 1997) or the Xhosa idiomatic expression "Umuntu Ngumintu Ngabantu" which could literally be

translated as: A person is a person only through other people (Khoza, 1993). The concept is often referred to by using phrases such as "I am because you are, you are because we are". While Western thinking moves from several individuals to a community, traditional African thinking is exactly the opposite: the community is the point of departure (Van der Walt, 1997). Ubuntu is often regarded to form the foundation of sound human relations in African societies and strongly forms the core of an African world-view to such an extent that it could be conceptualised as the "collective unconscious" of intra-human relations (Khoza, 1994).

Ubuntu is collectivistic in nature and opposes the assumptions of Western individualistic theory that a person, being self-reliant, is the best judge of his own interests and that the development of the individual is the most effective incentive to productive behaviour. According to Khoza (1994) the assumptions of the individualistic theory are inadequate to the understanding of the fact that man is a social being and that his most effective behaviour is as a member of a group or organisation. In contrast with the individualistic worldview which accords value to progress and supports the right of the individual to compete with others and to get ahead of them, collectivism sees the individual as being subordinate to a social collectivity such as a nation, an organisation or a social class, "... the individual finds his true being and freedom only in submission to the 'general will' of the community" (Khoza, 1994). Man is not regarded as the sufficient and adequate reason of his own existence. In the ubuntu ontology<sup>3</sup> working for the common good of all members are emphasised as both desirable and essential. Man is defined in relational terms - he can only be identified in relation to other human beings.

Ubuntu as a value orientation also has a religious component. For the African, the human community extends even beyond death. The link between the living members and the "living" dead members is regarded to be unbreakable. The African regards his relationship with God as a communal relationship even when accepting the Christian religion (Van der Walt, 1997). For him religion cannot be an individual choice.

Ubuntu is seen as an asset through which to create community. The ubuntu philosophy, together with the community concept, has significant implications for organisational life. The community in a village creates alignment through social pressures imposed on individuals who are seen to be out of line with the community's norms. It is believed that organisations could also use these processes as a means of creating pressures for alignment (Van der Merwe, 1993). Apart from this, other vital considerations of ubuntu for the workplace are the following (Khoza, 1994):

<sup>&</sup>lt;sup>3</sup> Understanding of the truth.

- A networking style of management where people can learn from one another horizontally should replace a strictly top-down authoritarian management style. Each Individual should get support from many different levels and directions.
- Management should be approachable without being over-familiar. A
  prerequisite will be to understand the world views of those who are
  managed.
- The organisation should have a free flow of information. A community spirit cannot be built and cultivated by withholding information or by manipulating facts.

Although ubuntu, as a concept belonging to the social philosophy or social psychology, embraces values such as sharing, seeking consensus and interdependent helpfulness, it is not a business technique like an employee participation programme. Van der Wal (2001) warns that ubuntu should not be carelessly compared with and substituted for the technique of normal participative management. However, it does provide a sound basis for team learning and the development of a greater sense of oneness (Khoza, 1993). The already well developed sense of sharing and common endeavour available in the African workforce should be realised through the application of democratic leadership techniques. ubuntu manifests in protest and withdrawal under authoritarian leadership conditions.

## 5.6.4 ACHIEVEMENT AND WEALTH

Blunt <u>et al</u> (1997) argue that the two assumptions, namely that people respond in ways designed to optimise economic rewards and that there are high merits in individualism and competition, are potentially problematic as they do not correspond with the values held by people in more than 80 per cent of the countries of the world. In most non-Western countries individual and group competition are not highly valued; the group is more important than the individual, individual achievements less important than interpersonal relations.

The wealth of the extended family enjoys first priority (Blunt <u>et al</u>, 1997) after which ethnic and tribal wealth follow. For Africans, the value of economic transactions lies more in the ritual surrounding them and in their capacity to reinforce group ties, than in the value for the individual and the other parties involved. According to Dia (1994) wealth can even be acquired legitimately at the expense of the organisation.

### 5.6.5 ORGANISATIONAL EFFECTIVENESS

In comparison to the increased focus on task performance, productivity and organisational effectiveness by thrusting and demanding leaders, African culture shows a much higher acceptance of human frailty. Leaders who are kind, considerate and understanding is preferred to one that is too dynamic, productive and demanding (Blunt et al, 1997). Africans are more concerned about their relationships with others than individual or organisational effectiveness. Interpersonal issues are more important than issues associated with organisational performance and its clients. Followers expect leaders to use authority only sparingly and in a considerate way. The good manager is considered to be people-oriented (instead of task-oriented), one that consults subordinates, treat them with consideration and provide clear direction. Most importantly he is expected to offer assurance and security. In this regard Montgomery (1987) points to the preoccupation of African leaders with stability and order. The Western philosophy of the "survival of the fittest" where underperformers are considered to be "deadwood to be rooted out" is not easily accepted in African management models (Blunt et al, 1997). A comparison of the elements of typical "ideal" Western leadership with African paradigms is provided in Table 5.8.

Element	Western leadership	African leadership
Influences on	Organisational performance is	Centralised power structures
leadership	most important	High degree of uncertainty
practices	Drive for efficiency and	Control mechanisms more
	competitiveness	important than organisational per-
	Urgency	formance
	Participative (because of being	Bureaucratic resistance to change
	follower dependent)	Importance of extended family
Managing	Relative equality of authority	Authoritarian/ pater-nalistic
authority	and status between manager	leadership patterns
,	and subordinates	Centralisation
	Delegation/decentralisation	Bureaucratic controls
	Teamwork	Reluctance to judge performance
	Empowerment	
Managing	High degree of tolerance of	High degrees of conser-vatism
uncertainty	ambiguity	Change-resistant hierarchies
	Uncertainty accepted as normal	
	Continuous change viewed as	
	natural desirable	
	Sense of urgency	

#### Table 5.8: A comparison of Western and African leadership paradigms.

Table 5.8:	(Continued)	
Element	Western leadership	African leadership
Managing relationships	High levels of trust and openness valued Open confrontation of differences Support of followers essential Focus on commitment and high morale	Social networks crucial for individual security

(Source: Blunt & Jones, 1997: 19)

## 5.6.6 EMERGENT STRATEGY VERSUS STRATEGY FORMULATION

In terms of sophisticated Western management tradition strategy is formulated where after the implementation thereof is controlled by rational management systems such as job descriptions, job evaluations, disciplinary codes and grievance procedures. In non-Western environments this approach is often met with resistance, hostility and mistrust. Africans on the other hand, are known for recognising emerging reality patterns after strategy formulation - this is referred to as emergent strategy (Mbigi, 1993). The crafting and moulding of strategy is regarded to be more important than formulating strategy. The task of the manager is to conceptualise and synthesise emerging strategic reality patterns with planned strategy. This view is supported by the research of Jones, Blunt & Sharma (1995) providing evidence that the role of vision and strategy as it is described in Western terms, are out of place in many African organisations. The Western notion of leaders having to formulate long-term strategies, to communicate corporate vision and to inspire people to work towards the organisation's mission, is found to be largely absent in these organisations.

## 5.7 TRANSFORMATIONAL LEADERSHIP

## 5.7.1 THE FULL-RANGE MODEL OF LEADERSHIP

Dissatisfaction with the appropriateness and relevance of some of the earlier theories of leadership led to the emergence of new approaches to the description and understanding of effective leadership (Bass, 1985; Bennis <u>et al</u>, 1985; Kouzes & Posner, 1988; Senge, 1990; Bass & Avolio, 1993). These new theories focus on what leaders *do* in order to be effective. Building on the leadership notions of Burns (1978), Bass (1985) developed a model of a full range of leadership styles ranging from non-transactional to transactional and transformational. This theory was first developed with executives from South Africa in the early 1980's. He used subordinates' perceptions and reactions to determine whether a leader was transformational or transactional.

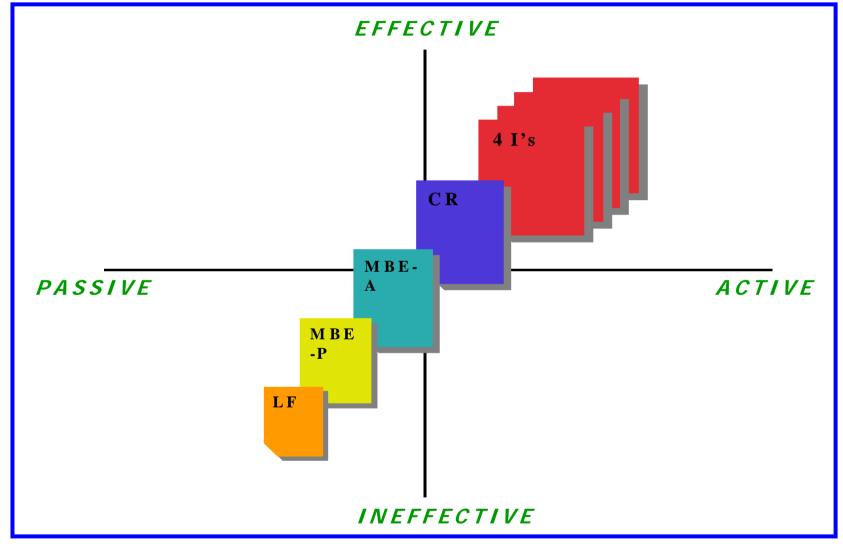
A common characteristic of all the styles in this full-range model is that the more active the style (i.e. the leader) is, the more effective the style will be (Bass & Avolio, 1994). All the styles could therefore be plotted on the two dimensions passive-active and ineffective-effective. A fundamental characteristic of full-range leadership training and development is that every leader possesses and displays a certain degree of each of the styles. This leads to the model also showing a third dimension, namely the frequency of displaying each one of the styles. The optimal profile (figure 5.4) indicates the relative frequency of styles displayed by most effective leaders.

In essence Bass's (1985) theory focuses on the differences on transactional and transformational leadership approaches and how these styles influence follower behaviour and organisational effectiveness. Transformational leaders use individual attention and visioning and inspirational skills to develop strong emotional bonds with their followers. Transformational leadership is a more complex but more potent leadership style (Negin, 2000) and causes both leaders and followers to commit themselves to excellence. In addition to satisfying only the lower order needs of followers, these leaders also appeal to the higher level growth needs (esteem and self-actualisation). The style serves to address (and change) the stutus quo by appealing to followers' sense of higher purpose. It could ultimately be seen as a moral exercise that aims at raising the standard of human conduct. These leaders have a compelling vision of the organisation's future and what it could be like. (Bass, 1985). Transformational leadership is often (wrongly) confused with charisma. Although charisma forms an important part of transformational leadership characteristics, many charismatic leaders are not transformational in their approach. Charisma alone is not sufficient for transformation. When charismatic leaders convey a vision and form strong emotional bonds but do so in order to get their own needs met, they are not transformational (Negin, 2000). Transformational leaders show more identifiable behaviours that result in followers going beyond previously expected levels of performance.

Transactional leaders do not possess these characteristics and are therefore not able to inspire followers or to develop emotional bonds. Their means of motivating people are to set goals and then to promise rewards for achieving the desired outcomes.

Bass (1990) notes that transformational leadership should be seen as a compliment to the transactional style and not a replacement of it. Leaders understanding and using both styles were found to be the most effective.

Figure 5.4: Optimal leadership profile.



(Source: Bass & Avolio, 1994)

After comparing organisational cultures in terms of transactional versus transformational leadership approaches, Bass <u>et al</u> (1993: 112) suggests that organisations should move in the direction of more transformational qualities in their cultures, yet not move away completely from transactional qualities. A transactional leadership style refers to exchanges of performances for rewards between leaders and followers. In achieving daily routine performance the leader and follower agree upon incentives or rewards in exchange for achieving specific work objectives. Rewards and compensation can only be expected upon successful completion of the defined task. After setting clear standards for performance, the transactional leader is focussing on deviations and mistakes and only pays attention to correcting these.

In contrast with the transactional style, the transformational leader motivates and encourages followers to do more than what is expected and often even more than they thought possible (Bass <u>et al</u>, 1994).

## 5.7.2 NON-TRANSACTIONAL, TRANSACTIONAL AND TRANSFORMA-TIONAL STYLES

A brief description of each of the styles making up the full-range model of leadership will subsequently be provided:

## 5.7.2.1 The laissez-faire (LF) style

Although characterised as one of the leadership styles of the full-range model the laissez-faire style refers to the absence or avoidance of leadership, where the leader neglects his responsibility of involvement in the work of his followers. In terms of the full-range model of leadership (see Figure 5.4) this style is the most inactive as well as the most ineffective. This fact is supported by almost all research on the style (Bass <u>et al</u>, 1994). These leaders fail to make decisions, are absent when needed, and fail to follow up on follower requests.

## 5.7.2.2 Transactional leadership

Leadership is transactional in nature when follower behaviour is rewarded or disciplined based on the adequacy of the behaviour or performance. Some type of exchange relationship exists. Transactional leadership depends on contingent reinforcement, (Bass <u>et al</u>, 1994) either through positive contingent reward (CR) or negative forms of management-by-exception (MBE), which could take on a passive or active approach. The focus is more on what needs to be done than on the person doing the work. The approach more often than

not results in followers only delivering what is expected or contracted and shows no intent or motivation for doing more through exerting extra effort.

Transactional leadership can merely serve as a base for effective leadership (Bass <u>et al</u>, 1990). There are numerous disadvantages and many elements of effective leadership are missing from the approach. Pure transactional leaders are unconcerned with the development of followers and only focus on the requirements of the transaction or the exchange between themselves and the followers. In a transactional approach the motivation of employees through promising rewards or the avoidance of penalties will depend on whether the leader has control of the rewards or penalties. Whether the follower wants the rewards or fear the penalties, further influence the level of motivation.

In the full-range model, transactional leaders are characterised by behaviours associated with constructive and corrective transactions. The constructive style is labelled "contingent reward" and the corrective style is labelled "management-by-exception". These two styles will be briefly discussed next.

### 5.7.2.2.1 Contingent reward

In its positive form, the transactional leadership style is referred to as "contingent reward" or "constructive transaction". It takes on the form of an exchange process owing to the fact that followers' needs are met when they meet the leader's expectations. These leaders employ goal setting to help clarify what is expected of their subordinates and what the subordinates will receive for accomplishing the goals and objectives (Bass et al, 2003: 14). This form of leadership is highly dependent on the ability of the leader to reward subordinates for their successful completion of the contract or agreement. In essence, the approach is a proactive facilitation of what subordinates do, how hard they try and what they receive for their accomplishments. The style could be regarded as reasonably effective only in the sense that, when implemented properly, it results in follower performance that meets expectations. There are no leader actions in this style that inspire followers to do or achieve more than what was expected, both by the leader and themselves.

Negin (2000) refers to two negative aspects of transactional leadership. It is described as transitory (i.e. there may be no ongoing purpose or reason to hold the leader and followers together once a transaction has been made). This type of relationship will therefore only last for as long as the transaction is mutually beneficial. Secondly, for as long as the rewards are provided and agreements are kept to, it could be very effective. However, it does not lead to organisational change (as opposed to transformational leadership). It could even legitimise the status quo.

### 5.7.2.2.2 Management-by-exception

The negative form of transactional leadership is referred to as management-by-exception or MBE (Bass <u>et</u> al, 1990) and literally means that leaders pay attention to the deviations, errors and mistakes in follower performance. In its active form (MBE-A), leaders look for mistakes and take corrective action when mistakes occur. They constantly monitor their subordinates' performance and call for corrections when problems are observed. Bass <u>et al</u> (2003: 14) clearly point out the risks involved in using this style. If a leader only uses the MBE-A style, he is likely to create a work force of risk avoiders and individuals who work to standards only using "traditional methods". Followers avoid innovative actions due to a fear of making mistakes, which may result in their leader's disapproval.

The MBE-Passive style refers to those MBE leaders who are not actively searching for deviations, mistakes and errors in followers' assignments. These leaders wait to take action only when something goes wrong. Matters have to be brought to their attention for them to make corrections. They tend to leave things alone as long as it doesn't give them too much trouble. Followers of MBE leaders (both active and passive) usually do not perform at high levels.

## 5.7.2.3 Transformational leadership

The development of followers to their full potential is a primary concern for the transformational leader. Superior leadership performance occurs when leaders elevate employee interests and generate awareness and acceptance of group mission and purposes (Bass, 1990). These leaders firstly elevate the desires of followers for achievement and self-development (through increasing follower self-confidence) firstly, but also promote group and organisational development (Bass <u>et al</u>, 1990). They gradually move followers away from concerns for existence to concerns for development and achievement.

The transformational leader is much more future oriented and fosters an organisational culture of creative change and growth. Continuous awareness and acceptance of the group's purpose is viewed as critical and followers are encouraged to focus away from self-interest towards the good of the group or team. These leaders tend to give direction, they inspire, gain commitment, and serve as respected examples in order to develop people to their full

potential in their efforts to solve problems and perform better. Negin (2000) cites three important criteria for leaders to be transformational:

- They should manifest modal values<sup>4</sup> and advance the standards of good conduct.
- They work to achieve end values<sup>5</sup>
- They have a positive impact on the people whose lives they touch.

Avolio, Waldman & Yammarino (1991: 10) characterise transformational leaders by four separate components or characteristics denoted as the four (4) I's of transformational leadership:

## 5.7.2.3.1 Individualised consideration.

The development of each follower is important and his/her worth as a person is constantly reinforced through personal attention. Each follower is individually coached and advised. All individuals are considered as having different needs, abilities and aspirations.

## 5.7.2.3.2 Intellectual stimulation.

Intelligent, creative problem solving is promoted through the continuous questioning, challenging and re-examining of assumptions. Followers are encouraged to challenge old rules, procedures and status quo's where they do not fit the purpose any more. These leaders get others to look at problems from different angles. They encourage nontraditional thinking to deal with problems.

### 5.7.2.3.3 Inspirational Motivation.

The importance of each individual's task is expressed in terms of a bigger picture. Accomplishments of the team are emphasised and members' attention are constantly focussed on the future. Inspirational motivating leaders talk optimistically and enthusiastically about the future and what needs to be accomplished. They express confidence that goals will be achieved and provide an exciting image of what is essential to consider.

<sup>&</sup>lt;sup>4</sup> Those values surrounding the exchange process, i.e. honesty, fairness and fulfilling commitment (Negin, 2000).

<sup>&</sup>lt;sup>5</sup> The ideals by which a society or organisation should strive to live and could include justice, liberty, freedom, equality and brotherhood.

## 5.7.2.3.4 Idealised Influence.

Through acting as positive examples and role models, these leaders ensure follower respect and trust. They display a sense of power and confidence, they instil pride in others for being associated with them and will go beyond self-interest for the good of the group.

In the Full Range Leadership (FRL) model it is indicated that both transactional and transformational styles should be used depending on the given situation, but that research results have proven that followers perform significantly better under conditions where a more transformational leadership approach is being followed. It also follows that where leader behaviours are more transactional, the result is a transactional culture, and *visa versa*. Such a transactional culture is characterised by rigidity in terms of rules, regulations and jobs being managed and controlled in an attempt to get performance. In a transformational culture on the other hand, people are led through example and given direction but are also allowed initiative. Creativity is encouraged, mistakes are considered as part of learning and development, and open communication generally prevail. Behaviour is guided through vision and shared values and people are encouraged to develop beyond their present jobs and abilities.

Bass (1994: 12-13) cites the following reasons why transformational leadership is particularly needed in South Africa:

- Socio-political changes since 1991 impacted on employee/ manager relations in organisations. Organisational cultures, which are in line with the new democratic socio-political environment, are required.
- The challenges faced by white and black South African leaders are different to those of the 1980's.
- For many years South African managers have been too internally focussed causing them to be out of touch with international requirements for competing in world markets.
- In a diverse South African environment, leaders being able to deal with different cultures, different political viewpoints, complex prejudices and various literacy levels will be required.
- Managers need to put the potential of racial conflict and white fears into perspective to ensure social harmony. For this, basic assumptions need to be challenged and questioned to ensure fundamental change.

• Strong transformational leadership will be needed for the fundamental changes in South Africa's education system.

## 5.8 ORGANISATIONAL CHANGE IN THE SAAF

- NOTE: The discussion in this section is based on information contained in the following internal defence documents as well as discussions and interviews with various senior Air Force officers:
  - Consolidated as-is findings and input into the desired culture change of the DOD.
  - Proposed integrated philosophy on leadership, command and management, and organisational culture.
  - DOD Leadership Doctrine

# 5.8.1 CHANGE IMPERATIVES FOR A MORE TRANSFORMATIONAL APPROACH TO LEADERSHIP IN THE SAAF

5.8.1.1 Constitutional and transformational imperatives and guidelines for Department of Defence leadership (White Papers)

Like many other organisations, both locally and abroad, the DOD is also faced with the demands of a rapidly changing environment characterised by uncertainty, turbulence, complexity and unpredictability. Environmental changes for the DOD include a shift in its role due to the absence of a military threat to the country, increasingly tight budgetary constraints and the typical demands that a liberal democracy places on its military forces. This has resulted in the SANDF being increasingly confronted with and subjected to civilian values and expectations. The challenge for the DOD has clearly become one of "doing more with less". Effective transformational leadership, which could unleash the inherent competence and potential of the DOD's workforce has remained as the only workable solution to these demands.

Diminishing resources, especially in respect of defence budget cuts, have led to the demand, by both government and the general public, that allocated resources are efficiently and effectively utilised in the pursuance of the DOD's mission, goals and objectives. As a result the government has adopted a total quality approach to management, of which important guidelines have been set out in various government publications. Most requirements associated with the new approach are primarily reflected in the *White Paper on the Transformation of the Public Service* (1995) and the *White Paper on Defence* 

(1996). These documents contain both constitutional and transformational imperatives and guidelines for DOD leadership. The most important guidelines impacting on the desired DOD organisational culture are the following:

- The devolution and decentralisation of managerial responsibility and accountability to ensure that effective, timeous and responsible decisions-making takes place at all levels.
- The introduction of new, flexible and more participative organisational structures which will concentrate less on the application of rules and more on the creative use of consultation and team work.
- The development of new organisational cultures way from a rule-bound culture to one which is focussed more on the achievement of tasks and the meeting of needs.
- Effective mobilisation, development and utilisation of human resources.
- Increasingly becoming a learning organisation by fully exploiting opportunities for growth, development and change, constantly reappraising existing work practices and behaviour.
- Managing change and diversity, increasingly becoming rainbow workplaces, representative of the cultures and peoples of South Africa.

### 5.8.1.2 DOD structural and cultural changes

After the election in 1994, the DOD was one of the first state departments to initiate change by integrating the former SA Defence Force (SADF), Transkei/Bophutatswana/Venda/Ciskei (TBVC), Azanian People's Liberation Army (APLA) and Umkontho we Sizwe (MK) forces into one force, the South African National Defence Force (SANDF). This integration process brought together diverse entities with diverse value systems into one organisational entity, which necessitated the development of an appropriate and acceptable organisational culture in view of and in anticipation of comprehensive and continuous societal, political and organisational change. Moreover, international imperatives for change in public services in general, as well as a decline in budget spending on defence globally, with an increasing emphasis on peace-keeping operations, have all added to the impetus for internal change.

Since the integration of the different forces into the SANDF, little effort has been made during the first few years to identify and integrate similar values, and to focus on the development of a new organisational culture based on these values. The existing DOD organisational culture was characterised by the following ineffective practices: insufficient communication, bureaucracy, and leader ambivalence (leaders managed rather than led and did not empower their subordinates sufficiently). Human dignity was not adequately recognised and high levels of uncertainty were reflected in morale and organisational climate. The need for a culture change process was furthermore supported by the following:

- A poor public image of the SANDF/DOD.
- A rapid decrease in standards and discipline.
- Inconsistency in leadership conduct (pockets of transformational leadership combined with large areas of autocratic and transactional leadership).
- The DOD was not in line with the government's guidelines on institution building and management.

The DOD recognised the fact that a strong organisational culture is one of the most important avenues through which transformational change could be implemented and that leadership forms the vehicle for behavioural change in this process. It has become necessary to identify a set of core values that is shared by all members and that provides common understanding and cohesion in the DOD. A new organisational culture not only had to be reflective of shared values, but also had to facilitate a transformation from a rigid, rule-bound organisation to a much more participative, value driven approach. The desired DOD culture should be driven by the following overarching principles:

- Primacy of output. It refers to the fact that the end aim, mission or result takes preference over everything else in the process. Instead of defining activities and tasks into the smallest detail, the end goal must be clearly stated and tested for comprehension. Control mechanisms need to be reduced and leadership should allow for freedom of movement and creativity in achieving the end aim in the most economical manner.
- Initiative and empowerment. It ties in with the previous principle the limiting of control mechanisms and levels of authority, allowing for more creative delivery of stated goals. Responsibility and accountability are, however, not negated; there should therefore be a strong focus on the development of human potential.
- Jointness and networking. It refers to the ability to work across departmental or functional boundaries in order to avoid duplication and

to achieve results in the most economic manner. It relies on collective conduct and discourages the "building of empires".

- Value-based conduct. This implies that the behaviour of DOD personnel should be driven by agreed upon, shared and consistent values, rather than by strictly laid-down rules and regulations.
- Continuous improvement. The organisation should readily adapt to changing circumstances, and an ongoing examination of all processes should ensure necessary change, not for the sake of change, but for the sake of improvement in organisational performance.

Based on the above-mentioned principles, DOD leaders will have to display much more transformational characteristics and will therefore be expected to (1) create a climate that puts people first; be caring and supportive and provide opportunities for individual growth; (2) provide a future vision and direction in which the organisation is moving; (3) lead by example, be valuedriven and provide motivation and inspiration; (4) communicate openly, honestly and regularly; (5) trust and empower their subordinates and delegate responsibilities to the lower levels, and (6) provide guidance and allow subordinates to learn from their mistakes. These behaviour patterns are synonymous with those identified with transformational leaders (Bass et al, 1994). In terms of the desired leadership culture and the concept of the learning organisation (see Section 5.5.3.2) DOD leaders will also be responsible for creating an environment in which the development and sharing of knowledge, skills, experience and lessons learnt is enhanced. As part of building strong, effective teams, they have to serve as role models of the principles of continuous learning as well as the core values of the DOD. These values are listed in Table 5.9.

## 5.8.2 THE SAAF CULTURE CHANGE PROCESS

Central to the South African Air Force's view of the future is its mandate as the provider of air power to the nation. The provision of combat ready air power is the fundamental consideration in its strategic planning process. In an effort to harmonise the SAAF's strategies and objectives with those of the DOD, the SAAF committed itself to a demanding transformation process. In reaction to, and in support of the DOD transformation process, the SAAF developed a long term outlook, referred to as *SAAF Vision 2012*, with a focus on establishing a "centre for air power excellence". This desired future state is also characterised by a new organisation culture of excellence and competence, including a set of new corporate values (see Table 5.10).

Table 5.9: DOD core values.

Value	Description	Some behavioural examples
Integrity	Regarded as a moral virtue. The cornerstone for building trust. It implies a oneness between words and action.	Honesty Credibility Trustworthiness Transparency
Patriotism	The love and devotion to one's country. It implies that allegiance to the country comes first.	Pride Honour Sacrifice
Loyalty	To be faithful to one's oath, mission and organisation.	Trust Faithfulness Comradeship
Human Dignity	Treating others the way you would expect to be treated.	Respect Tolerance Fairness
Military Professionalism	To exemplify those qualities, virtues and behaviour that govern the conduct of all members . It forms the heart of a military culture and implies a strive towards excellence.	
Accountability	To be responsible for one's actions and decisions and the resulting consequences thereof.	Reliability Legality

(Source: Department of Defence Leadership Doctrine)

It is accepted that the SAAF will always have a unique subculture of its own. The creation of a culture of air power excellence is a crucial building block in the SAAF's endeavours to meet the objectives of *Vision 2012*. The intention is to move away from inhibiting, rule bound practices and approaches towards a value driven culture, one being characterised by participating practices, innovation, continuous improvement and the acknowledgement of the inherent competence and creative potential of all employees (Beukman, 2003).

In order to be able to effectively assess the existing culture of the SAAF, the "Organisation Culture Analysis" (Hall, 1987) was used for data collection. This instrument, in addition to providing actual culture data, also gave the added benefit of a clear picture of the future desired SAAF culture as seen by all members participating in the survey. The Organisation Culture Analysis (OCA) feedback is given in terms of those conditions that need to be in place for people to be competent - it analyses these conditions (collaboration, commitment and creativity) in terms of actual and desired situations. The OCA is based on the theory of competence (Hall, 1993), which has as its basic premise (or point of departure) the fact that people can and want to do what needs to be done provided that the correct conditions exist within the organisation. The results of the OCA are given as an indication of the extent to which the nine so-called "supporting conditions for competence" are evident and exist in the organisation. The Air Force's senior leadership acknowledges the fact that the establishment of an organisation of Air Power Excellence (the SAAF future vision) will only be possible through people, and is therefore dependent on the extent to which these conditions under which people can excel, are created in the work place. To be able to do this, it was necessary to create a clear picture of the existing conditions as well as an indication of how people throughout the SAAF would like to see them as part of the desired future organisation culture. A 10% sample of the organisation was drawn, after which the actual survey was done, including all bases/units as well as the Air Command and the Air Force Office. Just more than a 1 000 members eventually participated in the survey. This sample was representative in terms of rank, ethnic group and gender.

Although an OCA report was prepared for each base on its own, the overall SAAF results clearly show that the predominant culture of the organisation is still characterised by non-flexibility, tight procedural and regulatory control, a high resistance to change and people practices that do not encourage collaboration, commitment and creativity. Results furthermore show that there is a significant gap between the actual and desired scores. It is only through closing this gap that the organisation will move to a culture of strong enthusiasm and commitment, one that is thriving on the inherent talent, creativity and competence of its people, thus allowing the SAAF to adapt to the changes as described above, quickly and smoothly.

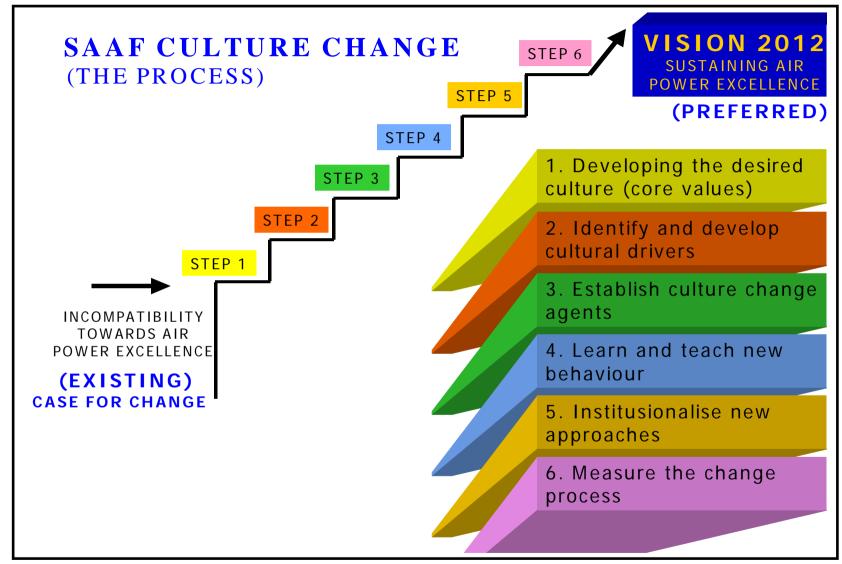
After studying the OCA results thoroughly and through following the proven principles of a full-scale culture change intervention, a unique change process was developed for the SAAF. The process, consisting of a series of six steps (see Figure 5.5), should not be seen as a short-term intervention, but rather as a continuous guideline for changing/aligning all the SAAF's practices, policies and procedures to eventually reflect the characteristics of the desired culture. It has far-reaching implications for leaders in all areas of business and the eventual success will predominantly be determined by Officers Commanding, Directors and their leadership teams taking full ownership and responsibility for implementing the new principles.

No value system is cast in concrete and can ever be seen as suitable and applicable forever. Values are always coupled to the organisation's vision of what it wants to achieve. As a first step in the culture change process of the SAAF, clarity on its set of core values became important. To provide a clear picture of the desired SAAF culture, a number of descriptive culture attributes were developed. These culture attributes reflect the principles on which SAAF leadership development is built (see Section 5.8.3) and are as follows:

- We believe that future excellence lies in the hands of all our people, our most precious asset.
- We value competent, credible and effective (transformational) leadership.
- We value the inherent competence of all our Air Force people.
- We value continuous learning and improvement.
- We value our SAAF uniqueness.

The new set of (four) values for the Air Force (underpinning the abovementioned attributes) indicates what is regarded as important for employee conduct. The new SAAF values are listed in Table 5.10.





(Source: Minutes of Presentation to the SA Air Force Board, 2003)

Table 5.10: SA Air Force core values.

Value	Description	Associated concepts
Human dignity	Respecting the infinite dignity and worth of all	Respect
	individuals. Treating others the way you	Tolerance
	would expect to be treated	Fairness
		Consideration
Excellence in all we do	A sustained passion to continuously improve	Team excellence
	individual and organisational performance	Leadership excellence
		Service excellence
		Military professionalism
Integrity	To be honourable and to follow ethical	Honesty
	principles. To be faithful to convictions. To	Credibility
	practice what you preach. It forms the	Trustworthiness
	cornerstone for building trust	Transparency
Service before self	Professional SAAF duties take preference	Loyalty
	over personal desires	Commitment
		Sacrifice
		Devotion
		Faithfulness
		Pride
		Courage
		Military discipline

(Source:) Minutes of Presentation to the SA Air Force Board, 2003)

5.8.3 BASIC PRINCIPLES ON WHICH THE NEW LEADERSHIP CULTURE OF THE SAAF IS BUILT

Leadership, and this is especially true for the military (Popper, Landau & Gluskinos, 1992: 3), is commonly recognised as the one factor which has the most profound influence on human behaviour. Therefore, it is essential that the SAAF's transformational endeavour should focus on leadership as the strongest integrating and binding force, and the main source for the development and maintenance of the new desired culture. The description of the SAAF's new organisational culture and more specifically its core values and the associated behaviours is based on a number of fundamental principles regarding human behaviour in the workplace. These principles are reflected in basic belief systems and are universal in nature. The SAAF expects the actions of all its leaders to be driven by these principles. To a large extent they underpin and summarise the underlying principles of transformational leadership (Bass <u>et al</u>, 1994) and the competence process (Hall, 1993). They are briefly the following:

- People want to feel good about themselves and the work they do. This means that they have a need for finding meaning in their work through deriving a sense of personal identity from doing what they do and doing it well.
- People want to be successful. They do their best when they have the experience of making a valuable contribution to the organisation. They want to enjoy a sense of control over their work. This is gained through the incorporation of their ideas and feelings into the design and procedures governing the work they do and when they feel responsible for accomplishing the organisation's objectives.
- People do their best when they are allowed to collaborate. They are willing to show extra effort when their own needs and objectives are met by achieving those of the organisation and when it is done through problem-solving processes where all contribute to and participate in generating solutions.
- People do not want to make mistakes. Mistakes should always be regarded as part of the learning process.
- People can and want to do what needs to be done... <u>IF</u> their leaders create the organisational conditions for them to do so. Subordinates inherently have both the willingness and potential to be empowered to do their work with competence and pride.

 All people have the inherent potential to be creative. The leader's role in improving performance is to eliminate the unnecessary interferences so that followers' potential can be optimally unleashed.

The above principles have one central theme in common: for leaders to influence followers to higher levels of performance, a keen sense of concern for people, their well-being and their growth and development is essential. Their leadership efforts should all be focussed on creating a culture of collaboration and commitment.

## 5.8.4 FULL RANGE LEADERSHIP DEVELOPMENT IN THE SAAF

Towards the end of the bush war in Angola in the 1980's the SAAF had to go through a process of redefining its role in defence and to reposition itself for the future. This was particularly important for the ongoing motivation of employees, now suddenly finding themselves in an organisation with a new and different role definition. It was clear that in this process of transformation and renewal, leadership at all levels would have to play a critical role. At the same time The Air Force Board under the leadership of the Chief of the Air Force (CAF) realised that the Air Force as an organisation could not be excluded from the new approaches towards people development and organisational effectiveness resulting from the changes in basic assumptions as discussed earlier.

As a result of the above and the change imperatives described earlier, it was decided to launch a leadership development intervention at a macro level to develop leaders for their new role of creating the required organisational conditions where all employees could understand the new direction and where they could display a new sense of commitment, involvement and ownership. The full-range leadership development programme used, is based on the evidence of Bass et al (1990) that transformational leadership can be learned by managers at all hierarchical levels. The overriding goal of the programme is to take leaders from a beginning stage of awareness regarding own strengths and weaknesses as a leader, to a final stage of adapting and implementing new and more effective orientations towards leading others. The programme consists of 14 modules in which the first eight form a basic threeday workshop and the last six an advanced three-day workshop. It has been adapted to the constraints and opportunities of the unique SAAF organisational setting. More than 1 500 SAAF leaders have done either the basic or both workshops. This study will also report on the impact and effectiveness of this transformational leadership development in the SAAF over the past eight years.

## 5.9 A MOTIVATIONAL PERSPECTIVE ON LEADERSHIP

Transformational leaders need to inspire and motivate ordinary followers to extraordinary levels of performance. An awareness of people's value-related preferences is a prerequisite for being able to motivate them. Individual needs determine which rewards will be valuable for an employee (Human & Hofmeyr, 1985). Value will therefore be assigned to those outcomes or rewards that will allow him to satisfy his most important needs. Schermerhorn et al (1994: 170) stress the role that basic cultural values play in motivating followers. They also warn managers (p83) not to be ethnocentric by assuming that all people will be motivated by the same things and in the same ways. They need to be careful in applying motivational theories developed in one culture to a different one. As such, for example in a high uncertainty avoidance culture, people will be strongly motivated by security where the satisfaction of social needs is more important in a society emphasising Hofstede's femininity and collectivist values.

Research attempting to find motivational differences between blacks and whites report blacks in South Africa to have a significantly lower level of need for achievement than whites (Nasser, Motsepe & Lenamile, 1979). These differences are assigned to a "collectivistic mind" and the extended family system, which kept dormant the need for achievement. Steers (1975) indicates some of the motivational implications of the relatively low achievement need amongst blacks. While employees with a high need for achievement strongly relate performance to satisfaction, employees with a low achievement need do see some satisfaction resulting from good performance, but rather from things such as affiliation and meeting with others. This dilemma is summarised by Human et al (1985): a high group dependence and relationship orientation are found amongst workers with a high need for affiliation, while companies often require greater initiative and individuality (which are seen as characteristics of the achievement need). Many blacks will not attach the same value as whites to those outcomes leading to increased independence, decision-making and authority. According to Human et al (1985) some traditional rewards may even result in a conflict for the black employee. Promotion, for example might mean that an employee is separated from his colleagues and that he might even be expected to exercise control over them.

Despite above-mentioned differences in motivational patterns, the needs of black workers start to match those of white workers as they become more industrialised and integrated into the urban environment (Human <u>et al</u>, 1985). This is particularly true for blacks starting to move up the organisational hierarchy. The strong positive relationship between need levels, education and degree of urbanisation is confirmed by Nattrass (1981). For those black workers with higher levels of education and sophistication management has to

attend to the same needs as for their white counterparts when providing motivational opportunities.

A large portion of the black population of the SAAF is still finding themselves at the lower levels of education and industrialisation. The need to examine the nature of work-related values in the SA Air Force is therefore further reinforced by the fact that, when developing and implementing reward systems, the organisation should recognise that what proves to be motivating people in one cultural setting may not necessarily work in another.

## 5.10 MEASUREMENT OF LEADERSHIP BEHAVIOUR

By definition (Bass <u>et al</u>, 1994) the test for effective leadership is whether the leader can get followers to unleash their potential and extend performance to a level above what is expected. Followers' experience of the leader's behaviour is more important than the intention of the leader (Charlton, 1992: 105). Leaders can only lead if they have followers that follow. Leadership effectiveness therefore, is determined by the performance of followers.

The Multi-factor Leadership Questionnaire (MLQ), as it is used in this research, reports on behaviours and attributes in terms of several leadership styles ranging from transactional to transformational and is based on the Full Range Leadership Model (Bass <u>et al</u>, 1994). Where prior leadership research and training concentrated on a limited range of transactional behaviours (Bass <u>et al</u>, 1997: 2), the MLQ was developed to expand the dimensions of leadership to include key factors such as inspirational motivation, that is typically ascribed to successful leaders. It also includes three outcomes, viz "Extra Effort", "Effectiveness" and "Satisfaction", in terms of which leadership effectiveness is reflected.

A comprehensive discussion of the MLQ will follow in Chapter 7.

## 5.11 SUMMARY & CONCLUSION

Leadership can probably be viewed as one of the most critical elements for ensuring organisational effectiveness. With a history of low productivity and low workforce morale, the development of South Africa into an entity of economic prosperity, political stability and social unity calls for extraordinary leadership. For long-term economic survival, transformational leaders with the abilities to go beyond the reactive quick fix, immediate gratification and traditional approaches are required. Only these leaders, with a firm commitment to enable, empower and liberate employees in South African organisations, will ensure the country's competitive advantage for the future. This chapter provided a brief overview of both classical and recent thoughts on leadership with particular reference to contemporary demands on today's leaders. The discussion included the most important arguments for and against the development of a unique African leadership model (as opposed to the application of Western leadership theories and principles). An introduction to the SAAF as an organisation finding itself within the process of structural and cultural transformation was also provided.

The chapter reviewed the changing nature of organisations, both structurally and psychologically, as the driving force behind new leadership thinking, especially in the African context. The uniqueness of South African conditions in terms of multi-cultural diversity and complexity necessitates the search for leadership solutions beyond those having been developed in purely Western settings. No evidence could be found that these theories can merely be applied in the current South African business environment, with values, customs and beliefs being substantially different to those of Western cultures. Leaders will have to play a critical role in responding to and addressing the strong expectations of inclusion and involvement following the many years of apartheid during which a large component of the potential workforce has been alienated and excluded from the business world. Despite the unique leadership requirements for Africa, the chapter also included the arguments for the inclusion of tested and proven Western business principles and philosophies when developing a workable South African approach.

After a brief reference to the classical leadership theories, the chapter also described the organisational changes leading to new thinking patterns with regard to effective leadership. A few prominent characteristics of modern day organisations were discussed where after the new leadership demands, based on these characteristics were analysed. Organisational changes and environmental demands led to new and innovative paradigms of looking at people and the work they do. Leaders are forced to think differently about the inherent competence of people. They are also required to change their basic assumptions concerning employees' work motivation, and to realise the increasing importance of worker participation, co-operation and healthy relationships between employer and employee.

The chapter concluded with a detailed discussion of transformational leadership as part of a Full-Range Model. All the evidence point towards transformational leadership being a more effective approach than the other transactional styles. Reasons for the implementation of a more transformational approach for South Africa have also been included. Finally, organisational changes and the basic principles underlying leadership development in the SA Air Force were presented.

## CHAPTER 6

## VARIABLES OF IMPORTANCE IN THE STUDY OF LEADERSHIP BEHAVIOUR

### 6.1 INTRODUCTION

The dependent variables in this study, namely work-related values, locus of control and leadership behaviour have been discussed in Chapters 3, 4 and 5. The independent variables of importance when studying value and leadership-related research, will be discussed in this chapter. Based on a literature study, 8 independent variables have been selected to explore the relationships between the dependent variables, namely the six work value dimensions of the Survey of Work Values (Wollack <u>et al</u>, 1971), the four value dimensions of Hofstede (1980), internality, and leadership styles. The main variables which may influence the dependent variables are gender, age, home language, religion, level of education, occupational level, ethnicity and years of work experience.

In Chapter 2 a brief cultural overview of the unique composition of the SA population was provided in order to enhance a proper understanding of the urgency to analise and understand firstly, the multitude of differences underlying human behaviour in SA organisations and, secondly, the impact of this workforce diversity on organisational life in general and leadership behaviour specifically. This chapter will further explore the variables within this workforce diversity. It is expected that the independent variables referred to above, may all have an important bearing on work values expressed by different groups in the South African work environment as well as on leadership and follower behaviour in general.

The concept "nuisance variable" will also be discussed as well as the control thereof.

#### 6.2 MAIN INDEPENDENT VARIABLES

#### 6.2.1 GENDER

Since 1994 the process of dismantling gender domination in the South African workplace has developed hand in hand with the process of racial affirmative action. Women are now considered to have the right to compete with their male counterparts on an even basis and many companies already show a much more representative workforce in terms of gender, also in the senior

managerial and leadership ranks. The process also enjoyed considerable attention in the South African National Defence Force.

Men and women are reported to be equal in terms of memory, learning ability, creativity, reasoning ability, and intelligence (Ragins, Townsend and Mattis, 1998: 28-42), but because men and women are treated differently, gender differences might impact on social and value related studies. Due to the impact of religion and culture on gender role stereotypes (i.e. men are breadwinners and women take care of the household) and the way people are socialised in South Africa, researchers may also be biased in terms of assumptions, stereotyping and prejudice concerning gender groups.

Gibson, Ivancevich & Donnely (2000) confirm that there is no evidence that men are better job performers than women or *vice versa*. However, this does not mean that the two groups are equal in terms of worldviews and value orientation and still need to be respected and valued for their differences in this regard. This study focuses on those variables influencing effective leadership behaviour and, if differences in work-related value orientation do exist between gender groups, these differences may also have an impact on the way leaders prefer to influence follower behaviour. Differences as such are not what is important for this study – the researcher is rather interested in how these differences influence the effectiveness of follower performance and satisfaction.

The question as to whether gender differences do account for differences in leadership styles and behaviours has occupied the attention of many researchers over the past few decades (Hennig & Jardin, 1977; Sargent, 1981; Nieva & Gutek, 1981; Hall, 1984; Eagly, 1987; Eagly & Johnson, 2000). Leadership findings generated in experimental settings established leadership styles to be gender stereotypic (Eagly <u>et al</u>, 2000:56). These findings concur with the generalisations that male and female leaders often differ in experimental settings (Brown, 1979; Hollander, 1985). Women's leadership styles were found to be more democratic than those of men, even in organisational settings. Eagle <u>et al</u> (2000: 56) ascribe these differences to underlying differences in female and male personalities or skills or other subtle differences in the status of men and women who occupy similar organisational roles.

Leadership-based research (Bass <u>et al</u>, 1994) has firmly established the fact that leadership styles differ in terms of follower effectiveness. These researchers indicate that higher levels of participation and both leader and follower involvement lead to higher levels of follower performance, satisfaction with the style, and extra effort. The opposite was found to be true for those leaders following a transactional and autocratic approach. This can easily lead to a belief that women, being more democratic than men, are more effective in influencing the performance of followers. However, whether men or women

are more effective leaders as a consequence of their differing styles, is a complex question. Even though in recent years many behavioural consultants and theorists have criticised traditional management practices for being overly hierarchical and bureaucratic (Peters & Waterman, 1982; Bass, 1990; Handy, 1991), Eagle et al (2000) remain unwilling to argue that women's relatively democratic and participative style is either an advantage or disadvantage. This unwillingness stems mainly from the numerous barriers being faced when doing leadership investigations, i.e. the fact that the environments in which managers carry out their roles are diverse, even within the same organisation. Kent & Moss (2000: 45) argue that, while past research has consistently shown that men more often emerge as leaders than women, some of the barriers in terms of social acceptance that prevented women from emerging as leaders, are indeed coming down. In fact, the results from the study of Kent et al (2000) show that women are slightly more likely to emerge as leaders than men. Whether men or women who do emerge as leaders are more effective in terms of follower behaviour, remains an issue for further debate and research.

## 6.2.2 AGE

Leader behaviour is shaped and formed, amongst other forces, through learning from firstly, the resultant behaviour of followers, secondly, formal leadership development and thirdly, observing the behaviour of other significant leaders. This process takes place over time, implying that age could be regarded as another independent variable which may have an influence on leadership research results. There seems to be a firmly held expectation that leadership experience leads to more effective leadership (Fiedler, 2000: 147).

Similarly, time (and therefore age) seems to have the same influence on the forming of values and organisational culture. Hofstede (1980: 345) found that differences in values among respondents of different ages may be due to what he refers to as "maturation" and "zeitgeist". Maturation refers to the fact that respondents' values shift as they grow older. Certain shifts are due only to the aging of respondents. Zeitgeist effects occur when drastic changes in conditions cause everyone's values to shift, regardless of age. "Generation" is also used as a term indicating that certain values are fixed in the youth and then stay with their age cohort over its lifetime (Hofstede, 1980: 345).

Theron (1992) regards employment stability as a function of the average age of its incumbents – the older the more stable. Despite this view, the SANDF focuses on establishing a younger, healthier and fitter organisation through the implementation of various shorter-term employment options.

## 6.2.3 LANGUAGE

Arguably the most important element of effective leadership behaviour is the ability to verbally communicate with those being led. Most evidence suggests that leadership in essence is a relationship that exists between two or more people in a social setting (Stogdill, 2000: 30). Through communication, amongst other factors, the leader influences the behaviour (performance) of followers. Transformational leadership requires leaders to continuously interact with and inspire followers to higher levels of performance.

Similar to numerous other factors associated with the "struggle against apartheid" the Afrikaans language was also seen as a mobilising and unifying force of the white minority. While multilingual communication is probably the normal practice of daily life for most South Africans (Goduka, 1998), linguistic diversity did not receive the respect it deserved under the system of apartheid. All indigenous languages were undervalued, especially with regard to education, and English and Afrikaans were accepted as the only official languages. Adam & Moodley (1986: 44) point out that blacks did not have a single unifying African language and that languages such as Xhosa, Zulu or Sotho were used as a medium of resistence, "a secret underground code" during the struggle for equality, but it never became the language of material success. Today black students prefer to be educated in English, but still without giving up their linguistic heritage.

The domination of Afrikaans and English as official languages has since 1994 been changed to equal status for all languages. However, English remains the dominant medium of all public and private communication. With eleven official languages being recognised, the use of different languages in the work place has become so problematic that English has again become, to a large extent, the accepted business language. Against the background of the indigenous black languages not being recognised and accepted as official languages for many decades, the challenge for workers and employers to work together more effectively and productively in the same work place of today is becoming increasingly demanding.

## 6.2.4 RELIGION

The important role of religion in shaping cultural values, and therefore individual and group behaviour was already referred to in Chapter 3. Investigating the differences between Western and African religion will contribute much to understanding the huge array of clear, non-ignorable cultural differences underlying human behaviour in SA organisations. Man's religion and life perspective determine cultural views, values and behaviour (van der Walt, 1997: 4). Man's culture cannot be separated or isolated from religion – religion forms an inherent facet of cultural differences.

Religious diversity has for many years been part of South African history especially on the socio-political scene. Theron (1992:302) notes that religion has played a decisive role in South Africa in the mobilisation for ethnicity. Beliefs and values associated with apartheid were (and are even still) seen as part of the Christian religion and value system. Many blacks regard Christianity as the origin of discriminatory beliefs and practices. This is a result of Afrikaner nationalism having achieved its political goals through a skilful manipulation of its symbolic resources, e.g. language and religion. Giliomee and Schlemmer (1989) refer to the Dutch Reformed Church (DRC) with its strong Calvinist orientation as being responsible for giving Apartheid its religious basis.

Van der Walt (1997: 83-122) offers empirical evidence that both the new socio-economic-political situation and the deeply rooted religious life-viewing factors are busy influencing and determining the cultural identity of young South Africans. While in the past the policy of apartheid defined what people would be and whom they were allowed to have contact with, South Africans today have to start defining themselves again and determine who they want to be. He warns that, in this process, people should realise that cultural differences are not only found up to skin depth, but that the being under the skin (also the deeper spiritual being) should be recognised and appreciated. It should also be kept in mind that Christianity is not a Western religion per se and that everyone has the freedom to choose his own religion. However, the way in which religion (i.e. Christianity) is practised differs from one culture to the next. A relationship with God offers a good example. Based on the overemphasising of the community, Africans see a relationship with God as a common or communal relationship. In the case of Western people the opposite is found: based on the emphasis on the individual, a relationship with God is viewed as individual and personal, it presupposes an individual choice. Cultural values therefore, also determine how a certain religion is practised.

## 6.2.5 EDUCATIONAL QUALIFICATIONS

Theron (1992) refers to the close relationship between educational level and years of schooling and points out that data about education levels may be less accurate than data about years of schooling, as education systems vary from one country to another and also from one ethnic group to another. Similar to many other areas of racial separation in South Africa, the National Party, in its strive towards Afrikaner Nationalism<sup>1</sup>, instituted an education policy of Christian National education, founded in the fact that education should be based on the Bible. In this system religion was linked to education to foster the maintenance

<sup>&</sup>lt;sup>1</sup> The political expression of shared ethnic consciousness, or politicised ethnicity (Adam <u>et al</u>, 1986: 13)

of desired value systems. A system of Bantu education was also initiated; a system that rejected preparation for incorporation into industrial society and one that has led to immense dissatisfaction among black people. They regarded this education system as second class, deliberately designed to give them inferior training. Hanf, Weiland & Vierdag (1981:274) describe the education system as evil and a symbol of the hated system of apartheid. Owing to a lack of proper schooling facilities, black schools have been overcrowded, which necessarily lowered the quality of teaching and increased pupils' fears for the future.

The South African schooling system has, since 1994, been transformed into a system offering equal opportunities to all, focussing on narrowing the immense educational gap that was left due to the prior discriminatory schooling and tertiary education practices. As a result more and more blacks today find themselves equipped to compete at all levels in the labour market. Betlehem (1988: 224-225) highlights the importance of delivering the necessary schooled manpower through an advanced education system in order to ensure continuous economic growth in South Africa. It can only be achieved if this education and training is relevant and realistic.

With regard to the role of work-related values, Hofstede (1980:124-127) reports that the power distance dimension has an effect on educational systems. Although PDI<sup>2</sup> and average years of formal education were found to positively correlate, the important aspect of education is not only a matter of the number of years at school or the number of students. What is taught (and how) is equally important. For example, in a high PDI environment (like South Africa) where children are more dependent on parents, students are found to be more dependent on teachers. Hofstede (1980: 126) also warns that the relative number of top educated scholars for any country is less crucial than the educational level of those making up the middle strata in society.

## 6.2.6 OCCUPATIONAL LEVEL (RANK)

Noticeable differences with regard to occupational level still exist in South African society. Smit <u>et al</u> (1999) reports that less than 2% of top and middle management were black and that only a handful of blacks had managed to establish themselves in managerial and executive positions. It is clear that whites still dominate many professional, managerial and other skilled positions. Blacks still form the bulk of semiskilled and unskilled labour. This unrepresentative situation is slowly being addressed and changed through

<sup>&</sup>lt;sup>2</sup> Inequalities in power as formalised in boss-subordinate relationships are referred to as Power Distance. Subordinates will try to reduce and bosses will try to maintain or enlarge the level of power distance. The level of power distance at which both tendencies find an equilibrium is expressed in a Power Distance Index (PDI) (Hofstede 1980: 92).

correcting measures such as affirmative action, bridging training and fast tracking.

Hofstede (1980: 105) reports that occupational level is associated with the value dimension "uncertainty avoidance" in the sense that stress differences are related to occupation. He also finds that lower education and lower status occupations tend to produce high PDI values, while higher education and higher status occupations produce low PDI values.

Hofstede (1980: 345) points out that seniority and age effects are not easy to separate. His research results indicate that seniority and age are correlated across individuals between .52 and .76 with a median of .61. The values of both senior and older people were found to be more stable than those of junior and younger employees.

In the SANDF seniority is indicated by means of a military rank system consisting of non-commissioned officers, warrant officers and officers. More senior posts are associated with more senior ranks. The flexible service system (FSS) in terms of which employees had expectations of life-long employment, fostered growing rank-age discrepancies and resulted in the development of the so-called Core Service System (CSS) as part of the HR Strategy 2010, in terms of which a large component of young, fit and healthy personnel should supply the bulk of operational requirements, with a smaller core component of professional military personnel and a very small component comprising top leadership and management. The bulk of the junior and middle level leadership and management cadre will serve in the CSS, which will represent the second career stage (after the Military Skills Development System or MSDS) of members serving in the SANDF.

The SAAF has already developed a "young profile": 65% of all members are younger than 30 and 81% are younger than 40 years of age. Other than the SA Army, the SAAF does not carry significant numbers of combat personnel whose effective deployment potential is restricted due to age. Although the SAAF focuses on creating a young, fit and healthy force, HR strategy developers are well aware of the fact that most SAAF deployments require skilled combat personnel with extensive experience that is related to years in service.

## 6.2.7 POPULATION GROUP

In Africa, social research studies could easily be biased in favour of the perspectives of white male researchers who have done most of the research up to date. Conducting social research should never fail to take into account the unique perspectives of various racial and ethnic groups.

In discussions about human differences, the terms race and ethnicity are both used when referring to characteristics of groups of people (Mark, 1996: 58). Confusion exists regarding the differences between race and ethnicity, but it is clear that they do in fact refer to different things. According to Robertson (1981: 281) race refers to "the genetically transmitted physical characteristics of different human groups whereas ethnicity refers to "culturally acquired differences". He defines race as "...a large number of people who, for social or biographical reasons, have interbred over a long period of time; as a result, they have developed identifiable physical characteristics and regard themselves, and are regarded by others, as a biological unity". For social researchers, beliefs about race have great importance, especially in the (South) African context. Many people have stereotypical believes that persons who share particular physical features (i.e. dark skin) also share other particular characteristics. People are then treated based on their membership of a certain physical group. The discriminatory practices against black Africans serve as a good example.

Ethnicity also refers to characteristics of human groups. While race refers to biographical characteristics, ethnicity refers to culturally acquired differences such as language, religion and a sense of common historical heritage. An ethnic group is then defined as "...a large number of people who, as a result of their shared cultural traits and high level of mutual interaction, come to regard themselves, and to be regarded, as a cultural unity" (Robertson, 1981: 282).

When doing culture-sensitive research one should always recognise the fact that it is not always possible to study certain ethnic issues objectively as different cultures represent different conflicts in values. Sohng (1994) proposes four principles for conducting culture sensitive research:

- There is no single explanation that will adequately account for the situation of all cultural groups. Researchers should therefore rather search for more explanations reflecting the divergent perspectives of all the people involved.
- When studying the behaviour of particular ethnic and racial groups, researchers should also investigate how the behaviour fits into the rest of society. The influence of societal institutions and values on different ethnic groups should be recognised.
- Researchers should value the diversity and richness of social problems and life situations found in different ethnic cultures.
- Researchers should use "ethnic reasoning". The term refers to the use of questions such as "whose point of view does this research favour?"

## 6.3 NUISANCE VARIABLES

Variables are defined as characteristics of persons, objects, groups or events to which qualitative and quantitative values can be assigned. These values can also be categorical (Mason & Bramble, 1989: 68). The definition of De la Rey (1978: 11) is more comprehensive: "...any psychological attribute, quality, characteristic or feature, or norm of judgement on which people tend to differ". Variables must have the ability to differentiate between people. Research can only be successful if observed changes in behaviour can be attributed to what is called the Independent Variable. When the nature of one variable (say, Y) depends on the value of another (X), X is referred to as the independent variable and Y the dependent variable.

It is often found that, due to practical considerations, it is not possible for a psychologist to control all factors that may negatively influence the results of the research. Variables that may have such an effect on research findings are referred to as nuisance variables and De la Rey (1978: 12) warns that it would be unwise to ascribe perceived behavioural changes only to the influence of the independent variable. Nuisance variables (also known as covariates) may intervene between independent and dependent variables by affecting the direct relationship between them. In these situations psychologists try to control the variables which may contaminate and obscure the research results. If the control of these nuisance variables is impossible during the planning phase of the research, the intervening variables can be controlled statistically by means of analysis of covariance (Theron, 1992: 300).

Psychologists try to control the effects of nuisance variables in order to minimise the contamination of the relationship between the independent and dependent variables (Mason <u>et al</u>, 1989: 68). In a trivariate analysis the influence of the independent variable on the dependent variable is examined under each condition of the third (nuisance) variable. Tabachnick and Fidell (1983: 14) refer to this analysis as an analysis of variance where one or more nuisance (or extraneous) variables are included in addition to the independent variables and a single dependent variable to statistically test the effect of covariates as a source of variance in the dependent variable.

In the research design the researcher will ensure the control of possible nuisance variables in order to ascertain a true result of the relationship between dependent and independent variables.

#### 6.4 CONCLUSION

The independent variables applicable to this study were discussed in this chapter. In terms of biographic diversity South Africa seems to be a very special case. Major changes in the composition of the SA work force have

occured over the past decade, also with regard to the emergence of senior black leadership in many organisations. Much evidence of a country having been successful in overcoming a history of stereotyping people in all spheres of society can be found. The chapter provided a brief overview of the multitude of differences underlying human behaviour in SA organisations.

As stated earlier, when analysing the nature of leadership behaviours and the factors influencing these behaviours in an African context, one continuously has to bear in mind that "African" is not just different to "Western", but that the term in itself represents a huge variety of cultural groups. In addition, the fact that the SA population also includes a significant Western (mostly white) element, cannot merely be ignored. It is widely accepted that the country should continuously seek to move towards a society characterised by ethnorelativism where the potential and value in terms of organisational performance of all groups and cultures are regarded as inherently equal.

# CHAPTER 7

## **PSYCHOMETRIC CONSIDERATIONS OF THE STUDY**

## 7.1 INTRODUCTION

In this chapter the psychometric considerations of the study are extensively discussed. The concepts of validity and reliability are discussed as well as the construction of the Survey of Work Values of Wollack <u>et al</u> (1971), the Internal Control Index of Duttweiler (1984), the Work Value Survey of Hofstede (1980) and the Multifactor Leadership Questionnaire of Bass <u>et al</u> (1997).

## 7.2 VALIDITY

Validity refers to the extent to which an empirical measure "adequately reflects the real meaning of the concept under consideration (Babbie, 1989: 124). A similar definition is offered by Bohrnstedt and Knoke (1988: 12), namely "... the degree to which an operation results in a measure that accurately reflects the concept it is intended to measure". For De la Rey (1978: 30) an instrument or test is valid if it does measure the particular concept or characteristic it pretends to measure. The validity of an instrument is expressed as a validity coefficient which is determined by means of correlation (coefficient) statistics. According to Smit (1983: 47) the validity estimate is determined by calculating a correlation between the performances in a test and an independent, objective measure of the behavioural aspect (criterion) being measured (Smit, 1983: 47).

Babbie (1989: 124) distinguishes between three types of validity, viz criterionrelated validity, content validity and construct validity. Criterion-related validity (also referred to as predictive validity) is based on some external criterion. It refers to the "relationship between a test and a criterion rather than a construct or domain" (Mason & Bramble, 1989: 264). It indicates the presence or absence of one or more criteria considered to represent traits or constructs of interest. Criterion-related validity may be separated into two types, namely predictive validity and concurrent validity. Predictive validity refers to the degree to which a measure forecasts the presence or absence of the trait or construct in the future (Mason <u>et al</u>, 1989: 264). Smit (1983, 52) indicates that the Bravais-Pearson product moment correlation or multiple regression is used to determine a predictive validity estimate. Concurrent validity is concerned with the capacity of a measure to reflect the present status of the criteria (Mason <u>et al</u>, 1989: 264). Therefore, it is diagnostic in nature. It is particularly useful in cases where the sample size and time are too restricted to do a validation study within the framework of predictive validity (Smit, 1983: 62).

Content validity, according to De la Rey (1978: 31) indicates the degree to which the content of a test is representative of the behavioural aspect or construct being measured. It can be regarded as a qualitative, non-statistical type of validity. Smit (1983: 48) refers to the fact that content validity is concerned with the content of a test, that is the substantive elements.

Construct validity indicates how well a test measures the construct it is intended to measure and refers to the meaning of test scores in terms of the constructs being measured (Cronbach & Meehl, 1955). Construct validity evaluates both the construct as well as the adequacy of the test in measuring the construct (Smit, 1983: 64). Mason et al (1989: 261) present two approaches to the study of construct validity, viz convergence and discriminant validity. Convergent validity involves the gathering of data concerning the construct being measured by using a known established method and comparing the results of this measure with those of the test being evaluated. Convergence therefore refers to the extent to which the results of a test correlate with those of existing tests measuring the same concept. Discriminant validity, according to Mason et al (1989: 261), refers to the level to which "...a construct may be discriminated from other constructs that may be somewhat similar or entirely different". In this regard Smit (1983: 66) emphasises that it is also important that a test must correlate low with all tests not being measures of the same construct.

In addition to the above two approaches towards determining construct validity, Smit (1983: 66) mentions a third, namely factor analysis of intercorrelations obtained from a number of tests. In essence factor analysis is a method of analysing the internal statistical structure of a set of variables that are supposed to be a measure of the specific construct. In the factor analysis of test items, each item is regarded as a variable. In this way maximum homogeneity with regard to the construct can be achieved (Smit, 1983: 66).

Lastly, (De la Rey, 1978: 31) also refers to face validity (or expert validity). It simply refers to how obviously a test measures the construct it intends to measure. It could constitute the degree of consensus between experts that a measure represents a particular concept (Dane, 1990: 257).

## 7.3 SURVEY OF WORK VALUES

The Survey of Work Values (SWV) was developed to measure a person's attitude towards work in general, rather than his feelings about one specific job. According to Wollack et al (1971: 331), the SWV differ from other previous

scales in that it evaluates separate areas of values and that it is limited to the construct of the Protestant Ethic (as discussed in Chapter 3).

#### 7.3.1 COMPOSITION OF THE SCALE

Wollack <u>et al</u> (1971) gives a thorough explanation of the composition of the scale. Due to the fact that the intrinsic aspects of work (i.e. work is rewarding in itself) form such an important part of the Protestant Ethic, the authors selected three dimensions of Protestant Ethic covering the intrinsic aspects of work:

- <u>Pride in work</u>. The satisfaction and enjoyment one gets from doing one's work well.
- <u>Job involvement</u>. The degree to which a worker is actively interested in co-workers and company functions and desires to contribute to jobrelated decisions.
- <u>Activity preference</u>. It refers to a preference by the worker to stay busy on his job.

Considerable emphasis was also placed on extrinsic rewards by including the following subscales:

- <u>Attitude toward earnings</u>. The value of making money on the job.
- <u>Social status of the job</u>. The effect of the job alone on a person's standing among his friends, co-workers and relatives.

Two further dimensions of the Ethic that are regarded to be of a mixed nature (intrinsic/extrinsic) were also included:

- <u>Upward striving</u>. The continuous desire to seek a higher level job and a better standard of living.
- <u>Responsibility to work</u>. It refers to the belief that man has an obligation to work and that he must depend on himself rather than others for support.

The last dimension, namely "responsibility to work" was eliminated after determining the internal validity of the dimensions. The scale therefore consists of the remaining six sub-scales, which in total, contain 54 items. The items representing each of the sub-scales are as follows:

## University of Pretoria etd – Beukman, T L (2005)

Sub-scale	Items
Pride in Work	12, 13, 16, 32, 36, 43, 48, 52, 53
Job Involvement	6, 7, 14, 17, 24, 25, 33, 37, 44
Activity Preference	5, 9, 20, 27, 29, 39, 46, 50, 54
Attitude towards Earnings	10, 15, 21, 23, 30, 34, 41, 47, 51
Social Status	1, 2, 3, 4, 18, 26, 38, 45, 49
Upward Striving	8, 11, 19, 22, 28, 31, 35, 40, 42

## 7.3.2 VALIDITY OF THE SURVEY OF WORK VALUES

The construct validity of the Survey of Work Values of Wollack et al (1971) was determined in this instance by means of a factor analysis. The Kaiser-Meyer-Olkin (KMO) measure, as well as the Bartlett's test of sphericity were calculated. The KMO is an index of sampling adequacy for comparing the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients. If the sum of the squared partial correlation coefficients between all pairs of variables is small when compared to the sum of squared correlation coefficients, the KMO is close to 1 (Norusis, 1990:317). Small values of the KMO measure are an indication that a factor analysis of the variables may not be a good idea, as correlations between pairs of variables cannot be explained by other variables. Also, if the significant level of the Bartlett's test of sphericity is small ( $p \le 0.05$ ), the hypothesis that the correlation is an identity matrix, has to be rejected (Norusis, 1990: 316). The Bartlett's test of sphericity is based on a chi-square ( $\chi^2$ ) transformation of the determinant of the correlation. The values of the KMO measure and Bartlett's test of sphericity are presented in Table 7.1.

Table 7.1:	Kaiser-Meyer-Olkin measure and Bartlett's Test of Sphericity
	for the Survey of Work Values.

Measure	Value
Kaiser-Meyer-Olkin	
(Measure of Sampling Adequacy)	.766
Bartlett's Test of Sphericity:	
Approx. Chi-Square	4583.996
df	1431
Sig	.000

The values of the KMO and the Bartlett's test of sphericity imply that there can be proceeded with a factor analysis.

The negative of the partial correlation coefficient is an estimate of the correlation between the unique factors and should be close to zero (0) when the factor analysis assumptions are met. The negative of the partial correlation coefficient is called the anti-image correlation. If the proportion of large coefficients is high, the use of a factor analysis should be reconsidered (Norusis, 1990)

Anti-image correlations were determined and the coefficients obtained are in general very low. This implies that there can be conveniently proceeded with a factor analysis. Figure 7.1 shows that a five-factor model should be sufficient for the sample.

Figure 7.1: Scree Plot: Survey of Work Values.

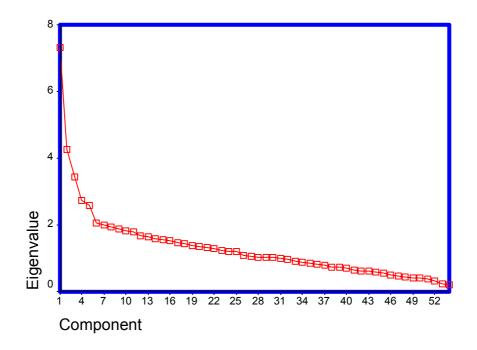


Figure 7.1 presents a plot of the total variance associated with each factor. It is evident that there is quite a break between the steep slope of the first three large factors and the gradual trailing off of the rest. This gradual trailing off "resembles the rubble that forms at the foot of the mountain" (Cattell, 1966). At the utmost only five factors of worth were obtained. The rotated component matrix is presented in Table 7.2.

	: <u>Rotated component matrix for Survey of Work Values</u> . Rescaled							
		Component						
	1	2	3	4	5	8	18	
B30 B15 B51 B37 B34 B46 B43 B49 B47 B27 B35 B24 B26 B16 B38 B9 B44 B25 B20 B7 B31 B54 B25 B20 B7 B31 B54 B53 B12 B5 B36 B48 B11 B54 B53 B12 B5 B36 B48 B11 B17 B19 B39 B32 B32 B42 B32 B42 B32 B41 B13 B52 B42 B33 B13 B52 B42 B13 B52 B42 B13 B52 B41 B13 B52 B41 B13 B52 B41 B13 B14 B13 B14 B13 B14 B14 B13 B14 B14 B14 B14 B14 B14 B14 B14 B14 B14	1 .471 .454 .451 .437 .416 .396 .383 .357 .341 .317 .289	2 .355 .276 .276 .439 .419 .409 .400 .371 .365 .359 .326 .326 .326 .326 .326 .326 .323 .225	.604 .543 .509	4 .588 .532 .397	.338	.488	.392	

Table 7.2: Rotated component matrix for Survey of Work Values.

		Rescaled							
				Componer					
	1	2	3	4	5	8	18		
B8 B29 B28 B50 B21 B40 B23 B6 B4 B45	.404	.270 .272		.324	.301 .302	.430 .290	.325		

Table 7.2 (continued)

Extraction method: Principle Component Analysis

The results of the rotated component matrix are in agreement with the plot in Figure 7.1. According to Table 7.2 only five factors at the most are of importance to the study, with the first three the most important. The information in Table 7.2 shows that in general, the content of the questions classified under Factor (Component) 1 relate to "a negative work ethic". It refers to a typical attitude of "as little work as possible" and "non-involvement". The questions classified under Factor 2 relate to a "positive work ethic" and emphasise the value of "hard work" and "doing a good job", while the questions classified under Factor 3 revolves around "stability" and a low "motivation for advancement" in one's job. There is a distinct lack of correspondence between the factors as found by the rotated component matrix in this case and the six discriminantly different sub-scales resulting from reallocation<sup>1</sup>, as presented by Wollack et al (1971). They too found a lack of correspondence between the two procedures used (factor analysis and reallocation). The researcher therefore decided to use the factors (sub-scales) of the survey as they were standardised by Wollack et al (1971) for the purpose of statistical data processing.

The total variance explained is presented in Table 7.3.

<sup>&</sup>lt;sup>1</sup> Reallocation groups items in terms of whether they have been judged to be relevant to a particular defined category (Wollack <u>et al</u>, 1971: 336).

10	able 7.5. <u>Total valiance explained. Survey of work values</u> .							
		Extraction Sums of Squared Loadings						
	Component	Total	% of Variance	Cumulative %				
	1	5.480	10.148	10.148				
	2	3.430	6.361	16.499				
	3	2.256	4.178	20.677				
	4	1.739	3.221	23.897				
	5	1.656	3.067	26.964				
	6	1.456	2.697	29.661				
	7	1.375	2.546	32.207				
	8	1.340	2.481	34.688				
	9	1.297	2.402	37.089				
	10	1.255	2.324	39.414				
	11	1.217	2.253	41.667				
	12	1.185	2.194	43.861				
	13	1.178	2.182	46.043				
	14	1.153	2.135	48.178				
	15	1.119	2.073	50.250				
	16	1.092	2.022	52.272				
	17	1.047	1.939	54.211				
	18	1.034	1.914	56.125				
	19	1.016	1.882	58.007				

Table 7.3: Total variance explained: Survey of Work Values

As is evident from Table 7.3, the first six components explained 29.661% of the variance.

# 7.4 INTERNAL CONTROL INDEX

The Internal Control Index (ICI) was developed by Duttweiler (1984) as an answer to problems encountered with existing locus of control measures. Owing to the criticism having been levelled against the use of the Rotter (1966) Internal-External scale (Duttweiler, 1984: 211; De Kock, 1995: 8), the researcher decided on the use of an instrument measuring internality (namely the ICI). The instrument was developed in an attempt to eliminate the shortcomings of prior instruments such as the Rotter-scale.

Points of criticism being levelled by Duttweiler (1984: 210) against the use of the I-E scale, include the following:

- A low item total-score correlation.
- The multi-dimensionality of the scale.
- The use of a forced-choice format. This format takes longer to administer, is more susceptible to social desirability response and the

items to be chosen from are not necessarily symmetrical. The items making up the scale, also vary in their referents.

- The inclusion of items not representing the construct.
- The heterogeneity of the external control orientation. Externality may have various sources that should be investigated separately (Kleiber, Veldman & Menaker, 1973;Levenson, 1974).

## 7.4.1 COMPOSITION OF THE SCALE

The development of the ICI was conducted in four phases, viz the pretesting development phase, the tryout testing, the field test administration, and the Gainesville Junior College administration. The development began with the identification of a nomological network that surrounds the locus of control construct (Duttweiler, 1984: 211). This involves cognitive processing, autonomy, resistance to influence attempts, delay of gratification, and self-confidence. These variables seem to be most pertinent to internality (Lefcourt, 1976)

According to Duttweiler (op cit) the pretesting phase embraced the evaluation of items to identify the items that appeared to tap the internal control dimension. After the investigation of the response set, steps were taken to attenuate the effect of the various sets affecting self-report measures. Thereafter, the format, responses and the instrument itself were evaluated and revised for clarity, conciseness, and ease of administration (Duttweiler, 1984: 211). The tryout test was done by administration of the index to a sample of junior college, continuing education, college, and university students. Of the answer sheets obtained, 548 sets of data were usable. These data were subjected to both an item and factor analysis, which produced 28 items suitable for field administration and construct validation procedure. Field administration was done to a population similar to that used in the tryout phase. Usable data from the sample were derived from 684 answer sheets. Score means were computed for each level of the demographic variables and the instrument was evaluated by means of analysis of variance, item analysis and factor analysis (Duttweiler, 1984: 212).

In the final phase the instrument was applied to a sample of 133 students from Gainesville Junior College, Gainesville, Georgia. Together with this instrument, the Mirels' Factor I of the Rotter I-E Scale (Mirels, 1970 as quoted by Duttweiler, op cit) was also administered. Item analysis and factor analysis were computed for the data obtained from the Internal Control Index (ICI) to determine whether the findings of the field test would replicate. Convergent validity was also determined by means of the correlation between the ICI and Mirels' Factor I of the Rotter I-E scale.

## 7.4.2 VALIDITY OF THE INTERNAL CONTROL INDEX

Mean scores of each level of the demographic variables and the analysis of variance were computed by means of a Statistical Analysis System (SAS) program. The Gainesville Junior College administration did not reveal any differences (Duttweiler, 1984: 213). The exploratory factor analysis was done by means of the Statistical Package for the Social Sciences (SPSS). The SPSS program for principle axis factoring with iteration, yielded eight (8) factors with eigenvalues of  $\geq$ 1.00 on both the field test and the Gainesville initial extractions, as is evident from Table 7.4

-	eigenvalues, percents of variation, and cumulative percentages.						
	FIELD	) TEST		GAIN	ESVILLE		
		% of			% of		
Factor	Eigenvalue	Var	Cum %	Eigenvalue	Var	Cum %	
1	5.008	17.9	17.9	5.943	21.1	21.2	
2	2.670	9.5	27.4	2.246	8.0	29.2	
3	1.764	6.3	33.7	1.876	6.7	35.9	
4	1.445	5.2	38.9	1.680	6.0	42.0	
5	1.236	4.4	43.3	1.470	5.3	47.2	
6	1.175	4.2	47.5	1.319	4.7	51.9	
7	1.046	3.7	51.2	1.243	4.4	56.4	
8	1.014	3.6	54.8	1.173	4.2	60.5	

Table: 7.4:	Field test and Gainesville principle axis factoring with interaction
	eigenvalues, percents of variation, and cumulative pertcentages.

(Source: Duttweiler, 1984: 215)

Duttweiler (1984: 215) considered the reduction of 28 items to eight factors of little explanatory value or insight. Therefore the eigenvalues were examined for a discontinuity that would be sufficient to warrant rotation to a lesser number of factors. It was decided to perform a two factor varimax rotation (Duttweiler, 1984: 215). The results of this varimax rotation is presented in Table 7.5.

## University of Pretoria etd – Beukman, T L (2005)

communalities and factor loadings.						
		FIELD TEST			GAINESVILL	.E
ICI Item	Comm	Factor 1	Factor 2	Comm	Factor 1	Factor 2
1	.049	.177	.131	.268	.306	.418
2	.255	.285	.417	.203	048	.448
3	.212	.416	.198	.183	.371	.213
4	.138	.305	.212	.152	.287	.264
5 6 7	.165	.386	.128	.178	.241	.141
6	.161	.209	.342	.179	.083	.415
	.160	.363	.167	.411	.640	.035
8	.125	.029	.353	.231	.074	.475
9	.217	.457	.090	.358	.598	007
10	.119	.332	.075	.143	.331	.185
11	.243	.122	.478	.198	.064	.440
12	.106	.009	.325	.152	.340	.190
13	.245	.488	079	.526	.725	014
14	.363	.063	.599	.366	.111	.595
15	.299	.547	011	.468	.674	.115
16	.293	.542	.002	.316	.358	.433
17	.131	.050	.358	.061	.141	.203
18	.155	.374	.126	.175	.063	.413
19	.158	.058	.393	.197	.369	.247
20	.306	.553	007	.358	.483	.353
21	.175	.414	.054	.200	.294	.338
22	.323	.095	.560	.274	.232	.469
23	.259	.243	.448	.435	644	142
24	.255	.060	.501	.112	.140	.304
25	.233	.479	.063	.131	.272	.240
26	.326	.149	.551	.22	.287	.370
27	.381	.077	.612	.190	.161	.406
28	.337	.578	.049	.216	.377	.271

 Table: 7.5:
 Field test of Gainesville two factor varimax rotation communalities and factor loadings.

(Source: Duttweiler, 1984: 216)

It is obvious from Table 7.5 that the Gainesville two factor varimax rotation produced two factors quite similar to those produced on the field test. The Gainesville Factor 1 accounted for 76.9% of the common variance and contained 13 items with loadings at 0.300 or higher, viz 1, 3, 7, 9, 10, 12, 13, 15, 16, 19, 20, 23, and 28. Factor 2 contained items 1, 2, 6, 8, 11, 14, 16, 18, 20, 21, 22, 24, 26, and 27 with loadings of 0.300 or more. According to Duttweiler the results as presented in Table 7.5 suggest that the ICI may be a stronger, more reliable instrument for measuring internal locus of control.

In the case in hand, the Duttweiler scale was applied to a sample of 509 respondents from different categories of age, home language, religion, educational qualifications, occupational level, work experience and population groups. These data were subjected to a factor analysis with varimax rotation

and principle components extraction. The results of the Kaiser-Meyer-Olkin measure (KMO) and the Bartlett's test are presented in Table 7.6.

#### Table 7.6: Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity for the Internal Control Index.

Measure	Value
Kaiser-Meyer-Olkin	
(Measure of Sampling Adequacy)	.813
Bartlett's Test of Sphericity:	
Approx. Chi-Square	2173.037
df	378
Sig	.000

It is evident from Table 7.6 that there can comfortably be proceeded with a factor analysis, as the KMO values equal 0.813, which is meritorious, and Bartlett's test of sphericity has a very small probability level (Bartlett's test of sphericity = 2173.073 with 378 df and p = 0.000 p being < 0.05). The KMO is a measure of sampling adequacy and if the sum of squared partial correlations between all pairs of variables is small when compared to the sum of squared correlation coefficients, a factor analysis is advised (Norusis, 1990:317). The Bartlett's test of sphericity tests the hypothesis that the population matrix is an identity matrix. The hypothesis that the population matrix is an identity can comfortably be rejected in this instance because the probability is small (0.000).

Figure 7.2 shows that a three-factor model should be sufficient for the sample used in this study.

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Figure 7.2: Scree Plot: Duttweiler ICI.

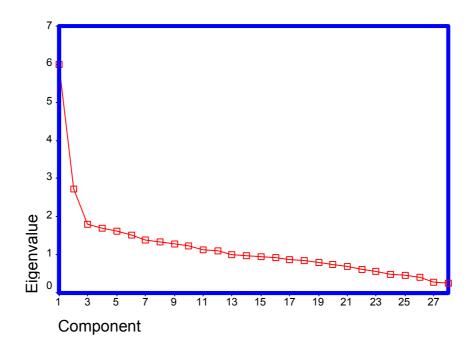


Figure 7.2 is a plot of the total variance associated with each factor. It is quite evident that there is a distinct break between the steep slope of the large factors and the trailing off of the rest of the factors. The matrix with total variance explained is presented in Table 7.7.

		Extraction of Squared Loadings					
	Component	Total	% of Variance	Cumulative %			
Rescaled	1	4.167	14.883	14.883			
	2	2.596	9.271	24.154			
	3	1.287	4.597	28.750			
	4	1.106	3.949	32.700			
	5	1.103	3.938	36.637			
	6	.975	3.482	40.120			
	7	1.075	3.839	43.958			
	8	.892	3.187	47.145			
	9	.897	3.202	50.348			
	10	.861	3.074	53.421			

Table 7.7: Total variance explained: ICI.

From Table 7.7 it is clear that the first three components explained 28,750% of the variance. Therefore a model of three factors should be adequate to represent the data. The rotated component matrix with the three factors is presented in Table 7.8.

	. <u>Rotated component matrix. ICI</u> .						
	Rescaled						
	Component						
	1	2	3	4	5	6	
C1			.450				
C2			.700				
C3	.294						
C4					.431		
C5	.298						
C6							
C7	.591						
C8				.872			
C9	.415						
C10	.391						
C11	500						
C12	.508						
C13	.639	760					
C14 C15	.508	.769					
C15 C16	.498						
C10 C17	.490						
C18		.437					
C19				.556			
C20						.806	
C21							
C22						.410	
C23			.330				
C24			.679				
C25	.509						
C26					.735		
C27		.785					
C28	.404						

Table: 7.8: Rotated component matrix: ICI.

(Extraction Method: Principle Component Analysis. Rotation Method: Varimax with Kaiser Normalisation)

The results of the Rotated Component Matrix are in agreement with Figure 7.2. It is clear that, according to Table 7.8, three factors of importance to this study were extracted. The contents of the questions classified under Factor 1 relate to "internality". Under Factor 2 the questions content seems to be related to the "influence of powerful others". For Factor 3 the question contents could be described as "attitude towards difficult challenges". The total variance explained is presented in Table 7.9.

Table 7.9: Total variance explained: ICI.						
		Initial Eigenvalues				
Compone	ent Total	% of Variance	Cumulative %			
Raw 1	5.989	17.739	17.739			
2	2.739	8.113	25.852			
3	1.803	5.339	31.191			
4	1.688	4.998	36.189			
5	1.611	4.772	40.962			
6	1.528	4.524	45.486			
7	1.399	4.143	49.629			
8	1.340	3.968	53.597			
9	1.294	3.831	57.428			
10	1.231	3.645	61.073			
11	1.139	3.374	64.447			
12	1.104	3.270	67.718			
13	1.011	2.995	70.713			
14	.984	2.915	73.628			
15	.960	2.842	76.470			
16	.915	2.711	79.180			
17	.871	2.580	81.760			
18	.843	2.496	84.256			
19	.801	2.372	86.629			
20	.747	2.211	88.840			
21	.684	2.025	90.865			
22	.628	1.860	92.726			
23	.563	1.668	94.394			
24	.492	1.456	95.850			
25	.453	1.341	97.190			
26	.408	1.208	98.398			
27	.284	.840	99.238			
28	.257	.762	100.00			

Table 7.9: Total variance explained: ICI.

(Extraction Method: Principle Component Analysis.)

# 7.5 VALIDITY OF THE VALUE SURVEY MODULE

A factor analysis done by Hofstede (1980) on his Value Survey Module yielded four value dimensions which he called individualism, masculinity, uncertainty avoidance and power distance. The same results were obtained by Hofstede & Bond (1984) and Singh (1990) through factorial analysis of data procured by the repeated application of Hofstede's Value Survey Module.

A validity study on the Work Value Survey of Hofstede (1980) was done by Theron (1992) using a sample of 215 respondents from the South African mining industry. He determined the construct validity by means of a factor analysis with principle axis factoring and varimax rotation, the results of which are presented in Tables 7.10 and 7.11.

Table 7.10: Eigenvalues: extracted factors – Value Survey Module.

# University of Pretoria etd - Beukman, T L (2005)

Factor	Eigenvalue	Percentage of variance	Cumulative percentage
1	8.58	31.8	31.8
2	1.23	4.5	36.3
3	0.79	2.9	39.2
4	0.65	2.4	41.7

(Source: Theron, 1992: 321)

According to Table 7.10 only 36.3% of the variance is declared by the factors with eigenvalues higher than one. The rotated factor matrix, presented in Table 7.11, however, produced four factors.

Variable	Factor 1 Factor score	Factor 1 Factor score	Factor 1 Factor score	Factor 1 Factor score
Q25	0.81			
Q19	0.80			
Q22	0.76			
Q21	0.75			
Q24	0.74			
Q17	0.74			
Q27	0.73			
Q15	0.72			
Q13	0.72		0.41	
Q29	0.70			
Q28	0.70			
Q18	0.67			
Q20	0.63			
Q12	0.63			
Q26	0.58			
Q23	0.50			
Q14	0.40			
Q33		0.54		
Q35		-0.44		
Q16	0.42		-0.55	
Q37				0.35

## Table 7.11: <u>Rotated factor matrix: – Value Survey Module</u>.

(Source: Theron, 1992: 322)

The factor matrix in Table 7.11 differs completely from the factor structure obtained by Hofstede (1980) and Singh (1990). Theron (1992) points out that this may be due to the prevalent ethnic differences in the South African society. He terms the first of the extracted factors, with eigenvalues higher than one, "work environment" and the second "work security".

In the case in hand the researcher also determined construct validity by means of a factor analysis. The data was subjected to a principle axis factoring with varimax rotation. The items used for the factor analysis were those determined by Hofstede (1980) and used by Theron (1992). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity are presented in Table 7.12.

Table 7.12: Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity for the	<u>Э</u>
Value Survey Module.	_

Measure	Value
Kaiser-Meyer-Olkin	
(Measure of Sampling Adequacy)	.870
Bartlett's Test of Sphericity:	
Approx. Chi-Square	1285.017
df	91
Sig	.000

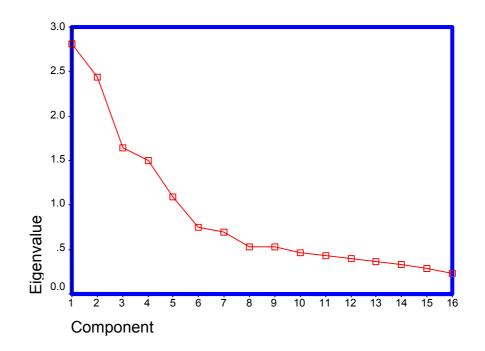
A KMO value of 0.870 (0.90 by approximation) is meritorious and the probability value of 0.000 (p<0.05) of the Bartlet's test indicates that there could be proceeded with the factor analysis. After rotation, four factors with eigenvalues higher than one (1.0) could be obtained, which differed substantially from the results of the factor analysis done by both Hofstede (1980) and Theron (1992). The eigenvalues are presented in Table 7.13.

	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
Component	Total	% of	Cumulative %	Total	% of	Cumulative	
		Variance			Variance	%	
1	4.295	26.844	26.844	4.264	26.651	26.651	
2	1.440	9.000	35.844	1.388	8.676	35.327	
3	1.177	7.356	43.200	1.182	7.389	42.716	
4	1.104	6.899	50.099	1.181	7.383	50.099	

Table 7.13: Eigenvalues: extracted factors for Value Survey Module

Table 7.13 shows that the four factors with eigenvalues higher than one declare 50.099% of the variance.

Figure 7.3: <u>Scree Plot – eigenvalues: Value Survey Module</u>.



From Figure 7.3 it is also obvious that Factor 1 explains the largest percentage of the variance. The rotated component matrix is presented in Table 7.14.

	Component					
	1	2	3	4		
E1			.724			
E2		.574				
E8		.639				
E4			.674			
E9				.748		
E3		.689				
E15	.525					
E21	.636					
E16	.555					
E18	.658					
E19	.703					
E22	.715					
E27	.633					
E20	.679					
E28	.719					
E25	.660					

Table 7.14: Rotated component matrix: - Value Survey Module.

According to Table 7.14 the varimax rotation produced four factors with only one item loading onto the last factor. Although four factors with eigenvalues

higher than one were obtained, an analysis of the content of the items classified under each item, shows that the factor matrix differs completely from the structure and value dimensions obtained by previous research (Hofstede, 1980; Hofstede & Bond, 1984). For the purpose of statistical data analysis in this study the researcher shall use the factor items as standardised by Hofstede (1980) viz Power Distance, Uncertainty Avoidance, Individualism and Masculinity.

## 7.6 THE MULTIFACTOR LEADERSHIP QUESTIONNAIRE

#### 7.6.1 BACKGROUND

The Multifactor Leadership Questionnaire (MLQ) was developed by Bernard Bass & Bruce Avolio and has been extensively used in field and laboratory research to study transformational, transactional and nontransactional leadership styles. Since 1982, the MLQ has been the principle means to reliably differentiate highly effective from ineffective leaders in many kinds of organisations, including government, military, educational, manufacturing, church, and medical. According to Bass et al (1997) the MLQ can be appropriately used for selection, transfer and promotion activities as well as for individual, group, or organisation development counselling. The MLQ leadership factor scale scores can identify managers suited to a particular kind of organisation culture, department, work group, project, or situation (Bass et al, 1997: 8). It can also be used to help place managers in positions for which they are best suited and will require the least training. Matching a leader to an appropriate situation without unnecessary costs, can help an organisation to solve a potentially difficult situation. The results of the MLQ could also be used as a basis for coaching the leader through a particular period in the group's or organisation's development.

#### 7.6.2 DESCRIPTION

The current questionnaire, the MLQ (5X) (Revised), contains 45 questions (36 leadership items and 9 outcome items) that identify and measure key leadership and effectiveness behaviours shown (in prior research) to be strongly linked with both individual and organisational success. It comprises nine (9) leadership components along a full range of leadership styles, each measured by four (4) highly intercorrelated items that are as low in correlation as possible with items of the other eight (8) components (Bass <u>et al</u>, 1997: 11). According to Bass & Avolio (<u>op cit</u>) the MLQ (5X) (Revised-63) adds two items per component that tend to load on more than one component, i.e. transformational items within scales also correlate with other transformational

scales. It is useful for training and coaching purposes, but less so for research studies.

Various forms of the MLQ has been used in over a dozen countries and in numerous languages, business and industrial firms, hospitals, military organisations, colleges, schools and government agencies. It has been shown to be equally effective when supervisors, colleagues, peers, or direct reports rate the leader (Bass & Avolio, <u>op cit</u>).

## 7.6.3 INITIAL DEVELOPMENT OF THE MLQ

The MLQ has a long history of development. It started with a total number of 142 items on leadership behaviour generated from a review of theoretical literature on the basis of responses to an open-ended survey of 70 senior executives, all of whom had experience with a transformational leader. These items were reviewed by 11 students enrolled in a graduate seminar on leadership who were asked to read pertinent material about the distinction between transformational and transactional leadership. The 142 items were sorted into three categories, viz transformational, transactional, and "can't say" by each of these students. Seventy three (73) items were then selected for inclusion in a questionnaire, all based on the following response allocation criterion: eight or more students (judges) identified the item as transformational, and none or one identified the item as transactional, or vice versa. Bass et al (1997: 33) consider a typical transformational item as one reading "enables me to think about old problems in new ways". A typical transactional item would be "points out what I will receive if I do what needs to be done".

## 7.6.4 FACTOR ANALYSIS OF THE MLQ

Data was generated from a sample of 176 senior military officers and subjected to a factor analysis conducted by Bass (1985). Through using varimax rotation of the 73 items, seven leadership factors (of the nine components now to be found in the MLQ) were produced as shown in Table 7.15.

Та	ble 7.1	15:		ans, Q fac	stand tor sco		leviati	ons,	and i	nterco	orrelat	ions a	among	1
Variable	М	SD	1	2	3	4	5	6	7	8	9	10	11	12
Attributed Charisma	2.56 2.69	.84 .90	.86 .87											
Idealised Influence	2.64 2.71	.85 .89	.79 .83	.87 .89										
Inspirational Motivation	2.64 2.69	.87 .91	.85 .85	.86 .90	.91 .91									
Intellectual Stimulation	2.51 2.50	.86 .86	.76 .75	.84 .84	.85 .85	.90 .88								
Individualised Consideration	2.66 2.62	.93 .94	.82 .83	.82 .86	.87 .88	.84 .84	.90 .90							
Contingent Rewards	2.20 2.04	.89 .94	.68 .51	.69 .58	.73 .62	.70 .60	.75 .62	.87 .86						
Management- by-Exception (Active)	1.75 1.71	.77 .81	12 10	03 08	10 05	08 05	12 11	.03 .21	.74 .73					
Management- by-Exception (Passive)	1.11 1.17	.82 .88	54 54	54 59	55 50	52 41	54 51	34 07	.28 .44	.82 .83				
Laissez-Faire	0.89 0.99	.74 .88	53 57	54 50	51 50	47 40	49 50	29 07	.18 .40	.74 .82	.74 .87			
Extra Effort	2.60 2.51	1.16 1.14	.68 .71	.69 .75	.73 .78	.69 .75	.74 .82	.62 .63	.03 01	36 36	34 35	.91 .86		
Effectiveness	2.26 2.66	.72 .88	.51 .62	.44 .48	.46 .52	.41 .40	.44 .53	.32 .26	14 04	35 41	41 45	.45 .48	.91 .87	
Satisfaction	2.57 2.38	1.28 1.28	.25 .35	.22 .18	.21 .22	.18 .08	.27 .24	.19 .11	.06 .18	21 17	25 19	.23 .19	.15 .40	.94 .93

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NOTE: First values in each column show correlation from the validation set of samples (N = 1 394 after listwise deletion) and second values in each column show correlations from the cross-validation set of samples (N = 1 490 after listwise deletion)

(Source: Bass & Avolio, 1997: 65)

The transformational factors that emerged were labelled Charisma, Inspirational Motivation, Individualised Consideration and Intellectual Stimulation. The transactional factors were Contingent Reward and Management-by-Exception. The nontransactional factor comprises Laissez-Faire or "hands-off" leadership. Important to note here is that Hater and Bass (1988) extracted the same factors except that their analysis produced an active and passive version of Management-by-Exception instead of a single factor.

A second order factor analysis of the scales indicated that they clustered into either active or passive dimensions with Laissez-Faire emerging as the most inactive form of leadership (Hater <u>et al</u>, 1988). Hater <u>et al</u> (1988) also found that all factors involved active leadership except Management-by-Exception and Laissez-Faire. Recent analysis by Bycio, Hackett & Allen (1995) of these original items have generally produced a similar factor structure. In summary, the factors included in the MLQ were conceptually and empirically derived and confirmed originally from two independently conducted factor analyses using the principle components method with varimax rotation, and almost the same structure in various replications of the original factor analysis were obtained (e.g. Seltzer & Bass, 1990; Avolio, Bass & Jung, 1996). Each component is described in Table 7.16.

Table 7.16:	<u>Summary</u>	of f	irst	factor	analytic	findings	for	Items	most
	representa	tive	of e	ach fac	tor (Rate	r Form).			

MLQ FACTORS (with profile names)	N = 176	N = 335	SAMPLE ITEMS
Charisma (CH)	.77	.66	Has a sense of mission, which he or she communicates to me.
Inspirational Motivation (IM)	.63	.69	Uses symbols and images to focus our efforts. Has ideas that have forced me
Intellectual Stimulation (IS)	.69	.69	to rethink ideas of my own which I have never questioned before.
Individualised Consideration (IC)	.56	.67	Gives personal attention to those who seem neglected.
Contingent Reward (CR)	.67	.46	Sees that I get what I want in exchange for my co-operation.
Management-by-Exception (MBE)	.72	.38	Is satisfied with my performance as long as the established ways work
Laissez-Faire (LS)	.72	.72	Is hard to find when a problem arises.

NOTE: A sample of 335 middle-level managers working for a nationally based service organisation collected by Hater and Bass (1988) provided an independent confirmation of the factor analysis on the original derivation sample conducted with 176 senior military officers.

(Source: Bass & Avolio, 1997: 35)

The factors included in the final version of the 45-item MLQ are as follows (Bass <u>et al</u>, 1997):

• Factors 1 and 2 revolve around Idealised Influence, which is generally referred to as the reasons why associates identify with and want to emulate their leader.

• Factor 3 refers to Inspirational Motivation and includes those actions aimed at increasing awareness and understanding of mutually desired goals.

• Factor 4 entails Intellectual Stimulation which is used to encourage others to question their old ways of doing things and to break away from the past.

• Factor 5, Individualised Consideration, is used by leaders who treat associates differently but equally on a one-to-one basis. There is a strong focus on the development of associates.

• Factor 6 is called Contingent Reward and involves an interaction between leader and associates that stresses exchanges. The achievement of agreed-upon objectives is emphasised.

• Factors 7 and 8 encompass active and passive forms of Management-by-Exception. These leaders only focus on deviations, errors and mistakes and intervene only when they do occur.

• Factor 9 is the non-leadership factor, viz Laissez-Faire, which indicates the absence of leadership, the avoidance of intervention, or both.

Two confirmatory factor analyses (CFA) were also done using LISREL VII (Avolio & Bass, 1991). The first was conducted on the data containing all the items of the MLQ (5X). This included eight items for Attributed Charisma (AC), ten items for Idealised Influence (II), 10 items for Inspirational Motivation (IM), 10 items for Intellectual Stimulation (IS), nine items for Individualised Consideration, nine items for Contingent Reward, eight items for MBE-active, eight items for MBE-passive and eight items for Laissez-Faire (LF). Based on the correlation matrix generated by PRELIS, CFA was performed with LISREL VII using the method of maximum likelihood estimation. Even after ten iterations, the nine-factor model did not converge, probably due to high intercorrelations between MBE-passive and Laissez-Faire. Bass <u>et al</u> (1997: 66) report a Goodness of Fit Index (GFI) and a Root Mean Square Residual

(RMSR) of .73 and .10 respectively. After an item selection process<sup>2</sup>, a second CFA was run to determine whether the data were better represented by several different competing models. The results, after the second CFA, showed improved measures of fit, as well as chi-squares, as the model progressed from a one-factor to a nine-factor solution. Bass <u>et al</u> (1997) declare that this improvement was substantial.

In this research the MLQ construct validity was also determined through a factor analysis by subjecting the data to a principle axis factoring with varimax rotation. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity for the MLQ data set are presented in Table 7.17.

 
 Table 7.17:
 Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity for the MLQ.

Measure	Value
Kaiser-Meyer-Olkin	
(Measure of Sampling Adequacy)	.927
Bartlett's Test of Sphericity:	
Approx. Chi-Square	7186.292
df	990
Sig	.000

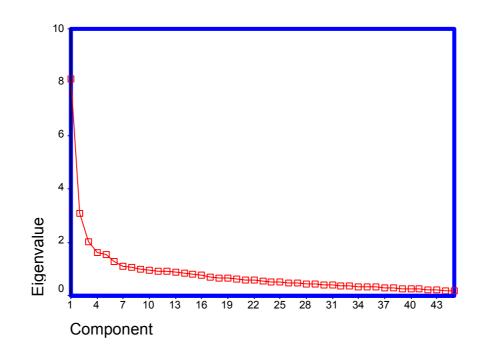
The value of the KMO, viz 0.927 is excellent and the probability value of 0.000 (p<0.05) indicates that there can be comfortably proceeded with the factor analysis. The initial eigenvalues are presented in Table 7.18.

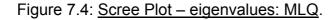
<sup>&</sup>lt;sup>2</sup> Four items were selected for each leadership factor based on the MI indices generated by LISREL VII. All of these items exceeded the recommended cut-offs for discriminant and convergent validity (Bass <u>et al</u>, 1997: 67).

Table 7.18: <u>Initial eige</u>	Initial Eigenvalues					
Componen		% of Variance	Cumulative %			
Raw 1	8.131	20.901	20.901			
2	3.105	7.980	28.882			
3	2.021	5.194	34.075			
4	1.620	4.163	38.239			
5	1.554	3.994	42.233			
6	1.278	3.286	45.519			
7	1.105	2.840	48.359			
8	1.080	2.775	51.134			
9	1.009	2.594	53.728			
10	.943	2.425	56.153			
11	.934	2.400	58.553			
12	.905	2.326	60.879			
13	.878	2.256	63.136			
14	.828	2.128	65.263			
15	.794	2.042	67.306			
16	.769	1.978	69.283			
17	.694	1.784	71.067			
18	.678	1.743	72.810			
19	.653	1.677	74.497			
20	.622	1.598	76.085			
21	.592	1.521	77.606			
22	.570	1.466	79.073			
23	.553	1.422	80.495			
24	.528	1.357	81.851			
25	.502	1.291	83.142			
26	.477	1.225	84.367			
27	.466	1.198	85.565			
28	.451	1.160	86.726			
29	.447	1.148	87.874			
30	.416	1.069	88.943			
31	.403	1.035	89.978			
32	.379	.973	90.951			
33	.357	.918	91.868			
34	.337	.866	92.734			
35	.326	.837	93.572			
36	.322	.828	94.399			
37	.305	.784	95.183			
38	.285	.732	95.915			
39	.272	.699	96.614			
40	.264	.678	97.292			
41	.243	.625	97.917			
42	.219	.562	98.479			
43	.208	.533	99.013			
44	.197	.506	99.519			
45	.187	.481	100.000			

Table 7.18: Initial eigenvalues: MLQ.

According to Table 7.18 nearly 54% of the total variance is attributable to the first nine (9) factors. The remaining 36 factors account for 47% of the variance. Thus, a model with nine factors may be adequate to represent the data.





The scree plot in Figure 7.4 shows only seven factors to be adequate. Norusis (1990: 319) suggests that only factors that account for variances greater than 1.00 should be included. Factors with values less than 1.00 "are no better than a single variable" since each variable has a variance of 1.

The rotated component matrix for the 45 items of the MLQ is presented in Table 7.19.

	Table: 7.19: <u>Rotated component matrix: MLQ</u> . Rescaled								
	Component								
	1	2	3	4	5	6	7		
F1 F2 F3		.297							
F4 F5 F6 F7 F8		.516		.668 .691			.781		
F9 F10 F11 F12 F13	.444 .461		.783 .376	.612					
F14 F15 F16 F17 F18	.586 .605 .587	.387							
F19 F20 F21 F22	.450	.774			.627	.722			
F23 F24 F25 F26 F27	.403 .522		.611		.837				
F28 F29 F30 F31 F32	.510 .708 .621	.701							
F33 F34 F35 F36 F37 F38 F39 F40	.464 .518 .620 .598 .729 .536 .618					.702			
F41 F42 F43 F44 F45	.534 .644 .581 .644 .494								

Table: 7.19: Rotated component matrix: MLQ.

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	9 (continued	J)	Reso	aled		
				onent		
	8	9	10	11	12	13
$ \begin{array}{c} F1\\ F2\\ F3\\ F4\\ F5\\ F6\\ F7\\ F8\\ F9\\ F10\\ F11\\ F12\\ F13\\ F14\\ F15\\ F16\\ F17\\ F18\\ F19\\ F20\\ F21\\ F22\\ F23\\ F24\\ F25\\ F26\\ F27\\ F28\\ F29\\ F30\\ F31\\ F32\\ F33\\ F34\\ F35\\ F36\\ F37\\ F38\\ F39\\ F40\\ F41\\ F42\\ F43\\ F44\\ \end{array} $	.774	.896	.959	.751	.977	.868

Table: 7.19 (continued)

(Extraction Method: Principle Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation)

It is clear that, according to Table 7.19, six factors of importance to this study of leadership were extracted. The factor matrix in Table 7.19 differs completely from the nine-factor structure obtained by Bass et al (1997). There is a distinct lack of similarity between the factors as found by the rotated component matrix in this case, and the nine factors produced by Bass et al (1997). The analysis shows that 23 items clustered into the first factor. All nine so-called "leadership outcomes items" are included in these items. The rest of the items (except for three items, which were originally associated with Contingent Reward) consist of a mix of transformational items. This may be due to the high intercorrelations among the transformational leadership factors reported by Bass et al, (1997: 66). The contents of the questions classified under Factor 2 relate to both intellectual stimulation and individualised consideration. The third factor consists of items relating to inspirational motivation and idealised influence. All three other factors consist of items originally associated with MBE-passive and Laissez-Faire. This may also be explained by the high intercorrelation between MBE-passive and Laissez-Faire, as reported by Bass et al (1997: 66). The content of the items classified under these three factors relate to "leadership avoidance" or "non-involvement".

For the purpose of statistical data analysis in this study the researcher shall use the standardised leadership factors in the 45-item MLQ as reported by Bass <u>et al</u> (1997). These leadership factors (or styles), with associated items, are presented in Table 7.20.

	LEADERSHIP FACTOR	RELATED ITEMS
TRANSFORMATION LEADERSHIP	Idealised Influence (attributes) Idealised Influence (behaviour) Inspirational Motivation Intellectual Stimulation Individualised Consideration	10, 18, 21, 25 6, 14, 23, 34 9, 13, 26, 36 2, 8, 30, 32 15, 19, 29, 31
TRANSACTIONAL LEADERSHIP	Constructive Transaction Management by Exception (active) Management by Exception (passive)	1, 11, 16, 35 4, 22, 24, 27 3, 12, 17, 20
NON-TRANSACTIONAL LEADERSHIP	Laissez Faire	5, 7, 28, 33
LEADERSHIP OUTCOMES	Extra Effort Effectiveness Satisfaction	39, 42, 44 37, 40, 43 38, 41, 45

## 7.7 RELIABILITY

## 7.7.1 RELIABILITY DEFINED

Babbie (1989: 121) defines reliability as the degree to which a particular technique (like a psychometric test) applied repeatedly to the same object, would yield the same result each time. It could thus be seen as the consistency or stability of a test score when the test is repeated or replicated. Mason <u>et al</u> (1989: 265) present the following definition: "the consistency or dependability of the test score" or "... the ratio of variance in true scores to variance in observed scores" (1989: 266). They offer the following formula:

$$r_{xx} = \frac{\sigma_t^2}{\sigma_0^2} = \frac{\sigma_t^2}{\sigma_t^2 + \sigma_e^2}$$

where  $r_{xx}$  = reliability

 $\sigma_t^2$  = variance in true scores  $\sigma_0^2$  = variance in observed scores, and  $\sigma_e^2$  = variance of error.

## 7.7.2 METHODS FOR COMPUTING RELIABILITY

Five different methods for judging reliability are discussed by De La Rey (1978: 31). These are split-half reliability, test-retest reliability, parallel-forms reliability, judgemental reliability, and internal consistency.

## 7.7.2.1 Split-half reliability

When using this method for determining reliability, the test being evaluated is divided into two halves (odd and even numbered items may, for example be grouped together). For each respondent two scores are then calculated, one for each half. If the scores of the respondents on both halves have a high correlation, there is enough evidence of consistency in the test (De la Rey, 1978: 31).

## 7.7.2.2 Test-retest reliability

Test-retest reliability is a description of the ability of an instrument to be reliable over a period of time (Howard, 1985: 25). Two repeated administrations of the same test are therefore required, the scores of which are then compared by means of correlation statistics. The correlation coefficient obtained indicates the consistency of the test over time (De la Rey,

1978: 32). It is important that the same group of people be used for both administrations of the test. Smit (1983: 36) warns that the choice of length of time between the two administrations is critical. If too little time is allowed, the reliability score may be influenced by carry-over effects such as experience and memory, while a period that is too long may result in maturation<sup>3</sup> influencing the reliability score (Smit, 1983: 36).

## 7.7.2.3 Parallel forms reliability

This form of reliability calculation is very similar to the split-half method. While two halves of the same test is used in the split-half method, this method involves the use of two equivalent forms of the same test on the same group. The performance of the group on the two versions of the test is then compared. (Smit, 1983: 30). The method has the advantage of preventing the transfer of prior knowledge of item content from one test to the next.

Smit (1983: 31) notes that when a short period has elapsed between the administrations of the two forms, the reliability coefficient is referred to as the coefficient of equivalence. In the case of a longer period between the two administrations, the reliability coefficient is known as the coefficient of stability and equivalence.

## 7.7.2.4 Judgemental reliability

The correlation coefficient obtained when the scores of two different judges "rating the same thing at the same time" is compared, refers to judgemental reliability. It could, for example entail the marking of the same set of test answers by different judges, after which the scores are correlated.

## 7.7.2.5 Internal consistency

Internal consistency as a reliability approach is frequently used as it requires only one administration of a test (Mason <u>et al</u>, 1989: 268). It refers to the consistency and stability of performance among items of the same test and therefore is primarily "... concerned with the internal structure of the test" (Brown, 1976: 84). During this approach a statistical analysis is done on the responses on each individual item of the test (De la Rey, 1978: 32).

Three methods for computing internal consistency estimates are provided by Mason <u>et al</u> (1989: 268), namely the split-half reliability approach by using the

<sup>&</sup>lt;sup>3</sup> The biological, emotional, and psychological processes that change subjects over time (Smit, 1983).

Spearman-Brown formula, the Kuder-Richardson formula 20, and the Cronbach coefficient alpha.

When using the split-half reliability approach, a test is split into halves after which the correlation between the item scores of the two halves is computed (Mason <u>et al</u>, 1989: 268). Again, a popular approach is to split the test into odd and even numbered items. Because, when following this approach, the test is shortened, a lower reliability index may be obtained, which requires a correction to be introduced. The Spearman-Brown method is used for this correction. Mason <u>et al</u> (1989: 268) offers the following formula for the Spearman-Brown method:

$$r_{tt} = \frac{2r_{oe}}{1 + r_{oe}}$$

where  $r_{tt}$  = corrected reliability coefficient of the test, and  $r_{oe}$  = the reliability coefficient of the split half.

A second formula for the reliability correction, the Guttman formula, is described by Smit (1983: 35). In contrast to the Spearman-Brown method, this method does not require the initial calculation of correlation between the two halves. The following formula is offered by Smit (1983: 35):

$$r_{tt} = 2(1 - \frac{\sigma_A^2 + \sigma_B^2}{\sigma_t^2})$$

where  $(\sigma_A^2)$  = variance of form A  $(\sigma_B^2)$  = variance of form B, and  $(\sigma_t^2)$  = variance of the total group.

Similar to the split-half method, the Kuder-Richardson formula 20 method is also a measure of homogeneity or scalability of the test material (Ferguson, 1981: 439). Higher reliability estimates can be obtained, as this method does not require the test to be split into two halves. Mason <u>et al</u> (1989: 269) explain this as follows: "...the method provides an estimate of the average split-half reliability for all possible splits in a test without requiring actually splitting the test" and advance the following formula:

$$r_{xx} = \frac{n}{n-1} \frac{s_x^2 - \sum_{i=1}^n p_i q_i}{s_x^2}$$

where n = number of items  $s_x^2 =$  variance of scores on test  $(p_i q_i)$  = product of proportion of passes and fails for item *I* 

$$\sum_{i=1}^n p_i q_i$$

= sum of these products for *n* items.

The Kuder-Richardson formula 20 is usually applied in the case of tests consisting of dichotomously scored items. Theron (1992: 329) notes that it may also be applied to tests comprising items that elicit responses from more than two categories, i.e. attitude scales. In such a case, each category is assigned a weight, the individual item variances are then calculated and their sum substituted in the Kuder-Richardson formula 20 for:

$$\sum_{i=1}^n p_i q_i$$

A more simplified form of the Kuder-Richardson formula 20 may be used when test items are dichotomously scored and where it is assumed that all test items are equally difficult. Ferguson (1981: 439) advances the following formula:

$$r_{xx} = \frac{n}{n-1} \left[ 1 - \frac{\overline{X}(n-\overline{X})}{ns_x^2} \right]$$

where  $\overline{X}$  = mean test score, and  $s_x^2$  = variance.

In this case the formula is referred to as the Kuder-Richardson formula 21.

# 7.7.3 THE RELATIONSHIP BETWEEN RELIABILITY AND VALIDITY

Reliability affects validity in that the lower the reliability of a test become, the less validity it can have. Mason <u>et al</u> (1989: 256) explain this by noting that in practice, the squared validity coefficient cannot be greater than the reliability coefficient. Therefore, the validity of a test will be at its maximum when the validity coefficient, squared, equals the reliability coefficient. Important to note is that the vice versa is not true. Although the reliability of a test may be high, the test may have no validity. The researcher should therefore always pay attention to both reliability and validity of the tests or instruments he uses.

#### 7.7.4 RELIABILITY OF THE SURVEY OF WORK VALUES

The Coefficient Alpha and test-retest reliability measures were calculated for the six sub-scales, the results of which are presented in Table 7.21 (Wollack et al, 1971: 334).

Subscale		strial kers		nment kers	Insurance employees	
	M dn. R	Alpha	M dn. R	Alpha	Test-retest	
Status	.16	.63	.12	.55	.71	
Activity	.16	.63	.15	.61	.71	
Striving	.14	.59	.12	.55	.76	
Earnings	.16	.59	.18	.66	.65	
Pride	.16	.63	.15	.61	.69	
Involvement	.11	.53	.16	.63	.68	

# Table 7.21: Median intrascale item intercorrelations, Coefficient Alpha reliabilities, and test-retest reliabilities.

Coefficients of determination point to a low reliability, explaining only 42% of the variance (subscale "earnings") to 57% (by approximation 60%) of the variance in subscale "striving". Wollack <u>et al</u>, (1971) ascribe this seemingly low reliability to the relatively low number of items within each subscale.

The reliability coefficients of the present study are presented in Table 7.22.

Cronbach's Alpha	Part 1	Value	.374				
		N of items	27				
	Part 2	Value	.530				
		N of items	27				
	Total N of	54					
Correlation Between Fo	orms		.420				
Spearman-Brown	Equal Ler	ngth	.592				
Coefficient	Unequal L	.592					
Guttman Split-Half Coe	.587						

Table 7.22: Reliability of the Survey of Work Values.

It is evident from Table 7.22 that a split-half reliability estimate, with Spearman-Brown correction for equal length, of 0.592 was obtained and a coefficient Alpha of 0.374 and 0.53 for the two halves respectively.

#### 7.7.5 RELIABILITY OF THE INTERNAL CONTROL INDEX

The split-half reliability coefficient with Spearman-Brown correction was also calculated for the Internal Control Index. This coefficient as well as the Alpha values for the two halves are presented in Table 7.23.

Cronbach's Alpha	Part 1	Value	.643	
		N of items	14	
	Part 2	Value	.577	
		N of items	14	
	Total N of items			
Correlation Between Forms			.628	
Spearman-Brown	Equal Length		.771	
Coefficient	Unequal Length		.771	
Guttman Split-Half Coefficient			.771	

#### Table 7.23: Reliability of the Internal Control Index.

According to Table 7.23, the Duttweiler Internal Control Index has a split-half reliability with Spearman-Brown correction for equal length of 0.771 (0.8 approximately) and a Cronbach's Alpha of 0.643 for the first part and 0.577 (0.6 approximately) for the second half. The correlation between the two halves is 0.63.

## 7.7.6 RELIABILITY OF THE VALUE SURVEY MODULE OF HOFSTEDE

Theron (1992: 329-330) obtained a split-half reliability estimate with Spearman Brown correction of 0.88 for equal length. An Alpha coefficient of 0.90 was also obtained. The reliability estimates in the present study is presented in Table 7.24.

Cronbach's Alpha	Part 1	Value	.197
		N of items	8
	Part 2	Value	.829
		N of items	8
Total N of items			16
Correlation Between Forms			.202
Spearman-Brown	Equal Length		.336
Coefficient	Unequal Length		.336
Guttman Split-Half Coefficient			.327

#### Table 7.24: <u>Reliability of the Value Survey Module</u>.

As is evident from Table 7.24, the reliability estimates are very low. This might be the result of only 16 items having been subjected to the reliability tests. The Spearman-Brown coefficient for equal length only equals 0.336. A Cronbach's Alpha of 0.197 for the first half and 0.829 for the second were obtained. The correlation between the two parts is 0.202.

## 7.7.7 RELIABILITY OF THE MULTIFACTOR LEADERSHIP QUESTIONNAIRE

For the Multifactor Leadership Questionnaire (MLQ), the test-retest reliability for the MLQ (5R) was computerised for the factor scales using data collected from 33 middle to upper-level managers. The reliabilities ranged from 0.44 to 0.74 for the self-ratings and 0.53 to 0.58 for ratings by others. Bass <u>et al</u> (1997: 55) warned, however, that the reported reliabilities may underestimate the true test-retest reliability of the scales, as the group of managers used in the analysis had received team development and individual training through the six-month interval.

For the case in hand the internal consistency estimate was determined by means of the split-half method with Spearman Brown correction. The coefficient Alpha was also calculated. The results are presented in Table 7.25.

Cronbach's Alpha	Part 1	Value	.705
		N of items	23
	Part 2	Value	.844
		N of items	22
	Total N of items		45
Correlation Between Forms			.657
Spearman-Brown	Equal Length		.793
Coefficient	Unequal Length		.793
Guttman Split-Half Coefficient			.790

#### Table 7.25: Reliability of the Multifactor Leadership Questionnaire.

Table 7.25 reveals a high split half reliability with Spearman-Brown correction of 0.793 (approximately 0.80) for unequal length. The Cronbach's Alpha for part 1 is 0.705 and for part 2 it is 0.844.

## 7.8 SUMMARY

In this chapter the psychological evaluations used in the study were analysed. The construction and development of the Survey of Work Values, the Internal Control Index, the Value Survey Module, and the Multifactor Leadership Questionnaire were also discussed. The concepts of validity and reliability were referred to in detail. The construct validity of the questionnaires was determined by means of factor analysis and the internal consistency was determined by means of the split-half reliability techniques with Spearman-Brown correction.

## CHAPTER 8

#### RESEARCH METHODOLOGY AND DESIGN

#### 8.1 INTRODUCTION

In the scientific approach to research, the researcher uses standardised methods for obtaining empirical answers to certain questions. Proper planning and preparation is the first critical requirement for any successful scientific research project. This should include the careful choice of a research strategy, demarcation of a population, specific sampling procedure and the use of appropriate statistical methods for data analysis. Theron (1992) emphasises the fact that suitable and proper research design, sampling methods and statistics ensure a soundly based, structured and systematic approach to scientific knowledge that can be checked for accuracy and the ability to generalise results to the population as a whole.

In this chapter the selection of an appropriate research design will be discussed. A brief description of the population will be followed by a discussion of the sample and the determination of a proper sample size that will be representative of the population in terms of all the independent variables discussed in Chapter 6. This representativeness will enable the researcher to generalise the research findings to the wider population. The selection of statistical methods for the analysis and a description of these methods will also be presented.

#### 8.2 RESEARCH STRATEGY

The aim of this study, as discussed in Chapter 2, is to do a detailed analysis of work-related values, locus of control and leadership behaviour in a multicultural South African work force and their interrelations within the ambit of a transforming military organisation. The analysis will strongly focus on the effect of culture (specifically value differences) on transactional and transformational leadership behaviour displayed by leaders. The objective is to determine whether or not there are significant differences in leadership behaviours across cultures, in other words whether cultural differences (especially work-related values) prompt different leadership behaviours. The key question is whether or not the effectiveness of leadership behaviour is culture specific.

Value and leadership differences will be highlighted in terms of gender, age, home language, religion, level of education, occupational level, ethnicity and years of work experience as independent variables. The six value dimensions

of Wollack <u>et al</u> (1971), the four value dimensions of Hofstede (1980), internality, and leadership styles will all be used as dependent variables. The achievement of the research aims in the study depends on obtaining information directly from the workforce about their work-related values and leadership behaviour. This information will be obtained from the sample subjects by posing questions (in the form of four questionnaires) about their personal preferences, intentions and behaviours. Questionnaires include two for work-related values, one for locus of control and one for leadership behaviour. Information regarding certain biographical variables will be obtained through the use of a separate questionnaire.

#### 8.2.1 RESEARCH DESIGN

The research will be conducted by means of the survey method of data gathering. This method will be the most appropriate due to the researcher being able to visit all the various bases personally. All officers commanding were involved in making a sample of leaders on each base available for the survey. Although the survey method is the basic approach for this research, all the data could be considered as being part of an experiment, where multiple factor analysis of variance represents the main statistical method of data processing. Due to this, the research approach could also be described as a *posteriori* quasi-experimental design involving questionnaires. This design will be discussed in Section 8.2.2.

In order to achieve the study objectives as presented in Chapter 2, the statistical analysis of data will aim at achieving the following:

- Determining the construct and content validity of the four questionnaires to be used, viz:
  - a. Internal Control Index (ICI) of Duttweiler (1984).
  - b. Value Survey Module of Hofstede (1980).
  - c. Survey of Work Values of Wollack et al (1971).
  - d. Multifactor Leadership Questionnaire (MLQ) of Bass and Avolio (1997).
- Doing a reliability assessment of the four above-mentioned measuring instruments.
- Analysising the intercorrelations between work values, locus of control and leadership styles.

- Drawing a comparison by means of analysis of variance (in terms of work related values, locus of control and leadership styles) between four different ethnic groups.
- Drawing similar comparisons of the possible influence of age, language, religion, level of education, occupational level and years of work experience.
- Doing a discriminant analysis of leadership styles in terms of work related values and locus of control.
- Evaluating the appropriateness and suitability of a transformational leadership approach across all cultural groups in South Africa

# 8.2.2 POST HOC (A POSTERIORI) QUASI-EXPERIMENTAL DESIGN

As opposed to planned (or *a priori*) comparison, Shavelson (1981: 469) refers to post hoc comparison as a comparison of means which has not been planned but which, on the basis of the sample data, looks interesting to the researcher and allows him to find out "...where the differences occurred which gave rise to the significant, overall  $F^{1n}$ . He states that, if the overall F is significant, at least one out of all possible comparisons between pairs of means will be significant. Although statistically less powerful, post hoc comparisons are useful and are very often used in social science research. One of the most well-known post hoc comparison tests is the Scheffé test (Bohrnstedt et al, 1982). They define post hoc comparison as a "hypothesis testing of the differences among population means carried out following an analysis of variance". The notion of a contrast is used to make multiple comparisons among a set of means. A contrast is a set of weighted population means that sum to zero, used in making post hoc comparisons of treated groups. It is usually referred to with the label  $\Psi$  (psi). The basic requirement for using post hoc comparisons is that the overall F in the analysis of variance must be significant.

A quasi-experimental design differs from true experiments in that it lacks the random assignment of subjects to an experimental and a control group (Babbie, 1989). It is a research plan that has some but not all the validity features of an experimental design. Manipulations of the independent variable are quite difficult and, under certain circumstances, even impossible (Dooley, 1990:198). The emphasis in quasi-experimental designs is whether an independent variable is an indicator of whatever the real cause may be and not the actual cause of the dependent variable (Dane, 1990: 105). A quasi-

<sup>&</sup>lt;sup>1</sup> The F-ratio is a test statistic formed by the ratio of two mean-square estimates of the population error variance (Shavelson, 1981: 469).

experimental design is explained by Mason <u>et al</u> (1989: 127) as an alternative to experimental design in that it can be carried out in field settings and does not need to comply with the requirements of equalisation of groups by means of the random assignment of subjects.

Quasi-experiments should be employed in research settings where the basic elements of a true experiment cannot be set up (Baker, 1988: 223). In the research at hand the researcher wishes to determine the effect of the independent variable(s) on the dependent variable(s) and also the influence of nuisance variables. Because the study will be carried out in the natural setting where the experimental event(s) occur, the researcher may be forced to use a quasi-experimental design. In these natural settings, where the researcher does not have total control, quasi-experimental techniques are employed to deal with the threats of internal and external validity (Mason <u>et al</u>, 1989: 127). Dooley (1990: 183) refers to internal validity as the truthfulness of the claim of a causal linkage between variables internal to the design, while external validity is referred to as the extent to which research findings may be applicable to other populations, other times and other settings.

A disadvantage of the quasi-experimental design is its susceptibility to the of statistical regression, history, maturation, threats testina and instrumentation. These are all sources of internal validity that the researcher has to take into account when planning the research design. Babbie (1989: 221) refers to the history effect as the influence of those events that may occur during the course of the experiment that will confound the experimental results. Maturation is the result of continuous growth and change in people. Even in shorter experiments these changes may affect the results of experiments. Instrumentation effects refer to changes in the manner in which the dependent variable is measured (i.e. the use of different questionnaires to measure the same dependent variable). Chadwick, Bahr and Albrecht (1984: 178) explain (statistical) regression as the tendency for extreme behaviour to be replaced by less dramatic behaviour. When subjects start out with extreme scores on the dependent variable (i.e. extremely low) there is the inherent possibility that the scores of these subjects can only stay the same or increase. Babbie (1989: 223) warns that the danger in this is that changes occurring by virtue of subjects starting out in extreme positions will be attributed erroneously to the effects of the experimental stimulus.

Depending on the research setting the researcher can choose one of several quasi-experimental designs. Mason <u>et al</u> (1989: 129-137), Baker (1988: 223-225) and Howard (1985: 117-129) present six such designs, viz simulated before-after design, non-equivalent control group design, regression discontinuity experiments, time-series experiments, counterbalanced design and equivalent-time-samples design. In the simulated before-after design a group of subjects are identified, all of whom will be exposed to an intervention. The group is then randomly divided into two parts, of which one part will be

pretested, but not posttested. The other half will be posttested but not pretested (the experimental group). The advantage of this design is that the two groups are equivalent at the time of the pretest (Howard, 1985: 121). It is, however, open to the effects of history and maturation as described above. Non-equivalent control group designs are used where random assignment to groups is not feasible (Baker, 1988: 223). Both the experimental and the control group take a pretest as well as a posttest. In this design only the experimental group is exposed to the experimental variable and is then compared to a similar (not randomly selected) control group that was not exposed to the experimental variable. The design could be presented as follows (Mason <u>et al</u>, 1989: 129):

<b>O</b> (1) <b>)</b>	<b>( O</b> (2) →	(experimental group)
<b>O</b> (1)	<b>O</b> (2) →	(control group)

X = exposure to experimental variable (treatment)

The regression-discontinuity design is used in cases where it would not be practical to have another group exposed to the treatment or to serve as a control group. The design indicates differences that occur at the point of treatment which would differentiate post-treatment scores of those having been treated from those of the group not receiving the treatment. Cook & Campbell (1979: 137) mention that the design is especially appropriate "when people or groups are given rewards or those in special need are given extra help and one would like to discover the consequences of such provisions." Time-series designs (of which there are two types, viz interrupted and multiple time-series) generally use a large set of already collected data which indicate rates over standard intervals of time. Some other event (treated as the independent variable) is then superimposed on this time line data to determine whether there is a change at the point where the event occurred. The dependent variable is measured several times before and after the introduction of the independent variable. In a counterbalanced design, there are several different treatments and several respondents and each respondent is presented with each treatment condition in random order. The design could be explained by the matrix in Figure 8.1:

# University of Pretoria etd – Beukman, T L (2005)

$\begin{array}{ccc} 3 & 4 \\ X_3 O & X_2 O \\ X_4 O & X_1 O \end{array}$
$X_{1}O$ $X_{1}O$
4 -
$X_2O$ $X_4O$
$X_1 O \qquad X_3 O$

Figure 8.1: A counterbalanced quasi-experimantal design.

 $(X_3O)$  = treatment condition 3

 $(X_4 O)$  = treatment condition 4

(Source: Mason et al, 1989: 132)

The equivalent-time-series design involves an experimental setting where each subject serves repeatedly under the experimental and control conditions of an experiment. It could be presented as follows (Mason et al, 1989: 134):

 $X_1O \quad X_0O \quad X_1O \quad X_0O$ , etc

where,

 $X_1O$  represents the application of the experimental variable and  $X_0O$ represents the control condition or some alternate condition.

For a more effective version of the design the pattern of  $X_0O$  and  $X_1O$  may also be randomised instead of alternated.

The present study involves a single group of subjects that are measured on a number of dependent variables and may therefore be referred to as a oneshot case study (as described by Theron, 1992: 336). It could be represented by the following formula :

Х -----О

where X = exposure to the experimental variable, and O = observation of the group (measurement).

The survey research method (discussed below) will be used using an *ex post* facto design. In ex post facto design the occurrence of the event(s) under study has already taken place, i.e. the researcher enters the situation after the event (Mark, 1996: 166). Additional variables are introduced into the data analysis to determine their effect on the observed relationship between the independent and dependent variables under study. Evidence is gathered to support or reject a hypothesis. In this study only one measurement will be taken with the four scales described earlier to determine the interaction

between the independent and dependent variables. Although the independent variables have a controlling effect, there will be no control group in the research setting.

#### 8.2.3 SURVEY RESEARCH

Today, according to Babbie (1989: 236) survey research is probably the most frequently used mode of observation in the social sciences. It is, for example, the most common method reported in recent articles of the *American Sociological Review*. It could be regarded as the best method available to the scientist interested in collecting original data about a population too large to observe directly. Typically, the researcher selects a sample of respondents from a certain population and administers a standardised questionnaire(s) to them.

Baker (1988: 472) defines survey research as "a research method that analyses the responses of a defined sample to a set of questions measuring attitudes and behaviours ... a method of collecting data in which a specifically defined group of individuals are asked to answer a number of identical questions". Dane (1990: 338) defines survey research as "a method of obtaining information directly from a group of individuals", while Mason et al (1989:52) view it as "... a technique to study the distribution of characteristics in a population". Chadwick et al (1984: 442) see survey research as "a research technique that puts guestions to a sample of respondents by means of a questionnaire or an interview". Most of these definitions seem to emphasise the fact that data is collected from a portion (sample) of the population in order to obtain characteristic information about the population as a whole. The sample size, which in survey research is generally large, distinguishes it from other research strategies and methods. Babbie (1989: 338-253) discusses three different methods of survey research, viz selfadministered questionnaires, interview surveys and telephone surveys, and then notes that, if complete anonymity is offered, self-administered surveys are more appropriate in dealing with especially sensitive issues like controversial or deviant attitudes or behaviours. According to Theron (1992: 337) random assignment, manipulation of the independent variable and testing of the cause-effect hypothesis seldom form part of the survey research.

Apart from the fact that survey research may test specific hypotheses, it also has the aim of describing the characteristics of a select sample and evaluating the presence and effects of various factors (Baker, 1988: 16). The process starts with the selection of an appropriate and valid measurement. A valid measurement is regarded as a questionnaire with questions that measure the concept(s) that the researcher intends. This calls for questions to be worded carefully and unambiguously so that the gap between what the researcher

wants to measure and the actual results of the survey is as narrow as possible. Therefore, the designing of questions is a critical phase of the survey.

After selecting either the complete questionnaire or the appropriate items for inclusion in the questionnaire to measure those concepts the researcher wants to measure, the researcher has to decide on the modes of eliciting information from the respondents and the modes of returning information (Baker, 1988: 168). The primary modes of eliciting information that are both based on a fixed set of questions, are the completion of questionnaires and conducting face-to-face or telephone interviews. In this case a set of four scales (as discussed earlier) were selected for inclusion in the questionnaire. The next step was to select the respondents for participation (sampling). In selecting respondents for the survey, an important criterion is that the questions should apply to the population from which the respondents are selected. The population in this research consists of leaders at all levels of one of the arms of service of the SANDF. The sampling process will be discussed under section 8.4.

## 8.2.4 DESIGN AND CONSTRUCTION OF QUESTIONNAIRES

The survey researcher may make use of four different types of questions to be included in the questionnaire, each with a specific purpose. Baker (1988: 173-174) lists them as closed-ended questions, open-ended questions, contingency questions and matrix questions. Matrix questions give the respondent the opportunity to answer sets of questions with similar questions, for example the response categories of a Likert scale<sup>2</sup>. Typically the respondent is asked to either "Strongly Agree", "Agree", "Have no opinion", "Disagree", or "Stronly Disagree" with a set of similar questions or statements. He then selects one of these responses for each question. The Work Value Survey of Wollack <u>et al</u> (1971), the Value Survey Module of Hofstede (1980), the Internal Control Index (ICI) of Duttweiler (1984) and the Multifactor Leadership Questionnaire (MLQ) of Bass <u>et al</u> (1997) as they are used in this research, are all examples of Likert scales.

Open-ended questions allow for more detailed answers to questionnaire items. Baker (1988: 174) points out that most of the guidelines for constructing open-ended questions are focussed on ensuring that the respondent does not skip a question, especially due to the fact that forced choice questions and matrix questions are more likely to be completed by respondents than open-ended questions. He suggests that a specific number of lines be left available to ensure a more precise response. On the other hand, too many lines may

<sup>&</sup>lt;sup>2</sup> A type of composite measure developed by Rensis Likert in an attempt to improve the levels of measurement in social research through the use of standardised response categories in survey questionnaires (Babbie, 1989: G5).

cause the respondent to skip the item. Some other guidelines include putting interesting questions first (to encourage the respondents to complete the questionnaire) and putting sensitive questions near the end of the questionnaire. Questions should also be worded in such a way that respondents understand them. The disadvantage of written (open-ended) responses is that they require much more time and thought from the respondent to answer them. These questions are also much more difficult to code. In the present research only the five introductory (leadership-related) questions to the MLQ are in an open-ended format.

#### 8.2.5 INSTRUMENTS INCLUDED IN THE SURVEY QUESTIONNAIRE

At this point a brief reference to the questionnaires used is appropriate. The researcher, as was mentioned earlier, decided on using two work-related-value scales, one locus of control scale and one leadership questionnaire. Biographic information was obtained by means of a short separate questionnaire.

## 8.2.5.1 The Internal Control Index (ICI) of Duttweiler (1984)

The test items of the ICI are based on those variables that proved to have the most pertinent relation with internal locus of control, namely cognitive processing, autonomy, resistance to influencing, delaying of reward and self confidence. The 28 items of the ICI are assessed on a five-point scale. A reported reliability coefficient of 0.84 was obtained for the test (Duttweiler, 1984). De Kock (1995) reported a 0.767 reliability coefficient.

## 8.2.5.2 Evaluation of work-related values

As indicated in Chapter 3, a two-dimensional approach as well as a multidimensional approach will be followed in the analysis of work-related values. The Survey of Work Values of Wollack <u>et al</u> (1971) divides the Protestant Ethic in intrinsic and extrinsic aspects of work and will be used as a twodimensional instrument. The Value Survey Module of Hofstede (1980) provides a multi-dimensional approach to the analysis of work-related values and will be applied as the second instrument in the study. 8.2.5.2.1 The Survey of Work Values of Wollack <u>et al</u> (1971)

#### 8.2.5.2.1.1 Purpose of the scale

The Survey of Work Values is based on the Protestant Work Ethic and was constructed to measure a person's attitude towards work in general rather than his feelings about a specific job. It measures several areas of work-related values. Wollack <u>et al</u> (1971) view the concept of work-related values as the meaning an individual assigns to his work.

#### 8.2.5.2.1.2 Composition of the scale

Because the intrinsic aspects of work (i.e. work as rewarding in itself) form such an important part of the Protestant Ethic, Wollack <u>et al</u> (1971) selected three dimensions of the Protestant Ethic comprising the intrinsic aspects of work viz "pride in work", "job involvement" and "activity preference". The extrinsic aspects of work were also addressed by including the following sub-scales: "attitude towards earnings" and "social status on the job". Two further dimensions which were regarded to be of a mixed character were included, viz "upward striving" and "responsibility towards work". After determination of internal validity of the scale through a principal components analysis with quartimax rotation (see Chapter 7), the sub-scales were reduced to six, each with nine items ("responsibility towards work" was eliminated).

## 8.2.5.2.2 The Value Survey Module of Hofstede (1980)

In his research conducted on work-related values in 40 different international cultures, Hofstede (1980) found four dimensions of difference between national cultures viz. "power distance", "individualism vs collectivism", "uncertainty avoidance" and "masculinity vs femininity". These four value dimensions were empirically determined by means of a factor analysis of mean scores of respondent samples from different countries.

A questionnaire on work-values containing 120 questions was initially administered to a sample of employees in 40 countries (Hofstede, 1980: 68). A five-point Likert scale was used to evaluate responses. After analysing the data by means of analysis of variance and factor analysis, Hofstede further refined the instrument, which he then named the Value Survey Module. A discussion of validity and reliability of the Value Survey Module was provided in Chapter 7 and will therefore not be repeated here.

#### 8.2.5.3 Evaluation of leadership behaviour

8.2.5.3.1 The Multi-factor Leadership Questionnaire (MLQ) of Bass <u>et al</u> (1997)

The Multifactor Leadership Questionnaire (MLQ) consists of two different questionnaire forms, each consisting of 45 items: the Self-Rating Form, used by superiors/supervisors themselves as leaders and the Rater Form used by followers to rate their leaders. These followers can represent three different organisational levels, viz above their ratee, same level as ratee, or below their ratee. A computer generated report, the MLQ Report, provides information on how raters perceive the behaviours of their leaders along a full range of leadership styles (as discussed in Chapter 5).

#### 8.2.5.3.1.1 Advantages of using the MLQ

For Bass and Avolio (1997: 3) the MLQ represents an effort to capture a broader range of leadership behaviours, from Laissez Faire to idealised leadership, while also differentiating ineffective from effective leaders. These authors also provide a number of advantages for using the MLQ in evaluating leadership behaviour:

- The range of ineffective and effective leadership behaviours in the MLQ is typically much broader than other leadership surveys commonly in use.
- The MLQ is suitable for administration at all levels of organisations and across different types of production, service and military organisations.
- The MLQ has 360 degree capabilities and can be used to assess perceptions of leadership effectiveness of leaders from many different levels of an organisation.
- The MLQ emphasises development. It includes items that measure a leader's effect on both the personal and intellectual development of self and others.

• The MLQ is based on a model that is easy to understand.

## 8.2.5.3.1.2 Factor structure of the MLQ

The MLQ has undergone numerous revisions and is now available as an instrument containing 36 leadership items and nine leadership outcome items (Bass <u>et al</u>, 1997). In a convergent and discriminant validation study containing 3 570 cases, the choice of the 45 items in the MLQ as the best indicators of their constructs was confirmed by Avolio, Bass & Jung (1996).

## 8.2.6 ADMINISTERING THE QUESTIONNAIRE

The next step after questionnaire construction, is the administering of the questionnaire. The two main strategies for collecting data through self-administered questionnaires are explained by Chadwick <u>et al</u> (1984: 147). They may either be delivered to individual respondents and collected after a few days or they may be administered directly to groups. Chadwich <u>et al</u> (1984:147) mention that the latter is much more efficient. In this way the data collection is both easier and quicker. In addition, the researcher also has the opportunity to explain the purpose of the research, to highlight the instructions for completion and to immediately handle queries and uncertainties.

The questionnaires in this survey were not distributed into the research field. Instead, the questionnaires were administered to a group of randomly selected leaders at each SAAF unit. Each unit of the organisation (these units are spread throughout the country and consist of bases, squadrons and depots or servicing units) was visited, during which groups of between 40 and 70 respondents were gathered in a lecture room for voluntary completion of the questionnaires. Members not wanting to participate were allowed to withdraw. By using this approach the following were ensured:

- The attention of respondents could be specifically focussed on all important instructions.
- Any questions could be dealt with immediately.
- Questionnaires were received back immediately. A considerable amount of time could thus be saved. The problem regarding questionnaires not being received back was almost eliminated.

The survey was done anonymously and participants were requested not to indicate any names or personal force numbers on the answer sheets. To encourage honest participation, respondents had the opportunity to indicate an eight-digit "secret code" so as to allow for personal feedback to be given to anyone interested. On completion the respondents handed back the questionnaires to the researcher.

## 8.3 THE POPULATION

Babbie (1989: 169) defines the term population as "the theoretically specified aggregation of study elements". Because it is not possible to guarantee that every element meeting the theoretical definition of the population actually has a chance of being selected in the sample, he distinguishes the term "study population" from the term population. A study population is "that aggregation of elements from which the sample is actually selected" (Babbie, 1989: 170). De la Rey (1978: 16) offers a wider definition of a population: "all the species, persons, or objects being present at a certain place and time holding a specific characteristic". He emphasises that, in order to satisfy the demands of scientific verification, the researcher should demarcate and define the population as precisely as possible. The population to which the study is directed consists of all the so-called "uniformed" or military leaders of the SAAF. Leaders in this case are defined as all non-commissioned officers holding a rank of sergeant or higher, all warrant officers as well as all officers (excluding candidate officers) having followers reporting directly to them. The composition of the population in terms of members per rank group is reflected in Table 8.1. The organisation employs approximately 12 000 members throughout the country which include all Permanent Force, short term and civilian employees. As the civilian members will not be included in the study, the actual size of the organisation's military workforce is 9162. The survey population of military leaders, as per definition, totals 6781. This population consists of 1104 female members and 5677 male members. A large number of occupational musterings are involved.

Furthermore, a large variety of ethnic groups are represented within the organisation, although the largest percentage still constitutes white employees. The SAAF is a typical large public service organisation where the ages of employees vary between 17 and 60. Levels of seniority are determined through a fixed military rank structure (from airman to lieutenant general).

Table 6.1. <u>Composition of SAAF workforce per tark</u> .					
Rank	Female	Male	Total	Leader Total	
Lieutenant General	0	1	1	1	
Major General	0	7	7	7	
Brigadier General	2	33	35	35	
Colonel	11	164	175	175	
Lieutenant Colonel	53	374	427	427	
Major	78	308	386	386	
Captain	74	291	365	365	
Lieutenant	68	214	282	282	
2 <sup>nd</sup> Lieutenant	6	23	29	29	
Warrant Officer I	55	594	649	649	
Warrant Officer II	96	653	749	749	
Flight Sergeant	282	1223	1505	1505	
Sergeant	379	1792	2171	2171	
Corporal	158	1407	1565		
L Corporal	22	223	245		
Airman	93	471	564		
Pioneer	0	1	1		
Senior Pioneer	0	1	1		
Chief Pioneer	0	5	5		
Totals	1377	7785	9162	6781	

 Table 8.1:
 Composition of SAAF workforce per rank.

# 8.4 SAMPLING PROCEDURE

Baker (1988: 144) defines a sample as "a selected set of elements (or units) drawn from a larger whole of all the elements, the population". The researcher has a choice of many sampling methods and his most important concern is to ensure that the sample is representative of the wider population in terms of the variables studied. A representative sample can only be guaranteed by drawing a sample structurally and methodically, thus enabling the researcher to obtain reliable results (De la Rey, 1978: 16). If the researcher wishes to generalise the questionnaire responses to a wider population, he has to develop a probability sample. Baker (1988: 469) defines probability sampling as "a sample designed according to the rules of probability, which allows a determination of how likely the members of the sample are to be representative of the population from which they were drawn". Without a probability design findings cannot be generalised. In fact, a number of statistical tests assume that the data being used have been collected according to the rules of probability. Baker (1988: 155) warns that these tests will be meaningless if they are applied to findings from a nonprobability sample.

In this research a sample of 509 members were drawn from the population described in the previous section. It could be regarded as a stratified sample<sup>3</sup> where the different units of the organisation form the various strata. These strata are homogeneous with regard to variables like gender and age, but also rather heterogeneous with regard to the distribution of population groups. Due to the low percentage of blacks being employed in the organisation (and an even lower percentage of these members being in leadership positions) the researcher selected extra black members as far as possible in an attempt to increase the percentage of blacks in the sample. The reasons for the use of a stratified sampling method are as follows:

- Because the organisation's employees have a wide geographical distribution, the researcher was compelled to visit the various regions. It would have been impossible to take a representative sample at one central point.
- Visits to various units would enable personal contact with respondents.
- Certain groups of employees are represented stronger in some strata than others. There are for example, more coloureds located at the Cape units than at other units. For this reason the researcher ensured a "coloured-heavy" sample in the cape area and an "Indian-heavy" sample in the Durban area. Similarly, the researcher had to ensure the inclusion of as many as possible senior leaders (Colonel to Lieutenant General) from the Headquarters due to the non-availability of an adequate number of these members at the other bases. In this way it was ensured that the total sample is representative with regard to all biographical variables.

The only disadvantage of the chosen sample is that the number of respondents in a stratum is not exactly proportional to the total number of people in each stratum of the population. However, this will not have any negative effect on the study, as no statistical processing of data per stratum will be done. The sample of 509 members proves to be representative in terms of gender, age, educational level, seniority and population group (ethnicity).

<sup>&</sup>lt;sup>3</sup> A stratified sample is a type of random sample in which the researcher first identifies a set of mutually exclusive categories and then uses a random selection method to select cases (respondents) in each case (Theron, 1992).

#### 8.5 STATISTICAL METHODS IN DATA PROCESSING

#### 8.5.1 INTRODUCTION

As was indicated in chapter 2, the researcher wants to examine the nature of locus of control and work-related values, the intercorrelation between these two constructs and the effects thereof on the behaviour of transformational leaders. The researcher hopes to ascertain the existence of significant differences in terms of work-related values and leadership preferences amongst different population groups and also to ascertain the influence of the independent variables i.e. gender, age, religion, seniority and population group. The data collected as described earlier in this chapter, will be extensively analysed by statistical tools as described by Mark (1996), Tabachnick and Fidell (1983), Ferguson (1981), Rowntree (1981), Theron (1992), Huysamen (1991), Bohrnstedt et al (1988), and De la Rey (1978). The major tools of statistical data analyses will be descriptive statistics, analysis of variance, discriminant analysis, correlation statistics (i.e. Bravais-Pearson), and non-parametric statistics. Non-parametric statistics used, will include Spearman's rho, Kendall's Tau and Kriskal-Wallis one-way analysis of variance. Multiple regression will be used to determine how the first five leadership questions predict leadership behaviour.

## 8.5.2 DESCRIPTIVE STATISTICS

Descriptive statistics can be described as the statistics used to summarise data (Mason <u>et al</u>, 1989: 428). It provides a description of the features of a set of observations, viz percentage, modes, means, frequency distribution, kurtosis, skewness, variance, the standard error of the mean, and standard deviations (Bohrnstedt <u>et al</u>, 1988: 492). Descriptive statistics, according to Cooper and Schindler (1998:427), could be divided into measures of location, measures of spread, and cross tabulations. For nominal data, each category is represented by its own numerical code, while ordinal data are ordered in hierarchical form, varying from lowest to highest.

Bohrnstedt <u>et al</u> (1988: 491, 496) describe the normal distribution as the most important and most significant distribution. It is a smooth, bell-shaped theoretical probability distribution for continuous variables<sup>4</sup> that can be generated from a formula. Distribution is described by the characteristics of location, spread and shape. Cooper <u>et al</u> (1998: 427) list the following characteristics of descriptive statistics:

<sup>&</sup>lt;sup>4</sup> A variable that in theory can take on all possible numerical values in a given interval.

- The shape of a distribution is just as consequential as its location and spread.
- Visual representations are superior to numerical ones for discovering a distribution's shape.
- The choice of summary statistics to describe a single variable is contingent on the appropriateness of these statistics for the shape of the distribution.

# 8.5.2.1 Measures of central tendency

### 8.5.2.1.1 The Mean

Measures of central tendency include the mean, mode and the median. The mean is the most frequently used statistic for both interval and interval-ratio data (Cooper <u>et al</u>, 1998: 428) and is described as the arithmetic average, which is symbolised by  $\overline{X}$  (Bohrnstedt et al, 1988). In the case of the distribution containing extreme scores, the mean can be misleading. Cooper <u>et al</u> (1998) offer the following formula for calculating the mean:

$$\overline{\mathbf{X}} = \sum_{i=1}^{n} \frac{\mathbf{X}_{i}}{n}$$

#### 8.5.2.1.2 The Mode

The mode is a further measure of central tendency. It refers to the most frequently occurring value in situations where different values of X occur more than once. A modal value can therefore not be calculated when all values of X occur with equal frequency and where the frequency may be equal to or greater than one. The mode is a point as reference and, together with the mean and median, may be used for analysing spread and shape (Ferguson, 1981:56).

### 8.5.2.1.3 The Median

The median is the mid point of distribution and divides an ordered frequency distribution into two equal halves. One half of the distribution falls above and the other below the median (Bohrnstedt <u>et al</u>, 1988). Due to the fact that the median has resistance to extreme scores, it is a preferred measure of interval-ratio data. In cases where even numbers of observations occur in the distribution, the average of the two middle scores represents the median.

#### 8.5.2.2 Measures of variation

The measures of variation that are to be calculated are skewness, kurtosis, variance, the standard error of the mean and the standard deviation. Ferguson (1981: 40) refers to skewness as the dispersion of a distribution based on the observation that "when a distribution is symmetrical, the sum of the cubes of deviation above the mean will balance the sum of cubes below the mean". When a distribution is skewed to the right, the sum of cubes of deviations above the mean will be higher than the some of those below the mean and *vice versa*.

Kurtosis indicates a distribution's peakedness or flatness. In distributions with a peaked or leptokurtic shape, the scores cluster or pile up in the center. The scores of platikurtic (flat) distributions are evenly distributed. A normal kurtosis has a value of 0.263. The kurtosis value of a peaked (leptokurtic) distribution is greater than 0.263, while the kurtosis value of a flat distribution is less than 0.263. Cooper <u>et al</u> (1998:430) provide the formula for kurtosis as follows:

$$KU = \frac{M4}{M_2^2} - 3 = \frac{\sum x4/N}{\left(\sum x^2/N\right)^2} - 3$$

The variance is the average of the squared deviation scores from the distribution's mean, and is therefore a measure of score dispersion about the mean. In cases where all the scores are identical, the variance is 0. A greater variance is an indication of a greater dispersion of the scores. S<sup>2</sup> is used as the symbol for the sample variance and the Greek letter sigma ( $\sigma$ ) for the population variance. The formula for S<sup>2</sup> is:

$$S^{2} = \sum_{i=1}^{n} \frac{(X_{i} - \overline{X})^{2}}{n-1}$$
 (Cooper et al, 1998:429)

The variation ( $\sigma^2$ ) is always positive and is called the sum of squares ( $\sum x^2$ ).

#### 8.5.2.2.1 Standard deviation

The standard deviation is the square root of the variance. It is also used to describe a dispersion of a distribution. Du Toit's (1963:37) formula is as follows:

$$S = \sqrt{\frac{\sum x^2}{N-1}}$$

According to Theron (1992:370) the standard deviation is a measure of the average of the scores' deviations of the mean. In a normal distribution, two-thirds of the observations lie within one standard deviation of the mean.

### 8.5.2.2.2 The standard error of the mean

Theron (1992:370) describes the standard error of the mean as "the standard deviation of sample means in a sampling distribution". A greater variability among sample means indicates a greater chance of incorrect inferences about the population mean from a single sample mean. It provides the researcher with information about the amount of error that is likely to be made in the process of inferring the population mean from the sample mean (Shavelson, 1981:305).

### 8.5.2.3 Frequency tables

Howell (1999: 28) describes a frequency distribution as a distribution that plots the values of the dependent variable against their frequency of occurrence, i.e. the number of times each value of the variable is observed in the sample. Frequency tables, therefore, consist of information about the values of variables (Theron, 1992:371). In tables, percentages and cumulative percentages are used to describe the sample.

### 8.5.2.4 Cross-tabulation

Bohrnstedt <u>et al</u> (1988:101) describe a cross-tabulation as a "tabular display of the joint frequency distribution of two discrete variables which has r rows and c columns". It therefore indicates the joint outcome of two variables. Such a table can be used to determine whether two variables are in fact related as hypothesised.

# 8.5.3 CORRELATION STATISTICS

Bohrnstedt <u>et al</u> (1988: 491) define the correlation coefficient as "...a measure of association between two continuous variables that estimate the direction and strength of linear relationship". Known as the Bravais-Pearson product-moment correlation coefficient, it is symbolised by  $r_{xy}$ . The two variables should be measured on either an interval or a ratio scale. Due to the correlation coefficient also indicating the strength of a relationship, it varies over a range of +1 to -1. The sign signifies the direction of relationship (Cooper <u>et al</u>, 1998:517). A value of -1 represents a perfect inverse association, while a value of +1 refers to a perfect positive correlation. A zero indicates that there is no relationship at all. A stronger correlation therefore indicates that y is better predicted by x.

# 8.5.4 ANALYSIS OF VARIANCE

Ott <u>et al</u> (1990:695) define analysis of variance (ANOVA) as "a procedure for comparing more than two populations", while Bohrnstedt <u>et al</u> (1988:219) view ANOVA as a statistical method to test the hypothesis that "...the sample means of two or more groups come from the same rather than different populations". ANOVA could be seen as a method to determine whether or not differences between groups exist (Theron, 1992:343).

Theron (1992:343) notes that it is also possible to test the strength of association between independent and dependent variables, for which a variety of techniques are available. The essential question in ANOVA is how much of the total variance in the dependent variable can be explained by the independent variables and how much is left unexplained.

Bohrnstedt <u>et al</u> (1988:222) advance the following formula for the general ANOVA model with one independent variable (IV):

$$Y_{ij} = \mu + a_j + e_{ij}$$

where,

 $e_{ij}$  equals the difference between an observed score and the score predicted by the model (error term).

The formula indicates that the score observation (*i*), which is a member of group *j* (therefore  $Y_{ij}$ ), is a function of a group effect,  $(a_j)$ , plus the population mean (*y*) and random error  $(e_{ij})$ . The error term is needed to take into account that not all observations in the subgroup *j* has the same  $Y_{ij}$ .

One-way variance analysis allows the researcher to measure the effect of an independent variable (IV) on a dependent variable (DV) (Theron, 1992:345). In factorial ANOVA (another technique of variance analysis), two IV's are simultaneously investigated. This technique involves two bases of classification, which are called factors.

In a two-way factorial ANOVA, the sum of squares is divided into three parts, namely a "between-rows" sum of squares, a "between-columns" sum of squares, and an "interaction" sum of squares (Ferguson, 1981:253). The total sum of squares of all the observations about the grand mean is presented as follows:

$$\sum_{r=1}^{R} \sum_{c=1}^{C} \sum_{i=1}^{n} (X_{rci} - \overline{X}...)^{2}$$

ANOVA, being analogous to the levels test, the parallelism test and the flatness test, allows for analysis of variance to be used for conducting a profile analysis. Here, treatments correspond to rows and dependent variables to columns. (Harris, 1975:81).

# 8.5.5 DISCRIMINANT ANALYSIS

Cooper <u>et al</u> (1998:525) classify discriminant analysis as a dependency technique. It is used for the classification of people or objects into (two or more) groups in order to establish a procedure for the finding of the predictors that best classify subjects. Discriminant analysis can also be used to analyse known groups for determining the relative influence of certain factors.

Discriminant analysis can serve as a measure for doing profile analysis. Profile analysis is viewed as a generic term of all methods concerning groupings of persons" (Nunnally, 1967:372). He mentions two purposes of the analysis. Firstly, it distinguishes groups from one another on the basis of scores in a data matrix. Secondly, it is used to assign individuals to groups in terms of the profile score. In the present study group membership is known and the purpose of the discriminant analysis is to distinguish the various groups on the basis of scores in the data matrix.

Pretorius (2004:155) describes discriminant analysis as MANOVA turned around. Due to the fact that MANOVA can be used to determine whether group membership produces reliable differences on a combination of dependent variables, the discriminant procedure can be applied when using a combination of variables to predict group membership. In this procedure the IV's are predictors and the DV's are the groups (Tabachnick <u>et al</u>, 1989:506).

In the present study the discriminant function analysis is used for clustering profiles. This analysis is employed in cases where groups are defined *a priory*. Here the purpose is to distinguish the different groups from one another based on scores obtained in a series of tests (Nunnally, 1967:388). Theron (1992:355) warns that discriminant function analysis is sensitive to multivariable outliers<sup>5</sup>.

# 8.5.6 STUDENT'S T-TEST

The Students t-test is an inferential statistic used by the researcher to decide whether observed differences between two sample means arose by chance, or represents a true difference between populations, i.e. whether or not to reject the null hypothesis of no difference between the means of the two groups (Shavelson, 1981:419). As the decision cannot be made with complete certainty, the researcher has to determine the probability of observing the difference between the sample means of the two groups under the assumption that the null hypothesis is true. Bohrnstedt <u>et al</u> (1988:204-205) advance the formula for a test to determine the probability of observed sample means occurring in the population:

$$S^{2} = \frac{(N_{1} - 1)s_{1}^{2} + (N_{2} - 1)s_{2}^{2}}{N_{1} + N_{2} - 2}$$

where,

 $N_1 + N_2 - 2$  are the degrees of freedom which are associated with S<sup>2</sup>.

De la Rey (1978:71) lists certain assumptions, which have to be met prior to the t-test being used:

- The scores in the respective populations must show a normal distribution.
- The t-test, being based on sample means, requires the two samples to be big and of equal or almost equal size.
- The measurements must be on either interval or ratio level.
- The scores in the groups should be randomly sampled from their populations.

<sup>&</sup>lt;sup>5</sup> Outliers are defined as "cases with extreme values on a variable or combination of variables, which unduly influences the averages of scores and invalidates the generalisability of the solution to the population" (Theron, 1992:355).

### 8.5.7 NON-PARAMETRIC STATISTICS

The two non-parametric statistics that will be discussed here are the Kruskal-Wallis one-way analysis of variance (for three or more independent samples) and the Mann-Whitney U-test (for two independent samples). De Ia Rey (1978:113) states that one or more of certain assumptions needs to be met for the application of non-parametric statistics:

- the scores distribution has to be skewed;
- measurements must be on either nominal or ordinal level;
- the sample size must be small (N=≤30);
- it is a situation in which it is impossible to make certain assumptions in regard to the sample; and
- it is impossible to realise certain research aims due to appropriate parametric statistics not being available.

### 8.5.7.1 Mann-Whitney U-test

The Mann-Whitney U-test, a distribution-free non-parametric test, is used for comparing the central tendency of two independent samples. The test may also be applied to normally distributed populations. It serves as an alternative to the t-test, but without the t-test's limiting assumptions (Theron, 1992:366). The Mann-Whitney U-test is based on the ranking of scores. This ranking is a sophisticated mathematical operation, which can be performed on ordinal level data. Siegel (1956:120) presents the following formula to compute U:

$$U = N_1 N_2 + \frac{N_1 (N_1 + 1)}{2} - \sum R_1$$

where  $\sum R_1$  = the sum of the ranks for sample 1, whose size is N1.

When determining the value of U, the researcher has to conduct a test of significance. In doing so a z-score is obtained with the formula:

$$Z(obtained) = \frac{U - \mu_u}{\sigma_u}$$

where U = the sample statistic,

 $\mu_{u}$  = the mean of the sample distribution of sample Us; and

 $\sigma_u$  = the standard deviation of the sample distribution of sample Us (Siegel, 1956:121).

# 8.5.7.2 Kruskal-Wallis One-way analysis of variance for independent groups

The researcher applies the Kruskal-Wallis one-way analysis of variance to determine whether  $\kappa$  independent samples from different populations show a significant difference. Two independent samples are required (Theron, 1992:364). The decision is probabilistic due to the fact that the aim is to determine whether sample differences represent chance variations or indicate genuine population differences (Siegel 1956:184). The Kruskal-Wallis statistic is used to test the null hypothesis (H<sub>0</sub>) that  $\kappa$  comes from either the same population or from identical populations with respect to averages. It shows whether the sum of the ranks are sufficiently disparate so that the researcher can be sure that they are not likely to have been derived from samples from identical populations. Daniel (1978:201-202) offers a formula for calculating the Kruskal-Wallis statistic (H):

$$H = \frac{12}{N(N+1)} \qquad \sum_{j=1}^{k} \frac{1}{n_j} \qquad \left[ R_j - \frac{n_j(N+1)}{2} \right]^2$$

where R*j* is the sum of the ranks assigned to observations of the j<sup>th</sup> sample and  $n_i$  (N+1) / 2 is the expected sum of squares (Daniel, 1978:202).

### 8.5.8 NON-PARAMETRIC MEASURES OF ASSOCIATION

#### 8.5.8.1 Nominal measures

Nominal measures of association include  $x^2$  (chi-square), Cramer's V, Lambda ( $\lambda$ ), Goodman and Kruskal's tau, the uncertainty coefficient, and Kappa. Only the chi-square test will be used in this study; the rest will therefore not be discussed.

Bohrnstedt <u>et al</u> (1988:490) view the chi-square ( $x^2$ ) statistic as an appropriate test for assessing the statistical significance of crosstabulated variables. The test is based on a comparison between the (observed) cell frequencies of a crosstabulation with the frequencies that would be expected in the case where the hypothesis of no relationship was true. The values of the chi-square statistic are always positive (non-negative). This implies that the values may vary in value from zero to plus infinity ( $+\infty$ ) (Bohrnstedt <u>et al</u>, 1988:121).

#### 8.5.8.2 Ordinal measures

Non-parametric measures on ordinal level are Kendall's  $tau_{\beta}$  ( $t_{\beta}$ ) and Spearman's rho (*r*) as well as Somer's d. The Spearman's rho correlation is a popular ordinal measure while Kendall's  $tau_{\beta}$  is also one of the most widely used ordinal techniques.

When continuous variables have too many abnormalities, a correction is needed. In such a case the scores are usually reduced to ranks and then calculated with Spearman's rho. Two sets of rankings (on the same two variables) are compared by:

firstly taking the difference of ranks  $(D_i)$ ;

then squaring the difference in ranks  $(D_i^2)$ ; and

lastly, adding up the squared differences:

$$\sum_{i=1}^n D_i^2$$

This value is placed in the formula:

$$r_{s} = 1 - \frac{6\sum_{i=1}^{n} (D_{i}^{2})}{(N)(N^{2} - 1)}$$

(Bohrnstedt et al, 1988:326).

with  $r_s$  being the sample estimate of the population parameter,  $P_s$ .

### 8.5.9 MULTIPLE REGRESSION

In an attempt to improve on the simple linear-regression model, the accuracy of a prediction can be increased through incorporating additional information from several independent variables (Mason <u>et al</u>, 1989:182). This is referred to as multiple regression, and the simplest form is when the scores on two independent variables (X1 and X2) are used to predict the score on Y. The multiple regression coefficient indicates the strength of the association between a continuous dependent variable and an independent variable while

controlling the other independent variable in the equation (Bohrnstedt <u>et al</u>, 1988: 495-496).

Cooper <u>et al</u> (1998) state that multiple regression can be used as a descriptive tool in various types of situations:

- When developing a self-weighting estimating equation to predict values for a criterion variable (DV).
- It can be a descriptive application. This calls for controlling of confounding variables to better evaluate the contribution of other variables.
- It can also be used to test for and explain causal theories (referred to as path analysis). Here multiple regression is used to describe the linkages that have been advanced from a causal theory.

The regression coefficient may be stated either in raw score units or as a standardised coefficient (Cooper <u>et al</u>, 1998:563). In both these cases the coefficient value states the amount that Y varies for each unit change of the associated X variable, while the effects of all other X variables are being held constant (Cooper <u>et al</u>, 1998:563).

#### 8.6 CONCLUSION

In this chapter the research methodology and design was discussed. The research strategy was explained, after which the process of survey research was discussed in detail by referring to the objectives of the study. The population was demarcated and the procedures for administering the questionnaires and the collection of data were discussed. The last part of the chapter entailed a description of the statistical methods to be used, viz descriptive statistics, analysis of variance, discriminant analysis, correlation statistics, Student's T-test, non-parametric statistics, and multiple regression. A description of the sample characteristics will follow in Chapter 9.

# CHAPTER 9

### DESCRIPTION OF SAMPLE CHARACTERISTICS

#### 9.1 INTRODUCTION

This chapter presents a description of the sample of 509 respondents included in the research. Frequency tables will provide a description and summary of the dispersion of the respondents across the demographic variables, viz gender, age, home language, religion, educational qualifications, occupational level, population group and work experience. From these frequency tables and associated graphs the general characteristics of the sample will be evident.

# 9.2 DESCRIPTION OF THE SAMPLE BY MEANS OF FREQUENCY TABLES

The nature of descriptive statistics was described in Chapter 8. Frequency tables also form part of descriptive statistics. Ferguson (1981: 17) views frequency tables as a form of classification and description of numbers that contribute to the researcher's understanding and interpretation of the important features of the data obtained. Frequency distributions could be regarded as tables summarising the distribution of a variable by presenting "the number of cases contained in each category" (Healy, 1990:24). According to Howell (1995: 28) a frequency distribution could be described as "a distribution in which the values of the dependent variable are tabled or plotted against their frequency of occurrence". It is therefore used to describe a set of values on a single variable. Although a good frequency distribution will show a fairly even spread of scores across all groups (Mark, 1996: 306), this might not always be possible, i.e. when there is an uneven distribution of groups in the population from which the sample was taken.

Cumulative percentages will also be included in the frequency tables presented for the demographical variables. These percentages are obtained by successively adding the individual percentages. The primary purpose of the cumulative percentage column in a frequency table is to ascertain the percentage of values falling below (or above) a given score or class interval in the distribution (Theron, 1992: 374). It gives an indication of what percentage of values is "greater than" or "lesser than" a specified value.

In the remainder of this chapter Frequency Tables 9.1 to 9.9 will present the description of the 509 respondents across the demographic variables. In each table the values are indicated against the frequency of occurrence.

Histograms will be used to display the frequency distribution graphically. Table 9.1 and Figure 9.1 present the distribution of subjects across gender.

	Frequency	Percent	Cumulative Percentage
Male	438	86.1	86.1
Female	71	13.9	100.0
TOTAL	509	100.0	

Table 9.1: Frequency distribution: Gender.

As is evident from Table 9.1 the male respondents are by far in the majority. However, this distribution is representative of the male/female ratio in the total SAAF population, which is 85:15. Table 9.2 presents the distribution of respondents across age groups.

	Frequency	Percent	Cumulative Percentage
20-24	48	9.4	9.4
25-34	239	47.0	56.4
35-44	161	31.6	88.0
45-54	51	10.0	98.0
55-64	10	2.0	100.0
TOTAL	509	100.0	

Table 9.2: Frequency distribution: Age.

According to Table 9.2, respondents were quite evenly spread across the age groups, but with only 2.0% falling in the 55-64 years age category. For the purpose of statistical analysis a recoding of the age groups was done, through which the age groups 55 to 64 and 45 to 54 were combined to form the age group "45 and older".

Table 9.3 presents the distribution of respondents across home language.

	Frequency	Percent	Cumulative Percentage
N-Sotho	15	2.9	2.9
Zulu	9	1.8	4.7
Xhosa	17	3.3	8.1
S-Sotho	9	1.8	9.8
Afrikaans	352	69.2	79.0
Tswana	12	2.4	81.3
Tsonga	1	.2	81.5
English	78	15.3	96.9
Swati	2	.4	97.2
Venda	8	1.6	98.8
Ndebele	5	1.0	99.8
Other	1	.2	100.0
TOTAL	509	100.0	

 Table 9.3: Frequency distribution: Home language.

The high percentage of whites included in the sample also resulted in a low percentage of black indigenous languages in the sample. The SANDF (and SAAF) workforce has for many years been characterised by a high percentage of white Afrikaans and English speaking members. Although the transformation process was focussed on addressing these imbalances, the workforce is still predominantly Afrikaans and English speaking. Table 9.3 indicates that, from the black languages, Xhosa and North-Sotho are best represented. Also, as regards home language, a recoding was done for the purpose of statistical analysis. All the indigenous languages were clustered together.

In Table 9.4 the distribution of respondents across religion is presented.

	Frequency	Percent	Cumulative
			Percentage
Anglican	21	4.1	4.1
Dutch Ref(NG)	209	41.1	45.2
Metodist	34	6.7	51.9
Presbeterian	11	2.2	54.0
Pentacostal	25	4.9	58.9
Catholic	31	6.1	65.0
Reformed	18	3.5	68.6
Apostolic	51	10.0	78.6
Lutherian	5	1.0	79.6
Zionist	7	1.4	80.9
Misionary	2	.4	81.3
Independant	6	1.2	82.5
Islamitic	4	.8	83.3
Hindu	10	2.0	85.3
N H (Ned Herf)	19	3.7	89.0
Other	56	11.0	100.0
TOTAL	509	100.0	

Table 9.4: Frequency distribution: Religion.

Religion is also highly related to population group and home language. This explains the high occurrence of the members of the three Afrikaans sister churches, viz Dutch Reformed, Reformed and NH (N=246). More respondents belong to the Apostolic faith (N=51) than to the other religions (excluding Dutch Reformed). Taken into consideration the uneven spread of respondents across the different religious categories, a recoding was done for the purpose of statistical analysis.

Table 9.5 presents the distribution of subjects across the categories of the variable educational qualification.

	Frequency	Percent	Cumulative Percentage
Std 6 (Gr 8)	2	.4	.4
Std 8 (Gr 10)	45	8.8	9.2
Std 10 (Gr 12)	325	63.9	73.1
Diploma	93	18.3	91.4
B.Degree or Higher Diploma	31	6.1	97.4
Hons Degree	10	2.0	99.4
Masters Degree	3	.6	100.0
TOTAL	509	100.0	

Table 9.5: Frequency distribution: Educational qualification.

According to Table 9.5, 63.9% of respondents have matric, while only 8.7 % have university training. Only 13 of the 509 respondents (2.6%) have post-graduate qualifications. For purposes of statistical analysis, all graduate members were recoded to form a single group.

Frequency Table 9.6 presents the distribution of subjects across occupational level (military rank).

	Frequency	Percent	Cumulative Percentage
Amn to Sgt	134	26.3	26.3
F/Sgt to WO I	230	45.2	71.5
Lt to Capt	74	14.5	86.1
Maj to Lt Col	49	9.6	95.7
Col to Lt Gen	22	4.3	100.0
TOTAL	509	100.0	

Table 9.6: Frequency distribution: Occupational level.

In the SANDF occupational level is indicated by a formal military rank system. It is evident from Table 9.6 that the distribution of respondents according to rank is skewed towards the lower ranks. The sample consists of 28.5% officers and 71.5% non-commissioned ranks. This ratio is equivalent to the rank distribution in the total population. Top management is represented by 22 respondents.

Due to the fact that the researcher wants to compare managerial levels with each other in terms of the dependent variables (especially leadership behaviour), a recoding of the categories was not considered.

A presentation of the distribution of subjects according to population group is provided in Table 9.7.

	Frequency	Percent	Cumulative Percentage
Asian	16	3.1	3.1
White	367	72.1	75.2
African	79	15.5	90.8
Coloured	47	9.2	100.0
TOTAL	509	100.0	

Table 9.7: Frequency distribution: Population Group.

Whites form almost 65 % of the total SAAF population, while blacks represent 20% of the population. The inclusion of 15.5% black respondents and 72.1 % white respondents in the sample is therefore almost proportional to the occurrence of these groups in the population as a whole. Table 9.7 indicates that only 16 respondents (3.1%) are Asian and 47 (9.2%) are coloured. The coloured respondents form a representative sample of the total of 11.5% coloureds in the total SAAF population.

The sample of black respondents were further broken down into nine ethnic groups, as presented in Table 9.8. Due to the low frequencies of all these groups, this breakdown will not be used for the purpose of statistical analysis.

	Frequency	Percent	Cumulative Percentage
Zulu	8	10.1	10.1
Transvaal-Ndebele	7	8.9	19.0
Venda	8	10.1	29.1
Xhosa	17	21.5	50.6
Shangaan-Tsonga	1	1.3	51.9
Swazi	2	2.5	54.4
Tswana	12	15.2	69.6
S-Sotho	9	11.4	81.0
N-Sotho	15	19.0	100.0
TOTAL	79	100.0	

Table 9.8: Frequency distribution: Ethnic group.

Table 9.9 presents the distribution of objects across work experience.

	Frequency	Percent	Cumulative Percentage
0-5 Years	47	9.2	9.2
6-10 Years	132	25.9	35.2
11-15 Years	126	24.8	59.9
16-20 Years	84	16.5	76.4
21-30 Years	91	17.9	94.3
More than 30 Years	29	5.7	100.0
TOTAL	509	100.0	

Table 9.9: Frequency distribution: Work experience.

As is indicated by Table 9.9 the respondents with less than 15 years work experience comprise 59.9% of the sample. Due to the low frequency of members having more than 30 years work experience (5.7%) a recoding for the purpose of statistical analysis was done so that the last two groups are coded together, i.e. members with more than 20 years work experience equal 120 or 23.6%.

#### 9.3 SUMMARY

In this chapter a description of the sample of 509 respondents was presented. When analysing the frequency distributions, it is clear that in terms of some of the variables, viz gender, home language, population group and educational qualification, the distribution is significantly skewed towards white Afrikaans male members with an educational level of matric and lower. However, with regards to all of these variables, the distribution of respondents is equivalent to the variable distribution found in the total population.

### CHAPTER 10

#### PRESENTATION OF RESULTS

#### 10.1 INTRODUCTION

The results of the statistical analysis of data are presented in this chapter. Correlational statistics will be used to ascertain the relationship, if any, between the dimensions of the Survey of Work Values (Wollack <u>et al</u>, 1971), the Internal Control Index (Duttweiler, 1984), the Value Survey Module (Hofstede, 1980), and the Multifactor Leadership Questionnaire (Bass <u>et al</u>, 1997). Inferential statistics, including Student's T-test and one-way analysis of variance will be employed to determine differences, if any, between the differential levels of the main independent variables. The non-parametric tests Mann-Whitney U and Kruskal Wallis one way analysis of variance were also applied in cases where the distribution was clearly not normal. The main independent variables, viz gender, age, home language, religion, educational qualifications, occupational level (rank), population group, and work experience as well as, where applicable, their two-way and/or multiple interactions are also compared and investigated by means of multiple analysis of variance in combination with Scheffé tests.

#### 10.2 STATISTICS OF ASSOCIATION

Methods of correlation are also referred to as statistics of association. Bohrnstedt <u>et al</u> (1988: 491) define the correlation coefficient as " a measure of association between two continuous variables that estimates the direction and strength of linear relationship". The definition of Ott <u>et al</u> (1990: 696) is similar: a "measure of linear dependence between two random variables". The Bravais-Pearson product-moment correlation coefficient, which is the most commonly used method of correlation, is symbolised by  $r_{xy}$  in a sample. This correlation was calculated to investigate the association between the six dimensions of the Survey of Work Values of Wollack <u>et al</u> (1971), the Internal Control Index of Duttweiler (1984), the four dimensions of Hofstede's (1980) Value Survey Module, and the eight leadership dimensions and three leadership outcomes of the Multifactor Leadership Questionnaire (Bass <u>et al</u>, 1997). The results are presented in Table 10.1.

# University of Pretoria etd – Beukman, T L (2005)

	dimensions.					
		Proud	Involve	Activity	Earnings	Social
Proud	Pearson Correlation	1	.435*	.511*	056	162*
	Sig. (2-tailed)		.000	.000	.206	.000
	N	509	509	509	509	509
Involve	Pearson Correlation	.435*	1	.443*	148*	072
	Sig. (2-tailed)	.000		.000	.001	.107
	N	509	509	509	509	509
Activity	Pearson Correlation	.511*	.443*	1	166*	173*
	Sig. (2-tailed)	.000	.000		.000	.000
	N	509	509	509	509	509
Earnings	Pearson Correlation	056	148*	166*	1	.265*
	Sig. (2-tailed)	.206	.001	.000		.000
	N	509	509	509	509	509
Social	Pearson Correlation	162*	072	173*	.265*	1
	Sig. (2-tailed)	.000	.107	.000	.000	
	N	509	509	509	509	509
Progress	Pearson Correlation	.254*	.217*	.250*	.115*	016
	Sig. (2-tailed)	.000	.000	.000	.010	.715
	N	509	509	509	509	509
ICI	Pearson Correlation	.421*	.410*	.441*	111*	252*
	Sig. (2-tailed)	.000	.000	.000	.012	.000
	Ν	509	509	509	509	509
PD	Pearson Correlation	.029	.018	.106*	058	004
	Sig. (2-tailed)	.520	.681	.018	.193	.923
	Ν	506	506	506	506	506
UA	Pearson Correlation	.104*	.082	.072	141*	.000
	Sig. (2-tailed)	.019	.066	.107	.001	.991
	N	509	509	509	509	509
Indiv	Pearson Correlation	326*	261*	262*	.100*	.207*
	Sig. (2-tailed)	.000	.000	.000	.024	.000
	N	509	509	509	509	509
Masc	Pearson Correlation	320*	224*	260*	025	.157*
	Sig. (2-tailed)	.000	.000	.000	.580	.000
	N	509	509	509	509	509
InfluenceA	Pearson Correlation	.208*	.323*	.194*	018	036
	Sig. (2-tailed)	.000	.000	.000	.680	.413
	Ν	509	509	509	509	509
InfluenceB	Pearson Correlation	.183*	.369*	.211*	072	028
	Sig. (2-tailed)	.000	.000	.000	.107	.524
	N	509	509	509	509	509

 Table 10.1:
 Bravais-Pearson correlation coefficients: The twenty three dimensions.

	(Continued)					
Motivation	Pearson Correlation	.153*	.311*	.195*	062	022
	Sig. (2-tailed)	.001	.000	.000	.166	.622
	Ν	509	509	509	509	509
Stimulation	Pearson Correlation	.201*	.264*	.204*	101*	086
	Sig. (2-tailed)	.000	.000	.000	.022	.052
	Ν	509	509	509	509	509
Consider	Pearson Correlation	.265*	.269*	.228*	082	094*
	Sig. (2-tailed)	.000	.000	.000	.066	.034
	Ν	509	509	509	509	509
Constructiv	Pearson Correlation	.189*	.293*	.197*	.000	012
е	Sig. (2-tailed)	.000	.000	.000	.992	.781
	N	509	509	509	509	509
Active	Pearson Correlation	.083	.154*	.081	.094*	.078
	Sig. (2-tailed)	.062	.000	.067	.033	.081
	Ν	509	509	509	509	509
Passive	Pearson Correlation	098*	166*	131*	.095*	.109*
	Sig. (2-tailed)	.027	.000	.003	.031	.013
	Ν	509	509	509	509	509
Laissez	Pearson Correlation	211*	298*	243*	.009	.085
	Sig. (2-tailed)	.000	.000	.000	.832	.055
	Ν	509	509	509	509	509
Effort	Pearson Correlation	.162*	.194*	.161*	004	.054
	Sig. (2-tailed)	.000	.000	.000	.926	.228
	Ν	509	509	509	509	509
Effective	Pearson Correlation	.126*	.188*	.142*	031	010
	Sig. (2-tailed)	.004	.000	.001	.485	.827
	Ν	509	509	509	509	509
Satisfaction	Pearson Correlation	.182*	.227*	.215*	046	.002
	Sig. (2-tailed)	.000	.000	.000	.302	.959
	Ν	509	509	509	509	509

Table 10.1: (Continued)

		Progres s	ICI	PD	UA	Indiv
Proud	Pearson Correlation	.254*	.421*	.029	.104*	326*
	Sig. (2-tailed)	.000	.000	.520	.019	.000
	N	509	509	506	509	509
Involve	Pearson Correlation	.217*	.410*	.018	.082	261*
	Sig. (2-tailed)	.000	.000	.681	.066	.000
	Ν	509	509	506	509	509
Activity	Pearson Correlation	.250*	.441*	.106*	.072	262*
	Sig. (2-tailed)	.000	.000	.018	.107	.000
	N	509	509	506	509	509
Earnings	Pearson Correlation	.115*	111*	058	141*	.100*
	Sig. (2-tailed)	.010	.012	.193	.001	.024
	Ν	509	509	506	509	509
Social	Pearson Correlation	016	252*	004	.000	.207*
	Sig. (2-tailed)	.715	.000	.923	.991	.000
	Ν	509	509	506	509	509
Progress	Pearson Correlation	1	.291*	.022	.015	173*
	Sig. (2-tailed)		.000	.628	.741	.000
	Ν	509	509	506	509	509
ICI	Pearson Correlation	.291*	1	.054	.052	370*
	Sig. (2-tailed)	.000		.223	.244	.000
	Ν	509	509	506	509	509
PD	Pearson Correlation	.022	.054	1	.146*	014
	Sig. (2-tailed)	.628	.223		.001	.755
	Ν	506	506	506	506	506
UA	Pearson Correlation	.015	.052	.146*	1	053
	Sig. (2-tailed)	.741	.244	.001		.231
	Ν	509	509	506	509	509
Indiv	Pearson Correlation	173*	370*	014	053	1
	Sig. (2-tailed)	.000	.000	.755	.231	
	Ν	509	509	506	509	509
Masc	Pearson Correlation	242*	320*	028	013	.764*
	Sig. (2-tailed)	.000	.000	.529	.778	.000
	Ν	509	509	506	509	509
InfluenceA	Pearson Correlation	.185*	.346*	.057	.044	207*
	Sig. (2-tailed)	.000	.000	.201	.323	.000
	Ν	509	509	506	509	509
InfluenceB	Pearson Correlation	.126*	.324*	.082	.013	220*
	Sig. (2-tailed)	.005	.000	.064	.772	.000
	N	509	509	506	509	509

Motivation	Pearson Correlation	.191*	.245*	.052	.041	182*
	Sig. (2-tailed)	.000	.000	.243	.354	.000
	N	509	509	506	509	509
Stimulation	Pearson Correlation	.189*	.327*	.063	.064	273*
	Sig. (2-tailed)	.000	.000	.157	.152	.000
	N	509	509	506	509	509
Consider	Pearson Correlation	.126*	.359*	.064	.039	236*
	Sig. (2-tailed)	.005	.000	.151	.379	.000
	N	509	509	506	509	509
Constructiv	Pearson Correlation	.172*	.271*	.072	012	203*
е	Sig. (2-tailed)	.000	.000	.107	.788	.000
	Ν	509	509	506	509	509
Active	Pearson Correlation	.041	.082	103*	147*	011
	Sig. (2-tailed)	.351	.066	.021	.001	.797
	N	509	509	506	509	509
Passive	Pearson Correlation	090*	307*	044	032	.128*
	Sig. (2-tailed)	.042	.000	.323	.470	.004
	N	509	509	506	509	509
Laissez	Pearson Correlation	175*	392*	027	090*	.193*
	Sig. (2-tailed)	.000	.000	.539	.043	.000
	N	509	509	506	509	509
Effort	Pearson Correlation	.154*	.260*	.029	.035	145*
	Sig. (2-tailed)	.000	.000	.509	.437	.001
	N	509	509	506	509	509
Effective	Pearson Correlation	.160*	.344*	.055	.004	106*
	Sig. (2-tailed)	.000	.000	.218	.920	.016
	N	509	509	506	509	509
Satisfaction	Pearson Correlation	.173*	.304*	.054	.056	136*
	Sig. (2-tailed)	.000	.000	.227	.204	.002
	Ν	509	509	506	509	509

Table 10.1: (Continued)

	(continued)					
		Masc	Influe A	Influe B	Motiv	Stim
Proud	Pearson Correlation	320*	.208*	.183*	.153*	.201*
	Sig. (2-tailed)	.000	.000	.000	.001	.000
	Ν	509	509	509	509	509
Involve	Pearson Correlation	224*	.323*	.369*	.311*	.264*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Activity	Pearson Correlation	260*	.194*	.211*	.195*	.204*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Earnings	Pearson Correlation	025	018	072	062	101*
	Sig. (2-tailed)	.580	.680	.107	.166	.022
	Ν	509	509	509	509	509
Social	Pearson Correlation	.157*	036	028	022	086
	Sig. (2-tailed)	.000	.413	.524	.622	.052
	Ν	509	509	509	509	509
Progress	Pearson Correlation	242*	.185*	.126*	.191*	.189*
	Sig. (2-tailed)	.000	.000	.005	.000	.000
	N	509	509	509	509	509
ICI	Pearson Correlation	320*	.346*	.324*	.245*	.327*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
PD	Pearson Correlation	028	.057	.082	.052	.063
	Sig. (2-tailed)	.529	.201	.064	.243	.157
	N	506	506	506	506	506
UA	Pearson Correlation	013	.044	.013	.041	.064
	Sig. (2-tailed)	.778	.323	.772	.354	.152
	N	509	509	509	509	509
Indiv	Pearson Correlation	.764*	207*	220*	182*	273*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Masc	Pearson Correlation	1	191*	192*	200*	229*
	Sig. (2-tailed)		.000	.000	.000	.000
	N	509	509	509	509	509
InfluenceA	Pearson Correlation	191*	1	.617*	.580*	.525*
	Sig. (2-tailed)	.000		.000	.000	.000
	N	509	509	509	509	509
InfluenceB	Pearson Correlation	192*	.617*	1	.590*	.585*
	Sig. (2-tailed)	.000	.000		.000	.000
	N	509	509	509	509	509

Table 10.1: (Continued)

	1 /					
Motivation	Pearson Correlation	200*	.580*	.590*	1	.519*
	Sig. (2-tailed)	.000	.000	.000		.000
	Ν	509	509	509	509	509
Stimulation	Pearson Correlation	229*	.525*	.585*	.519*	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	509	509	509	509	509
Consider	Pearson Correlation	224*	.577*	.575*	.456*	.576*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Constructiv	Pearson Correlation	236*	.543*	.554*	.530*	.491*
е	Sig. (2-tailed)	.000	.000	.000	.000	.000
	Ν	509	509	509	509	509
Active	Pearson Correlation	072	.307*	.301*	.279*	.220*
	Sig. (2-tailed)	.107	.000	.000	.000	.000
	N	509	509	509	509	509
Passive	Pearson Correlation	.134*	138*	159*	163*	233*
	Sig. (2-tailed)	.002	.002	.000	.000	.000
	Ν	509	509	509	509	509
Laissez	Pearson Correlation	.236*	264*	233*	235*	250*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Effort	Pearson Correlation	188*	.574*	.501*	.527*	.536*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Effective	Pearson Correlation	171*	.505*	.529*	.520*	.507*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Satisfaction	Pearson Correlation	182*	.519*	.464*	.494*	.449*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	Ν	509	509	509	509	509

Table 10.1: (Continued)

	(Continued)					
		Consid	Constr	Active	Deceive	Laissez
Droud	Boomon Correlation	Consid	Constr	Active	Passive 098*	
Proud	Pearson Correlation	.265*	.189*	.083		211*
	Sig. (2-tailed)	.000	.000	.062	.027	.000
	N	509	509	509	509	509
Involve	Pearson Correlation	.269*	.293*	.154*	166*	298*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Activity	Pearson Correlation	.228*	.197*	.081	131*	243*
	Sig. (2-tailed)	.000	.000	.067	.003	.000
	N	509	509	509	509	509
Earnings	Pearson Correlation	082	.000	.094*	.095*	.009
	Sig. (2-tailed)	.066	.992	.033	.031	.832
	N	509	509	509	509	509
Social	Pearson Correlation	094*	012	.078	.109*	.085
	Sig. (2-tailed)	.034	.781	.081	.013	.055
	N	509	509	509	509	509
Progress	Pearson Correlation	.126*	.172*	.041	090*	175*
	Sig. (2-tailed)	.005	.000	.351	.042	.000
	N	509	509	509	509	509
ICI	Pearson Correlation	.359*	.271*	.082	307*	392*
	Sig. (2-tailed)	.000	.000	.066	.000	.000
	Ν	509	509	509	509	509
PD	Pearson Correlation	.064	.072	103*	044	027
	Sig. (2-tailed)	.151	.107	.021	.323	.539
	Ν	506	506	506	506	506
UA	Pearson Correlation	.039	012	147*	032	090*
	Sig. (2-tailed)	.379	.788	.001	.470	.043
	N	509	509	509	509	509
Indiv	Pearson Correlation	236*	203*	011	.128*	.193*
	Sig. (2-tailed)	.000	.000	.797	.004	.000
	N	509	509	509	509	509
Masc	Pearson Correlation	224*	236*	072	.134*	.236*
	Sig. (2-tailed)	.000	.000	.107	.002	.000
	N	509	509	509	509	509
InfluenceA	Pearson Correlation	.577*	.543*	.307*	138*	264*
	Sig. (2-tailed)	.000	.000	.000	.002	.000
	N	509	509	509	509	509
InfluenceB	Pearson Correlation	.575*	.554*	.301*	159*	233*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
		.000	.000	.000		

# Table 10.1: (Continued)

# University of Pretoria etd – Beukman, T L (2005)

N	509	509	509	509	509

Table 10.1: (Continued)

	· · · ·					
Motivation	Pearson Correlation	.456*	.530*	.279*	163*	235*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	Ν	509	509	509	509	509
Stimulation	Pearson Correlation	.576*	.491*	.220*	233*	250*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	Ν	509	509	509	509	509
Consider	Pearson Correlation	1	.502*	.178*	218*	279*
	Sig. (2-tailed)		.000	.000	.000	.000
	Ν	509	509	509	509	509
Constructiv	Pearson Correlation	.502*	1	.329*	157*	241*
е	Sig. (2-tailed)	.000		.000	.000	.000
	Ν	509	509	509	509	509
Active	Pearson Correlation	.178*	.329*	1	.055	.004
	Sig. (2-tailed)	.000	.000		.218	.924
	N	509	509	509	509	509
Passive	Pearson Correlation	218*	157*	.055	1	.498*
	Sig. (2-tailed)	.000	.000	.218		.000
	N	509	509	509	509	509
Laissez	Pearson Correlation	279*	241*	.004	.498*	1
	Sig. (2-tailed)	.000	.000	.924	.000	
	N	509	509	509	509	509
Effort	Pearson Correlation	.580*	.535*	.219*	236*	297*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Effective	Pearson Correlation	.540*	.526*	.234*	249*	309*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	509	509	509	509	509
Satisfaction	Pearson Correlation	.525*	.508*	.219*	167*	303*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	Ν	509	509	509	509	509

1				
		Effort	Effect	Satisf
Proud	Pearson Correlation	.162*	.126*	.182*
	Sig. (2-tailed)	.000	.004	.000
	N	509	509	509
Involve	Pearson Correlation	.194*	.188*	.227*
	Sig. (2-tailed)	.000	.000	.000
	N	509	509	509
Activity	Pearson Correlation	.161*	.142*	.215*
	Sig. (2-tailed)	.000	.001	.000
	Ν	509	509	509
Earnings	Pearson Correlation	004	031	046
	Sig. (2-tailed)	.926	.485	.302
	Ν	509	509	509
Social	Pearson Correlation	.054	010	.002
	Sig. (2-tailed)	.228	.827	.959
	Ν	509	509	509
Progress	Pearson Correlation	.154*	.160*	.173*
	Sig. (2-tailed)	.000	.000	.000
	N	509	509	509
ICI	Pearson Correlation	.260*	.344*	.304*
	Sig. (2-tailed)	.000	.000	.000
	N	509	509	509
PD	Pearson Correlation	.029	.055	.054
	Sig. (2-tailed)	.509	.218	.227
	Ν	506	506	506
UA	Pearson Correlation	.035	.004	.056
	Sig. (2-tailed)	.437	.920	.204
	Ν	509	509	509
Indiv	Pearson Correlation	145*	106*	136*
	Sig. (2-tailed)	.001	.016	.002
	Ν	509	509	509
Masc	Pearson Correlation	188*	171*	182*
	Sig. (2-tailed)	.000	.000	.000
	Ν	509	509	509
InfluenceA	Pearson Correlation	.574*	.505*	.519*
	Sig. (2-tailed)	.000	.000	.000
	Ν	509	509	509
InfluenceB	Pearson Correlation	.501*	.529*	.464*

# Table 10.1: (Continued)

# University of Pretoria etd – Beukman, T L (2005)

 	1		II
Sig. (2-tailed)	.000	.000	.000
N	509	509	509

Table 10.1:	(Continued)
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Motivation	Pearson Correlation	.527*	.520*	.494*
	Sig. (2-tailed)	.000	.000	.000
	Ν	509	509	509
Stimulation	Pearson Correlation	.536*	.507*	.449*
	Sig. (2-tailed)	.000	.000	.000
	Ν	509	509	509
Consider	Pearson Correlation	.580*	.540*	.525*
	Sig. (2-tailed)	.000	.000	.000
	Ν	509	509	509
Constructiv	Pearson Correlation	.535*	.526*	.508*
е	Sig. (2-tailed)	.000	.000	.000
	N	509	509	509
Active	Pearson Correlation	.219*	.234*	.219*
	Sig. (2-tailed)	.000	.000	.000
	N	509	509	509
Passive	Pearson Correlation	236*	249*	167*
	Sig. (2-tailed)	.000	.000	.000
	N	509	509	509
Laissez	Pearson Correlation	297*	309*	303*
	Sig. (2-tailed)	.000	.000	.000
	Ν	509	509	509
Effort	Pearson Correlation	1	.619*	.606*
	Sig. (2-tailed)		.000	.000
	Ν	509	509	509
Effective	Pearson Correlation	.619*	1	.664*
	Sig. (2-tailed)	.000		.000
	N	509	509	509
Satisfaction	Pearson Correlation	.606*	.664*	1
	Sig. (2-tailed)	.000	.000	
	Ν	509	509	509
* p ≤ 0.05				

Table 10.1 shows low but significant positive as well as negative correlations between all the dimensions in general. The dimension Power Distance (*PD*) of the Value Survey Module (Hofstede, 1980) has low but significant correlations with Activity (Activity Preference) of the Survey of Work Values (Wollack <u>et al</u>,

1971). With regards to the association between the four dimensions of the Value Survey Module, viz Power Distance, Uncertainty Avoidance (UA), Individualism (Indiv) and Masculinity (Masc), Power Distance has a very low but significant correlation (r = 0.146; p=0.00; p  $\leq$  0.05), with Uncertainty Avoidance. Uncertainty Avoidance has no significant relationship ( $\geq 0.05$ ) with any of the other three dimensions. Individualism and Masculinity have a high positive (0.764) and significant correlation (p = 0.000;  $p \le 0.05$ ). Masculinity has a general negative significant correlation with nearly all the dimensions of the Survey of Work Values as does the dimension Individualism. Also, Individualism and Masculinity have low, negative but significant relationships with Internality (ICI). As regards the twelve dimensions of the Multifactor Leadership Questionnaire (MLQ), Power Distance has a low, negative but significant correlation (r = -0.104; p = 0.020; p  $\leq 0.05$ ) with Active Management-by-Exception (Active). Also, Uncertainty Avoidance has a low, negative but significant correlation (r = -0.146; p = 0.0001, p  $\leq$  0.05) with Power Distance. Uncertainty Avoidance correlates low negatively but significant with Laissez Faire leadership (r = -0.090; p = 0.043; p  $\leq$  0.05). Individualism correlates low and negatively but significantly ( $p \le 0.05$ ) with dimensions Idealised Influence - Attributes (InfluenceA), Idealised Influence -Behaviours (InfluenceB), Inspirational Motivation, Intellectual Stimulation, Individualised Consideration, Constructive Transaction, Management-by-Exception (passive), Laissez Faire and the three leadership outcomes of the MLQ (Extra Effort, Effectiveness and Satisfaction). Masculinity has a low, negative but significant relationship ( $p \le 0.05$ ) with all the dimensions of the MLQ, except MBE – Active.

The six factors of the Survey of Work Values, viz Pride in Work (Proud), Job Involvement (Involve), Activity Preference, Attitude toward Earnings (Earnings), Social Status of the Job (Social), and Upward Striving (Progress) have conspicuous associations. The correlation is in general low, negative as well as positive, and significant. There is, however, no significant correlation between Pride in Work (*Proud*) and Attitude toward Earnings (*Earnings*). The dimension Pride in Work has a significant relationship with all the dimensions of the Multifactor Leadership Questionnaire, except Management-by-Exception (active). Job involvement has generally low, negative as well as positive, significant relationships with all the dimensions of the MLQ. The same applies to Activity Preference, which only has an insignificant correlation with Management-by-Exception (active). In the case of the dimension Attitude toward Earnings of the Survey of Work Values, it has insignificant relationships with all the dimensions of the Multifactor Leadership Questionnaire, except for Intellectual Stimulation (IS) and both active and passive forms of Management-by-Exception. The dimension Social Status of the Job correlates negatively but significantly with Individualised Consideration  $(r = -8,094; p = 0.034; p \le 0.05)$ . It also has a positive and significant association with Management-by-Exception (passive) (r = 0.109; p = 0.013; p  $\leq$ 0.05). As regards Upward Striving, there are significant ( $p \le 0.05$ ) and positive correlations with all five elements of transformational leadership (i.e. Idealised Influence – Attributes, Idealised Influence – Behaviours, Inspirational Motivation, Intellectual Stimulation and Individualised Consideration), Constructive Transaction, Management-by-Exception, Laissez Faire, as well as all three leadership outcomes, viz Extra Effort, Effectiveness and Satisfaction. Management by Exception – Active has an insignificant relationship with Upward Striving (p = 0.351; p > 0.05).

With remarkably few exceptions, there are positive significant (p = 0.05) correlations between the dimensions of the MLQ. There are negative (but significant) relationships between MBE-passive and Idealised Influence – Attributes, Idealised Influence – Behaviours, Inspirational Motivation, Intellectual Stimulation, Individualised Consideration, Constructive Transaction as well as the three leadership outcomes. Also, Laissez Faire correlates negatively with all five dimensions of transformational leadership as well as the three leadership outcomes.

The product-moment correlations for transformational leadership, transactional leadership, the leadership outcomes, and internality were also calculated. These results are presented in Table 10.2.

	<u>internanty</u> .				
		Internality	Transform	Transact	Outcomes
Internality	Pearson Correlation	1	.398*	.011	.347*
	Sig. (2-tailed)	-	.000	.801	.000
	Ν	509	509	509	509
Transform.	Pearson Correlation	.398*	1	.368*	.745*
	Sig. (2-tailed)	.000		.000	.000
	Ν	509	509	509	509
Transact.	Pearson Correlation	.011	.368*	1	.298*
	Sig. (2-tailed)	.801	.000		.000
	Ν	509	509	509	509
Outcomes	Pearson Correlation	.347*	.745*	.298*	1
	Sig. (2-tailed)	.000	.000	.000	
	Ν	509	509	509	509
*					

Table 10.2:	Bravais-Pearson	correlation	coefficients:	Leadership	and
	Internality				

\* p ≤ 0.05

Table 10.2 indicates that transformational leadership<sup>1</sup> has a positive and significant relationship with both internality (r = 0.398; p = 0.000; p being  $\leq$ 

<sup>&</sup>lt;sup>1</sup> For the calculation of these correlations, transformational leadership was considered to consist of the 5 elements Idealised Influence (Attributes), Idealised Influence (Behaviours), Inspirational

0.05) and the leadership outcomes (r = 0.745; p = 0.000; p being  $\leq$  0.05). Although transactional leadership too shows a significant positive correlation with the leadership outcomes (r = 0.298; p = 0.000; p being  $\leq$  0.05), this relationship is much weaker than is the case with transformational leadership. Transactional leadership shows no significant relationship with internality (r = 0.011; p = 0.801; p being  $\leq$  0.05).

#### **10.3 INFERENTIAL STATISTICS**

Pretorius (2004: 146) describes the logic of inferential statistics as revolving around the drawing of a random sample of observations from some population and then calculating the sample statistics with which to estimate population parameters. The two statistical methods of inference used in this study are Student's T-test and One-Way Analysis of Variance. In addition to this, two non-parametric inferential statistics, viz the Mann-Whitney U-test and the Kruskal-Wallis one-way analysis of variance will be used.

#### 10.3.1 GENDER

#### 10.3.1.1 Student's T-test

Student's T-test is used when comparing the means of two samples (independent) – in this case the significant differences, if any, between the two genders on the dimensions of the different questionnaires used, are determined. The results (descriptive statistics) are presented in Table 10.3.

				Std	Std Error	
Variable	Gender	Ν	Mean	Deviation	Mean	
Pride	Male	438	40.5388	4.12140	.19693	
	Female	71	40.9296	4.05788	.48158	
Involve	Male	438	37.4406	3.83646	.18331	
	Female	71	37.4366	3.96316	.47034	
Activity	Male	438	37.4338	4.44586	.21243	
	Female	71	38.2254	4.21629	.50038	
Earnings	Male	438	26.1598	5.60419	.26778	
	Female	71	25.9577	5.23296	.62104	

Table 10.3: <u>Statistical inferences - Student's T-test (group statistics)</u>.

Motivation, Intellectual Stimulation and Individualised Consideration. Transactional leadership consists of the elements Constructive Transaction, Management-by-exception (Active) and Management-by-exception (Passive). For a detailed explanation of these leadership elements, see Chapter 5.

# University of Pretoria etd – Beukman, T L (2005)

		100	00 5407	5 00005	0 4 0 4 0
Social	Male	438	23.5137	5.22085	.24946
	Female	71	22.2958	4.84737	.57528
Progress	Male	438	34.4543	4.14127	.19788
	Female	71	33.9718	4.25935	.50549
ICI	Male	438	109.5297	11.29641	.53976
	Fe`male	71	109.2254	11.18187	1.32704
· · · · · · · · · · · · · · · · · · ·	Continued)				
PD	Male	436	8.6972	2.27431	.10892
	Female	70	8.4571	2.10373	.25144
UA	Male	438	9.1644	1.99551	.09535
	Female	71	9.0282	1.86679	.22155
Indiv	Male	438	7.0365	2.20641	.10543
	Female	71	7.3521	2.22389	.26393
Masc	Male	438	11.6393	3.83975	.18347
	Female	71	11.7183	3.73854	.44368
InfluenceA	Male	438	11.6416	2.33897	.11176
	Female	71	12.1127	2.23319	.26503
InfluenceB	Male	438	11.6804	2.32253	.11097
	Female	71	12.1408	2.23796	.26560
Motivation	Male	438	11.7009	2.50300	.11960
	Female	71	12.0423	2.33261	.27683
Stimulation	Male	438	11.8813	2.28307	.10909
	Female	71	11.6338	2.22479	.26403
Consider	Male	438	12.2329	2.65061	.12665
	Female	71	12.6056	2.63753	.31302
Constructive	Male	438	11.7032	2.39728	.11455
	Female	71	11.5775	2.40631	.28558
Active	Male	438	9.6667	3.36741	.16090
	Female	71	9.9014	3.09449	.36725
Passive	Male	438	4.2237	2.74553	.13119
	Female	71	3.6338	3.13615	.37219
Laissez	Male	438	2.6872	2.56099	.12237
	Female	71	2.6056	2.70702	.32126
Effort	Male	438	8.7694	1.97334	.09429
	Female	71	8.7465	2.16279	.25668
Effective	Male	438	9.3950	1.75936	.08407
	Female	71	9.4930	1.63771	.19436
Satisfaction	Male	438	9.7900	1.76456	.08431
	Female	71	9.6338	1.67536	.19883

According to Table 10.3 the means and the standard deviations for male and female respondents are largely equal. The values of the standard deviation show that there is not much difference in variability of the scores of the two groups. As regards the standard error of the mean, Table 10.3 shows that the male group's standard error of the mean is smaller than that of the female group. This difference may be due to the large difference in the size of the two groups (male - N = 438; female - N = 71). However, the standard error depends on both the standard deviation of the sample and the sample size "...as the size of the sample increases the standard error decreases" (Norusis, 1990:160). Therefore, it is clear that as the sample size increases, the higher the possibility will be that the sample mean is not too far from the population mean.

The results of the Levene's Test for Equality of Variance are presented in Table 10.4.

Table 10.4: <u>Stu</u>	<u></u>	Levene's Test for			
		Equality of	Variances		
		F	Sig.		
PRIDE	Equal variances	.016	.898		
	Assumed				
INVOLVEMENT	Equal variances	.059	.809		
	Assumed				
ACTIVITY	Equal variances	.263	.608		
	Assumed				
EARNINGS	Equal variances	.485	.486		
	Assumed				
SOCIAL	Equal variances	1.198	.274		
	Assumed				
PROGRESS	Equal variances	.192	.662		
	Assumed				
PD	Equal variances	.039	.843		
	Assumed				
UA	Equal variances	.055	.814		
	Assumed				
INDIV	Equal variances	.486	.486		
	Assumed				
MASCULINITY	Equal variances	.038	.846		
	assumed				

Table 10.4: <u>Student's T-test: Levene's test for equality of variance</u>

# University of Pretoria etd - Beukman, T L (2005)

INFLUENCE A	Equal variances	.083	.773
	Assumed		

#### Table 10.4: (Continued)

	,		
INFLUENCE B	Equal variances assumed	.000	.985
MOTIVATION	Equal variances	.280	.597
	assumed		
STIMULATION	Equal variances	.021	.885
	assumed		
	Equal variances		
		115	705
CONSIDERATION	Equal variances	.115	.735
	assumed		
CONSTRUCTIVE	Equal variances	.035	.851
	assumed		
ACTIVE	Equal variances	.793	.374
	assumed		
PASSIVE	Equal variances	2.340	.127
	assumed		
LAISSEZ	Equal variances	1.338	.248
LAISSEZ		1.550	.240
	assumed		
EFFORT	Equal variances	4.226	.040*
	assumed		
EFFECTIVENESS	Equal variances	.937	.333
	assumed		
SATISFACTION	Equal variances	.239	.625
	assumed		0
		000	050
INTERNALITY	Equal variances	.003	.958
	assumed		
(p ≤ 0.05)			

Table 10.4 presents the values of the Levene's test for homogeneity of variance. This test tests the assumption that the variances of the two groups (gender in this case) are equal. According to Table 10.4 the F-values are not significant, except for Extra Effort. The non-significance implies that the variances are not significantly different and that the assumption of equal variances is not violated (except for the dimension Extra Effort).

As the values of the Levene's test is insignificant (p > 0.05), the values of the equal variances assumed for the t-test (except Extra Effort, where the "equal variances not assumed" value is used) are used. These results are presented in Table 10.5.

	or oquality of mount	T-test for Equality of Means			
		T Df Sig Mean			Mean
				(2-tailed)	Difference
PRIDE	Equal variances Assumed	743	507	.458	39076
	Equal variances not assumed	751	94.942	.454	39076
INVOLVEMENT	Equal variances Assumed	.008	507	.993	.00402
	Equal variances not assumed	.008	92.539	.994	.00402
ACTIVITY	Equal variances Assumed	-1.401	507	.162	79156
	Equal variances not assumed	-1.456	97.002	.149	79156
EARNINGS	Equal variances Assumed	.284	507	.776	.20207
	Equal variances not assumed	.299	97.906	.766	.20207
SOCIAL	Equal variances Assumed	1.841	507	.066	1.21792
	Equal variances not assumed	1.942	98.245	.055	1.21792
PROGRESS	Equal variances Assumed	.907	507	.365	.48251
	Equal variances not assumed	.889	92.748	.376	.48251
INTERNALITY	Equal variances Assumed	.211	507	.833	.30433
	Equal variances not assumed	.212	94.662	.832	.30433

Table 10.5: <u>T-test for equality of means – Gender</u>.

I able 10.5:	(Continued)				
PD	Equal variances Assumed	.828	504	.408	.24010
	Equal variances	.876	96.784	.383	.24010
UA	Equal variances Assumed	.538	507	.591	.13621
	Equal variances not assumed	.565	97.796	.574	.13621
INDIVIDUALISM	Equal variances Assumed	-1.117	507	.265	31558
	Equal variances not assumed	-1.110	93.739	.270	31558
MASCULINITY	Equal variances Assumed	161	507	.872	07904
	Equal variances not assumed	165	95.539	.870	07904
INFLUENCE A	Equal variances Assumed	-1.584	507	.114	47112
	Equal variances not assumed	-1.638	96.619	.105	47112
INFLUENCE B	Equal variances Assumed	-1.557	507	.120	46048
	Equal variances not assumed	-1.600	96.106	.113	46048
MOTIVATION	Equal variances Assumed	-1.076	507	.283	34134
	Equal variances not assumed	-1.132	98.022	.260	34134
STIMULATION	Equal variances Assumed	.850	507	.396	.24748
	Equal variances not assumed	.866	95.493	.389	.24748
CONSIDERATION	Equal variances Assumed	-1.100	507	.272	37276

Table 10.5: (Continued)

Equal variances	-1.104	94.391	.272	37276
not assumed				

Table 10.5:	(Continued)
	(Continued)

	(Continued)				
CONSTRUCTIVE	Equal variances Assumed	.410	507	.682	.12573
	Equal variances not assumed	.409	93.946	.684	.12573
MBE-ACTIVE	Equal variances Assumed	551	507	.582	23474
	Equal variances not assumed	585	98.869	.560	23474
MBE-PASSIVE	Equal variances Assumed	1.645	507	.101	.58994
	Equal variances not assumed	1.495	88.255	.139	.58994
LAISSEZ FAIRE	Equal variances Assumed	.247	507	.805	.08158
	Equal variances not assumed	.237	91.477	.813	.08158
EXTRA EFFORT	Equal variances Assumed	.090	507	.929	.02293
	Equal variances not assumed	.084	89.905	.933	.02293
EFFECTIVENESS	Equal variances Assumed	439	507	.661	09798
	Equal variances not assumed	463	98.091	.645	09798
SATISFACTION	Equal variances Assumed	.696	507	.486	.15615
	Equal variances not assumed	.723	96.936	.471	.15615
(p ≤ 0.05)					

As is evident from Table 10.5, the two genders do not differ significantly on any of the work value or leadership dimensions. They also do not differ significantly on internality.

#### 10.3.1.2 Mann Whitney U-test

Due to the high discrepancy in size between the two gender samples the nonparametric Mann-Whitney U-test was also done, the results of which are presented in Table 10.6.

#### Table 10.6: Mann Whitney U-test: Gender.

	Pride	Involvement	Activity	Earnings
Mann-Whitney U	14479.500	15316.500	13981.000	15547.500
Wilcoxon W	110620.500	17872.500	110122.000	111688.500
Z	935	203	-1.367	001
Asymp. Sig. (2-tailed)	.350	.839	.172	.999

	Status	Progress	PD	UA
Mann-Whitney U	13200.000*	14817.000	14270.500	14852.000
Wilcoxon W	15756.000	17373.000	16755.500	17408.000
Z	-2.047	639	880	614
Asymp. Sig. (2-tailed)	.041	.523	.379	.539

	Indiv	Mscul	Influence A	Influence B
Mann-Whitney U	14012.500	15269.500	13805.000	13986.500
Wilcoxon W	110153.500	111410.500	109946.000	110127.500
Z	-1.353	244	-1.531	-1.371
Asymp. Sig. (2-tailed)	.176	.807	.126	.170

	Motivation	Stimulation	Consideration	Constructive
Mann-Whitney U	14456.000	14424.000	14094.000	15126.500
Wilcoxon W	110597.000	16980.000	110235.000	17682.500
Z	958	988	-1.275	371
Asymp. Sig. (2-tailed)	.338	.323	.202	.711

		MBE-Act	MBE-Pas	Laissez F	E Effort
--	--	---------	---------	-----------	----------

Mann-Whitney U	15124.000	13152.500*	14931.000	15370.500
Wilcoxon W	111265.000	15708.500	17487.000	17926.500
Z	371	-2.098	545	157
Asymp. Sig. (2-tailed)	.710	.036	.585	.875

Table 10.6: (Continued)

•	,		
	Effectiveness	Satisfaction	Internality
Mann-Whitney U	15139.000	14619.500	15272.000
Wilcoxon W	111280.000	17175.500	17828.000
Z	362	824	241
Asymp. Sig. (2-tailed)	.717	.410	.810
(p ≤ 0.05)			

As regards Table 10.6, the Mann-Whitney U-test shows differences between the two gender groups only on the dimensions Social Status and MBE-Passive.

### 10.3.2 OCCUPATIONAL LEVEL

### 10.3.2.1 One-way analysis of variance

Inferential statistics with dependent variables with more than two levels were done by way of a one-way analysis of variance. It is a statistical test to determine significant differences, if any, between the means for three or more groups. The results of the one-way analysis with Occupational Level as the independent variable are presented in Tables 10.7 and 10.8.

homogeneity of variance.				
	Levene			
	Statistic	df1	df2	Sig
Pride	1.180	4	504	.319
Involvement	1.095	4	504	.358
Activity	3.495	4	504	.008*
Earnings	2.138	4	504	.075
Status	.507	4	504	.730
Progress	1.284	4	504	.275
Internality	1.550	4	504	.187
PD	2.037	4	501	.088
UA	2.808	4	504	.025*
Individualism	2.468	4	504	.044*
Masculinity	1.136	4	504	.339
Influence A	.925	4	504	.449
Influence B	1.052	4	504	.380
Motivation	.958	4	504	.430
Stimulation	1.370	4	504	.243
Consideration	2.086	4	504	.081
Constructive T	.037	4	504	.997
MBE-Active	.604	4	504	.660
MBE-Passive	.812	4	504	.518
Laissez	1.177	4	504	.320
Effort	1.661	4	504	.158
Effective	.356	4	504	.840
(p ≤ 0.05)				

 Table 10.7:
 One-way analysis of variance:
 Occupational Level – Tests of homogeneity of variance

Table 10.7 shows that, except for Activity Preference, Uncertainty Avoidance and Individualism, there are no significant differences in variance between the five occupational ranks. The results for the one-way analysis of variance are presented in Table 10.8.

	One-way analysis					
				Df	F	Sig
Pride	Between	(Combined)		4	.406	.805
	Groups	Linear	Unweighted	1	1.139	.286
		Term	Weighted	1	1.567	.211
			Deviation	3	.019	.996
	Within Groups			504		
	Total			508		
Involvement	Between	(Combined)		4	1.192	.313
	Groups	Linear	Unweighted	1	2.488	.115
		Term	Weighted	1	4.254	.040
			Deviation	3	.171	.916
	Within Groups			504		
	Total			508		
Activity	Between	(Combined)		4	3.860	.004*
	Groups	Linear	Unweighted	1	11.913	.001
		Term	Weighted	1	11.453	.001
			Deviation	3	1.329	.264
	Within Groups			504		
	Total			508		
Earnings	Between	(Combined)		4	5.218	.000*
	Groups	Linear	Unweighted	1	14.329	.000
		Term	Weighted	1	19.413	.000
			Deviation	3	.486	.692
	Within Groups			504		
	Total			508		
Status	Between	(Combined)		4	5.396	.000*
	Groups	Linear	Unweighted	1	13.815	.000
		Term	Weighted	1	18.401	.000
			Deviation	3	1.062	.365
	Within Groups			504		
	Total			508		
Progress	Between	(Combined)		4	1.439	.220
	Groups	Linear	Unweighted	1	.087	.768
		Term	Weighted	1	1.884	.171
			Deviation	3	1.291	.277
	Within Groups			504		
	Total			508		

### Table 10.8: <u>One-way analysis of variance – Occupational level</u>.

Table	10.8: (Continue	ed)				
ICI	Between	(Combined)		4	5.368	.000*
	Groups	Linear	Unweighted	1	9.020	.003
		Term	Weighted	1	16.978	.000
			Deviation	3	1.498	.214
	Within Groups			504		
	Total			508		
PD	Between	(Combined)		4	1.285	.275
	Groups	Linear	Unweighted	1	.079	.779
		Term	Weighted	1	1.592	.208
			Deviation	3	1.183	.316
	Within Groups			501		
	Total			505		
UA	Between	(Combined)		4	1.362	.246
	Groups	Linear	Unweighted	1	1.336	.248
		Term	Weighted	1	.812	.368
			Deviation	3	1.545	.202
	Within Groups			504		
	Total			508		
Individ	Between	(Combined)		4	3.073	.016*
	Groups	Linear	Unweighted	1	4.520	.034
		Term	Weighted	1	9.924	.002
			Deviation	3	.790	.500
	Within Groups			504		
	Total			508		
Masculinity	Between	(Combined)		4	.421	.793
	Groups	Linear	Unweighted	1	.223	.637
		Term	Weighted	1	.045	.832
			Deviation	3	.546	.651
	Within Groups			504		
	Total			508		
Influence A	Between	(Combined)		4	.634	.638
	Groups	Linear	Unweighted	1	.002	.961
		Term	Weighted	1	.023	.881
			Deviation	3	.838	.473
	Within Groups			504		
	Total			508		

Table 10.8: (Continued)								
Influence B	Between	(Combined)		4	.792	.531		
	Groups	Linear	Unweighted	1	.256	.613		
		Term	Weighted	1	.991	.320		
			Deviation	3	.725	.537		
	Within Groups			504				
	Total			508				
Motivation	Between	(Combined)		4	.491	.742		
	Groups	Linear	Unweighted	1	.360	.549		
		Term	Weighted	1	.004	.949		
			Deviation	3	.653	.581		
	Within Groups			504				
	Total			508				
Stimulation	Between	(Combined)		4	2.784	.026*		
	Groups	Linear	Unweighted	1	3.823	.051		
		Term	Weighted	1	7.287	.007		
			Deviation	3	1.282	.280		
	Within Groups			504				
	Total			508				
Consider	Between	(Combined)		4	2.765	.027*		
	Groups	Linear	Unweighted	1	1.652	.199		
		Term	Weighted	1	2.556	.110		
			Deviation	3	2.834	.038		
	Within Groups			504				
	Total			508				
Constructive	Between	(Combined)		4	.470	.758		
	Groups	Linear	Unweighted	1	.047	.829		
		Term	Weighted	1	.012	.913		
			Deviation	3	.622	.601		
	Within Groups			504				
	Total			508				
Active	Between	(Combined)		4	6.793	.000*		
	Groups	Linear	Unweighted	1	14.773	.000		
		Term	Weighted	1	25.190	.000		
			Deviation	3	.661	.576		
	Within Groups			504				
	Total			508				

Table	10.8: (Continue	ed)				
Passive	Between	(Combined)		4	.937	.442
	Groups	Linear	Unweighted	1	1.728	.189
		Term	Weighted	1	2.533	.112
			Deviation	3	.404	.750
	Within Groups			504		
	Total			508		
Laissez	Between	(Combined)		4	.696	.595
	Groups	Linear	Unweighted	1	1.716	.191
		Term	Weighted	1	2.059	.152
			Deviation	3	.242	.867
	Within Groups			504		
	Total			508		
Effort	Between	(Combined)		4	1.580	.178
	Groups	Linear	Unweighted	1	.138	.710
		Term	Weighted	1	.408	.523
			Deviation	3	1.971	.117
	Within Groups			504		
	Total			508		
Effective	Between	(Combined)		4	1.487	.205
	Groups	Linear	Unweighted	1	.118	.731
		Term	Weighted	1	1.128	.289
			Deviation	3	1.607	.187
	Within Groups			504		
	Total			508		
Satisfaction	Between	(Combined)		4	1.014	.400
	Groups	Linear	Unweighted	1	.622	.431
		Term	Weighted	1	1.466	.227
			Deviation	3	.863	.460
	Within Groups			504		
	Total			508		
(* p ≤ 0.05)						

According to Table 10.8 the five groups (occupational level) differ significantly on Activity Preference, Attitude toward Earnings, Social Status of the Job, Individualism, Intellectual Stimulation, Individualised Consideration, MBE-Active and Internality.

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Post hoc comparisons were done by means of the Scheffé test to determine which occupational levels (ranks) differ from each other with regards to the above-mentioned eight dimensions. As regards Activity Preference, "Airman to Sergeant" (junior supervisors) differ significantly (p = 0.024; p being  $\leq 0.05$ ) from "Colonel to Lt General" (senior management). The ranks "Airman to Sergeant" differ significantly (p = 0.013; p being < 0.05) from the ranks "Major to Lt Colonel" (middle management) and "Flight Sergeant to Warrant Officer Class I" (senior supervisors) differ significantly from "Major to Lt Colonel" (p = 0.032; p being < 0.05) with regards to the dimension Attitude towards Earnings. There are significant differences on Social Status of the Job between junior supervisors and "Lieutenant to Captain" (junior management) (p = 0.024; p being < 0.05) as well as between junior supervisors and senior management (p = 0.022; p being < 0.05). On the dimension Individualism junior supervisors again differ significantly from middle management (p = 0.025; p being < 0.05). As regards the dimension Intellectual Stimulation the same result was found - junior supervisors differ significantly from middle management (p = 0.032; p being < 0.05). No significant differences (with  $p \le 1$ 0.05) could be found between the five occupational levels with regards to Intellectual Stimulation. On the Activity Preference dimension, both junior supervisors and senior supervisors differ significantly (p = 0.001 and p =0.007 respectively; p being < 0.05) from middle management. In terms of Internality, junior supervisors differ significantly from senior supervisors (p = 0.025: p being < 0.05) and also from middle management (p = 0.004; p being < 0.05).

### 10.3.2.2 Kruskal-Wallis one-way analysis of variance

As the number of respondents in some of the ranks are quite small, viz senior management (N=22) when compared to the other categories, i.e. senior supervisors (N=230), a non-parametric analysis of variance was also done. To realise the aim of the study, it was decided not to recode this variable. The results of the Kruskal-Wallis one-way analysis of variance are presented in Table 10.9.

Table 10.9:	<u>K</u> r	ruskal-wallis one-way analysis of variance. Occupational level.						
		Pride	Involvement	Activity	Earnings			
Chi-Square		1.121	4.103	11.293	23.752			
Df		4	4	4	4			
Asymp. Sig.		.891	.392	.023*	.000*			

Table 10.9: Kruskal-Wallis one-way analysis of variance: Occupational level.

	Social	Progress	Internality	PD
Chi-Square	17.344	2.817	19.091	2.298
Df	4	4	4	4
Asymp. Sig.	.002*	.589	.001*	.681

	UA	Indiv	Masculinity	Influence A
Chi-Square	6.991	10.940	1.903	2.549
Df	4	4	4	4
Asymp. Sig.	.136	.027*	.754	.636

_	Influence B	Motivation	Stimulation	Consideration
Chi-Square	3.025	1.490	11.205	8.829
Df	4	4	4	4
Asymp. Sig.	.554	.828	.024*	.066

	Constructive	MBE-Active	MBE-Passive	Laissez
Chi-Square	1.941	23.430	4.570	2.866
Df	4	4	4	4
xAp. Sig.	.747	.000*	.334	.581

_	Effort	Effective	Satisfaction
Chi-Square	5.505	5.359	4.522
Df	4	4	4
Asymp. Sig.	.239	.252	.340*

(\* p ≤ 0.05)

The non-parametric one-way analysis of variance results in Table 10.9 indicate that the five occupational level groups differ significantly ( $p \le 0.05$ ) on the same dimensions, except for Individualised Consideration.

### 10.3.3 POPULATION GROUP

#### 10.3.3.1 One-way analysis of variance

A one-way analysis of variance was also done with population group as the grouping variable. The Levene test for homogeneity of variance was done, the results of which are presented in Table 10.10.

<u> </u>	opulation Group.			
	Levene			
	Statistic	df1	df2	Sig
Pride	13.614	3	505	.000*
Involvement	4.449	3	505	.004*
Activity	4.751	3	505	.003*
Earnings	.779	3	505	.506
Status	1.305	3	505	.272
Progress	.148	3	505	.931
Internality	3.011	3	505	.030*
PD	.613	3	502	.607
UA	1.609	3	505	.186
Individualism	6.260	3	505	.000*
Masculinity	11.127	3	505	.000*
Influence A	1.177	3	505	.318
Influence B	.404	3	505	.750
Motivation	.898	3	505	.442
Stimulation	3.655	3	505	.013*
Consideration	3.586	3	505	.014*
Constructive T	1.184	3	505	.315
MBE-Active	1.117	3	505	.342
MBE-Passive	2.639	3	505	.049*
Laissez	5.337	3	505	.001*
Effort	3.832	3	505	.010*
Effectiveness	2.133	3	505	.095
Satisfaction	5.584	3	505	.030*

Table 10.10: <u>One-way analysis of variance – Levene's test for homogeneity:</u>

#### (\* p ≤ 0.05)

According to Table 10.10 there are significant differences in variance as regards Pride in Work, Job Involvement, Activity Preference, Internality, Individualism, Masculinity, Intellectual Stimulation, Individualised Consideration, MBE-Passive, Laissez Faire, Extra Effort, and Satisfaction. Although one-way analysis of variance is not particularly sensitive to violations of homogeneity (equality) of variance when group sizes are nearly similar (Norusis, 1990: 199), the sizes of the different groups in this instance are quite dissimilar and the variances unequal. Therefore a non-parametric (Kruskal-Wallis) analysis of variance was also done. The Kruskal-Wallis test requires less stringent assumptions.

The results of the one-way analysis of variance for the four population groups in the sample are presented in Table 10.11.

	÷			Df	F	Sig
Pride	Between	(Combined)		3	29.508	.000*
	Groups	Linear	Unweighted	1	2.272	.132
		Term	Weighted	1	31.545	.000
			Deviation	2	28.489	.000
	Within Groups			505		
	Total			508		
Involvement	Between	(Combined)		3	3.440	.017*
	Groups	Linear	Unweighted	1	1.428	.233
		Term	Weighted	1	6.226	.013
			Deviation	2	2.048	.130
	Within Groups			505		
	Total			508		
Activity	Between	(Combined)		3	15.366	.000*
	Groups	Linear	Unweighted	1	3.504	.062
		Term	Weighted	1	26.173	.000
			Deviation	2	9.962	.000
	Within Groups			505		
	Total			508		
Earnings	Between	(Combined)		3	4.173	.006*
	Groups	Linear	Unweighted	1	6.737	.010
		Term	Weighted	1	10.769	.001

Table 10.11: One-way analysis of variance: Population group.

	Deviation	2	.876	.417
Within Groups		505		
Total		508		

		/		r r	I	I
Status	Between	(Combined)		3	22.042	.000*
	Groups	Linear	Unweighted	1	8.381	.004
		Term	Weighted	1	36.132	.000
			Deviation	2	14.998	.000
	Within Groups			505		
	Total			508		
Progress	Between	(Combined)		3	.908	.437
	Groups	Linear	Unweighted	1	.072	.788
		Term	Weighted	1	.725	.395
			Deviation	2	.999	.369
	Within Groups			505		
	Total			508		
Internality	Between	(Combined)		3	10.840	.000*
	Groups	Linear	Unweighted	1	5.695	.017
		Term	Weighted	1	13.193	.000
			Deviation	2	9.663	.000
	Within Groups			505		
	Total			508		
PD	Between	(Combined)		3	1.015	.385
	Groups	Linear	Unweighted	1	.763	.383
		Term	Weighted	1	.009	.925
			Deviation	2	1.519	.220
	Within Groups			502		
	Total			505		
UA	Between	(Combined)		3	2.038	.108
	Groups	Linear	Unweighted	1	.859	.354
		Term	Weighted	1	3.103	.079
			Deviation	2	1.506	.223
	Within Groups			505		
	Total			508		
Individ	Between	(Combined)		3	18.917	.000*
	Groups	Linear	Unweighted	1	9.252	.002
		Term	Weighted	1	29.022	.000

	Deviation	2	13.865	.000
Within Groups		505		
Total		508		

Table 10.11: (Continued)

Groups         Linear Term         Unweighted Weighted Deviation         1         10.356         .001           Within Groups Total         2         8.698         .000           Within Groups         505         -           Total         508         -           Influence A         Between         (Combined) Groups         3         5.546         .001*           Groups         Linear         Unweighted Deviation         1         .1.14         .7.36           Influence A         Between         (Combined) Term         1         .2.60         .6.10           Within Groups         Term         Weighted Deviation         1         .2.60         .6.10           Motivation         Between         (Combined) Term         3         .6.930         .000*           Motivation         Between         (Combined) Term         3         .6.23         .6.28           Motivation         Between         (Combined) Term         3         .6.303         .000*           Groups         Linear         Unweighted Deviation         1         .1.75         .6.76           Total         Term         Weighted Deviation         1         .1.75         .6.76           Total		Between	,		3	12.385	.000*
Term         Weighted Deviation         1         19.761         .000           Within Groups         505	Masculinity		(Combined)	Linusiahtad			
Within Groups Total         Deviation         2         8.698        00           Influence A         Between         (Combined)         3         5.546         .001*           Groups         Linear         Unweighted         1        14        736           Within Groups         Linear         Unweighted         1        14        736           Mithin Groups         Term         Weighted         1        14        736           Total         Term         Weighted         1        14        736           Influence B         Between         (Combined)         2         8.189        000           Within Groups         Linear         Unweighted         1         1.261        262           Influence B         Between         (Combined)         3         6.930        000*           Groups         Linear         Unweighted         1         1.261        262           Motivation         Between         (Combined)         3         6.303        200*           Within Groups         Linear         Unweighted         1         9.202        200           Motivation         Between         (Combi		Groups		Ū.			
Within Groups Total505Influence A GroupsBetween Linear(Combined) Term35.546.001*GroupsLinear TermUnweighted Deviation1.114.736Mithin GroupsTermWeighted Deviation1.260.610Within GroupsTotal505TotalTotal508Influence B GroupsBetween Comps(Combined) Term36.930GroupsLinear TermUnweighted Deviation11.261.262MotivationBetween GroupsCombined) Term505MotivationBetween GroupsCombined) Linear36.303.000*MotivationBetween GroupsCombined) Linear36.303.000*MotivationBetween GroupsCombined) Term36.303.000*Mutihin GroupsTermWeighted Deviation1StimulationBetween GroupsCombined) Linear37.890Mutihin GroupsLinear TermUnweighted Unweighted1Mutihin GroupsLinear TermUnweighted UnweightedMutihin GroupsLinear TermUnweighted UnweightedMutihin GroupsLinear TermUnweighted Unweighted			Ierm	·			
Total508Influence A GroupsBetween LinearUnweighted Term1.114.736TermWeighted Deviation1.260.610Deviation28.189.000Within Groups505Total508Influence B GroupsBetween Combined)36.930.000*GroupsLinearUnweighted Term11.261.262GroupsLinearUnweighted Deviation1.235.628MotivationBetween GroupsCombined)210.277.000Within Groups-505Total-50800*MotivationBetween GroupsLinear LinearUnweighted Deviation1.175.676GroupsLinear TermUnweighted Deviation1.175.676.MotivationBetween GroupsCombined)1.00*StimulationBetween GroupsCombined)3.00*StimulationBetween GroupsLinear TermUnweighted Deviation1.3.33.465				Deviation		8.698	.000
Influence A         Between         (Combined)         3         5.546         .001*           Groups         Linear         Unweighted         1         .114         .736           Term         Weighted         1         .260         .610           Deviation         2         8.189         .000           Within Groups         505         -           Total         508         -           Influence B         Between         (Combined)         3         6.930         .000*           Groups         Linear         Unweighted         1         1.261         .262           Term         Weighted         1         .235         .628           Deviation         2         10.277         .000           Within Groups         Term         Weighted         1         .175         .676           Total         Term         Weighted         1         .175         .676           Motivation         Between         (Combined)         3         6.303         .000*           Within Groups         Term         Weighted         1         .175         .676           Total         Term         Weighted         1		-					
Groups         Linear Term         Unweighted Weighted Deviation         1         1.114         7.36           Within Groups Total         Deviation         2         8.189         .000           Stimulation         Between         (Combined)         505         -         -           Influence B         Between         (Combined)         3         6.930         .000*           Groups         Linear         Unweighted Deviation         1         1.261         .262           Motivation         Between         (Combined)         2         10.277         .000           Within Groups         Term         Weighted Deviation         1         1.75         .676           Motivation         Between         (Combined)         3         6.303         .000*           Within Groups         Term         Weighted Deviation         1         .175         .676           Stimulation         Between         (Combined)         3         6.303         .000*           Groups         Linear         Unweighted Deviation         1         .175         .676           Stimulation         Between         (Combined)         3         7.890         .000*           Groups         Li							
Term         Weighted Deviation         1	Influence A		,				
Deviation         2         8.189         .000           Within Groups         505         508         508         500           Influence B         Between         (Combined)         3         6.930         .000*           Groups         Linear         Unweighted         1         1.261         .262           Term         Weighted         1         .235         .628           Deviation         2         10.277         .000           Within Groups         Term         Weighted         1         .235         .628           Deviation         2         10.277         .000         .00*           Within Groups         Term         Weighted         1         .262         .003           Total         Term         Unweighted         1         .0277         .000           Motivation         Between         (Combined)         3         6.303         .000*           Groups         Linear         Unweighted         1         .9202         .003           Deviation         2         4.854         .008         .004*           Stimulation         Between         (Combined)         3         7.890         .000*		Groups		-	-		
Within Groups         505 $$			Term	-			
Total508				Deviation	2	8.189	.000
Influence BBetween(Combined)136.930.000*GroupsLinearUnweighted11.261.262TermWeightedDeviation210.277.000Within GroupsTotal505TotalTotal508MotivationBetween(Combined)36.303.000*GroupsLinearUnweighted1.175.676GroupsLinearUnweighted19.202.003MotivationKithin GroupsDeviation24.854.008Within GroupsTotal505TotalEtween(Combined)37.890.000*StimulationBetween(Combined)37.890.000*Within GroupsLinearUnweighted13.939.048TotalTermWeighted13.939.048TotalTermWeighted1.533.465Deviation211.569.000.000*Within GroupsTermWeighted1.533.465Deviation211.569.000.000*Within GroupsTotal505000TotalTermWeighted1.533.465Deviation505505000TotalTermWeighted1.533.465Deviation5055050		Within Groups			505		
Groups         Linear Term         Unweighted Weighted Deviation         1         1.261         .262           1         .235         .628           2         10.277         .000           Within Groups         505         2           Total         508         2           Motivation         Between         (Combined)         3         6.303         .000*           Groups         Linear         Unweighted         1         .175         .676           Groups         Linear         Unweighted         1         .175         .676           Groups         Linear         Unweighted         1         .9.202         .003           Vithin Groups         Term         Weighted         1         .9.202         .003           Total         Term         Weighted         1         .9.202         .003           Stimulation         Between         (Combined)         2         4.854         .008           Groups         Linear         Unweighted         1         3.939         .048           Groups         Linear         Unweighted         1         .533         .465           Deviation         2         11.569		Total			508		
Term         Weighted Deviation         1         .235         .628           Within Groups         2         10.277         .000           Within Groups         505	Influence B	Between	(Combined)		3	6.930	.000*
Deviation         2         10.277         .000           Within Groups         505         -           Total         508         -           Motivation         Between         (Combined)         3         6.303         .000*           Groups         Linear         Unweighted         1         .175         .676           Term         Weighted         1         9.202         .003           Within Groups         Term         Weighted         1         9.202         .003           Within Groups         Term         Weighted         1         9.202         .003           Stimulation         Between         (Combined)         2         4.854         .008           Groups         Linear         Unweighted         3         7.890         .000*           Groups         Linear         Unweighted         1         3.939         .048           Term         Weighted         1         .533         .465           Deviation         2         11.569         .000           Within Groups         Term         Weighted         1         .533         .465           Deviation         2         11.569         .000 </th <th></th> <th>Groups</th> <th>Linear</th> <th>Unweighted</th> <th>1</th> <th>1.261</th> <th>.262</th>		Groups	Linear	Unweighted	1	1.261	.262
Within Groups505			Term	Weighted	1	.235	.628
Total508MotivationBetween(Combined)36.303.000*GroupsLinearUnweighted11.175.676TermWeighted19.202.003Deviation24.854.008Within Groups505000*Total508000*StimulationBetween(Combined)37.890.000*GroupsLinearUnweighted13.939.048TermWeighted1.533.465Deviation211.569.000Within GroupsTermWeighted1.533.465Deviation211.569.000				Deviation	2	10.277	.000
MotivationBetween Groups(Combined) Linear TermUnweighted Unweighted11.175.676GroupsTermWeighted19.202.003Deviation24.854.008Within GroupsDeviation24.854.008TotalTotal5051StimulationBetween(Combined)37.890.000*GroupsLinearUnweighted13.939.048TermWeighted1.533.465Deviation211.569.000Within GroupsTermWeighted1.533.465Deviation211.569.000		Within Groups			505		
Groups         Linear Term         Unweighted Weighted Deviation         1         .175         .676           Mithin Groups         Term         Weighted Deviation         1         9.202         .003           Within Groups         Deviation         2         4.854         .008           Total         505         -         -           Stimulation         Between         (Combined)         3         7.890         .000*           Groups         Linear         Unweighted Term         1         3.939         .048           Term         Weighted Deviation         1         5.03         .000*           Within Groups         Term         Weighted Deviation         1         .533         .465           Deviation         2         11.569         .000         .000*           Within Groups         Total         505         -         .000		Total			508		
Term         Weighted Deviation         1         9.202         .003           Within Groups         Deviation         2         4.854         .008           Total         505	Motivation	Between	(Combined)		3	6.303	.000*
Deviation         2         4.854         .008           Within Groups         505         505         508           Total         508         500*           Stimulation         Between         (Combined)         3         7.890         .000*           Groups         Linear         Unweighted         1         3.939         .048           Term         Weighted         1         .533         .465           Deviation         2         11.569         .000           Within Groups         Linear         Deviation         2         11.569         .000           Within Groups         Term         Weighted         1         .533         .465           Deviation         2         11.569         .000		Groups	Linear	Unweighted	1	.175	.676
Within Groups         505            Total         508            Stimulation         Between         (Combined)         3         7.890         .000*           Groups         Linear         Unweighted         1         3.939         .048           Term         Weighted         1         .533         .465           Deviation         2         11.569         .000           Within Groups			Term	Weighted	1	9.202	.003
Total         508				Deviation	2	4.854	.008
Stimulation         Between         (Combined)         3         7.890         .000*           Groups         Linear         Unweighted         1         3.939         .048           Term         Weighted         1         .533         .465           Deviation         2         11.569         .000           Within Groups         -         505         -         -           Total         -         508         -         -		Within Groups			505		
Groups         Linear         Unweighted         1         3.939         .048           Term         Weighted         1         .533         .465           Deviation         2         11.569         .000           Within Groups         505		Total			508		
Term         Weighted         1         .533         .465           Deviation         2         11.569         .000           Within Groups         505	Stimulation	Between	(Combined)		3	7.890	.000*
Deviation         2         11.569         .000           Within Groups         505		Groups	Linear	Unweighted	1	3.939	.048
Within Groups505Total508			Term	Weighted	1	.533	.465
Total 508				Deviation	2	11.569	.000
		Within Groups			505		
		Total			508		
	Consider	Between	(Combined)		3	19.030	.000*
Groups Linear Unweighted 1 2.564 .110		Groups		Unweighted	1	2.564	.110
Term Weighted 1 6.550 .011				Ū.	1		

	Deviation	2	25.270	.000
Within Groups		505		
Total		508		

Constructive	Between	1		3	2.254	.081
Constructive		(Combined)	l levus islata d			
	Groups	Linear	Unweighted	1	2.270	.133
		Term	Weighted	1	.749	.387
			Deviation	2	3.006	.050
	Within Groups			505		
	Total			508		
Active	Between	(Combined)		3	3.473	.016*
	Groups	Linear	Unweighted	1	.018	.894
		Term	Weighted	1	1.414	.235
			Deviation	2	4.502	.012
_	Within Groups			505		
	Total			508		
Passive	Between	(Combined)		3	1.194	.311
	Groups	Linear	Unweighted	1	.388	.533
		Term	Weighted	1	.333	.564
			Deviation	2	1.625	.198
	Within Groups			505		
	Total			508		
Laissez	Between	(Combined)		3	1.476	.220
	Groups	Linear	Unweighted	1	1.770	.184
		Term	Weighted	1	3.139	.077
			Deviation	2	.644	.526
	Within Groups			505		
	Total			508		
Effort	Between	(Combined)		3	5.950	.001*
	Groups	Linear	Unweighted	1	.002	.969
		Term	Weighted	1	1.248	.264
			Deviation	2	8.301	.000
	Within Groups			505		
	Total			508		
Effective	Between	(Combined)		3	3.919	.009*
	Groups	Linear	Unweighted	1	.075	.784
		Term	Weighted	1	1.542	.215
	8			•		

	Deviation	2	5.108	.006
Within Groups		505		
Total		508		

#### Table 10.11: (Continued)

Satisfaction	Between	(Combined)		3	3.679	.012*
	Groups	Linear	Unweighted	1	.000	.988
		Term	Weighted	1	.058	.810
			Deviation	2	5.490	.004
	Within Groups			505		
	Total			508		
(* p ≤ 0.05)						

It is evident from Table 10.11 that there is a wide divergence between the views and attitudes of the four population groups on the various dimensions of the questionnaires. They differ on most dimensions except for Upward Striving (progress), Power Distance, Uncertainty Avoidance, Constructive Transaction, MBE-Passive and Laissez Faire Leadership.

Post hoc comparisons were done by means of the Scheffé test to determine which population groups differ significantly from each other, if any, with regards to the following dimensions:

Pride in Work Job Involvement Activity Preference Attitude toward Earnings Social Status of the Job Individualism Masculinity Idealised Influence – Attributes Idealised Influence – Attributes Idealised Influence – Behaviours Inspirational Motivation Intellectual Stimulation Individualised Consideration MBE-Active Internality The three leadership outcomes

As quite significant results for the various population groups were obtained, a table (10.12) with the Scheffé test results is presented in full.

Dependent	10.12: <u>Scheffé Te</u> (I) Population	(J) Population	Mean		
Variable	Group	Group	Difference	Std. Error	Sig.
Pride	Asian	White	-1.19414	.97130	.680
	, loidin	African	3.21203	1.04264	.024*
		Coloured	.20745	1.10080	.998
	White	Asian	1.19414	.97130	.680
		African	4.40617	.47170	.000*
		Coloured	1.40159	.58920	.131
	African	Asian	-3.21203	1.04264	.024*
		White	-4.40617	.47170	.000*
		Coloured	-3.00458	.70060	.000*
	Coloured	Asian	20745	1.10080	.998
		White	-1.40159	.58920	.131
		African	3.00458	.70060	.000*
Involvement	Asian	White	.00886	.97635	1.000
		African	1.44620	1.04806	.593
		Coloured	.85638	1.10652	.897
	White	Asian	00886	.97635	1.000
		African	1.43735	.47416	.028*
		Coloured	.84753	.59227	.563
	African	Asian	-1.44620	1.04806	.593
		White	-1.43735	.47416	.028*
		Coloured	58982	.70424	.873
	Coloured	Asian	85638	1.10652	.897
		White	84753	.59227	.563
		African	.58982	.70424	.873
Activity	Asian	White	91383	1.08356	.871
		African	2.43829	1.16315	.223
		Coloured	1.20479	1.22803	.810
	White	Asian	.91383	1.08356	.871
		African	3.35212	.52622	.000*
		Coloured	2.11862	.65730	.016*

### Table 10.12: Scheffé Test: Population group.

	African	Asian	-2.43829	1.16315	.223
		White	-3.35212	.52622	.000*
		Coloured	-1.23350	.78157	.478
	Coloured	Asian	-1.20479	1.22803	.810
		White	-2.11862	.65730	.016*
		African	1.23350	.78157	.478
Table 1	0.12: (Continu	ed)			
Earnings	Asian	White	-1.80909	1.40417	.646
		African	-3.60680	1.50730	.127
		Coloured	-3.57314	1.59138	.170
	White	Asian	1.80909	1.40417	.646
		African	-1.79771	.68192	.075
		Coloured	-1.76404	.85179	.233
	African	Asian	3.60680	1.50730	.127
		White	1.79771	.68192	.075
		Coloured	.03367	1.01283	1.000
	Coloured	Asian	3.57314	1.59138	.170
		White	1.76404	.85179	.233
		African	03367	1.01283	1.000
Social	Asian	White	21032	1.24841	.999
		African	-4.95174	1.34010	.004*
		Coloured	-2.55718	1.41485	.353
	White	Asian	.21032	1.24841	.999
		African	-4.74142	.60628	.000*
		Coloured	-2.34686	.75730	.023*
	African	Asian	4.95174	1.34010	.004*
		White	4.74142	.60628	.000*
		Coloured	2.39456	.90048	.071
	Coloured	Asian	2.55718	1.41485	.353
		White	2.34686	.75730	.023*
		African	-2.39456	.90048	.071
Progress	Asian	White	1.21134	1.06196	.729
		African	.88054	1.13996	.897
		Coloured	.43750	1.20355	.988
	White	Asian	-1.21134	1.06196	.729
		African	33080	.51573	.938
		Coloured	77384	.64420	.696
	African	Asian	88054	1.13996	.897

	White	.33080	.51573	.938
	Coloured	44304	.76599	.953
Coloured	Asian	43750	1.20355	.988
	White	.77384	.64420	.696
	African	.44304	.76599	.953

		a)			
Internality	Asian	White	3.51175	2.79812	.665
		African	10.88370	3.00365	.005*
		Coloured	5.18750	3.17119	.445
	White	Asian	-3.51175	2.79812	.665
		African	7.37195	1.35888	.000*
		Coloured	1.67575	1.69738	.807
	African	Asian	-10.88370	3.00365	.005*
		White	-7.37195	1.35888	.000*
		Coloured	-5.69620	2.01829	.048*
	Coloured	Asian	-5.18750	3.17119	.445
		White	-1.67575	1.69738	.807
		African	5.69620	2.01829	.048*
PD	Asian	White	.80014	.57496	.586
		African	.95649	.61709	.494
		Coloured	.52261	.65151	.886
	White	Asian	80014	.57496	.586
		African	.15635	.27938	.957
		Coloured	27753	.34888	.889
	African	Asian	95649	.61709	.494
		White	15635	.27938	.957
		Coloured	43388	.41465	.778
	Coloured	Asian	52261	.65151	.886
		White	.27753	.34888	.889
		African	.43388	.41465	.778
UA	Asian	White	09792	.50333	.998
		African	68275	.54030	.660
		Coloured	33910	.57044	.950
	White	Asian	.09792	.50333	.998
		African	58483	.24444	.127
		Coloured	24117	.30533	.891
	African	Asian	.68275	.54030	.660

	White	.58483	.24444	.127
	Coloured	.34366	.36305	.826
Coloured	Asian	.33910	.57044	.950
	White	.24117	.30533	.891
	African	34366	.36305	.826

Table	0.12: (Contin	ueu)			
Individualism	Asian			.53658	.847
		African	-2.37025	.57599	.001*
White		Coloured	-1.23936	.60812	.247
	White	Asian	.48297	.53658	.847
		African	-1.88728	.26058	.000*
		Coloured	75639	.32550	.146
	African	Asian	2.37025	.57599	.001*
		White	1.88728	.26058	.000*
		Coloured	1.13089	.38703	.037*
	Coloured	Asian	1.23936	.60812	.247
		White	.75639	.32550	.146
		African	-1.13089	.38703	.037*
Masculinity	Asian	White	-1.65276	.94492	.384
		African	-4.20965	1.01433	.001*
		Coloured	-2.62899	1.07091	.112
	White	Asian	1.65276	.94492	.384
		African	-2.55689	.45889	.000*
		Coloured	97623	.57320	.408
	African	Asian	4.20965	1.01433	.001*
		White	2.55689	.45889	.000*
		Coloured	1.58066	.68158	.148
	Coloured	Asian	2.62899	1.07091	.112
		White	.97623	.57320	.408
		African	-1.58066	.68158	.148
Influence A	Asian	White	.93018	.58675	.474
		African	1.58703	.62985	.097
		Coloured	.00798	.66498	1.000
	White	Asian	93018	.58675	.474
		African	.65685	.28495	.152
		Coloured	92220	.35593	.083
	African	Asian	-1.58703	.62985	.097

	White	65685	.28495	.152
	Coloured	-1.57905	.42323	.003*
Coloured	Asian	00798	.66498	1.000
	White	.92220	.35593	.083
	African	1.57905	.42323	.003*

10.010		464)		1	
Influence B	Asian	White	1.15548	.58096	.268
W		African	2.05142	.62363	.013*
		Coloured	.44814	.65842	.927
	White	Asian	-1.15548	.58096	.268
		African	.89594	.28214	.019*
		Coloured	70735	.35242	.260
	African	Asian	-2.05142	.62363	.013*
		White	89594	.28214	.019*
		Coloured	-1.60329	.41905	.002*
	Coloured	Asian	44814	.65842	.927
		White	.70735	.35242	.260
		African	1.60329	.41905	.002*
Motivation	Asian	White	1.31114	.62382	.221
		African	.85047	.66964	.657
		Coloured	14495	.70699	.998
	White	Asian	-1.31114	.62382	.221
		African	46066	.30295	.511
		Coloured	-1.45608	.37842	.002*
	African	Asian	85047	.66964	.657
		White	.46066	.30295	.511
		Coloured	99542	.44996	.181
	Coloured	Asian	.14495	.70699	.998
		White	1.45608	.37842	.002*
		African	.99542	.44996	.181
Stimulation	Asian	White	1.70964	.56942	.030*
		African	2.49921	.61124	.001*
		Coloured	1.03059	.64533	.467
	White	Asian	-1.70964	.56942	.030*
		African	.78957	.27653	.044*
		Coloured	67905	.34542	.278
	African	Asian	-2.49921	.61124	.001*

	White	78957	.27653	.044*
	Coloured	-1.46862	.41072	.005*
Coloured	Asian	-1.03059	.64533	.467
	White	.67905	.34542	.278
	African	1.46862	.41072	.005*

	0.12: (Continu	ieu)		1	
Consideration	Asian	White	.95504	.64324	.532
		African	3.12025	.69049	.000*
White		Coloured	.45745	.72900	.941
	White	Asian	95504	.64324	.532
		African	2.16521	.31238	.000*
		Coloured	49759	.39020	.654
	African	Asian	-3.12025	.69049	.000*
		White	-2.16521	.31238	.000*
		Coloured	-2.66281	.46397	.000*
	Coloured	Asian	45745	.72900	.941
		White	.49759	.39020	.654
		African	2.66281	.46397	.000*
Constructive	Asian	White	1.10950	.60981	.347
		African	1.57199	.65460	.125
		Coloured	.89761	.69111	.640
	White	Asian	-1.10950	.60981	.347
		African	.46249	.29615	.487
		Coloured	21190	.36992	.955
	African	Asian	-1.57199	.65460	.125
		White	46249	.29615	.487
		Coloured	67439	.43986	.503
	Coloured	Asian	89761	.69111	.640
		White	.21190	.36992	.955
		African	.67439	.43986	.503
MBE-Active	Asian	White	1.35439	.84400	.463
		African	1.67168	.90599	.334
		Coloured	.02261	.95653	1.000
	White	Asian	-1.35439	.84400	.463
		African	.31728	.40988	.897
		Coloured	-1.33179	.51198	.081
	African	Asian	-1.67168	.90599	.334

	White	31728	.40988	.897
	Coloured	-1.64907	.60878	.063
Coloured	Asian	02261	.95653	1.000
	White	1.33179	.51198	.081
	African	1.64907	.60878	.063

		/u/			
MBE-Passive	Asian	White	53014	.71658	.908
-		African	-1.07041	.76921	.586
		Coloured	33112	.81212	.983
	White	Asian	.53014	.71658	.908
		African	54027	.34800	.492
		Coloured	.19903	.43468	.976
	African	Asian	1.07041	.76921	.586
		White	.54027	.34800	.492
		Coloured	.73929	.51687	.563
	Coloured	Asian	.33112	.81212	.983
		White	19903	.43468	.976
		African	73929	.51687	.563
Laissez	Asian	White	44176	.65780	.929
		African	-1.01424	.70611	.560
		Coloured	81117	.74550	.757
	White	Asian	.44176	.65780	.929
		African	57248	.31945	.361
		Coloured	36941	.39903	.836
	African	Asian	1.01424	.70611	.560
		White	.57248	.31945	.361
		Coloured	.20307	.47447	.980
	Coloured	Asian	.81117	.74550	.757
		White	.36941	.39903	.836
		African	20307	.47447	.980
Effort	Asian	White	.77248	.50313	.502
		African	1.24684	.54008	.151
		Coloured	18085	.57021	.992
	White	Asian	77248	.50313	.502
		African	.47436	.24434	.289
		Coloured	95333	.30520	.022*
	African	Asian	-1.24684	.54008	.151

	White	47436	.24434	.289
	Coloured	-1.42769	.36291	.002*
Coloured	Asian	.18085	.57021	.992
	White	.95333	.30520	.022*
	African	1.42769	.36291	.002*

#### Table 10.12: (Continued)

1 46.0		64)			
Effectiveness	Asian	White	.50715	.44103	.724
		African	.78639	.47342	.431
		Coloured	23138	.49983	.975
	White	Asian	50715	.44103	.724
		African	.27924	.21418	.637
		Coloured	73854	.26753	.056
	African	Asian	78639	.47342	.431
		White	27924	.21418	.637
		Coloured	-1.01778	.31811	.017*
	Coloured	Asian	.23138	.49983	.975
		White	.73854	.26753	.056
		African	1.01778	.31811	.017*
Satisfaction	Asian	White	.33753	.44385	.901
		African	.83386	.47645	.383
		Coloured	17287	.50303	.990
	White	Asian	33753	.44385	.901
		African	.49633	.21555	.125
		Coloured	51041	.26925	.310
	African	Asian	83386	.47645	.383
		White	49633	.21555	.152
		Coloured	-1.00673*	.32015	.020*
	Coloured	Asian	.17287	.50303	.990
		White	.51041	.26925	.310
		African	1.00673*	.32015	.020*
(* p ≤ 0.05)					

According to Table 10.12 Asians differ significantly from Africans re Pride in Work (p = 0.024; p being < 0.05). Also, whites and Africans differ significantly on Pride in Work (p = 0.000; p being < 0.05). Africans also differ significantly from coloureds (p = 0.000; p being < 0.05). On Job Involvement there is a significant difference between whites and Africans (p = 0.028; p being < 0.05).

Important to note here is that only these two population groups differ from each other. Asians do not differ significantly from the other three groups on Activity Preference. whites however, differ significantly from Africans (p = 0.000; p being < 0.05) and coloureds ((p = 0.016; p being < 0.05).

It is quite interesting that Asians differ significantly from Africans on Social Status of the Job (p = 0.004; p being < 0.05) but not from whites or coloureds. whites however, differ significantly from Africans on this dimension (p = 0.000; p being < 0.05) and coloureds (p = 0.023; p being < 0.05). Africans and coloureds do not differ here. As regards Individualism, Asians and Africans differ significantly (p = 0.001; p being < 0.05). Africans also differ significantly on Individualism from whites (p = 0.000; p being < 0.05) as well as from coloureds (p = 0.037; p being < 0.05). However, Asians, coloureds and whites do not differ here. In terms of the work value dimension Masculinity, Africans differ significantly from Asians (p = 0.001; p being < 0.05) and whites (p = 0.000; p being < 0.05). On this dimension whites, coloureds and Asians do not differ.

The only significant differences that can be observed on the leadership dimension Idealised Influence (Attributes) are between Africans and coloureds (p = 0.003; p being < 0.05). On Idealised Influence (Behaviours) Africans differ significantly from all three other groups, viz Asians (p = 0.013; p being < 0.05), whites (p = 0.019; p being < 0.05), and coloureds (p = 0.002; p being < 0.05). No differences could be found between Asians, whites and coloureds. On Inspirational Motivation as a further dimension of transformational leadership, only coloureds and whites differ significantly. In terms of Intellectual Stimulation a few significant differences can be observed. Asians differ significantly from whites (p = 0.030; p being < 0.05) and from Africans (p =0.001; p being < 0.05). whites and Africans differ significantly (p = 0.044; p being < 0.05), while Africans also differ significantly from coloureds (p = 0.005; p being < 0.05). Here too, there are no differences between coloureds and Asians, as well as coloureds and whites. With regards to the leadership dimension Individualised Consideration Asians and Africans differ significantly (p = 0.000; p being < 0.05). Africans not only differ significantly from Asians, but also from whites (p = 0.000; p being < 0.05) and coloureds (p = 0.000; pbeing < 0.05). The Coloured group espoused no significant differences with the Asian and White groups. On the first of the leadership outcomes, namely Extra Effort, coloureds differ significantly from both Africans (p = 0.002; pbeing < 0.05) and whites (p = 0.022; p being < 0.05). The Asian group does not espouse any significant differences with the White, African or Coloured groups. The second leadership outcome, Effectiveness, shows a significant difference only between the African and Coloured groups (p = 0.017; p being < 0.05). No other differences between any of the other groups were found. This finding also applies to the last leadership outcome, Satisfaction, with only Africans and coloureds differing significantly (p = 0.020; p being < 0.05).

With regards to Internality, the results show that Africans and whites differ significantly (p = 0.000; p being < 0.05), so do Africans and Asians (p = 0.005; p being < 0.05). A significant difference between Africans and coloureds (p = 0.048; p being < 0.05) is also evident. No significant difference between Asians, whites and coloureds could be found.

In summary, and in terms of work-related value differences, none of the population groups show any significant differences from each other on the dimensions Attitude toward Earnings, Upward Striving (Progress), Power Distance and Uncertainty Avoidance. In addition, no significant differences could be found on any of the three transactional leadership dimensions, viz Constructive Transaction, Management-by-Exception (Active) and Management-by-Exception (Passive) as well as on the non-leadership or Laissez Faire dimension.

#### 10.3.3.2 Kruskal-Wallis one-way analysis of variance

As the sizes of the different population groups differ comprehensively, viz the Asian group (N=16) and the White group (N=367), it was decided to do a non-parametric analysis of variance with population group as the independent variable. The results of this one-way analysis of variance (Kruskal-Wallis) are presented in Table 10.13.

	<u>group</u> .			
	Pride	Involvement	Activity	Earnings
Chi-Square	56.549	5.864	32.826	15.647
Df	3	3	3	3
Asymp. Sig.	.000*	.118	.000*	.001*

Table 10.13:	Kruskal-Wallis one-way analysis of variance: Populatio	<u>n</u>
	group.	

	Social	Progress	Internality	PD
Chi-Square	62.029	3.324	28.178	4.082
Df	3	3	3	3
Asymp. Sig.	.000*	.344	.000*	.253

	UA	Indiv	Masculinity	Influence A
Chi-Square	5.121	39.649	24.648	15.040
Df	3	3	3	3
Asymp. Sig.	.163	.000*	.000*	.002*

	Influence B	Motivation	Stimulation	Consideration
Chi-Square	21.391	18.671	18.717	42.972
Df	3	3	3	3
Asymp. Sig.	.000*	.000*	.000*	.000*
Table 10.	13: (Continued)			
	Constructive	<b>MBE-Active</b>	<b>MBE-Passive</b>	Laissez
Chi-Square	5.749	11.673	2.129	2.228
Df	3	3	3	3

.009\*

.546

.526

	Effort	Effective	Satisfaction
Chi-Square	16.423	11.266	8.157
Df	3	3	3
Asymp. Sig.	.001*	.010*	.043*
(* = < 0.05)			

.124

(\* p ≤ 0.05)

Ap. Sig.

The Kruskal-Wallis H-statistic has approximately a chi-square distribution under the hypothesis that the four population groups have the same distribution. The small values of the significance levels for the chi-square (Table 10.13) of the dimensions Pride in Work, Activity Preference, Attitude toward Earnings, Social Status of the Job, Individualism, Masculinity, the five dimensions of transformational leadership, MBE-active, Internality and the three leadership outcomes indicate that the four population groups differ significantly on these 16 dimensions. The Kruskal-Wallis H-statistic produced the same results as the parametric one-way analysis of variance, except for Job Involvement. No significant differences between the four population groups could be obtained for Job Involvement.

### 10.3.4 WORK EXPERIENCE

### 10.3.4.1 One-way analysis of variance

Years of work experience was the next independent variable on which a oneway analysis of variance (Levene's test of homogeneity) was done. These results are presented in Table 10.14.

<u></u> <u>vv</u>	ork experience.			
	Levene			
	Statistic	df1	df2	Sig
Pride	6.030	5	503	.000*
Involvement	.807	5	503	.545
Activity	1.858	5	503	.100
Earnings	1.390	5	503	.227
Status	.016	5	503	1.000
Progress	.330	5	503	.895
Internality	2.105	5	503	.064
PD	1.444	5	500	.207
UA	.468	5	503	.800
Individualism	3.652	5	503	.003*
Masculinity	2.780	5	503	.017*
Influence A	1.469	5	503	.198
Influence B	1.029	5	503	.400
Motivation	.270	5	503	.929
Stimulation	3.639	5	503	.003*
Consideration	3.310	5	503	.006*
Constructive T	.724	5	503	.606
MBE-Active	.808	5	503	.544
MBE-Passive	.474	5	503	.796
Laissez	1.574	5	503	.166
Effort	2.415	5	503	.035*
Effectiveness	1.274	5	503	.274
Satisfaction	2.037	5	503	.072
(* p ≤ 0.05)				

# Table 10.14: One-way analysis of variance – Levene's test for homogeneity: Wark experience

According to Table 10.14, there are significant differences in variance as regards the dimensions Pride in Work, Individualism, Masculinity, Intellectual Stimulation, Individualised Consideration, and Extra Effort. Due to the fact that the sizes of the groups in terms of work experience are quite dissimilar, a non-parametric (Kruskal-Wallis) one-way analysis of variance was also done, the results of which are presented in Table 10.15.

I able	e 10.15: <u>One-way</u>	analysis of var	lance: work ex	<u>perience</u> .		
				Df	F	Sig
Pride	Between	(Combined)		5	3.559	.004*
	Groups	Linear	Unweighted	1	9.698	.002
		Term	Weighted	1	8.767	.003
			Deviation	4	2.257	.062
	Within Groups			503		
	Total			508		
Involvement	Between	(Combined)		5	3.381	.005*
	Groups	Linear	Unweighted	1	10.513	.001
		Term	Weighted	1	5.746	.017
			Deviation	4	2.790	.026
	Within Groups			503		
	Total			508		
Activity	Between	(Combined)		5	4.667	.000*
	Groups	Linear	Unweighted	1	22.613	.000
		Term	Weighted	1	19.081	.000
			Deviation	4	1.064	.374
	Within Groups			503		
	Total			508		
Earnings	Between	(Combined)		5	2.609	.024*
	Groups	Linear	Unweighted	1	9.532	.002
		Term	Weighted	1	11.896	.001
			Deviation	4	.287	.886
	Within Groups			503		
	Total			508		
Status	Between	(Combined)		5	1.347	.243
	Groups	Linear	Unweighted	1	.236	.627
		Term	Weighted	1	.226	.635
			Deviation	4	1.628	.166
	Within Groups			503		
	Total			508		

Table 10.15:	One-wav	analys	sis of va	riance: \	Work ex	perience.

Table 10.15: (Continued)

		,u)				
Progress	Between	(Combined)		5	2.216	.052
	Groups	Linear	Unweighted	1	.463	.496
		Term	Weighted	1	.120	.729
			Deviation	4	2.740	.028
	Within Groups			503		
	Total			508		
Internality	Between	(Combined)		5	5.623	.000*
	Groups	Linear	Unweighted	1	15.821	.000
		Term	Weighted	1	14.471	.000
			Deviation	4	3.410	.009
	Within Groups			503		
	Total			508		
PD	Between	(Combined)		5	.922	.467
	Groups	Linear	Unweighted	1	1.027	.311
		Term	Weighted	1	2.371	.124
			Deviation	4	.559	.692
	Within Groups			500		
	Total			505		
UA	Between	(Combined)		5	1.217	.300
	Groups	Linear	Unweighted	1	2.434	.119
		Term	Weighted	1	3.199	.074
			Deviation	4	.722	.577
	Within Groups			503		
	Total			508		
Individ	Between	(Combined)		5	2.135	.060
	Groups	Linear	Unweighted	1	1.800	.180
		Term	Weighted	1	1.729	.189
			Deviation	4	2.236	.064
	Within Groups			503		
	Total			508		

Table 10.15: (Continued)

Masculinity	Between	(Combined)		5	3.141	.008*
,	Groups	Linear	Unweighted	1	.534	.465
		Term	Weighted	1	.036	.850
			Deviation	4	3.917	.004
	Within Groups			503		
	Total			508		
Influence A	Between	(Combined)		5	2.048	.071
	Groups	Linear	Unweighted	1	3.955	.047
		Term	Weighted	1	2.836	.093
			Deviation	4	1.851	.118
	Within Groups			503		
	Total			508		
Influence B	Between	(Combined)		5	1.950	.085
	Groups	Linear	Unweighted	1	3.319	.069
		Term	Weighted	1	2.181	.140
			Deviation	4	1.892	.110
	Within Groups			503		
	Total			508		
Motivation	Between	(Combined)		5	1.624	.152
	Groups	Linear	Unweighted	1	.198	.657
	Groups	Linear Term	Unweighted Weighted	1 1	.198 .974	.657 .324
	Groups		-			
	Groups Within Groups		Weighted	1	.974	.324
			Weighted	1	.974	.324
Stimulation	Within Groups		Weighted	1 4 503	.974	.324
Stimulation	Within Groups Total	Term	Weighted	1 4 503 508	.974 1.786	.324 .130
Stimulation	Within Groups Total Between	Term (Combined)	Weighted Deviation	1 4 503 508 5	.974 1.786 2.373	.324 .130 .038*
Stimulation	Within Groups Total Between	Term (Combined) Linear	Weighted Deviation Unweighted	1 4 503 508 5 1	.974 1.786 2.373 4.227	.324 .130 .038* .040
Stimulation	Within Groups Total Between	Term (Combined) Linear	Weighted Deviation Unweighted Weighted	1 4 503 508 5 1 1	.974 1.786 2.373 4.227 2.574	.324 .130 .038* .040 .109
Stimulation	Within Groups Total Between Groups	Term (Combined) Linear	Weighted Deviation Unweighted Weighted	1 4 503 508 5 1 1 1 4	.974 1.786 2.373 4.227 2.574	.324 .130 .038* .040 .109
Stimulation	Within Groups Total Between Groups Within Groups	Term (Combined) Linear	Weighted Deviation Unweighted Weighted	1 4 503 508 5 1 1 1 4 503	.974 1.786 2.373 4.227 2.574	.324 .130 .038* .040 .109

	Term	Weighted	1	13.754	.000
		Deviation	4	1.556	.185
Within Groups			503		
Total			508		

		<i>(</i> , , , , , , , , , , , , , , , , , , ,		1		
Constructive	Between	(Combined)		5	1.043	.392
	Groups	Linear	Unweighted	1	.690	.406
		Term	Weighted	1	.606	.437
			Deviation	4	1.152	.331
	Within Groups			503		
	Total			508		
Active	Between	(Combined)		5	1.613	.155
	Groups	Linear	Unweighted	1	.002	.967
		Term	Weighted	1	.853	.356
			Deviation	4	1.803	.127
	Within Groups			503		
	Total			508		
Passive	Between	(Combined)		5	1.707	.131
	Groups	Linear	Unweighted	1	3.082	.080
		Term	Weighted	1	1.635	.202
			Deviation	4	1.725	.143
	Within Groups			503		
	Total			508		
Laissez	Between	(Combined)		5	2.185	.055
	Groups	Linear	Unweighted	1	5.744	.017
		Term	Weighted	1	3.024	.083
-			Deviation	4	1.975	.097
	Within Groups			503		
	Total			508		
Effort	Between	(Combined)		5	2.471	.032*
	Groups	Linear	Unweighted	1	5.663	.018
		Term	Weighted	1	7.333	.007
			Deviation	4	1.256	.287
	Within Groups			503		
	Total			508		
Effective	Between	(Combined)		5	2.396	.037*
	Groups	Linear –	Unweighted	1	4.907	.027
	l	Term	Weighted	1	5.499	.019

	Deviation	4	1.620	.168
Within Groups		503		
Total		508		

#### Table 10.15: (Continued)

	· · ·					
Satisfaction	Between	(Combined)		5	3.403	.005*
	Groups	Linear	Unweighted	1	9.854	.002
		Term	Weighted	1	11.754	.001
			Deviation	4	1.315	.263
	Within Groups			503		
	Total			508		
(* p ≤ 0.05)						

It is evident from Table 10.15 that the six categories of work experience differ significantly on the dimensions Pride in Work, Job Involvement, Activity Preference, Attitude toward Earnings, Masculinity, Intellectual Stimulation, Individualised Consideration, Internality and all three leadership outcomes, viz Extra Effort, Effectiveness and Satisfaction.

Post hoc comparisons were done by means of the Scheffé test. The category "0-5 years work experience" differ significantly from the category "21-30 years work experience" (p = 0.000; p being < 0.05) on Pride in Work. As regards Job Involvement the category "0-5 years" differs significantly from the category "more than 30 years" (p = 0.041; p being < 0.05). On Activity Preference, members with 0-5 years work experience differ significantly with those having 21-30 years experience (p = 0.026; p being < 0.05) and with those having more than 30 years experience (p = 0.002; p being < 0.05). With regards to Masculinity it is again the category "0-5 years" that differs significantly (p = 0.042; p being < 0.05), in this case from the category "11-15 years". Members with 0-5 years experience differ significantly from those having 11-15 years experience (p = 0.029; p being < 0.05), 21-30 years experience (p = 0.006; p being < 0.05), and more than 30 years experience (p = 0.040; p being < 0.05) on the dimension Individualised Consideration. In terms of Extra Effort as a leadership outcome, members with 0-5 years experience differ significantly from those with 21-30 years experience (p = 0.044; p being < 0.05).

The dimension Effectiveness (the second leadership outcome) shows members with 0-5 years experience differing significantly from those with 21-30 years (p = 0.048; p being < 0.05). The same two groups differ significantly from each other (p = 0.012; p being < 0.05) on the dimension Satisfaction (the third leadership outcome). On Internality, members with 0-5 years work experience differ significantly from all the other levels of work experience, viz "6-10 years" (p = 0.006; p being < 0.05), "11-15 years" (p = 0.0001; p being < 0.05), "16-20 years" (p = 0.006; p being < 0.05), "21-30 years" (p = 0.000; p being < 0.05), and "more than 30 years" (p = 0.015; p being < 0.05). No significant differences could be found between any levels of work experience on the dimensions Attitude toward Earnings, Social Status of the Job, Upward Striving, Power Distance, Uncertainty Avoidance, Individualism, Laissez Faire as well as all the dimensions of both transactional and transformational leadership, except for Individualised Consideration, which was discussed above.

### 10.3.4.2 Kruskal-Wallis one-way analysis of variance

The non-parametric one-way analysis of variance (Kruskal-Wallis) was also done on the independent variable Work Experience, the results of which are presented in Table 10.16.

	Pr	ide	Involv	vement	Ac	tivity	/	Earn	ings
-		<u>experie</u>	ence.						
Table 10.7	16:	<u>Kruska</u>	I-Wallis	one-way	analy	/sis	of	variance:	Work

				_
Chi-Square	12.649	15.779	18.262	11.594
Df	5	5	5	5
Asymp. Sig.	.027*	.008*	.003*	.041*

	Social	Progress	Internality	PD
Chi-Square	6.563	10.560	23.173	3.332
Df	5	5	5	5
Asymp. Sig.	.255	.061	.000*	.649

	UA	Indiv	Masculinity	Influence A
Chi-Square	8.549	5.598	16.678	9.100
Df	5	5	5	5
Asymp. Sig.	.128	.347	.005*	.105

	Influence B	Motivation	Stimulation	Consideration
Chi-Square	8.810	6.865	8.588	16.955
Df	5	5	5	5
Asymp. Sig.	.117	.231	.127	.005*

	Constructive	<b>MBE-Active</b>	<b>MBE-Passive</b>	Laissez
Chi-Square	3.727	7.620	9.561	8.646
Df	5	5	5	5
Ap. Sig.	.589	.178	.089	.124

Table 10.16: (Continued)

	Effort	Effective	Satisfaction
Chi-Square	10.573	8.794	12.579
Df	5	5	5
Asymp. Sig.	.061	.118	.028*

(\* p  $\le 0.05$ )

It is clearly shown in Table 10.16 that, in terms of the non-parametric one-way analysis of variance, the six categories of years of work experience differ on the same dimensions except for Intellectual Stimulation, Extra Effort, and Effectiveness.

### 10.3.5 AGE

### 10.3.5.1 One-way analysis of variance

The research data was also subjected to a one-way analysis of variance for the independent variable "age". The results of this analysis are presented in Table 10.17.

				df	F	Sig
Pride	Between	(Combined)		2	.054	.948
	Groups	Linear	Unweighted	1	.103	.749
		Term	Weighted	1	.061	.805
			Deviation	1	.046	.830
	Within Groups			496		
	Total			498		
Involvement	Between	(Combined)		2	.228	.796
	Groups	Linear	Unweighted	1	.004	.951
		Term	Weighted	1	.147	.702
			Deviation	1	.310	.578
	Within Groups			496		
	Total			498		

### Table 10.17: One-way analysis of variance: Age.

Activity	Between	(Combined)		2	.997	.370
Activity	Groups	Linear	Unweighted	1	.738	.391
	Groups	Term	Weighted	1	1.685	.195
-		renn	Deviation	1	.309	.195
	Within Croups		Deviation	496	.309	.579
	Within Groups			496		
Table	Total 10.17: (Continue	ad)		498		
Earnings	Between	(Combined)		2	1.481	.229
Lannings	Groups	Linear	Unweighted	1	.350	.554
	Groups	Term	Weighted	1	1.711	.192
		Tenni	Deviation	1	1.250	.192
	Within Groups		Deviation	496	1.250	.204
	Total			490		
Status	Between	(Combined)		490	2.727	.066
Status		(Combined)	Upwoighted	1	4.985	
	Groups	Linear	Unweighted Weighted	1		.026
		Term	Weighted	1	5.207	.023
	Mithin Croups		Deviation		.247	.619
	Within Groups			496		
Dreamere	Total			498	1 400	045
Progress	Between	(Combined)	l lucius subte d	2	1.409	.245
	Groups	Linear	Unweighted	1	.275	.600
		Term	Weighted	1	1.534	.216
			Deviation	1	1.283	.258
_	Within Groups			496		
Internality	Total	(Combined)		498 2	252	770
Internality	Between	(Combined)	Linuxaiadata d	<u> </u>	.252	.778
	Groups	Linear	Unweighted		.430	.512
		Term	Weighted	1	.496	.482
			Deviation	1	.007	.932
	Within Groups			496		
PD	Total	(Combined)		498	1 605	100
20	Between	(Combined)	Upwoighted	2	1.625	.198
	Groups	Linear Term	Unweighted	1	2.779	.096
		Telli	Weighted	-	1.228	.268
	Within Crowns		Deviation	1 493	2.023	.156
	Within Groups					
UA	Total	(Combined)		495	E AEA	000*
UA	Between	(Combined)	Invoighted	2	6.454	.002*
	Groups	Linear	Unweighted	1	12.609	.000
		Term	Weighted	1	11.309	.001
			Deviation	1	1.599	.207
	Within Groups			496		
les alls d'al	Total			498	000	001
Individ	Between	(Combined)		2	.222	.801
	Groups	Linear	Unweighted	1	.134	.714

	Term	Weighted	1	.002	.962
		Deviation	1	.441	.507
Within Groups			496		
Total			498		

### Table 10.17: (Continued)

	10.17: (Continue	,		,		
Masculinity	Between	(Combined)		2	1.316	.269
	Groups	Linear	Unweighted	1	.099	.753
		Term	Weighted	1	1.113	.292
			Deviation	1	1.520	.218
	Within Groups			496		
	Total			498		
Influence A	Between	(Combined)		2	.005	.995
	Groups	Linear	Unweighted	1	.009	.924
		Term	Weighted	1	.006	.936
			Deviation	1	.003	.959
	Within Groups			496		
	Total			498		
Influence B	Between	(Combined)		2	.033	.968
	Groups	Linear	Unweighted	1	.018	.892
		Term	Weighted	1	.000	.991
			Deviation	1	.066	.798
	Within Groups			496		
	Total			498		
Motivation	Between	(Combined)		2	.718	.488
	Groups	Linear	Unweighted	1	.054	.816
		Term	Weighted	1	.608	.436
_			Deviation	1	.828	.363
	Within Groups			496		
	Total			498		
Stimulation	Between	(Combined)		2	.001	.999
	Groups	Linear	Unweighted	1	.000	.993
		Term	Weighted	1	.000	.994
			Deviation	1	.001	.975
	Within Groups			496		
	Total			498		
Consider	Between	(Combined)		2	.756	.470
	Groups	Linear	Unweighted	1	1.501	.221
		Term	Weighted	1	1.246	.265
			Deviation	1	.265	.607
	Within Groups			496		
	Total			498		
Constructive					075	000
Constructive	Between	(Combined)		2	.075	.928

	Term	Weighted	1	.074	.786
		Deviation	1	.076	.783
Within Groups			496		
Total			498		

#### Table 10.17: (Continued)

Active         Between         (Combined)         2         1.530         2.217           Groups         Linear         Unweighted         1         1.940         1.64           Total         Deviation         496         1         3.033         8.084           Passive         Between         (Combined)         Queviation         496         1         3.038         8.014           Passive         Between         (Combined)         Queviation         1         4.451         5.502           Within Groups         Term         Weighted         1         4.461         5.502           Total         Term         Weighted         1         4.461         5.502           Within Groups         Term         Weighted         1         4.96         -           Total         Linear         Unweighted         1         0.001         9.383           Groups         Linear         Unweighted         1         0.020         3.887           Groups         Linear         Unweighted         1         0.013         3.733           Total         Term         Weighted         1         3.233         3.127           Groups         Linear		10.17: (Continue	<del>,</del> u)		•		
Term         Weighted Deviation         1         3.003         .084           Within Groups Total         Term         Weighted Deviation         1         .058         .811           Passive         Between         (Combined) Groups         2         .923         .398           Groups         Linear Term         Unweighted Deviation         1         .451         .502           Within Groups         Term         Weighted Deviation         1         .451         .502           Within Groups         Term         Weighted Deviation         1         .451         .502           Mithin Groups         Linear         Unweighted Deviation         1         .466            Laissez         Between         (Combined)         2              Groups         Linear         Unweighted Deviation         1              Effort         Between         (Combined)         2         1             Total         Term         Weighted Deviation         2         1             Effort         Between         (Combined)         2         <	Active	Between	(Combined)		2	1.530	.217
Within Groups Total         Deviation         1         .0.58         .811           Passive         Between         (Combined) Groups         2         .923         .398           Groups         Linear Term         Unweighted Deviation         2         .923         .398           Within Groups         Term         Weighted Deviation         1         .1.846         .1.75           Within Groups         Term         Weighted Deviation         1         .1.846         .1.75           Mithin Groups         Term         Unweighted Deviation         496		Groups	Linear	Unweighted	1	1.940	.164
Within Groups Total         496         498         498           Passive         Between         (Combined)         2         .923         .398           Groups         Linear         Unweighted         1         .451         .502           Groups         Linear         Unweighted         1         .000         .995           Mithin Groups         Erem         Weighted         1         .1.846         .1.75           Mithin Groups         Erem         (Combined)         1         1.846         .1.75           Mithin Groups         Linear         Unweighted         1         .0.00         .995           Groups         Linear         Unweighted         1         .0.03         .773           Groups         Linear         Unweighted         1         .0.02         .887           Mithin Groups         Erem         Weighted         1         .2.338         .127           Groups         Linear         Unweighted         1         .0.01         .979           Mithin Groups         Linear         Unweighted         1         .0.01         .979           Mithin Groups         Linear         Unweighted         1         1.726         .6			Term	Weighted	1	3.003	.084
Total498498498PassiveBetween Groups(Combined) Linear TermUnweighted Deviation1.451.502TotalTermWeighted Deviation1.000.995TotalDeviation11.846.175Mithin GroupsTotal496TotalTermWeighted Deviation1.000.995Between(Combined)2.066.936GroupsLinear TermUnweighted Deviation1.020.887TotalTermWeighted Deviation1.112.739Within GroupsTermWeighted Total1.020.887EffortBetween(Combined)21.566.210GroupsLinear TermUnweighted Deviation1.011.979Within GroupsLinear TermUnweighted Deviation1.3131.077Mithin GroupsLinear TermUnweighted Deviation1.124.190EffectiveBetween(Combined)1.206.650Within GroupsLinear TermUnweighted Deviation1.223.135AgeCombined)Eifective49822.1340Between(Combined)1.206.650.382GroupsLinear LinearUnweighted Deviation1.223.135GroupsLinear LinearU				Deviation	1	.058	.811
Passive         Between         (Combined)         1         2         923         398           Groups         Linear         Unweighted         1         .451         .502           Term         Weighted         Deviation         1         .456         .702           Within Groups         Total         496	-	Within Groups			496		
Groups         Linear Term         Unweighted Weighted Deviation         1		Total			498		
Term         Weighted Deviation         1        00        995           Within Groups Total         496	Passive	Between	(Combined)		2	.923	.398
Deviation         1         1.846         .175           Within Groups Total         Even         (Combined)         2         .066         .936           Laissez         Between         (Combined)         1         .083         .773           Groups         Linear         Unweighted         1         .003         .773           Within Groups         Term         Weighted         1         .020         .887           Total         Term         Weighted         1         .020         .887           Within Groups         Term         Weighted         1         .020         .887           Effort         Between         (Combined)         2         1.12         .739           Within Groups         Linear         Unweighted         1         2.338         .127           Groups         Linear         Unweighted         1         .0313         .077           Within Groups         Term         Weighted         1         .0313         .077           Within Groups         Term         Weighted         1         .0313         .077           Within Groups         Linear         Unweighted         1         .0206         .382 <th>· · · · · · · · · · · · · · · · · · ·</th> <th>Groups</th> <th>Linear</th> <th>•</th> <th>1</th> <th>.451</th> <th>.502</th>	· · · · · · · · · · · · · · · · · · ·	Groups	Linear	•	1	.451	.502
Within Groups Total         496			Term	Weighted	1	.000	.995
Total498				Deviation	1	1.846	.175
Laissez         Between         (Combined)         2         .066         .936           Groups         Linear         Unweighted         1         .083         .773           Term         Weighted         1         .020         .887           Within Groups         Total         496		Within Groups			496		
Groups         Linear Term         Unweighted Weighted Deviation         1         0.083         .773           Within Groups         Term         Weighted Deviation         1         .020         .887           Total         A96		Total			498		
Term         Weighted Deviation         1	Laissez	Between	(Combined)		2	.066	.936
Within Groups Total         Deviation         1		Groups	Linear	Unweighted	1	.083	.773
Within Groups Total         496         496           Effort         Between         (Combined)         2         1.566         .210           Groups         Linear         Unweighted         1         2.338         .127           Term         Weighted         1         3.131         .077           Deviation         1         .001         .979           Within Groups         Term         Weighted         1         .001         .979           Within Groups         Linear         Unweighted         1         .001         .979           Within Groups         Total         496         -			Term	Weighted	1	.020	.887
Total498498EffortBetween(Combined)21.566.210GroupsLinearUnweighted12.338.127TermWeighted13.131.077Deviation13.001.979Within Groups-496-Total-498-EffectiveBetween(Combined)2.965.382GroupsLinearUnweighted11.724.190GroupsLinearUnweighted11.724.190Total498SatisfactionBetween(Combined)498SatisfactionBetween(Combined)12.655.104GroupsLinearUnweighted12.239.135GroupsLinearUnweighted12.239.135GroupsLinearUnweighted12.239.135GroupsLinearUnweighted12.239.135Unweighted1.440.507.104.507Within Groups498135Within Groups498.135Unithin Groups498.135Unithin Groups498.135Unithin Groups498.135Unithin Groups498.135Unithin Groups- <td< th=""><th></th><th></th><th></th><th>Deviation</th><th>1</th><th>.112</th><th>.739</th></td<>				Deviation	1	.112	.739
Effort         Between         (Combined)         2         1.566         .210           Groups         Linear         Unweighted         1         2.338         .127           Term         Weighted         1         3.131         .077           Deviation         1         .001         .979           Within Groups		Within Groups			496		
Groups         Linear Term         Unweighted Weighted Deviation         1         2.338         .127           Within Groups         Term         Weighted Deviation         1         3.131         .077           Within Groups         Total         496         1         3.131         .077           Effective         Between         (Combined)         498         1         1         .001         .979           Kithin Groups         Total         Unweighted         1         1         .001         .979           Fffective         Between         (Combined)         2         .965         .382           Groups         Linear         Unweighted         1         1.869         .172           Term         Weighted         1         1.724         .190           Deviation         1         .206         .650           Within Groups         Total         498         1         .239         .135           Groups         Linear         Unweighted         1         2.239         .135           Groups         Linear         Unweighted         1         2.239         .135           Groups         Linear         Unweighted         1		Total			498		
Term         Weighted Deviation         1         3.131         .077           Within Groups Total	Effort	Between	(Combined)		2		
Deviation         1         .001         .979           Within Groups         Total         496		Groups	Linear	Unweighted	1	2.338	.127
Within Groups       496       1         Total       498       1         Effective       Between       (Combined)       2       .965       .382         Groups       Linear       Unweighted       1       1.869       .172         Term       Weighted       1       1.724       .190         Deviation       1       .206       .650         Within Groups       Term       Weighted       1       .206       .650         Within Groups       Total       1       .206       .650         Satisfaction       Between       (Combined)       498       498       .263         Groups       Linear       Unweighted       1       2.239       .135         Groups       Linear       Unweighted       1       2.239       .135         Groups       Linear       Unweighted       1       2.239       .135         Deviation       1       .440       .507         Within Groups       Linear       498       498       .507         Within Groups       Total       498       .498       .507			Term	•		3.131	.077
Total4989EffectiveBetween(Combined)29.9653.382GroupsLinearUnweighted11.869.172TermWeighted11.724.190Deviation12.066.650Within Groups-496-Total-498-SatisfactionBetween(Combined)21.340.263GroupsLinearUnweighted12.655.104TermWeighted12.239.135Deviation1.440.507Within Groups-496-Total-498-	-			Deviation	-	.001	.979
EffectiveBetween Groups(Combined) Linear TermUnweighted Weighted11.869.172Deviation11.724.190Deviation11.724.190Within Groups2.065.650Within Groups496498-Total21.340.263GroupsLinearUnweighted Term12.655.104GroupsLinearUnweighted Term12.239.135Deviation1.440.507.507Within GroupsFerm496TotalTermWeighted Deviation1.440.507Within GroupsTotal-498TotalFermWeighted Deviation1.440.507Within GroupsFerm498TotalFerm498TotalFerm498TotalFerm498TotalFerm498TotalFerm498FermFerm498FermFermFerm498FermFermFerm11-FermFermFerm498FermFermFerm498FermFerm <t< th=""><th></th><th>-</th><th></th><th></th><th></th><th></th><th></th></t<>		-					
Groups       Linear       Unweighted       1       1.869       .172         Term       Weighted       1       1.724       .190         Deviation       1       .206       .650         Within Groups       496       -       -         Total       498       -       -         Satisfaction       Between       (Combined)       2       1.340       .263         Groups       Linear       Unweighted       1       2.239       .135         Deviation       1       .2440       .507         Within Groups       -       498       -       -         Term       Weighted       1       .440       .507         Within Groups       -       498       -       -         Total       -       498       -       -		Total					
Term       Weighted Deviation       1       1.724       .190         Within Groups       Deviation       1       .206       .650         Within Groups       496       496       -         Total       498       -       -         Satisfaction       Between       (Combined)       2       1.340       .263         Groups       Linear       Unweighted Term       1       2.239       .135         Deviation       1       .440       .507         Within Groups       -       498       -         Term       Weighted Deviation       1       .440       .507         Within Groups       -       498       -       -         Total       -       498       -       -	Effective	Between	. ,				
Deviation         1         .206         .650           Within Groups         496         496         498           Total         498         498         498           Satisfaction         Between         (Combined)         2         1.340         .263           Groups         Linear         Unweighted         1         2.655         .104           Term         Weighted         1         2.239         .135           Deviation         1         .440         .507           Within Groups         Linear         498         498         .507		Groups		-			
Within Groups       496       1         Total       498       1         Satisfaction       Between       (Combined)       2       1.340       .263         Groups       Linear       Unweighted       1       2.635       .104         Term       Weighted       1       2.239       .135         Deviation       1       .440       .507         Within Groups       Linear       496       1       .440         Term       Weighted       1       .440       .507         Mithin Groups       Total       498       1       .440			Term	•			
Total         498				Deviation		.206	.650
Satisfaction         Between         (Combined)         2         1.340         .263           Groups         Linear         Unweighted         1         2.655         .104           Term         Weighted         1         2.239         .135           Deviation         1         .440         .507           Within Groups         Total         498		-			-		
GroupsLinear TermUnweighted Weighted12.655.10412.239.135Deviation1.440.507Within Groups496498498							
Term         Weighted Deviation         1         2.239         .135           Within Groups         1         .440         .507           Total         496         498         498	Satisfaction						
Deviation         1         .440         .507           Within Groups         496             Total         498		Groups		•			
Within Groups496Total498			Term	•	1		
Total 498				Deviation	-	.440	.507
		Within Groups			496		
(* p ≤ 0.05)		Total			498		
	(* p ≤ 0.05)						

According to Table 10.17, the age groups differ significantly only in terms of Uncertainty Avoidance. Post hoc comparisons by means of the Scheffé test prove age group 2 (20-24 years) to differ significantly from age group 3 (25-34 years) with p = 0.033; p being < 0.05. Group 2 also differ significantly from group 4 (35 years and older) with p = 0.002; p being < 0.05.

#### 10.3.5.2 Kruskal-Wallis one-way analysis of variance

Due to the unequal spread of respondents across the different levels of the variable "age", a Kruskal-Wallis one-way analysis of variance was also applied to the research data. These results are presented in Table 10.18.

Table 10.18:         Kruskal-Wallis one-way analysis of variance: Age.
--

_	Pride	Involvement	Activity	Earnings
Chi-Square	.973	.420	1.406	1.963
Df	2	2	2	2
Asymp. Sig.	.615	.811	.495	.375

_	Social	Progress	Internality	PD
Chi-Square	5.442	3.766	.131	2.750
Df	2	2	2	2
Asymp. Sig.	.066	.152	.936	.253

Table 10.18: (Continued)

	UA	Indiv	Masculinity	Influence A
Chi-Square	14.158	.425	4.537	.044
Df	2	2	2	2
Asymp. Sig.	.001*	.808	.103	.978

	Influence B	Motivation	Stimulation	Consideration
Chi-Square	.031	1.150	.008	1.172
Df	2	2	2	2
Asymp. Sig.	.985	.563	.996	.557

	Constructive	<b>MBE-Active</b>	<b>MBE-Passive</b>	Laissez
Chi-Square	.305	3.271	2.657	.101
Df	2	2	2	2
Ap. Sig.	.859	.195	.265	.951

Effort Effective Satisfaction
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Chi-Square	3.320	1.060	3.322
Df	2	2	2
Asymp. Sig.	.190	.589	.190
(* p ≤ 0.05)			

(\* p ≤ 0.05)

The results reflected in Table 10.18 confirm the three age groups to differ only with regards to Uncertainty Avoidance.

#### 10.3.6 RELIGION

#### 10.3.6.1 One-way analysis of variance

Religion served as the next independent variable on which a one-way analysis of variance was done, the results of which are presented in Table 10.20. The results of Levene's test for homogeneity of variance are presented in Table 10.19.

Table 10.19:	<u>One-way analysi</u>	<u>nce - Levene's test</u>		
	homogeneity of va	<u>on</u> .		
	Levene			
	Statistic	df1	df2	Sig
Pride	5.805	4	504	.000*
Involvement	.597	4	504	.665
Activity	2.350	4	504	.053
Earnings	.990	4	504	.412
Status	.458	4	504	.767
Progress	.313	4	504	.869
Internality	.666	4	504	.616
PD	.727	4	501	.574
UA	.478	4	504	.752
Individualism	1.536	4	504	.190
Masculinity	2.714	4	504	.029*
Influence A	2.233	4	504	.064
Influence B	1.003	4	504	.405
Motivation	2.043	4	504	.087
Stimulation	.455	4	504	.769
Consideration	5.060	4	504	.001*
Constructive T	.390	4	504	.816
MBE-Active	.772	4	504	.544
MBE-Passive	1.599	4	504	.173

Laissez	.567	4	504	.687
Effort	1.276	4	504	.278
Effective	3.061	4	504	.016*

(\* p ≤ 0.05)

According to Table 10.19, there is an inequality of variance between the five religious groups with respect to Pride in Work, Masculinity, Consideration and Effectiveness.

				df	F	Sig.
Pride	Between	(Combined)		4	6.370	.000*
	Groups	Linear	Unweighted	1	.104	.748
		Term	Weighted	1	3.078	.080
			Deviation	3	7.467	.000
	Within Groups			504		
	Total			508		
Involvement	Between	(Combined)		4	2.212	.067
	Groups	Linear	Unweighted	1	.000	.996
		Term	Weighted	1	.460	.498
			Deviation	3	2.796	.040
	Within Groups			504		
	Total			508		
Activity	Between	(Combined)		4	4.016	.003*
	Groups	Linear	Unweighted	1	.099	.754
		Term	Weighted	1	1.602	.206
			Deviation	3	4.820	.003
	Within Groups			504		
	Total			508		
Earnings	Between	(Combined)		4	.614	.653
	Groups	Linear	Unweighted	1	2.169	.141
		Term	Weighted	1	1.314	.252
			Deviation	3	.381	.767
	Within Groups			504		
	Total			508		
Status	Between	(Combined)		4	3.444	.009*
	Groups	Linear	Unweighted	1	.891	.346
		Term	Weighted	1	.418	.518
			Deviation	3	4.453	.004
	Within Groups			504		
	Total			508		
Progress	Between	(Combined)		4	.180	.949
	Groups	Linear	Unweighted	1	.116	.734

### Table 10.20: One-way analysis of variance: Religion.

	Term	Weighted	1	.123	.726
		Deviation	3	.199	.897
Within Groups			504		
Total			508		

Table 10.20: (Continued)

InternalityBetween(Combined)41.342GroupsLinearUnweighted1.089TermWeighted1.051Deviation31.772Within Groups504508Total508508PDBetween(Combined)4GroupsLinearUnweightedInternality1.971TermWeighted11.017Deviation3.345	.253 .765 .821 .151 .726 .225
Term         Weighted Deviation         1         .051           Within Groups         3         1.772           Vithin Groups         504         1           Total         508         1           PD         Between (Combined) Groups         4         .513           Groups         Linear         Unweighted Term         1         .971	.821 .151 .726
PDBetween(Combined)31.772Groups5045041Total5081PDBetween(Combined)4GroupsLinearUnweighted1TermWeighted11.017	.151 .726
Within Groups         504         6           Total         508         508         508           PD         Between (Combined)         4         .513           Groups         Linear         Unweighted         1         .971           Term         Weighted         1         1.017	.726
Total508PDBetween Groups(Combined)4.513GroupsLinear TermUnweighted Weighted1.97111.0171.0171.017	
PDBetween Groups(Combined) Linear4.513TermUnweighted1.971TermWeighted11.017	
Groups Linear Unweighted 1 .971 Term Weighted 1 1.017	
Term Weighted 1 1.017	205
	.325
Deviation 3 .345	.314
	.793
Within Groups 501	
Total 505	
UABetween(Combined)41.115	.349
Groups Linear Unweighted 1 .113	.737
Term Weighted 1 .009	.923
Deviation 3 1.483	.218
Within Groups   504	
Total 508	
Individ Between (Combined) 4 3.369	.010*
Groups Linear Unweighted 1 1.142	.286
Term Weighted 1 .240	.624
Deviation 3 4.412	.004
Within Groups504	
Total 508	
MasculinityBetween(Combined)42.012	.092
Groups Linear Unweighted 1 .274	.601
Term Weighted 1 1.568	.211
Deviation 3 2.160	.092
Within Groups504	
Total 508	
Influence A Between (Combined) 4 1.105	.353
Groups Linear Unweighted 1 .093	.761
Term Weighted 1 .281	.597
Deviation 3 1.380	.248
Within Groups   504	
Total 508	
Influence B Between (Combined) 4 1.344	.253
Groups Linear Unweighted 1 1.606	.206
Term Weighted 1 1.077	.300

	Deviation	3	1.432	.232
Within Groups		504		
Total		508		

### Table 10.20: (Continued)

Motivation	Between	(Combined)		4	1.671	.155
	Groups	Linear	Unweighted	1	.047	.829
	·	Term	Weighted	1	.999	.318
			Deviation	3	1.895	.129
	Within Groups			504		
	Total			508		
Stimulation	Between	(Combined)		4	1.435	.221
	Groups	Linear	Unweighted	1	.041	.839
		Term	Weighted	1	.133	.715
			Deviation	3	1.869	.134
	Within Groups			504		
	Total			508		
Consider	Between	(Combined)		4	2.131	.076
	Groups	Linear	Unweighted	1	.215	.643
		Term	Weighted	1	.116	.734
			Deviation	3	2.802	.039
	Within Groups			504		
	Total			508		
Constructive	Between	(Combined)		4	1.323	.260
	Groups	Linear	Unweighted	1	.535	.465
		Term	Weighted	1	.220	.639
			Deviation	3	1.691	.168
	Within Groups			504		
•	Total			508	0.004	004*
Active	Between	(Combined)		4	2.691	.031*
	Groups	Linear	Unweighted	1	.358	.550
		Term	Weighted Deviation	1	.096	.757
	Within Croups		Deviation	504	3.556	.014
	Within Groups Total			504		
Passive	Between	(Combined)		4	1.045	.383
1 435176	Groups	Linear	Unweighted	1	.040	.841
	Cloups	Term	Weighted	1	.357	.551
		Term	Deviation	3	1.275	.282
	Within Groups		Deviation	504	1.270	.202
	Total			508		
Laissez	Between	(Combined)		4	1.474	.209
	Groups	Linear	Unweighted	1	3.359	.067
		Term	Weighted	1	2.930	.088
	8			•		

	Deviation	3	.989	.398
Within Groups		504		
Total		508		

#### Table 10.20: (Continued)

Groups         Linear Term         Unweighted Weighted Deviation         1         .610         .435           1         1.067         .302         .400         .302         .301         .505         .302         .301         .505         .302         .301							
Term         Weighted Deviation         1         1.067         .302           Within Groups Total         3         1.181         .316           Effective         Between         (Combined)         4         .536         .709           Groups         Linear         Unweighted Deviation         1         .010         .921           Mithin Groups         Term         Weighted Deviation         1         .010         .921           Satisfaction         Between         (Combined)         3         .712         .545           Within Groups         Total         504         -         -           Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted Term         1         1.999         .158           Satisfaction         Between         Combined)         4         1.095         .385           Groups         Linear         Unweighted Deviation         1         1.955         .163           Mithin Groups         Total         508         -         508         -	Effort	Between	(Combined)		4	1.152	.331
Deviation         3         1.181         .316           Within Groups Total         504         504         508         504         508         508         508         508         508         508         508         508         508         508         508         508         508         508         508         508         508         508         508         504         508         508         504         508 <th></th> <th>Groups</th> <th>Linear</th> <th>Unweighted</th> <th>1</th> <th>.610</th> <th>.435</th>		Groups	Linear	Unweighted	1	.610	.435
Within Groups Total         504         1           Effective         Between         (Combined)         4         .536         .709           Groups         Linear         Unweighted         1         .075         .784           Term         Weighted         1         .010         .921           Deviation         3         .712         .545           Within Groups         Total         508            Total         Sold         1         .010         .921           Deviation         3         .712         .545           Within Groups         504             Total         508             Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted         1         1.999         .158           Term         Weighted         1         1.955         .163           Deviation         3         .809         .490           Within Groups         504             Total         508			Term	Weighted	1	1.067	.302
Total         508            Effective         Between         (Combined)         4         .536         .709           Groups         Linear         Unweighted         1         .075         .784           Term         Weighted         1         .010         .921           Deviation         3         .712         .545           Within Groups         504         -         -           Total         508         -         -           Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted         1         1.999         .158           Groups         Linear         Unweighted         1         1.999         .158           Term         Weighted         1         1.999         .158           Groups         Linear         Unweighted         1         1.955         .163           Deviation         3         .809         .490         .490         .490           Within Groups         504         -         .604         -         .604         .604         .604         .608         .608         .608         .6				Deviation	3	1.181	.316
Effective         Between         (Combined)         4         .536         .709           Groups         Linear         Unweighted         1         .075         .784           Term         Weighted         1         .010         .921           Deviation         3         .712         .545           Within Groups         504         1         .005           Total         508         1         .0921           Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted         1         1.999         .158           Groups         Linear         Unweighted         1         1.999         .158           Term         Weighted         1         1.999         .158           Deviation         3         .809         .490           Within Groups         504         1         1.955         .163           Within Groups         508         508         1         .490		Within Groups			504		
Groups         Linear Term         Unweighted Weighted Deviation         1         .075         .784           Mithin Groups         Term         Weighted Deviation         1         .010         .921           Satisfaction         Within Groups         504         1         .545           Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted         1         1.999         .158           Term         Weighted         1         1.955         .163           Deviation         3         .809         .490           Within Groups         504         1         1.955           Term         Weighted         1         1.955         .163           Deviation         3         .809         .490           Within Groups         504         1         1.955           Total         508         1         1.095		Total			508		
Term         Weighted Deviation         1         .010         .921           Within Groups         Deviation         3         .712         .545           Within Groups         504         508         508         508           Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted         1         1.999         .158           Term         Weighted         1         1.955         .163           Deviation         3         .809         .490           Within Groups         508         1         1.955           Total         Term         Weighted         1         1.955           Total         Term         Weighted         1         1.955           Total         Total         508         1         1.999	Effective	Between	(Combined)		4	.536	.709
Deviation         3         .712         .545           Within Groups         504         504         508		Groups	Linear	Unweighted	1	.075	.784
Within Groups Total         504         508           Satisfaction         Between Groups         (Combined) Linear         4         1.095         .385           Groups         Linear         Unweighted Deviation         1         1.999         .158           Within Groups         Term         Weighted Deviation         3         .809         .490           Within Groups         504         508         508         508         508			Term	Weighted	1	.010	.921
Total         508         4           Satisfaction         Between         (Combined)         4         1.095         .385           Groups         Linear         Unweighted         1         1.999         .158           Term         Weighted         1         1.955         .163           Within Groups         Total         504         1				Deviation	3	.712	.545
Satisfaction         Between Groups         (Combined) Linear         Unweighted Weighted Deviation         4         1.095         .385           Mathematical Ma		Within Groups			504		
Groups         Linear Term         Unweighted Weighted Deviation         1         1.999         .158           Weighted Deviation         1         1.955         .163           Within Groups         504         1           Total         508         1		Total			508		
Term         Weighted Deviation         1         1.955         .163           Within Groups         3         .809         .490           Total         508         508         508	Satisfaction	Between	(Combined)		4	1.095	.385
Deviation         3         .809         .490           Within Groups         504		Groups	Linear	Unweighted	1	1.999	.158
Within Groups504Total508			Term	Weighted	1	1.955	.163
Total 508				Deviation	3	.809	.490
		Within Groups			504		
(* p ≤ 0.05)		Total			508		
	(* p ≤ 0.05)						

It is clear from Table 10.20 that the five religious groups differ significantly on Pride in Work, Activity Preference, Social Status of the Job, Individualism, and MBE-Active.

Post hoc comparisons were done by means of the Scheffé test. The results show that group 1 (the high churches, i.e. Catholic and Anglican) differ significantly (p = 0.002; p being < 0.05) from group 2 (the three Afrikaans sister Churches) on the dimension Pride in Work. Group 2 also differ significantly (p = 0.022; p being < 0.05) from group 5 (the "other" religions<sup>2</sup>). On Activity Preference it is again group 1 differing significantly (p = 0.028; p being < 0.05) from group 5. (the "other" religions<sup>2</sup>). On Activity Preference it is again group 1 differing significantly (p = 0.028; p being < 0.05) from group 2. In terms of the dimension Individualism the same two groups of churches differ significantly (p = 0.020; p being < 0.05). With regards to MBE-Active, group 3 (Presbyterians and Methodists) differ significantly from the members of the Pentacostal and Apostolic Faiths (group 4) with p = 0.046; p being < 0.05.

<sup>&</sup>lt;sup>2</sup> The religious group "other" includes Lutheran, Zionist, Missionary, Independent, Islam, and Hindu.

#### 10.3.7 EDUCATIONAL QUALIFICATION

#### One-way analysis of variance 10.3.7.1

Educational Qualification served as the last independent variable on which a one-way analysis of variance was done, the results of which are presented in Table 10.22. The results of the Levene test for homogeneity of variance appear in Table 10.21.

Table 10.21:	<u>One-way</u> a	nalysis of	variance	- Leve	ne's test	of
	homogeneity	of variance	: Educatior	nal qualifie	cations.	
	Lovono					

	Levene			
	Statistic	df1	Df2	Sig
Pride	1.145	3	502	.330
Involvement	1.691	3	502	.168
Activity	2.666	3	502	.047*
Earnings	1.231	3	502	.298
Status	2.047	3	502	.106
Progress	.979	3	502	.402
Internality	2.452	3	502	.063
PD	1.029	3	499	.379
UA	.817	3	502	.485
Individualism	1.670	3	502	.173
Masculinity	.599	3	502	.616
Influence A	.616	3	502	.605
Influence B	.212	3	502	.888
Motivation	1.156	3	502	.326
Stimulation	1.613	3	502	.185
Consideration	.369	3	502	.775
Constructive T	.576	3	502	.631
MBE-Active	1.704	3	502	.165
MBE-Passive	1.924	3	502	.125
Laissez	2.518	3	502	.057
Effort	.532	3	502	.660
Effective	1.372	3	502	.250
			502	.232
(* p ≤ 0.05)				

Table 10.21 shows that, except for Activity Preference, there are no significant differences in variance between any of the four educational groups.

PrideBetween Groups(Combined) Linear Term31.167GroupsLinear TermUnweighted Deviation1.183TotalTermWeighted Deviation502	C:a					10.22: <u>One-way</u>	
Groups         Linear Term         Unweighted Weighted Deviation         1	Sig.	F	Df				
Term         Weighted Deviation         1         2.982           Within Groups Total         502         505         505           Involvement         Between         (Combined)         3         3.219         3         3.2159         3         3         3.259         3         3.259         3         3.259         3         3.259         3         3.259         3         3.259         3         3.259         3         3.259         3         3.259         3 </td <td>.322</td> <td></td> <td></td> <td></td> <td>( ,</td> <td></td> <td>Pride</td>	.322				( ,		Pride
Within Groups Total         Deviation         2	.669			•		Groups	
Within Groups Total         502         i           Involvement         Between         (Combined) Groups         3         3.219           Groups         Linear         Unweighted         1         6.663           Term         Weighted         1         6.6131           Deviation         2         1.763           Within Groups	.085			-	Term		
Total505InvolvementBetween(Combined)33.219GroupsLinearUnweighted16.863TermWeighted16.131Deviation21.763Within Groups502505Total505505ActivityBetween(Combined)3GroupsLinearUnweighted1TotalTermWeighted1GroupsLinearUnweighted1Total505502Total505502Total505502Total5051EarningsBetween(Combined)3Between(Combined)34.064GroupsLinearUnweighted1GroupsLinearUnweighted1TotalTermWeighted1GroupsLinearUnweighted1GroupsLinearUnweighted1Total502502502Total505502505StatusBetween(Combined)3GroupsLinearUnweighted1TotalTermWeighted1Total502502Total505502Total505502Total505502Total505502Total505502Total505502Total505502 <td>.771</td> <td>.260</td> <td></td> <td>Deviation</td> <td></td> <td></td> <td></td>	.771	.260		Deviation			
Involvement         Between         (Combined)         3         3.219           Groups         Linear         Unweighted         1         6.863           Total         Deviation         2         1.763           Activity         Between         (Combined)         502         505           Activity         Between         (Combined)         3         2.559           Groups         Linear         Unweighted         1         6.532           Groups         Linear         Unweighted         1         6.532           Total         Term         Weighted         1         6.532           Total         Term         Weighted         1         6.532           Total         Total         502         502         502           Earnings         Between         (Combined)         3         4.064           Groups         Linear         Unweighted         1         10.196           Deviation         2         .999         502         502           Total         Total         502         505         502           Status         Between         (Combined)         3         2.3444              Groups			502			Within Groups	
Groups         Linear Term         Unweighted Weighted Deviation         1         6.863           Within Groups Total         2         1.763           Activity         Between         (Combined)         3         2.559           Groups         Linear         Unweighted Deviation         3         2.559           Activity         Between         (Combined)         3         2.559           Groups         Linear         Unweighted Deviation         1         3.581           Total         Term         Weighted Deviation         1         6.532           Total         Term         Weighted Deviation         3         4.064           Groups         Linear         Unweighted Term         1         4.401           Groups         Linear         Unweighted Deviation         3         4.064           Groups         Linear         Unweighted Deviation         3         4.064           Groups         Linear         Unweighted Deviation         3         2.344           Groups         Linear         Unweighted Deviation         3         2.344           Groups         Linear         Unweighted Deviation         3         4.61           Total         Sop <td></td> <td></td> <td>505</td> <td></td> <td></td> <td>Total</td> <td></td>			505			Total	
Term         Weighted Deviation         1         6.131           Within Groups Total         502         1           Activity         Between         (Combined)         505           Groups         Linear         Unweighted         1         3.581           Term         Weighted         1         3.581         1           Mithin Groups         Term         Weighted         1         6.532           Within Groups         Term         Weighted         1         6.532           Total         Term         Weighted         1         6.532           Within Groups         502         505         1           Total         Total         505         1           Groups         Linear         Unweighted         1         4.064           Groups         Linear         Unweighted         1         4.064           Deviation         2         .999         502         1           Total         Term         Weighted         1         1         1.0196           Status         Between         (Combined)         3         2.344         1         2.027           Total         Total         Total	.023*	3.219	3		(Combined)	Between	Involvement
Activity         Between         (Combined)         2         1.763           Activity         Between         (Combined)         3         2.559         3           Activity         Between         (Combined)         3         2.559         3           Groups         Linear         Unweighted         1         3.581         3           Within Groups         Term         Weighted         1         6.532         3           Total         Term         Weighted         1         6.532         3           Earnings         Between         (Combined)         3         4.064         4           Groups         Linear         Unweighted         1         4.401         1           Total         Term         Weighted         1         4.401         1           Deviation         2         9.99         502         1         1         1.0196         2         9.99         502         1           Status         Between         (Combined)         3         2.344         1         2.027         1           Total         Total         Deviation         3         2.344         1         2.027         1	.009	6.863	1	Unweighted	Linear	Groups	
Within Groups         502         1           Total         (Combined)         33         2.559           Activity         Between         (Combined)         1         3.581           Groups         Linear         Unweighted         1         3.581           Term         Weighted         1         6.532         1           Within Groups         Term         Weighted         1         6.532           Total         Deviation         2         .572         1           Total         Term         Weighted         1         6.532           Earnings         Between         (Combined)         3         4.064           Groups         Linear         Unweighted         1         4.401           Term         Weighted         1         10.196         1           Mithin Groups         Term         Weighted         1         10.196           Total         Term         Weighted         1         2.027           Status         Between         (Combined)         3         2.344           Groups         Linear         Unweighted         1         5.06           Total         Term         Weighted	.014	6.131	1	Weighted	Term		
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Term         Weighted Deviation         1         6.532           Within Groups         502         2         .572           Total         502         502         1           Earnings         Between         (Combined)         3         4.064           Groups         Linear         Unweighted Deviation         1         4.064           Groups         Linear         Unweighted Deviation         1         4.064           Term         Weighted Deviation         1         10.196           Status         Between         (Combined)         2         .999           Within Groups         502         505         505           Total         505         505         505           Status         Between         (Combined)         3         2.344           Groups         Linear         Unweighted Deviation         1         2.027           Total         Term         Weighted Deviation         3         2.635           Progress         Between         (Combined)         3         .461           Groups         Linear         Unweighted Term         1         .012           Groups         Linear         Unweighted Term	.054	2.559	3		(Combined)	Between	Activity
Within Groups Total         Deviation         2	.059	3.581	1	Unweighted	Linear	Groups	
Within Groups Total         502         1           Earnings         Between         (Combined)         3         4.064         5           Groups         Linear         Unweighted         1         4.401         1           Groups         Linear         Unweighted         1         10.196         1         10.196           Within Groups         Term         Weighted         1         10.196         1         10.196           Vithin Groups         Total         Total         502	.011	6.532	1	Weighted	Term		
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Deviation         2         .999           Within Groups         502         1           Total         505         1           Status         Between         (Combined)         3         2.344           Groups         Linear         Unweighted         1         2.027           Term         Weighted         1         5.761         1           Deviation         2         .635         1           Vithin Groups         Term         Weighted         1         5.761           Deviation         2         .635         1           Total         Total         505         1           Progress         Between         (Combined)         3         .461           Groups         Linear         Unweighted         1         .012           Term         Weighted         1         .012         1           Groups         Linear         Unweighted         1         .012           Term         Weighted         1         .012         1           Unweighted         1         .012         .011         .012           Unweighted         1         .012         .011         .012 </td <td>.036</td> <td>4.401</td> <td>1</td> <td>Unweighted</td> <td>Linear</td> <td>Groups</td> <td>-</td>	.036	4.401	1	Unweighted	Linear	Groups	-
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Deviation2.111Within Groups502	.282			-			
Within Groups   502	.895		-	•			
			-			Within Groups	
1000	+					-	
Internality Between (Combined) 3 6.127	.000*	6 1 2 7			(Combined)		Internality

Table 10.22: One-way analysis of variance: Educational Qualifications.

	Groups	Linear	Unweighted	1	1.344	.247
	Cloups	Term	Weighted	1	18.035	.000
			Deviation	2	.172	.842
	Within Groups		Deviation	502		.012
	Total			505		
Table	10.22: (Continue	ed)		000		
PD	Between	(Combined)		3	.262	.853
	Groups	Linear	Unweighted	1	.722	.396
		Term	Weighted	1	.095	.757
			Deviation	2	.346	.708
	Within Groups			499		
	Total			502		
UA	Between	(Combined)		3	1.534	.205
	Groups	Linear	Unweighted	1	1.917	.167
		Term	Weighted	1	3.382	.067
			Deviation	2	.610	.544
	Within Groups			502		
	Total			505		
Individ	Between	(Combined)		3	5.977	.001*
	Groups	Linear	Unweighted	1	3.045	.082
		Term	Weighted	1	17.827	.000
			Deviation	2	.052	.949
	Within Groups			502		
	Total			505		
Masculinity	Between	(Combined)		3	1.201	.309
	Groups	Linear	Unweighted	1	.810	.369
		Term	Weighted	1	3.219	.073
			Deviation	2	.193	.825
	Within Groups			502		
	Total			505		
Influence A	Between	(Combined)		3	.693	.556
	Groups	Linear	Unweighted	1	.767	.382
		Term	Weighted	1	1.751	.186
			Deviation	2	.165	.848
	Within Groups			502		
	Total	(O		505	4 070	474
Influence B	Between	(Combined)	المعربية المراجع	3	1.678	.171
	Groups	Linear	Unweighted	1	.171	.679
		Term	Weighted	1	4.456	.035
	Within One		Deviation	2	.288	.750
	Within Groups			502		
Motivetien	Total	(Combined)		505	E00	600
Motivation	Between	(Combined)	المعادية إحدادهم والم	3	.520	.669
	Groups	Linear	Unweighted	1	.334	.563
		Term	Weighted	1	.677	.411

	Deviation	2	.441	.643
Within Groups		502		
Total		505		

### Table 10.22: (Continued)

StimulationBetween(Combined)GroupsLinearUnweightedTotalDeviationWithin GroupsImage: Combined bit of the second secon	3 1 2 502 505 3 1 1 2	4.323 .000 10.662 1.153 4.524 8.381	.005* .984 .001 .316 .004*
TermWeighted DeviationWithin GroupsDeviationTotalTotalConsiderBetween(Combined)GroupsLinearUnweightedGroupsLinearDeviationWithin GroupsDeviationDeviationWithin GroupsTermWeightedTotalTermDeviationWithin GroupsDeviationDeviationWithin GroupsTermUnweightedGroupsLinearUnweightedGroupsLinearUnweightedGroupsLinearUnweightedMithin GroupsDeviationDeviationYotalTermWeightedDeviationDeviationDeviationMithin GroupsLinearUnweightedTotalTermWeightedDeviationBetweenCombined)Within GroupsTotalEMithin GroupsEETotalEEMithin GroupsEEMithin GroupsEETotalEEMithin GroupsEEMithin Group	2 502 505 3 1 1	10.662 1.153 4.524	.001 .316
DeviationWithin Groups TotalIConsiderBetween(Combined)IGroupsLinear TermUnweighted DeviationIWithin GroupsIIITotalIIIConstructiveBetween(Combined)IGroupsLinear TotalUnweighted DeviationIMithin GroupsIIITotalIIIMithin GroupsLinear TermUnweighted DeviationIGroupsLinear TermUnweighted DeviationIMithin GroupsIIITotalIIIMithin GroupsIIITotalIIIMithin GroupsIIITotalIIIActiveBetween(Combined)IBetween(Combined)II	502 505 3 1 1	4.524	.316
TotalTotalConsiderBetween(Combined)IGroupsLinearUnweightedITermWeightedDeviationIWithin GroupsTotalIIConstructiveBetween(Combined)IGroupsLinearUnweightedIGroupsLinearUnweightedIVithin GroupsTermWeightedIOutputUnweightedIIGroupsLinearUnweightedIUnweightedDeviationIIUnueTermWeightedIUnueUnueIIUnueUnueIIUnueUnueIIUnueIIIUnueIIIUnueIIIUnueIIIUnueIIIUnueIIIUnueIIIUnueIIIUnueII <td< th=""><th>505 3 1 1</th><th></th><th>004*</th></td<>	505 3 1 1		004*
ConsiderBetween(Combined)Image: Combined backgroup of the component of the compone	3 1 1		004*
GroupsLinear TermUnweighted Weighted DeviationWithin GroupsTotal1ConstructiveBetween Groups(Combined)1GroupsLinear TermUnweighted Deviation1Within GroupsLinear TermUnweighted Deviation1Mithin GroupsLinear TermUnweighted Deviation1Mithin GroupsTermWeighted Deviation1Mithin GroupsTotal11ActiveBetween Deviation11Mithin GroupsTotal11Mithin GroupsTotal11 </th <th>1 1</th> <th></th> <th>004*</th>	1 1		004*
Term       Weighted         Deviation       Deviation         Within Groups       Total         Total       Image: Combined         Groups       Linear       Unweighted         Term       Weighted       Image: Combined         Within Groups       Term       Unweighted         Mathematical Structive       Term       Weighted         Within Groups       Term       Weighted         Total       Term       Weighted         Total       Term       Weighted         Total       Term       Weighted         Total       Term       Weighted         Between       Combined)       Image: Combined         Mithin Groups       Total       Image: Combined         Active       Between       (Combined)       Image: Combined	1	8.381	.004
Mithin Groups       Deviation         Total       Total         Constructive       Between       (Combined)       I         Groups       Linear       Unweighted       I         Term       Weighted       I       I         Within Groups       Total       I       I         Active       Between       (Combined)       I		0.001	.004
Within GroupsTotal7ConstructiveBetween(Combined)GroupsLinearUnweightedTermWeighted1Vithin GroupsDeviation1Vithin GroupsTotal1ActiveBetween(Combined)1	2	9.905	.002
TotalTotalConstructiveBetween(Combined)Image: Combined of the component		1.834	.161
Constructive       Between       (Combined)	502		
Groups       Linear       Unweighted         Term       Weighted       Deviation         Within Groups       Total       1         Active       Between       (Combined)       1	505		
Term       Weighted         Deviation       Deviation         Within Groups       Total         Active       Between (Combined)	3	.916	.433
Active       Deviation         Deviation       Deviation         Mithin Groups       Deviation         Total       Deviation	1	.100	.752
Within Groups	1	2.347	.126
Total       Active     Between (Combined)	2	.201	.818
Active Between (Combined)	502		
· · · · ·	505		
Groups Linear Unweighted	3	1.486	.217
- · · · · · · · · · · · · · · · · · · ·	1	.651	.420
Term Weighted	1	4.454	.035
Deviation	2	.003	.997
Within Groups	502		
Total Passive Between (Combined)	505 3	2 6 2 2	.050*
	3	2.623 1.057	
Groups Linear Unweighted Term Weighted	1	4.147	.304 .042
Deviation	2	1.861	.042
Within Groups	502	1.001	.157
Total	505		
Laissez Between (Combined)	3	.848	.468
Groups Linear Unweighted	1	1.314	.252
Term Weighted	1	2.012	.157
Deviation	2	.266	.767
Within Groups	502		
Total	505		
Effort Between (Combined)	3	.140	.936
Groups Linear Unweighted	5		
Term Weighted	1	.007	.931

	Deviation	2	.066	.936
Within Groups		502		
Total		505		

#### Table 10.22: (Continued)

Effective	Between	(Combined)		3	.264	.851
	Groups	Linear	Unweighted	1	.183	.669
		Term	Weighted	1	.632	.427
			Deviation	2	.080	.923
	Within Groups			502		
	Total			505		
Satisfaction	Between	(Combined)		3	1.877	.132
	Groups	Linear	Unweighted	1	3.765	.053
		Term	Weighted	1	1.224	.269
			Deviation	2	2.204	.111
	Within Groups			502		
	Total			505		
(* p ≤ 0.05)						

The four groups of educational qualification, according to Table 10.22, differ significantly with respect to the dimensions Job Involvement, Attitude toward Earnings, Internality, Individualism, Intellectual Stimulation, Individualised Consideration and Management-by-Exception-Passive. Post hoc multiple comparisons were done by means of the Scheffé test. In this case no significant differences between the four groups could be found on Attitude toward Earnings and Job Involvement. With regards to Internality, group 2 (standard 10 or grade 12, i.e. matric) differ significantly (p = 0.004; p being < 0.05) from group 4 (the graduates). On Individualism group 2 also differ significantly from the graduates (p = 0.005; p being < 0.05). Here, group 3 (members with a diploma) differ significantly (p = 0.017; p being < 0.05) from the graduates too. On the same dimension (i.e. Individualism, the group with grade 10 as highest qualification show a significant difference (p = 0.048; p being < 0.05) from the graduates.

### 10.3.7.2 Kruskal-Wallis one-way analysis of variance

The Kruskal-Wallis one-way analysis of variance was also applied to the research data. These results are presented in Table 10.23.

Table 10.		Kruskal-Wallis one-way analysis of variance: Educationa gualification.			
	Pride	Involvement	Activity	Earnings	
Chi-Square	2.479	8.223	5.489	12.883	
Df	3	3	3	3	
Asymp. Sig.	.479	.042	.139	.005*	

_	Social	Progress	Internality	PD
Chi-Square	7.195	1.977	16.637	1.718
Df	3	3	3	3
Asymp. Sig.	.066	.577	.001*	.633

_	UA	Indiv	Masculinity	Influence A
Chi-Square	3.002	24.063	4.734	3.026
Df	3	3	3	3
Asymp. Sig.	.391	.000*	.192	.388

	Influence B	Motivation	Stimulation	Consideration
Chi-Square	5.410	2.681	11.712	12.714
Df	3	3	3	3
Asymp. Sig.	.144	.443	.008*	.005*

	Constructive	<b>MBE-Active</b>	<b>MBE-Passive</b>	Laissez
Chi-Square	2.731	3.999	7.078	1.699
Df	3	3	3	3
Ap. Sig.	.435	.262	.069	.637

	Effort	Effective	Satisfaction
Chi-Square	.356	1.305	3.081
Df	3	3	3
Asymp. Sig.	.949	.728	.379
(* p ≤ 0.05)			

According to Table 10.23 the H-statistic proves the same results as the oneway analysis of variance.

#### **10.4 PRACTICAL SIGNIFICANCE RE LEADERSHIP DEVELOPMENT**

The relationships between the first four (4) questions of the leadership survey and both transactional and transformational were also determined. This was done to determine whether attendance of transformational leadership development programmes in the SAAF had any significant influence on the establishment of a transformational leadership culture in the organisation. The first four questions of the questionnaire are on a nominal scale, while transformational and transactional leadership styles are computed from questions of the MLQ which are on an interval scale. A cross-tabulation was done and Eta, Kappa, Risk, and McNemar were applied. No values for Kappa, Risk, and McNemar could be obtained.

Results of Eta (effect size) were obtained, which are presented in Table 10.24. Effect size boils down to practical significance. It is independent of sample size and can be understood as a large enough effect to be important in practice and is described for differences in means as well as for the relationship in two-way frequency tables (Ellis & Steyn, 2003: 51).

		Variable	Effect size
Eta:	Transformational	Transformational Dependent	0.393
		Question F1 Dependent	0.740
		Transformational Dependent	0.525
		Question F2 Dependent	0.550
		Transformational Dependent	0.307
		Question F3 Dependent	0.354
		Transformational Dependent	0.289
		Question F4 Dependent	0.346
Eta:	Transactional	Transformational Dependent	0.453
		Question F1 Dependent	0.501
		Transformational Dependent	0.209
		Question F2 Dependent	0.269
		Transformational Dependent	0.354
		Question F3 Dependent	0.425

Table 10.24:	Transformational	leadership	and transactional	leadership by	nominal
	value. Ouestiene	1 to 1 of the	Jaadarahin guaati	nnoire	
	value: Cliestions	1 to 4 of the	e leadership questio	onnaire	

 Transformational Dependent	0.570
Question F4 Dependent	0.585

It is important to know whether a relationship between two variables is practically significant. For random samples the statistical significance of the relationship is determined with chi-square tests, "...but one actually wants to know whether the relationship is large enough to be important" (Ellis & Steyn, 2003: 52). Cohen (1988) notes that a relationship with an effect size  $\geq 0.5$  is considered to be practically significant. According to Table 10.24 the Eta values are < 0.05 which is considered as practically insignificant. As regards Transformational Leadership by F1 and Transactional Leadership by F4, it should be taken into consideration that the values of the dependent variables are greater than 0.5, but the Eta values of the two questions F2 (transformational) and F4 (transactional) are larger than the dependent variables. The implication of these findings is that the relationships are not practically significant.

### 10.5 FREQUENCY DISTRIBUTIONS

A frequency distribution is described by Bohrnstedt <u>et al</u> (1988: 493) as a table of the outcomes of a variable and the number of times each outcome is observed in a sample. For each of the questionnaires used in this research, the questions relative to each factor were grouped together and the percentages re each response category then given. Thus, for each questionnaire, responses were sorted into the various factors (dimensions). For each item in each dimension response frequencies for each response category are given in percentages.

#### 10.5.1 THE SURVEY OF WORK VALUES

The responses (in percentages) on the six work value dimensions of the Survey of Work Values are given in Table 10.25.

# Table 10.25: Response distributions – Survey of Work Values.

DIMENSION 1:	PRIDE IN WORK			
Strongly disagree	Mildly disagree	Neutral / Not sure	Mildly Agree	Strongly agree
12. One who does a	a sloppy job at work s	hould feel a little ash	amed of oneself.	
6.5	4.3	3.5	13.9	71.7
13. A worker shou around.	ld feel some respon	sibility to do a dece	nt job, neither or no	ot the supervisor is
1.6	1.4	.8	5.3	91.0
16. There is nothing	wrong with doing a p	ooor job at work if one	e can get away with i	t
4.7	3.9	2.4	7.9	81.1
32. There is nothing	g as satisfying as doir	ig the best job possib	le.	
1.4	4.9	4.1	13.2	76.4
36. One who feels r	no sense of pride in o	ne's work is probably	unhappy.	
6.5	8.8	6.9	31.4	46.4
				I
,	rries about doing a j	ob well, since it is ir	mportant only that ye	ou do your job well
enough not to get fi				1
5.3	3.3	4.5	12.0	74.9
40. One should feel		uala iah		
	a sense of pride in o	,		00.4
1.8	1.4	1.2	7.3	88.4
52. The most impor	tant thing about a job	is liking the work.		
1.8	3.1	4.5	33.2	57.4
	1			1
53. Doing a good jo	b should mean as mu	uch to a worker as a g	good pay cheque.	
1.4	3.5	3.5	25.9	65.6

<b>DIMENSION 2:</b>	DIMENSION 2: JOB INVOLVEMENT			
Strongly	Mildly disagree	Neutral /	Mildly	Strongly agree
disagree		Not sure	Agree	

these suggestions				the companies take
7.1	14.3	19.1	38.1	21.4
7. A good worker of pass it onto the su	cares about finding wa pervisor.	ys to improve the job	o, and when one ha	s an idea, one shoul
1.8	3.1	1.6	14.9	78.6
	an idea about how to	improve one's own	job should drop a	note in the company
4.7	7.3	8.6	30.6	48.7
17. A good worker 1.6	is interested in helping	g a new worker learn 1.6	the job. 17.1	78
	is a choice between g better off at home.	joing to the compan	y picnic or staying	at home, the worke
8.3	10.4	15.9	30.8	34.6
for the purpose of	3.7 after the workday is ov discussing possible jol		-	
33. Once a week, a for the purpose of participate in these	after the workday is ov discussing possible jol e discussions.	rer, a company may l o changes. A good w	have their workers g orker should remain	get together in group n after quitting time t
33. Once a week, a for the purpose of	after the workday is ov discussing possible jol	ver, a company may l	have their workers g	get together in group
33. Once a week, a for the purpose of participate in these 6.7	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a	rer, a company may h o changes. A good w 13.0	have their workers g orker should remain 33.2	get together in group n after quitting time to 34.4
<ul> <li>33. Once a week, a</li> <li>for the purpose of participate in these</li> <li>6.7</li> <li>37. If something i</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a	rer, a company may h o changes. A good w 13.0	have their workers g orker should remain 33.2	get together in group n after quitting time to 34.4
<ul> <li>33. Once a week, a for the purpose of participate in these 6.7</li> <li>37. If something i somebody else con 4.1</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a mplain about it.	rer, a company may h b changes. A good w 13.0 a smart worker will 6.7	have their workers g orker should remain 33.2 mind his or her o 26.3	get together in group n after quitting time to 34.4 wn business and le 55.0
<ul> <li>33. Once a week, a for the purpose of participate in these 6.7</li> <li>37. If something i somebody else con 4.1</li> <li>44. One should do</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a mplain about it. 7.9	rer, a company may h b changes. A good w 13.0 a smart worker will 6.7	have their workers g orker should remain 33.2 mind his or her o 26.3	get together in group n after quitting time t 34.4 wn business and le 55.0
<ul> <li>33. Once a week, a for the purpose of participate in these 6.7</li> <li>37. If something i somebody else con 4.1</li> <li>44. One should do activities.</li> <li>3.1</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a mplain about it. 7.9 o one's own job and f	rer, a company may h o changes. A good w <u>13.0</u> a smart worker will <u>6.7</u> forget about such th <u>4.9</u>	have their workers g vorker should remain 33.2 mind his or her o 26.3 ings as company r	yet together in groups n after quitting time to 34.4 wn business and le 55.0 neetings or company
<ul> <li>33. Once a week, a for the purpose of participate in these 6.7</li> <li>37. If something is somebody else con 4.1</li> <li>44. One should do activities.</li> <li>3.1</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a mplain about it. 7.9 o one's own job and f 6.1	rer, a company may h o changes. A good w <u>13.0</u> a smart worker will <u>6.7</u> forget about such th <u>4.9</u> ERENCE Neutral /	have their workers g vorker should remain 33.2 mind his or her o 26.3 ings as company r	yet together in groups n after quitting time to 34.4 wn business and le 55.0 neetings or company
<ul> <li>33. Once a week, a for the purpose of participate in these 6.7</li> <li>37. If something i somebody else con 4.1</li> <li>44. One should do activities.</li> <li>3.1</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a mplain about it. 7.9 o one's own job and f 6.1 ACTIVITY PREFE	rer, a company may h o changes. A good w <u>13.0</u> a smart worker will <u>6.7</u> forget about such th <u>4.9</u> ERENCE	have their workers or rorker should remain 33.2 mind his or her o 26.3 ings as company r 29.9	get together in group n after quitting time to 34.4 wn business and le 55.0 neetings or compan 56.0
<ul> <li>33. Once a week, a for the purpose of participate in these 6.7</li> <li>37. If something i somebody else con 4.1</li> <li>44. One should de activities.</li> <li>3.1</li> <li>DIMENSION 3: Strongly disagree</li> </ul>	after the workday is ov discussing possible jol e discussions. 12.8 is wrong with a job, a mplain about it. 7.9 o one's own job and f 6.1 ACTIVITY PREFE	rer, a company may h b changes. A good w 13.0 a smart worker will 6.7 forget about such th 4.9 ERENCE Neutral / Not sure	have their workers or rorker should remain 33.2 mind his or her o 26.3 ings as company r 29.9 Mildly Agree	get together in group n after quitting time to 34.4 wn business and le 55.0 neetings or compan 56.0 Strongly agree

he work day.       2.2       1.6       2.2         Table 10.25: (Continued)         27. When an employee can get away with it the employee should         4.5       8.4       10.8         29. A worker who takes long rest pauses is probably a poor worked         9.6       34.6       15.9         39. A person would soon grow tired of loafing on a job and would worked hard.         4.5       13.4       13.4         46. If a person is given a choice between jobs which pay the same	13.0 take it easy. 21.0 er. 22.4	81.1 55.2 17.5
2.2       1.6       2.2         Table 10.25: (Continued)         27. When an employee can get away with it the employee should         4.5       8.4       10.8         29. A worker who takes long rest pauses is probably a poor worke       9.6       34.6         39. A person would soon grow tired of loafing on a job and would worked hard.       13.4       13.4         4.5       13.4       13.4       13.4	13.0 take it easy. 21.0 er. 22.4	81.1 55.2 17.5
2.2       1.6       2.2         Table 10.25: (Continued)         27. When an employee can get away with it the employee should         4.5       8.4       10.8         29. A worker who takes long rest pauses is probably a poor worke         9.6       34.6       15.9         39. A person would soon grow tired of loafing on a job and would worked hard.         4.5       13.4       13.4         46. If a person is given a choice between jobs which pay the same	13.0 take it easy. 21.0 er. 22.4	81.1 55.2 17.5
2.2       1.6       2.2         Table 10.25: (Continued)         27. When an employee can get away with it the employee should         4.5       8.4       10.8         29. A worker who takes long rest pauses is probably a poor worke         9.6       34.6       15.9         39. A person would soon grow tired of loafing on a job and would worked hard.       4.5       13.4         46. If a person is given a choice between jobs which pay the same       16.	take it easy. 21.0 er. 22.4	55.2 17.5
27. When an employee can get away with it the employee should         4.5       8.4         10.8         29. A worker who takes long rest pauses is probably a poor worked         9.6       34.6         39. A person would soon grow tired of loafing on a job and would worked hard.         4.5       13.4         4.5       13.4         46. If a person is given a choice between jobs which pay the same	21.0 er. 22.4	17.5
27. When an employee can get away with it the employee should         4.5       8.4       10.8         29. A worker who takes long rest pauses is probably a poor worke         9.6       34.6       15.9         39. A person would soon grow tired of loafing on a job and wou         worked hard.         4.5       13.4       13.4         46. If a person is given a choice between jobs which pay the same	21.0 er. 22.4	17.5
4.5       8.4       10.8         29. A worker who takes long rest pauses is probably a poor worke         9.6       34.6       15.9         39. A person would soon grow tired of loafing on a job and wou         worked hard.         4.5       13.4         46. If a person is given a choice between jobs which pay the same	21.0 er. 22.4	17.5
29. A worker who takes long rest pauses is probably a poor worke         9.6       34.6       15.9         39. A person would soon grow tired of loafing on a job and would worked hard.       4.5       13.4         46. If a person is given a choice between jobs which pay the same	er. 22.4	17.5
39. A person would soon grow tired of loafing on a job and wou worked hard.	22.4	
9.6     34.6     15.9       39. A person would soon grow tired of loafing on a job and wou worked hard.       4.5     13.4       46. If a person is given a choice between jobs which pay the same	22.4	
39. A person would soon grow tired of loafing on a job and would worked hard.         4.5       13.4         46. If a person is given a choice between jobs which pay the same		
worked hard.         4.5       13.4         46. If a person is given a choice between jobs which pay the same	uld probably be h	nappier if he or sl
worked hard.         4.5       13.4         46. If a person is given a choice between jobs which pay the same	uld probably be r	happier if he or sl
4.513.413.446. If a person is given a choice between jobs which pay the same		
46. If a person is given a choice between jobs which pay the sam	29.9	38.9
	29.9	30.9
	no monov the no	rean should shoo
	le money, the per	
6.1 9.4 10.2	29.5	44.8
	2010	1.10
50. A person should try to stay busy all day rather than to find way	vs to aet out of do	oing work.
5.9 6.1 6.5	23.2	58.3
54. If a worker keeps himself busy on the job, the working day	passes more qui	ickly than when t
worker were loafing.	receive more qui	
1.0 1.6 1.6	9.4	86.4

DIMENSION 4:	ATTITUDE TOWARDS EARNINGS			
Strongly disagree	Mildly disagree	Neutral / Not sure	Mildly Agree	Strongly agree
10. A person should	d hold a second job to	bring in extra mone	y if the person can ge	et it.
10.2	15.1	20.0	31.4	23.2
15. A person should	d choose the job whic	h pays the most.		
10.6	29.9	15.5	30.5	13.4
21. If I were payed working overtime.	I by the hour, I wou	ld probably turn dow	n most offers to ma	ike extra money by
12.8	17.5	19.4	23.4	26.9

the same. 19.3	30.8	22.4	18.7	8.8
19.5	50.8	22.4	10.7	0.0
30. A person shoul	d choose one job ove	r another mostly beca	use of the higher	wages/pay.
9.4	27.3	11.0	24.6	17.7
	.25: (Continued) part of most jobs is the	e pay cheque.		
23.2	32.2	12.0	23.8	8.8
41. When someone	e is looking for a job, r	noney should not be t	he most important	consideration.
30.8	34.6	6.3	17.5	10.8
47. A good job is a	well paying job.			I
15.3	25.7	12.6	27.5	18.9
•	ld take a job that pays	s more than some oth	ner job even if tha	t person cannot sta
other workers on th	a tala			
		[]		
31.4	SOCIAL STATUS	14.5 OF THE JOB	13.4	5.3
31.4 DIMENSION 5: Strongly	35.4	OF THE JOB Neutral /	13.4 Mildly	5.3 Strongly agree
31.4 DIMENSION 5:	35.4 SOCIAL STATUS	OF THE JOB		T
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso	35.4 SOCIAL STATUS Mildly disagree	OF THE JOB Neutral / Not sure ake my family respect	Mildly agree	Strongly agre
31.4 DIMENSION 5: Strongly disagree	35.4 SOCIAL STATUS Mildly disagree	OF THE JOB Neutral / Not sure	Mildly agree	T
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3	OF THE JOB Neutral / Not sure ake my family respect 9.2	Mildly agree ame. 25.9	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus	OF THE JOB Neutral / Not sure ake my family respect 9.2	Mildly agree me. 25.9 has a good job.	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3	OF THE JOB Neutral / Not sure ake my family respect 9.2	Mildly agree ame. 25.9	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0	OF THE JOB Neutral / Not sure ake my family respect 9.2 at because the person 6.1	Mildly agree me. 25.9 has a good job. 12.4	<b>Strongly agre</b> 10.8 12.6
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a	OF THE JOB Neutral / Not sure ake my family respect 9.2 at because the person 6.1	Mildly agree ame. 25.9 has a good job. 12.4 which does not hav	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0	OF THE JOB Neutral / Not sure ake my family respect 9.2 at because the person 6.1	Mildly agree me. 25.9 has a good job. 12.4	<b>Strongly agre</b> 10.8 12.6
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7	OF THE JOB Neutral / Not sure ake my family respect 9.2 at because the person 6.1 better job than one w 12.0	Mildly agree a me. 25.9 has a good job. 12.4 which does not hav 8.6	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0 4. My friends would	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7 d think much of me even	OF THE JOB Neutral / Not sure ake my family respect 9.2 st because the person 6.1 better job than one w 12.0 en if I did not have a g	Mildly agree me. 25.9 has a good job. 12.4 which does not hav 8.6	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7	OF THE JOB Neutral / Not sure ake my family respect 9.2 at because the person 6.1 better job than one w 12.0	Mildly agree a me. 25.9 has a good job. 12.4 which does not hav 8.6	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0 4. My friends would 32.8	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7 d think much of me eve 34.6	S OF THE JOB Neutral / Not sure ake my family respect 9.2 st because the person 6.1 better job than one w 12.0 en if I did not have a g 13.6	Mildly agree me. 25.9 has a good job. 12.4 which does not hav 8.6	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0 4. My friends would 32.8	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7 d think much of me even	S OF THE JOB Neutral / Not sure ake my family respect 9.2 st because the person 6.1 better job than one w 12.0 en if I did not have a g 13.6	Mildly agree me. 25.9 has a good job. 12.4 which does not hav 8.6	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0 4. My friends would 32.8 18. Prestige should	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7 d think much of me evo 34.6 d not be a factor in cho	OF THE JOB         Neutral /         Not sure         ake my family respect         9.2         at because the person         6.1         better job than one w         12.0         en if I did not have a g         13.6         posing a job.	Mildly agree me. 25.9 has a good job. 12.4 which does not hav 8.6 good job. 12.2	Strongly agre
31.4 DIMENSION 5: Strongly disagree 1. One of the reaso 34.8 2. A person does n 48.9 3. A job with prestig 44.0 4. My friends would 32.8 18. Prestige should 21.2	35.4 SOCIAL STATUS Mildly disagree ons that I work is to ma 19.3 ot deserve respect jus 20.0 ge is not necessarily a 28.7 d think much of me evo 34.6 d not be a factor in cho	OF THE JOB         Neutral /         Not sure         ake my family respect         9.2         at because the person         6.1         a better job than one w         12.0         en if I did not have a g         13.6         posing a job.         15.1	Mildly agree me. 25.9 has a good job. 12.4 which does not hav 8.6 good job. 12.2	Strongly agre           10.8           12.6           re prestige.           6.7           6.9           7.1

12.4	26.1	12.0	33.0	16.5		
Γ						
45. As far as my fri	ends are concerned,	it could not make on	e difference if I work	ed regularly or only		
once in a while.	once in a while.					
8.3	11.6	20.4	21.8	37.9		

# Table 10.25: (Continued)

49. Even though th	ey make the same a	amount of money, th	e person who works	s in an office has a		
more impressive job	more impressive job than the person working as a sales clerk.					
40.5						

DIMENSION 6: U	UPWARD STRIV	ING		
Strongly disagree	Mildly disagree	Neutral / Not sure	Mildly agree	Strongly agree
8. Even if a person h	has a good job, the p	erson should always	be looking for a bette	er job.
6.1	24.4	12.8	33.4	23.4
11. In choosing a job 2.0	b, a person ought to 2.4	consider chances for 5.7	advancement as we	ll as other factors. 70.1
2.0	2.4	5.7	13.0	70.1
	ays be thinking about oted to a higher-level		the world and should	d work hard with the
1.8	1.2	2.2	21.8	73.1
22. If a person likes to another job.	his job, the person s	hould be satisfied wi	th it and should not p	ush for a promotion
5.9	16.7	9.4	36.9	31.0
		that when they find	a job in which they	are interested, they
don't try to get a bet	ter job.			
6.9	22.2	21.8	33.2	15.9
		n is probably making		

31. A worker who turns down a promotion is probably making a mistake.							
5.9	22.6	8.6	34.0	28.9			
				•			

35. A pr	omotion t	o a higher	level job	usually	means	more	worries	and sh	nould	be	avoided	for t	hat
reason.	reason.												
5	5.1	6	6.1		4.5			30.1			54.2	2	

40. A well paying job that offers little opportunity for advancement is not a good job for me.						
6.3	17.5	14.3	33.4	28.5		

42. One is better off if one is satisfied with one's own job and is not concerned about being promoted<br/>to another job.8.822.611.834.822.0

### 10.5.2 THE INTERNAL CONTROL INDEX

The frequency table for the Internal Control Index is presented in Table 10.26.

Strongly	Mildly disagree	Neutral /	Mildly	Strongly agree
disagree		Not sure	Agree	
1. When faced with	a problem I try to for	get it.		
4.1	4.9	3.1	19.3	68.6
2. I need frequent e	ncouragement from c	others for me to keep	working at a difficu	ult task.
5.9	14.5	6.5	29.3	43.8
	I can make decisions		-	744
1.6	2.0	3.1	19.3	74.1
<u> </u>	nion when someone I	admire disagrees wit	h me	
<u>4. i change my opn</u> 3.9	11.2	9.6	28.9	46.4
5.9	11.2	9.0	20.9	40.4
5. If I want somethin	ng I work hard to get i	t.		
1.2	0.8	2.2	17.7	78.2
6. I prefer to learn	the facts about some	thing from someone	else rather than ha	ave to dig them out fo
myself.	1			
7.5	22.4	10.6	33.8	25.7
	that require me to su			
2.8	7.9	8.8	33.2	47.3
0 Lhave a hard tim		omoono trico to coll r	a a a seconda in a la dar	
	e saying "no" when so			
6.5	11.4	7.3	26.9	47.9
9. I like to have a sa	ay in any decisions m	ade by any group I'm	in.	
2.2	5.9	4.7	30.8	56.4
<b>-</b>	0.0	1.7	00.0	00.7
40.1	ifferent sides of an iss			

Table 10.26: <u>Response distributions – Internal Control Index</u>.

0.6	0.8	4.1	23.6	70.9
Γ				
	ple think has a great			
12.0	31.0	15.7	23.8	17.5
	ething good happens			
2.9	11.8	8.4	36.0	40.9
Table 10	.26: (Continued)			
	a position of leadersh	nip.		
0.6	4.7	7.5	30.6	56.6
14. I need someon	e else to praise my wo	ork before I am satisf	ied with what I've dor	ne.
8.3	20.2	12.0	31.2	28.3
	·			
15. I am sure enou	igh of my opinions to t	ry and influence othe	rs.	
1.4	4.3	11.4	40.9	42.0
16. When somethin	ng is going to affect m	e I learn as much ab	out it as I can.	
0.6	2.2	3.1	32.6	61.5
17. I decide to do t	hings on the spur of th	ne moment.	Γ	1
9.4	30.6	16.1	29.5	14.3
	ng I've done something		<u> </u>	-
1.8	5.9	8.6	30.5	53.2
		- facus deixer this at 1		
	le's demands keep me			26.0
3.9	17.5	16.7	35.0	26.9
20 Letick to my on	inions when someone	disagrees with me		
4.3	20.2	12.2	36.0	27.3
1.0	20.2	12.2	00.0	21.0
21. I do what I feel	like doing, not what o	ther people think I ou	aht to do.	
9.0	24.4	14.3	33.6	18.7
22. I get discourag	ed when doing somet	hing that takes a long	time to achieve resu	ults.
7.1	19.4	10.6	33.4	29.5
23. When part of a	group I prefer to let o	ther people make all	the decisions.	
5.3	9.8	10.6	34.4	39.9
24. When I have a	problem I follow the a	dvice of friends or re	latives.	
13.6	43.0	15.9	22.2	5.3

25. I enjoy trying to do difficult tasks more than I enjoy trying to do easy tasks.						
2.0	8.8	14.1	42.0	33.0		

26. I prefer situations where I can depend on someone else's ability rather than just my own.						
3.9	14.3	9.8	33.0	38.9		

#### Table 10.26: (Continued)

27. Having someone important tell me I did a good job is more important to me than feeling I've done						
a good job.	a good job.					
9.6	22.2	10.0	32.0	26.1		

28. When I'm involved in something I try to find out all I can about what is going on even when someone else is in charge.					
1.8	3.5	8.3	38.9	47.5	

#### 10.5.3 THE VALUE SURVEY MODULE

The frequency distribution of responses (expressed in percentage) re the four dimensions of work-related values in the Value Survey Module, viz Power Distance, Uncertainty Avoidance, Individualism and Masculinity is presented in Table 10.27.

### Table 10.27: <u>Response distributions – Value Survey Module</u>.

DIMENSION 1:	POWER DISTAN							
Very Very								
Frequently	Frequently	Sometimes	Seldom	Seldom				
8. How frequently, their superiors?	8. How frequently, in your work environment, are subordinates afraid to express disagreement with their superiors?							
11.8	25.9	29.5	24.6	8.3				

Manager 1	Manager 2	Manager 3	Manager 4	None			
1. For the four types of managers <sup>3</sup> , please mark the <u>one</u> which you would prefer to work under.							
4.9	17.3	37.1	40.7	_			

2. To which one of t	2. To which <u>one</u> of the above managers would you say your own superior most closely corresponds?						
25.1	22.2	26.1	22.2	3.5			

<sup>&</sup>lt;sup>3</sup> For an explanation of the four types of managers, see Appendix A, Section E.

# Table 10.27: <u>(</u>Continued<u>)</u>

# DIMENSION 2: UNCERTAINTY AVOIDANCE

Strongly agree	Agree	Undecided	Disagree	Strongly disagree	
4. A company or organisation's rules should not be broken - even when the employee thinks it is in					
the organisation's best interests.					
17.7	34.2	9.4	31.6	7.1	

Two Years	Two to Five years	> 5 years	Until retirement	-	
9. How long do you think you will continue working for this organisation?					
15.3	14.3	25.9	44.4	-	

Always	Usually	Sometimes	Seldom	Never	
3. How often do you feel nervous or tense at work?					
2.6	11.4	41.3	34.2	10.6	

DIMENSION 3:	INDIVIDUALISM				
Utmost importance	Very important	Moderate importance	Little importance	No importance	
15. How important would it be to have sufficient time left for your personal or family life?					
46.0	43.4	7.9	2.0	0.8	

	21. How important would it be to have considerable freedom to adopt your own approach to the job?						
	27.5	50.5	17.7	3.5	0.8		
ļ	21.5	50.5	11.1	0.0	0.0		

16. How important	would it be to have	challenging tasks to	do, from which you	can get a personal	
sense of accomplishment?					
43.0	45.0	8.4	2.4	1.2	

18. How important would it be to have good physical working conditions (good ventilation and lighting, adequate work space, etc.)?

50.5	36.5	10.2	1.4	1.4

#### Table 10.27: (Continued)

<b>DIMENSION 4:</b>	MASCULINITY			
Utmost importance	Very important	Moderate importance	Little importance	No importance
19. How important	would it be to have a	good working relatior	ship with your direct	superior?
56.4	38.3	2.8	1.6	1.0
22. How important	would it be to work wi	th people who coope	rate well with one and	other?
45.6	43.2	8.1	2.0	1.2
	would it be to live in a	,	, ,	
50.1	39.1	8.1	1.4	1.4
•	would it be to have se	, , ,		
62.1	29.9	4.7	2.6	0.8
sense of accomplis			-	
43.0	45.0	8.4	2.4	1.2
28. How important	would it be to have ar	opportunity for adva	ncement to higher le	vel jobs?
47.9	42.0	6.7	2.4	1.0
25. How important	would it be to have ar	opportunity for high	earnings?	
38.3	42.8	13.8	3.1	2.0

### 10.5.4 THE MULTIFACTOR LEADERSHIP QUESTIONNAIRE

The frequency distribution of responses re the leadership dimensions in the MLQ is presented in Table 10.28. This includes the five dimensions of transformational leadership, the three dimensions of transactional leadership, Laissez Faire as well as the three outcomes.

```
Table 10.28: Response distributions - MLQ.
```

**DIMENSION 1: IDEALISED INFLUENCE (ATTRIBUTES)** 

	Once in		Fairly	Frequently if		
Not at all	A while	Sometimes	often	not always		
10. I Instil pride in o	thers for being assoc	iated with me				
2.8	4.3	29.5	45.2	18.3		
18. I go beyond self	f-interest for the good	of the group.				
1.4	5.1	21.6	46.2	25.7		
	_					
Table 10.	28: <u>(</u> Continued <u>)</u>					
21. I act in ways that	at build others' respec	t for me.				
1.8	1.2	13.9	49.7	33.4		
25. I display a sens	e of power and confid	lence.				
0.8	4.5	16.7	52.7	25.3		

DIMENSION 2:				
Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always
6. I talk about my most important values and beliefs.				
2.8	10.6	25.0	43.0	18.7

14. I specify the importance of having a strong sense of purpose.					
0.8	3.5	15.1	49.3	21.2	

23. I consider the moral and ethical consequences of decisions.				
0.2	2.6	16.1	46.2	35.0

34. I emphasise the importance of having a collective sense of mission.					
0.8 3.1 23.8 49.5 22.8					

DIMENSION 3:					
Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always	
9. I talk optimisticall	y about the future.				
1.4	8.4	24.6	43.4	22.2	
13. I talk enthusiast	ically about what nee	ds to be accomplishe	ed.		
1.4	4.3	13.0	51.9	29.5	
26. I articulate a cor	npelling vision for the	e future.			
2.0	5.9	30.6	43.8	17.7	
36. I express confidence that goals will be achieved.					
0.2	1.4	10.0	49.9	38.5	

<b>DIMENSION 4:</b>	INTELLECTUAL	STIMULATION		
Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always
		lestion whether they a		not anays
1.8	4.1	22.4	50.9	20.8
8. I seek differing p	erspectives when solv	ving problems.		
2.9	3.5	18.7	47.5	27.3
Table 10.	28: (Continued <u>)</u>			
30. I get others to lo	ook at problems from	many different angles.	-	
1.4	2.6	14.9	52.3	28.9
		to complete assignm		
0.6	2.4	20.2	47.7	29.1
<b>DIMENSION 5:</b>	INDIVIDUALISED	CONSIDERATIO	Ν	
	Once in		Fairly	Frequently if
Not at all	A while	Sometimes	often	not always
15. I spend time tea	aching and coaching.			
2.2	7.5	24.8	35.0	30.6
		in just as a member of		(0.0
5.7	5.1	7.9	37.5	43.8
20 Loonsider an in	dividual as baving diff	erent needs, abilities,	and aspirations fr	om others
58.7	20.2	12.4	5.5	3.1
	20.2	1 = . 1	0.0	0.1
31. I help others to	develop their strength	IS.		
0.8	3.3	16.7	47.0	32.2
<b>DIMENSION 6:</b>	CONSTRUCTIVE	TRANSACTION		
	Once in		Fairly	Frequently if
Not at all	A while	Sometimes	Often	not always
	with assistance in exc	hange for their efforts.		
7.3	6.9	18.1	43.6	24.2
11. I discuss in spe	cific terms who is res	oonsible for achieving	performance targe	ets.
2.0	4.1	25.3	47.3	21.2
		receive when perform		
3.1	4.1	25.0	46.4	21.4
2E Lovproce cotte	action when others	at avportations		
1.2	action when others mothers mothers	9.4	37.1	51.7
1.4	0.0	J. <del>1</del>	57.1	51.7

<b>DIMENSION 7:</b>	MANAGEMENT-I	BY-EXCEPTION	(ACTIVE)	
Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always
	on irregularities, mista			
7.3	11.2	22.4	38.3	20.8
22. I concentrate m	y full attention on dea	ling with mistakes, c	omplaints, and failure	es.
5.1	11.0	21.0	42.0	20.8
Table 10.	28: (Continued <u>)</u>			
24. I keep track of a	all mistakes.		Ι	Ι
9.2	18.9	26.3	30.3	15.3
07 Laline et mus etter	tion formed foil month			
10.6	ntion toward failures to 12.6	28.9	32.4	15.5
10.6	12.0	20.9	32.4	15.5
				1
DIMENSION 8:	MANAGEMENT-I	BY-EXCEPTION	-	
	Once in		Fairly	Frequently if
Not at all	A while	Sometimes	often	not always
	until problems becom			
40.7	30.8	17.5	7.3	3.7
12 Lwait for things	to go wrong before ta	king action		
67.0	22.6	5.7	2.9	1.8
07.0	22.0	5.7	2.5	1.0
17. I show that I am	a firm believer in "If i	t ain't broke, don't fix	ː it".	
25.3	12.2	26.3	21.8	14.3
20. I demonstrate th	nat problems must be	come chronic before	I take action.	1
58.7	20.2	12.4	5.5	3.1
<b>DIMENSION 9:</b>	LAISSEZ FAIRE			
	Once in		Fairly	Frequently if
Not at all	A while	Sometimes	Often	not always
5. I avoid getting inv	volved when importar	it issues arise.		
62.3	19.8	10.4	4.1	3.3
Γ				
7. I am absent when				
61.7	28.5	5.5	2.2	2.2
28 Lougid making	dociciono			
28. I avoid making of 59.5	23.4	9.8	4.1	3.1
09.0	23.4	3.0	4.1	J. I
33. I delav respond	ing to urgent questior	IS.		
52.5	27.3	12.6	4.5	3.1
<u> </u>	-	-	-	-

# Table 10.28: (Continued)

DIMENSION 10	DIMENSION 10: EXTRA EFFORT					
Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always		
39. I get others to d	o more than they are	expected to do.				
3.7	7.7	26.7	43.2	18.7		
42. I heighten other	42. I heighten others' desire to succeed.					
2.6	2.0	18.7	49.5	27.3		
44. I increase other	s' willingness to try h	arder.				
0.0	1.8	15.1	50.3	32.8		

Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always
37. I am effective in	meeting others' job	-related needs.		
0.8	1.6	18.5	49.7	29.5
40. I am effective in	representing others	to higher authority.		
0.2	2.6	20.4	47.5	29.3

43. I am effective in meeting organisational requirements.						
0.6	0.4	7.1	50.1	41.8		

<b>DIMENSION 12:</b>				
Not at all	Once in A while	Sometimes	Fairly often	Frequently if not always
38. I use methods o	f leadership that are	satisfying.		
0.4	1.2	17.3	50.9	30.3
41. I work with othe	rs in a satisfactory wa	ay.		
1.0	0.4	6.3	45.8	46.6
45. I lead a group th				
1.6	1.6	8.3	41.7	47.0

### **10.6 DESCRIPTIVE STATISTICS**

In order to summarise the data descriptive statistics were calculated. Descriptive statistics consist of numbers that describe a set of observations. The descriptive statistics for the Survey of Work Values, the Value Survey Module, the Internal Control Index and the Multifactor Leadership Questionnaire are presented in Table 10.29.

	Ν	Range	Minimum	Maximum	Me	an
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Pride	509	20.00	25.00	45.00	40.5933	.18221
Involvement	509	25.00	20.00	45.00	37.4401	.17067
Activity	509	25.00	20.00	45.00	37.5442	.19587
Earnings	509	33.00	10.00	43.00	26.1316	.24597
Status	509	31.00	10.00	41.00	23.3438	.22973
Progress	509	24.00	21.00	45.00	34.3870	.18426
Internality	509	60.00	78.00	138.00	109.4872	.49954
PD	506	27.00	3.00	13.00	8.6640	.10007
UA	509	11.00	3.00	14.00	9.1454	.08762
Individualism	509	13.00	4.00	17.00	7.0806	.09793
Masculinity	509	26.00	7.00	33.00	11.6503	.16942
Influence A	509	12.00	4.00	16.00	11.7073	.10319
Influence B	509	12.00	4.00	16.00	11.7446	.10258
Motivation	509	12.00	4.00	16.00	11.7485	.10995
Stimulation	509	12.00	4.00	16.00	11.8468	.10082
Consideration	509	14.00	2.00	16.00	12.2849	.11743
Constructive	509	14.00	2.00	16.00	11.6857	.10623
MBE – Active	509	16.00	.00	16.00	9.6994	.14755
MBE – Passive	509	14.00	.00	14.00	4.1415	.12444
Laissez Faire	509	14.00	.00	14.00	2.6758	.11432
Extra Effort	509	10.00	2.00	12.00	8.7662	.08859
Effectiveness	509	10.00	2.00	12.00	9.4086	.07720
Satisfaction	509	9.00	3.00	12.00	9.7682	.07764

Table 10.29: Descriptive statistics – questionnaire factors.

Table 10.29: (Continued)

	Std.	Variance	Skev	wness	Kur	tosis
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Pride	4.11087	16.899	-1.227	.108	1.402	.216
Involvement	3.85041	14.826	530	.108	.542	.216
Activity	4.41906	19.528	652	.108	.435	.216
Earnings	5.54938	30.796	002	.108	.088	.216
Status	5.18303	26.864	.085	.108	113	.216
Progress	4.15704	17.281	370	.108	.034	.216
Internality	11.27005	127.014	129	.108	409	.216
PD	2.25102	5.067	1.693	.109	14.725	.217
UA	1.97686	3.908	178	.108	058	.216
Individualism	2.20937	4.881	1.101	.108	2.421	.216
Masculinity	3.82227	14.610	1.621	.108	4.960	.216
Influence A	2.32810	5.420	327	.108	270	.216
Influence B	2.31428	5.356	414	.108	.015	.216
Motivation	2.48056	6.153	480	.108	.032	.216
Stimulation	2.27449	5.173	348	.108	.115	.216
Consideration	2.64935	7.019	734	.108	.409	.216
Constructive	2.39656	5.744	546	.108	.619	.216
MBE – Active	3.32877	11.081	382	.108	141	.216
MBE – Passive	2.80741	7.882	.502	.108	017	.216
Laissez Faire	2.57926	6.653	.981	.108	.736	.216
Extra Effort	1.99861	3.994	397	.108	048	.216
Effectiveness	1.74169	3.033	568	.108	.467	.216
Satisfaction	1.75163	3.068	730	.108	.648	.216

An analysis of the contents of Table 10.29 reveals that scores are not normally distributed. Except for Social Status, Power Distance, Individualism, Masculinity, MBE-passive and Laissez Faire, which are positively skewed, the scores on the other dimensions are all negatively skewed. Analysis of the values of the kurtosis reveals that, for Pride in Work, Involvement, Activity Preference, Power Distance, Individualism, Masculinity, Consideration, Constructive Transaction, Laissez Faire, Effectiveness, and Satisfaction, the distribution is more peaked than for a normal distribution (leptokurtic; value > 0.263). As regards the other dimensions, the distribution is platykurtic (value < 0.263).

The standard error of the mean is described as the standard deviation of the sampling distribution of means. It is an index of the extent to which the sample means vary around the population means (Bohrnstedt <u>et al</u>, 1988: 500). The values of the standard error of the mean are quite high for all the factors, which implies that the observed means of the sample might not be good indices of the population means and that the generalisation of the findings of the study should be made with care.

### 10.7 MULTIPLE REGRESSION

To determine the influence of two or more variables on the dependent variable, multiple regression analysis can be used. This type of analysis may be used to analyse the influence of a variety of factors such as biographical variables on, for example, leadership behaviour. Coakes & Steed, 1996: 129) explain that, in multiple regression analysis the calculation of the relative weight of each predictor in the regression model relies on a single correlation between the predictor and the criterion as well as on the inter-correlations between predictors. Regression analysis refers to a set of statistical techniques for assessing the relationships between a dependent variable and several independent variables. While correlation is a measure of the association between a dependent variable and independent variable(s), regression is used when prediction is intended (Tabachnick <u>et al</u>, 1989: 123). Regression in this case was done by means of the stepwise method.

## 10.7.1 THE MLQ

In this analysis, firstly, the Multifactor Leadership Questionnaire (MLQ) served as the dependent variable and the eight biographical variables, viz gender, age, home language, religion, educational qualification, occupational level, population group and work experience, served as the independent variables. A stepwise linear regression<sup>4</sup> was done, the results of which are presented in Tables 11.30 to 11.32.

Table 10.30: <u>Regression – MLQ: Descriptive Statistics</u>.

<sup>&</sup>lt;sup>4</sup> Stepwise linear multiple regression was decided on, as the stepwise model will avoid the problem of two related variables cancelling out each other.

	Mean	Std Deviation	Ν
Leadership	87.5081	12.61312	496
Religion	2.8548	1.36593	496
Educational Qualification	3.1673	.58103	496
Age	3.3246	.64313	496
Home Language	1.9960	.55776	496
Occupational Level	2.16	1.028	496
Population Group	2.32	.684	496
Work Experience	3.19	1.366	496

The N = 496 in Table 10.29 as multiple regression uses only respondents who have complete data. Leadership is the only variable with a large deviation from the mean. The various correlations are presented in Table 10.31.

		Leadership	Religion	Ed. Qual	Age
Pearson	Leadership	1.000	.020	.044	017
Correlation	Religion	.020	1.000	.033	.045
	Ed. Qualification	.044	.033	1.000	010
	Age	017	.045	010	1.000
	Home language	.127	.087	.133	.021
	Rank	046	.007	.384	.281
	Population group	.028	.052	195	047
	Work experience	.030	018	013	.752
Sig. (1-tailed)	Leadership		.327	.167	.356
	Religion	.327		.230	.161
	Ed. Qualification	.167	.230		.408
	Age	.356	.161	.408	
	Home language	.002*	.027*	.002*	.324
	Rank	.153	.441	.000*	.000*
	Population group	.267	.125	.000*	.147
	Work experience	.256	.341	.387	.000
Ν	Leadership	496	496	496	496
	Religion	496	496	496	496
	Ed. Qualification	496	496	496	496
	Age	496	496	496	496
	Home language	496	496	496	496
	Rank	496	496	496	496
	Population group	496	496	496	496

### Table 10.31: Multiple regression-MLQ.

Work experience	496	496	496	496

### Table 10.31: (Continued)

		Language	Rank	Pop.	Work
				Group	Exp.
Pearson	Leadership	.127	046	.028	.030
Correlation	Religion	.087	.007	.052	018
	Ed. Qualification	.133	.384	195	013
	Age	.021	.281	047	.752
	Home language	1.000	.061	410	.234
	Rank	.061	1.000	191	.287
	Population group	410	191	1.000	220
	Work experience	.234	.287	220	1.000
Sig. (1-tailed)	Leadership	.002*	.153	.267	.256
	Religion	.027*	.441	.125	.341
	Ed. Qualification	.002*	.000*	.000*	.387
	Age	.324	.000*	.147	.000*
	Home language		.087	.000*	.000*
	Rank	.087		.000*	.000*
	Population group	.000*	.000*		.000*
	Work experience	.000*	.000*	.000*	
Ν	Leadership	496	496	496	496
	Religion	496	496	496	496
	Ed. Qualification	496	496	496	496
	Age	496	496	496	496
	Home language	496	496	496	496
	Rank	496	496	496	496
	Population group	496	496	496	496
	Work experience	496	496	496	496
(* p ≤ 0.05)					

According to Table 10.31 language correlates significantly with leadership, religion, education, population group and work experience, and occupational level with education, age, population group and work experience. Educational qualification correlates significantly with home language, occupational level (rank), and population group. Age also has a significant relationship with work experience. Lastly, work experience has a significant relationship with population group.

Model	Variables Entered	Variables Removed	Method
1			Stepwise
			(Criteria: Probability
			–of- F-to-enter ≤
	Home language		.050. Probability –of-
			F-to-remove ≥ 100).
			Stepwise
2			(Criteria: Probability
			–of- F-to-enter ≤
			.050. Probability –of-
	Population group		F-to-remove ≥ 100).

Table 10.32: Multiple regression - variables entered/removed.

It is obvious from Table 10.32 that only two variables, viz home language and population group entered the equation. No variables were removed.

A model summary for the MLQ was drawn in which each model represents a "step" in which a variable is added (or deleted) from the prediction equation if it makes a significant additional contribution to the prediction of the variables already entered. The  $R^2$  for each step after the first indicates a prediction from a combination of variables. The model summary is presented in Table 10.33.

	Model	
1 2		2
R	127	154
R Square	.016	.024
Adjusted R Square	.014	.020

Table 10.33: Multiple Regression model summary – MLQ.

	Std. Error of the Estimate	12.52376	12.48734
	R Square Change	.016	.008
e S	F Change	8.089	3.886
Change Statistics	df1	1	1
Sta CI	df2	494	493
	Sig. F Change	.005	.049
	Durbin-Watson		1.904

The model summary in Table 10.33 indicates that the regression model has an R of 0.154 with an  $R^2$  of 0.0237 (0.024). The  $R^2$  tends to be an optimistic estimate of how well the model fits the population. The model, however, does not fit the population in this case as well as it fits the sample from which it is derived. The statistic "adjusted  $R^2$ " in the table attempts to correct  $R^2$  to more closely reflect the goodness of fit of the model in the total population. The total observed variable is the dependent variable subdivided into two components, viz Regression and Residual. According to Norusis (1990) the analysis of variance includes two sums of squares under the heading "sum of squares". The mean square for each entry is determined from the sum of squares divided by the degrees of freedom (df). If the regression assumptions are met, the ratio of the mean square regression to the mean square residual is distributed as an F-static with N = p - 1 degrees of freedom (Norusis, 1990: 253). The F-statistic serves to test how well the regression model fits the research data. If the probability associated with the F static is small, the hypothesis that  $R^2 = 0$  should be rejected. In this case  $F^{pp}$ -change = 3,886 with F-change being significant (Sig. F Change = 0.049, p being < 0.05).

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1268.756	1	1268.756	8.089	.005
Residual	77481.211	494	156.845		
Total	78749.968	495			
2 Regression	1874.650	2	937.325	6.011	.003
Residual	76875.318	493	155.934		
Total	78749.968	495			

Table 10.34: Multiple regression – ANOVA.
---

According to Table 10.34 the small probability (Sig) of ANOVA (F) indicates that one or more of the independent variables is a statistically significant predictor. Significant predictor variables of the MLQ using stepwise multiple regression are presented in Table 10.35.

Model		Unstandardised Coefficients		Standardised Coefficients		
		В	Std Error	Beta	t	Sig.
1	(Constant)	81.779	2.091		39.103	.000
	Language	2.870	1.009	.127	2.844	.005
2	(Constant)	75.891	3.643		20.833	.000
	Language	3.761	1.103	.166	3.410	.001
	Pop. group	1.773	.899	.096	1.971	.049

Table 10.35: Multiple regression - Coefficients.

(\* p = 0.05)

It is evident from Table 10.35 that, apart from the constant, only two independent variables make the regression:  $MLQ = \beta c + Language$  and Population Group.

## 10.7.2 THE LEADERSHIP OUTCOMES

Leadership outcomes<sup>5</sup> were used as dependent variables with transformational leadership and transactional leadership preferences or styles as the independent variables. Transformational leadership consists of the dimensions Idealised Influence (both attributes and behaviours), Inspirational Motivation, Intellectual Stimulation and Individualised Consideration. Transactional leadership refers to Management-by-exception (both active and passive forms) and Constructive Transaction. Both transformational and transactional leadership form part of the Full Range leadership model as it was discussed in Chapter 5.

The Beta-coefficients are presented in Table 10.36.

<sup>&</sup>lt;sup>5</sup> The variable "outcomes" comprises the dimensions Extra Effort, Effectiveness and Satisfaction.

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Model		Unstandardised Coefficients		Standardised Coefficients		
		В	Std Error	Beta	t	Sig.
1	(Constant)	5.888	.954		6.171	.000
	Transform.	.361	.016	.735	23.068	.000*
	Transact.	.024	.028	.027	.845	.398
(* n	< 0.05)					

#### Table 10.36: Multiple regression – Beta coefficients.

(\* p ≤ 0.05)

The table indicates the standardised beta coefficients. As is evident, only transformational leadership contributes significantly to the prediction of the outcomes as described.

Bravais-Pearson product-moment correlation was conducted to determine any significant correlations between the three variables "outcome", "transformational leadership" and "transactional leadership". The results appear in Table 10.37.

		OUTCOMES	Transform	Transact
Pearson Correlation	OUTCOMES	1.000	.745	.298
	Transform	.745	1.000	.368
	Transact	.298	.368	1.000
Sig. (1-tailed)	OUTCOMES		.000	.000
	Transform	.000		.000
	Transact	.000	.000	-
Ν	OUTCOMES	509	509	509
	Transform	509	509	509
	Transact	509	509	509

#### Table 10.37: Bravais-Pearson product moment correlation.

According to Table 10.37 there is a positive high and significant correlation between the leadership outcomes (extra effort, effectiveness and satisfaction) and transformational leadership (r = 0.745; p = 0.000; p being < 0.05). The association between the outcomes and transactional leadership, although positive and significant, is quite low (r = 0.298; p = 0.000; p being < 0.05). The correlation between the two predictors is positive and significant, but low (r = 0.368; p = 0.000; p being < 0.05).

The variables entered/removed in the multiple regression are presented in Table 10.38.

Model	Variables Entered	Variables Removed	Method
1	Transactional		Enter
	Transformational	-	

Table 10.38:	Multiple regression – v	variables entered/removed.
10010 10.000		

Table 10.38 shows that all the requested independent variables (predictors) are entered. The model summary is presented in Table 10.39.

Table 10.39: Multiple regression – variables entered/removed.

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.746	.556	.554	3.18169

As can be seen in Table 10.39, the multiple regression coefficient equals 0.766 with  $R^2 = 0.556$ . This implies that 55,6% of the variance in the criterium is predicted by the independent variable. (The  $R^2$  is a measure of the goodness of fit of a particular linear model and is sometimes called the coefficient of determination. Should all the observations fall on the regression line  $R^2$  would be 1 (Smit, 1991: 59)). An  $R^2$  of zero indicates that there is no linear relationship between the criterium and the predictors. The statistic adjusted  $R^2$  attempts to correct  $R^2$  to more closely reflect the goodness of fit (Norusis, 1990: 251).

The analysis of variance is presented in Table 10.40.

Mod	lel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6409.039	2	3204.520	316.554	.000
	Residual	5122.308	506	10.123		
	Total	11531.348	508			

## Table 10.40: Multiple regression – ANOVA.

As is obvious from Table 10.40, two sums of squares are displayed, viz the residual sum of squares and the regression sum of squares, the ratio between

them being distributed as F. F serves to test how well the regression model fits the data. The probability associated with the F-statistic (F = 316,554) is small (p = 0.000; p being < 0.05) which implies the rejection of the hypothesis of  $R^2 \text{ pop} = 0$ .

Table 10.41 provides important statistics for the variable transactional leadership, which is excluded from the prediction equation.

#### Table 10.41: Multiple regression - ANOVA.

Model	Beta In	т	Sig.	Partial Correlation
1 Transact.	.027	.845	.398	.038

According to Table 10.41 the transactional style significance level is greater than 0.05 (p = 0.398). The low partial correlation coefficient, the correlation between the independent variable and the dependent variable when the linear effects of the other independent variable(s) have been removed, indicates a poor relationship between transactional leadership and outcomes.

#### 10.7.3 TRANSFORMATIONAL LEADERSHIP

The correlation between transformational leadership, internality and the other value-related dimensions in the study was also determined through a multiple regression analysis. The results of the multiple regression with transformational leadership as the independent variable are presented in Tables 11.42 to 11.47. The Bravais-Pearson Product-Moment correlations between transformational leadership, internality, the dimensions of the Survey of Work Values and the dimensions of the Value Survey Module are listed in Table 10.42.

F	product-moment correlations.										
		Transform	Pride	Involve	Activity	Reward					
Pearson	Transform	1.000	.2531.000	.382	.259	082					
Correlation	Pride	.253	.437	.437	.512	057					
	Involve	.382	.512	1.000	.443	148					
	Activity	.259	057	.443	1.000	167					
	Earnings	082	166	148	167	1.000					
	Status	069	.254	068	172	.265					

# Table 10.42: <u>Multiple regression for transformational leadership: Bravais- Pearson</u> product-moment correlations

## University of Pretoria etd – Beukman, T L (2005)

Progress	.203	.422	.217	.249	.114
Internality	.399	.029	.410	.442	110
PD	.079	.104	.018	.106	058
UA	.046	326	.083	.074	139
Indiv	281	320	263	262	.102
Masc	261		225	259	023

#### Table 10.42: (Continued)

Sig. (1-tailed)	Transform		.000	.000	.000	.033
	Pride	.000		.000	.000	.100
	Involve	.000	.000		.000	.000
	Activity	.000	.000	.000		.000
	Earnings	.033	.100	.000	.000	
	Status	.060	.000	.062	.000	.000
	Progress	.000	.000	.000	.000	.005
	Internality	.000	.000	.000	.000	.006
	PD	.038	.260	.341	.009	.096
	UA	.152	.010	.032	.049	.001
	Indiv	.000	.000	.000	.000	.011
	Masc	.000	.000	.000	.000	.303
				÷		

		Status	Progress	Internality	PD	UA
Pearson	Transform	069	.203	.399	.079	.046
Correlation	Pride	166	.254	.422	.029	104
	Involve	068	.217	.410	.018	.083
	Activity	172	.249	.442	.106	.074
	Earnings	.265	.114	110	058	139
	Status	1.000	016	251	004	002
	Progress	016	1.000	.291	.022	.016
	Internality	251	.291	1.000	.054	.051
	PD	004	.022	.054	1.000	.146
	UA	002	.016	.051	.146	1.000
	Indiv	.209	173	373	014	057
	Masc	.158	242	322	028	016
Sig. (1-tailed)	Transform	.060	.000	.000	.038	.152
	Pride	.000	.000	.000	.260	.010
	Involve	.062	.000	.000	.341	.032
	Activity	.000	.000	.000	.009	.049
	Earnings	.000	.005	.006	.096	.001
	Status		.363	.000	.462	.479
	Progress	.363		.000	.314	.358
	Internality	.000	.000		.111	.124

## University of Pretoria etd – Beukman, T L (2005)

PD	.462	.314	.111		.000
UA	.479	.358	.124	.000	
Indiv	.000	.000	.000	.378	.098
Masc	.000	.000	.000	.264	.358

, ,	,	Indiv	Masc
Pearson	Transform	281	261
Correlation	Pride	326	320
Conclation	Involve	263	225
	Activity	262	259
	Earnings	.102	023
	Status	.209	.158
	Progress	173	.242
	Internality	173	322
	PD	014	028
	UA	057	020
	Indiv	1.000	.764
	Masc	.764	1.000
Sig. (1-tailed)	Transform	.000	.000
olg. (1-talled)	Pride	.000	.000
	Involve	.000	.000
	Activity	.000	.000
	Earnings	.000	.303
	Status	.000	.000
	Progress	.000	.000
	Internality	.000	.000
	PD	.000	.000
	UA	.098	.204
	Indiv	.080	.000
			.000
	Masc	.000	

#### Table 10.42: (Continued)

According to Table 13.42 transformational leadership has low but significant relationships with Pride in Work (r = 0.253; p = 0.000; p being < 0.05), Involvement in the Job (r = 0.382; p = 0.000; p being < 0.05), Activity Preference (r = 0.259; p = 0.000; p being < 0.05) and Upward Striving (or Progress) (r = 0.203; p = 0.000; p being < 0.05). There is a negative but significant relationship between Reward and transformational leadership (r = 0.082; p = 0.033; p being < 0.05). There is no significant association between

the criterium and Social Status of the Job. As regards the four dimensions of the Value Survey Module, transformational leadership has low, significant, positive correlations with Power Distance (r = 0.079, p = 0.038; p being < 0.05), but correlates negatively and significantly with Individualism (r = -0.281; p = 0.000; p being < 0.05) and Masculinity (r = -0.261; p = 0.000; p being < 0.05). Transformational leadership correlates insignificantly with Uncertainty Avoidance (r = 0.046; p = 0.152; p being < 0.05). There is also a low, positive and significant correlation between Internality and transformational leadership (r = 0.399; p = 0.000; p being < 0.05). The other correlation coefficients were already discussed under the heading Statistics of Association. The variables entered/removed are presented in Table 10.43.

transformational leadership.								
Model	Variables Entered	Variables Removed	Method					
1 2	Internality	-	Stepwise (Criteria: Probability –of- F- to-enter ≤ .050. Probability –of- F- to-remove ≥ 100). Stepwise					
	Involvement	- -	(Criteria: Probability –of- F- to-enter ≤ .050. Probability –of- F- to-remove ≥ 100).					
3	Masculinity	-	Stepwise (Criteria: Probability –of- F- to-enter ≤ .050. Probability –of- F- to-remove ≥ 100).					

Table	10.43:	Multiple	regression	_	variables	entered/	removed:
		transform	ational leader	ship			

It is clear from Table 10.43 that only three independent variables entered the equation, viz Internality, Job Involvement and Masculinity. The model summary is displayed in Table 10.44.

## Table 10.44: Multiple regression model summary – transformational

	leadership.						
			Model				
		1	2	3			
	R	.399	.465	.479			
	R Square	.159	.216	.230			
	Adjusted R Square	.157	.213	.225			
	Std. Error of the Estimate	8.90874	8.60827	8.54363			
	R Square Change	.159	.057	.013			
ge ics	F Change	95.280	36.798	8.641			
Change Statistics	df1	1	1	1			
St C	df2	504	503	502			
	Sig. F Change	.000	0.000	.003			
	Durbin-Watson			1.921			

As is evident from Table 10.44, the multiple R at the third step<sup>6</sup> equals 0.479 and the  $R^2 = 0.230$ . This implies that the three independent variables predict only 23% of the variance in the criterium. The adjusted  $R^2$  of 0.025 does not succeed to improve the goodness of fit. These two small values indicate that there is not much of a linear relationship between criterium (transformational leadership) and predictors. The  $R^2$ -Change of 0.057 at the second step is the change in  $R^2$  when "Involvement" is added. The  $R^2$  for Internality alone is 0.159. With Masculinity added to the equation at the third step, the  $R^2$ -Change value is displayed as 0.013. Under the hypothesis that the true change is zero, the significance of the value labelled F-Change is small, and the hypothesis that  $R^2 = 0$  is rejected. The Durban Watson statistic is a test used for sequential correlation of adjacent error terms. Error terms refer to the

<sup>&</sup>lt;sup>6</sup> At the third step all three independent variables entered are in the model.

difference between an observed score and a score that is predicted by the model. The differences between successive residuals tend to be small in cases where error terms are positively correlated and are large in cases where the error terms are negatively correlated. Therefore, small values of D indicate positive correlations, while large values of D indicate negative correlations (Neter, Wasserman & Kutner, 1985; Kutner Norusis, 1990).

The analysis of variance for transformational leadership is presented in Table 10.45.

Mode	el	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	7561.946	1	7561.946	95.280	.000	
	Residual	40000.309	504	79.366			
	Total	47562.255	505				
2	Regression	10288.755	2	5144.377	69.423	.000	
	Residual	37273.500	503	74.102			
	Total	47562.255	505				
3	Regression	10919.459	3	3639.820	49.865	.000	
	Residual	36642.796	502	72 994			
	Total	47562.255	505				

Table 10.45: Multiple regression (transformational leadership) – ANOVA.

The total variability in the dependent variable, according to Table 10.45, is subdivided into two components, viz regression (10919,459) and the residual (36642,796). It should be noted that, as the value of regression increases from step 1 to step 3, the value of the residual has just the opposite effect, decreasing from step 1 to step 3. Two sum of squares are displayed, viz the mean square of regression and the mean square residual. The ratio between them, F, serves to test how well the regression model fits the data. As the probability level associated with the F-statistic is guite small (F = 49.865; p =0.000; p being < 0.05), the hypothesis of  $R^2_{pop} = 0$  has to be rejected.

The standardised and unstandardised coefficients with t and probability levels are presented in Table 10.46.

Table 10.46. <u>Multiple regression (transformational leadership) – Coefficients</u> .								
	Unstandardi	sed Coeff.	Standardised Coeff.					
Model	B	Std Error	Beta	т	Sia.			

Table 10.46: Mu	tiple regression (transformational leadership) – Coefficients.
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#### University of Pretoria etd - Beukman, T L (2005)

1	(Constant)	21.849	3.863		5.656	.000
	Internality	.343	.035	.399	9.761	.000
2	(Constant)	7.246	4.442		1.631	.103
	Internality	.250	.037	.291	6.726	.000
	Involvement	.660	.109	.263	6.066	.000
3	(Constant)	15.329	5.196		2.950	.003
	Internality	.221	.038	.257	5.789	.000
	Involvement	.626	.109	.249	5.758	.000
	Masculinity	310	.106	-,122	-2.939	.003

Table 10.46 indicates all three predictors to contribute significantly to the transformational leadership variable. The Betas (the standardised regression coefficients) as stated earlier, are contingent on each other (the different independent variables in the equation) and do not in any absolute sense reflect the importance of the various independent variables (Norusis, 1990: 272).

The different variables excluded from the equation are presented in Table 10.47.

	<u>excluded</u> .				
Mode	əl	Beta In	т	Sig.	Partial Correlation
1	Pride	.103	2.297	.022	.102
	Involvement	.263	6.066	.000	.261
	Activity	.103	2.264	.024	.100
	Earnings	038	936	.350	042
	Social Status	.033	.786	.432	.035
	Upward Striving	.095	2.240	.026	.099
	PD	.057	1.406	.160	.063
	UA	.025	.619	.536	.028
	Individualism	154	-3.530	.000	155
	Masculinity	148	-3.474	.001	153
2	Pride	.021	.455	.649	.020
	Activity	.019	.415	.678	.019
	Earnings	011	284	.776	013

Table 10.47: Multiple	regression	(transformational	leadership)	_ \	variables
excluded	I				

### University of Pretoria etd - Beukman, T L (2005)

Social Status	.023	.575	.566	.026
Upward Striving	.068	1.642	.101	.073
PD	.058	1.482	.139	.066
UA	.009	.231	.818	.010
Individualism	122	-2.870	.004	127
Masculinity	122	-2.939	.003	130

Table 10.47: (Continued)

3	Pride	005	104	.917	005
	Activity	.004	.096	.923	.004
	Earnings	020	509	.611	023
	Social Status	.034	.843	.400	.038
	Upward Striving	.051	1.217	.224	.054
	PD	.057	1.458	.145	.065
	UA	.010	.255	.799	.011
	Individualism	066	-1.063	.288	047

According to Table 10.47 the excluded variables are insignificant (p being > 0.05). The values of Beta In indicate the standardised regression coefficient that would result if the variable would have been entered into the equation at the next step. As is obvious from the above table, the standardised regression would have been low and insignificant in all cases, and also negative in the case of Pride in Work, Attitude toward Earnings and Individualism. The partial correlation (being low) and, as regards the already mentioned three independent variables (with the dependent variable), adjust for the variables in the equation.

## 10.7.4 TRANSACTIONAL LEADERSHIP

A regression was also conducted with Transactional Leadership as the dependent variable. For the purposes of this analysis transactional leadership refers to Management-by-Exception (both active and passive forms) and Constructive Transaction. The results of the regression analysis are presented in Tables 11.48 to 11.53.

#### University of Pretoria etd – Beukman, T L (2005)

Table 10.48: Multiple	regression	(transformational	leadership)	-	Bravais-	Pearson	
product-moment correlations							

	product-moment correlations.								
		Transact	Pride	PD	UA	Indiv	Masc		
Pearson	Transact	1.000	.085	055	113	032	080		
Correlation	Pride	.085	1.000	.029	.104	326	320		
	PD	055	.029	1.000	.146	014	028		
	UA	133	.104	.146	1.000	057	016		
	Indiv	032	326	014	057	1.000	.764		
	Masc	080	320	028	016	.764	1.000		

Sig.	Transact		.028	.109	.005	.238	.036
(1-tailed)	Pride	.028		.260	.010	.000	.000
	PD	.109	.260		.000	.378	.264
	UA	.005	.010	.000		.098	.358
	Indiv	.238	.000	.378	.098		.000
	Masc	.036	.000	.264	.358	.000	
Ν	Transact	506	506	506	506	506	506
	Pride	506	506	506	506	506	506
	PD	506	506	506	506	506	506
	UA	506	506	506	506	506	506
	Indiv	506	506	506	506	506	506
	Masc	506	506	506	506	506	506

Table 10.48: (Continued)

As is shown in Table 10.48, transactional leadership correlates low, positively and significantly (r = 0.085; p = 0.028; p being < 0.05) with Pride in Work. It correlates low, significantly, but negatively with Uncertainty Avoidance (r = 0.113; p = 0.005; p being < 0.05) and Masculinity (r = 0.080; p = 0.036; p being < 0.05). The other correlations were already discussed under statistics of association. In Table 10.49 the variables entered/removed are presented.

Table 10.49: Multiple regression (transactional leadership) - variables entered/

Model	Variables Entered	Variables Removed	Method
1	UA	-	Stepwise (Criteria: Probability –of- F- to-enter ≤ .050.

		Probability –of- F- to-remove ≥ 100).
2	Pride	Stepwise (Criteria: Probability –of- F- to-enter $\leq$ .050. Probability –of- F- to-remove $\geq$ 100).

The above table shows that only the independent variables Uncertainty Avoidance and Pride in Work are entered into the equation. The regression model summary is presented in Table 10.50.

Table 10.50:	Multiple regression	model summary	<u>/ – Transactional</u>	leadership.

		Model			
		1	2		
	R	.113	.149		
	R Square	.013	.022		
	Adjusted R Square	.011	.018		
	Std. Error of the Estimate	5.35793	5.33729		
	R Square Change	.013	.010		
e si	F Change	6.528	4.906		
Change Statistics	df1	1	1		
D B	df2	504	503		
	Sig. F Change	.011	.027		
	Durbin-Watson		1.944		

As is evident from Table 10.50, the multiple correlation (R) at the second step is 0.149. The  $R^2$  equals 0.022. This implies that the two independent variables predict only 2,2% of the variance in the dependent variable. The adjusted  $R^2$  does not contribute to the improvement of the goodness of fit. With Pride in Work entering the equation, the  $R^2$ -Change is only 0.010. This low value implies that the changed  $R^2$  is small when Pride in Work entered the equation. The F-Change is significant (p = 0.027; p being < 0.05) which means that the model fits the data.

Table 10.51 contains the results of the analysis of variance.

#### University of Pretoria etd - Beukman, T L (2005)

		Sum of	Mean			
Model		Squares	df	Square	F	Sig.
1	Regression	187.388	1	187.388	6.528	.011
	Residual	14468.541	504	28.707		
	Total	14655.929	505			
2	Regression	327.143	2	163.572	5.742	.003
	Residual	14328.785	503	28.487		
	Total	14655.929	505			

It is clear from Table 10.51 that, as the value of the regression increases from step 1 to step 2, the value of the residual decreases from step 1 to step 2. The F-value, the ratio between the mean square regression of squares and the mean square residual, has a significant level (F = 5,742; p = 0.003; p being < 0.05). The hypothesis of  $R^2_{pop} < 0$  has to be rejected. The standardised and unstandardised coefficient with t and probability level are presented in Table 10.52.

Model		Unstandardised Coefficients		Standardised Coefficients		
		В	Std Error	Beta	t	Sig.
1	(Constant)	28.354	1,129		25.108	.000*
	UA	308	.121	113	-2.555	.011*
2	(Constant)	23.398	2.504		9.344	.000*
	UA	336	.121	123	-2.781	.006*
	Pride	.128	.058	.098	2.215	.027*
(* p ≤ 0.05)						

Table 10.52: Multiple regression (transactional leadership) – Coefficients	<u>3</u> .
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Table 10.52 shows that all the predictors contribute significantly to the dependent variable, transactional leadership. The excluded variables are shown in Table 10.53.

Table 10.53: Multiple	regression	(transactional	leadership)	_	variables
excluded		·			

			Partial	<b>Colinearity Statistics</b>
-	-			

#### University of Pretoria etd – Beukman, T L (2005)

Model		Beta In	т	Sig.	Correlation			Minimum
						Tolerance	VIF	Tolerance
1	Pride	.098	2.215	.027	.098	.989	1.011	.989
	PD	039	873	.383	039	.979	1.022	.979
	Indiv	038	866	.387	039	.997	1.003	.997
	Masc	082	-1.856	.064	082	1.000	1.000	1.000
2	PD	040	907	.365	040	.979	1.022	.969
	Indiv	008	163	.871	007	.893	1.120	.886
	Masc	056	-1.214	.225	054	.897	1.114	.888

(\* p ≤ 0.05)

The above table indicates that the excluded variables all have significance levels above 0.05. According to the values of Beta In, should these excluded variables enter the equation at the next step, the standardised regression would in all cases be low, negative and insignificant.

#### 10.8 SUMMARY

In this chapter the results of the statistical analysis of the data were presented. The scientific data was presented according to the specific responses of 509 participants (respondents) on the Survey of Work Values (Wollack <u>et al</u>, 1971), the Value Survey Module (Hofstede, 1980), the Internal Control Index (Duttweiler, 1984) and the Multifactor Leadership Questionnaire (Bass <u>et al</u>, 1997).

Descriptive statistics were used to record the numerical properties of the various distributions. Correlational statistics were employed to ascertain the relationships between the different dimensions of the questionnaires and between the different questionnaires and the three main leadership dimensions, viz Transformational Leadership, Transactional Leadership and leadership outcomes. Multiple regression was employed to ascertain the prediction of outcomes by both transformational and transactional leadership behaviour as independent variables. Also, the dimensions of the Survey of Work Values, the Value Survey Module and the Internal Control Index were employed as predictors with transformational leadership and transactional leadership as dependent variables (criteria).

#### CHAPTER 11

#### CONCLUSIONS AND RECOMMENDATIONS

#### 11.1 INTRODUCTION

The analysis of cultural and value-related differences and the development of a workable and effective leadership culture for business in South Africa takes place against the backdrop of a unique socio-political history. The process of political and social transformation that has occurred since 1992, and that affects all organisations in South Africa, including the civil service, is a process of radical change and involves the unification of individuals from many diverse cultures. The change, from a society of "apartheid" in the past to a fully democratic, multi-racial society for the future, has far-reaching implications for most organisations. As a result the most critical challenge for leaders has become one of enabling these people with their different backgrounds, preferences and needs to work together effectively and productively. The public service, directed by the principles of reconciliation, restructuring and development, finds itself within a process of both structural and cultural transformation. Seen against the background of the fundamental political change after the 1994 election and the resulting integration of military personnel in the SANDF, the Department of Defence (DOD) is currently undergoing a process of transformation through which the SANDF will also adopt a new organisational paradigm (as discussed in Chapter 2). The SAAF, one of the Arms of Service, is committed to these changes implemented by the Department of Defence and is the organisation on which this study focussed. In reaction to all the change imperatives, the SA Air Force has already been restructured according to the image of the new transformed DOD organisation. Institutionalising appropriate leadership practices became more and more important in bringing the organisation in line with the guidelines of the DOD. The SAAF's culture change interventions also involve the transformation of policies, practices and behaviour (especially leadership practices) towards a culture being much more transformational and participative than what it was in the past. However, the question that arose was whether a transformational leadership approach is suitable for the African social and work environment. This study served to determine, in terms of work- related values and locus of control, which practices and principles need to be included in such a culture to ensure effective and successful leadership. The researcher wished to confirm whether the decision to opt for a transformational approach to leadership in the (South) African environment is the appropriate one.

The study of culture and leadership in South Africa is faced with the unique characteristic of the ethnic diversity of people making up the potential work

force. Ethnic differences are predominantly culturally based and employees bring these differences to the work place. The fact that ethnic groups differ in their perceptions of work and the work environment has resulted in the demands on effective leadership being increasingly complex. Being aware of cultural and ethnic differences is not enough; a proper analysis of those values that are required to accomplish organisational goals and to take South African companies successfully into the global market is required. A South African approach to the development of business leadership is critically needed. To achieve this, an understanding of the effect of cultural and value differences on the selection of appropriate leadership approaches and styles is essential. Uncovering the common ground between eurocentric and indigenous African philosophies and values (which underlie the SA reality) should be the first step in this process. The challenge for South African leaders is to transform existing leadership and management practices and knowledge to suit the unique African situation.

As discussed in Chapter 2, the main aim of this study was to conduct a comprehensive study of work-related values, expressed by both the Survey of Work Values and the Value Survey Module, locus of control as expressed by Duttweiler's (1984) Internal Control Index (ICI) and the interaction between these variables and leadership behaviour as expressed by the Multifactor Leadership Questionnaire of Bass et al (1997). A specific part of the SAAF's labour force, being leaders from all levels, was involved. The six value dimensions of the Survey of Work Values, the four dimensions of the Value Survey Module, the leadership styles of the Multifactor Leadership Questionnaire, as well as Internality (as measured by the ICI), served as dependent variables. The independent variables consisted of two groups. The first group of independent variables was those factors reflecting cultural differences, viz language, religion, gender, population group and age, while the second group consisted of organisational factors, viz occupational level, educational qualifications, and work experience. Both independent and dependent variables were observed to determine their impact on the development and implementation of effective leadership practices and policies in a transformational organisation paradigm.

Adonisi (1993) notes that a tragic fact about South Africa is that in management's pursuit of excellence they have trampled upon the dignity of the majority of our people and in the process ignored the basic values that underlie their needs and aspirations. Task orientations still dominate many leadership philosophies and practices and there is little evidence of a human side to business. The guidelines for changes in management philosophy and practice for the public sector, as laid down by the White Paper on Transformation in the Public Sector, require the implementation of a more participative and transformational culture in human resources management and leadership practices. These guidelines include the development of an empowering organisational culture in which both the achievement of tasks and

the meeting of employee needs are emphasised through a more creative use of consultation and teamwork. This research investigated the appropriateness of the elements of a transformational leadership approach (as opposed to the task focussed transactional approach) in introducing this human focus in the African world of work. It served as an attempt to contribute towards helping leaders and followers in developing a sensitivity and understanding for human differences in the work place. Determining the implications of culture-related differences for transformational behaviour displayed by leaders, was a specific research focus.

#### 11.2 RESEARCH DESIGN

#### 11.2.1 THE RESEARCH METHOD

The information required for the analysis as described in Chapters 1 and 2, was obtained from a sample of subjects by using the survey method of data gathering. The method was selected due to the fact that the researcher was able to visit all the SAAF bases personally and could therefore have personal contact with each of the subjects participating in the survey. A sample of 509 respondents were selected from all the leaders in the SAAF ranging from junior supervisors (mostly sergeants) to senior management (colonels and generals). Members of all the bases as well as SAAF Headquarters were included.

#### 11.2.2 ADMINISTERING THE QUESTIONNAIRE

Self-administered questionnaires were used to obtain information about subjects' personal preferences and behaviours regarding work-related values, locus of control and leadership. Two standardised questionnaires were used for measuring work-related values (as described above), one for locus of control and one for leadership behaviour. Information regarding the biographical variables was obtained through the inclusion of a separate questionnaire.

The questionnaires in this survey were not distributed into the research field. Instead, the questionnaires were administered to a group of randomly selected leaders at each SAAF unit, by the researcher personally. The purpose of the research was explained and complete anonymity was guaranteed. The questionnaires were received back immediately upon completion.

#### 11.2.3 REPRESENTATIVENESS OF THE SAMPLE

The population on which the study was directed is made up of all the so-called uniformed or military leaders of the SAAF, a total of 6 781 members. Leaders in this case are defined as all non-commissioned officers holding a rank of sergeant or higher, all warrant officers as well as all officers (excluding candidate officers) having followers reporting directly to them. The sample taken provided useful scientific information, although showing some limitations. For example, in doing further research on the topic of work-related values in a cross-cultural setting, more respondents from the African ethnic groups should be included. In many cases the number of Asians involved in the study proved to be too small to reach any significant conclusions. Although the SAAF's total population consists of only 15% females, attempts should also be made to secure a higher percentage of female respondents.

The leadership-related information used in this research was obtained through self-assessments of the leaders included in the sample. In future, research of this nature should also include ratings provided by followers to ensure more accurate and objective information about leadership behaviour. Further culture-related research should also stretch across organisational boundaries outside the military to include a wider spectrum of the South African work force.

If the percentages of groups in terms of gender, age, occupational level, seniority, and population group in the total SAAF population are taken into account, the sample is proportional to the occurrence of these groups in the population as a whole.

#### 11.3 CONCLUSIONS BASED ON THE LITERATURE STUDY

During the last decade the issue of appropriate management models for Africa has become a key point of many discussions and debates. The appropriateness and application of Western-centric leadership and management theories and philosophies in all other cultures are increasingly challenged. For many years (and even today) the South African business community have ignored the fact that the largest proportion of the population is African and not European or American. As a result many employees, mostly previously disadvantaged, cannot identify with systems, structures and processes in their organisations and they find that there is a big gap and little congruence between the goals of employees and those of the organisation. Due to South African organisations being conceptualised and structured in a largely Western mould (Khoza, 1993), there is always the possibility of introducing more Western bias into the development of possible business models for corporate South Africa. The value that could be contributed by indigenous world-views to improve the world of work is not taken account of.

Corporate South Africa is still making itself guilty of the fallacy to believe that a business culture can be imposed on people and made to work without taking into account the cultural archetypes of the people it is imposed on. Apart from the fact that the South African community at large is characterised by social values, customs and beliefs vastly different to those of western cultures, the country is also experiencing a period of dramatic (and often traumatic) transitions as it positions itself as a fully democratic nation. Problems associated with these changes are, amongst others, high rates of unemployment and population growth on the one hand with a low education base on the other. Although business organisations worldwide are faced with turbulent environments, Adonisi (1993) argues that changes in Africa are probably not only greater in magnitude and more varied, but also occur more frequently than anywhere else. Leaders will have to play a critical role in responding to and addressing the strong expectations of inclusion and involvement following the many years of apartheid during which a large component of the potential workforce has been alienated and excluded from the business world. This alienation of African workers was even continued after the fall of apartheid due to the attempts of South African organisations to merely assimilate black employees into white cultures, rather than to Africanise itself. The gap between the expectations of society and reality is a large one, representing challenges which other nations took centuries to achieve.

The notion that "West is best" and that there is one best way to manage or to lead human resources, is questioned throughout literature. It was found that the current softer and transformational ideal of effective leadership (built on the principles of power sharing and status equality, high levels of trust, the sharing of feelings and emotions and the importance of team work, and which enjoys more and more support in western organisations) could be translated into the following Hofstede-values: low power distance, low uncertainty avoidance, low individuality and medium masculinity. It should be noted that these cultural prerequisites do not match the cultural profiles of many countries, in fact, they do not even fit the cultural profile of the USA (Hofstede, 1980), which is characterised by values such as medium power distance, low uncertainty avoidance, high masculinity and high individualism.

In terms of the research findings it cannot be argued that all tested and proven western business principles and philosophies should be rejected when developing a workable South African approach, but the reality is that a total misunderstanding of (and a substantial resistance to) the free enterprise economic system has developed, mainly because of the fact that the systems of apartheid, separation and suppression have been associated with capitalism. Leaders will be required to facilitate the process of overcoming this inherent resistance firstly, and then integrating the appropriate values and beliefs of both Western and African perspectives – this within the constraints of the available limited financial, technical and human resources available. The requirement is to harmonise leadership practices and organisational values so that much larger numbers of blacks can be included into South African organisations, in such a way that these organisations can still remain productive and competitive. Instead of trying to determine which of "Western" or "African" management and leadership models should dominate organisational cultures in future, the focus should be on establishing harmony and synergistic cooperation between the various cultures. The study have shown that, to ensure South Africa becoming and remaining internationally competitive, there is no other option.

The literature study emphasised the importance of understanding culture in Africa where society is characterised by ethnic diversity and "non-western" traditions and values. These values typically include those associated with and rooted in the African concept of ubuntu, for example the value of inclusivism. While the workplaces designed and created by whites in the previous apartheid dispensation, are primarily exclusive in nature with the emphasis on individual ambition, development and achievement, leaders now realise that the majority of black employees hold inclusivistic beliefs that the individual's behaviour cannot be interpreted from a pure individualistic perspective. For them, individuals are expected not to live for themself. but for the community. Self-interest is always seen as being subjective to communal interest. It became clear that, especially in the military environment where these differences bear substantial significance, an understanding of the effect of cultural differences on the selection of appropriate leadership practices and approaches is essential. The underlying challenge is the accommodation of different cultures in an organisational system where employees are satisfied and motivated on the one hand, whilst also productive and committed to reaching the objectives of the organisation on the other.

Despite the need for acknowledging culture-specific elements, the research has shown the existence of culture-universal values impacting on effective leadership processes. The higher Survey of Work Values - scores obtained (for all the population groups) on the dimensions Pride in Work, Job Involvement and Upward striving, as opposed to the generally lower tendency towards Earnings and Social Status of the Job, confirm that followers want to be involved, and that they find more reward in the intrinsic aspects of work than from those aspects associated with extrinsic needs. They want to be trusted and prefer leaders demonstrating support and concern. In fact, with regards to follower preferences, many of the so-called humanistic African values proposed, can be reported not to be truly African, but rather universal in nature. It was found that many of these culture-universal characteristics could be associated with the principles of transformational leadership. These principles have already proven (Bass et al, 1994) to result in effective and productive follower behaviour when applied across many cultures internationally.

Although it became clear that the eurocentric approach of explaining the behaviour of all cultural groups in terms of western knowledge and paradigms will not provide the best solution in a multi-cultural South Africa, the research findings do not support the argument of building a unique African leadership model which is purely based on indigenous African values. Some of the authors referred to in the study, even question the practicability of traditional African values in the modern workplace. Most evidence found in this study call for the meaningful integration of similarities and differences between cultures within proven theoretical frameworks in such a way that it make sense for the members of all the cultures involved. The debate of whether ubuntu as a social concept is applicable to the improvement of workplace performance and therefore organisational productivity and success in Africa, should also manifest in the principles of careful selective integration. As stated earlier, what remains important in the study of leadership, are those factors leading to effective behaviour of individuals and teams, and if the social principles of ubuntu are contributing to this, they cannot be excluded from African management practices. The challenge for African leaders should not be one of transferring ubuntu as a whole to the workplace, but to identify those ubuntu-related values, beliefs and leader behaviours which could positively influence the performance of followers and the achievement of organisational objectives. As an example, the research findings suggest Africans to be more concerned about relationships and interpersonal issues than individual and organisational effectiveness and performance. While the good manager is expected to be considerate and people-oriented, and is someone who consults subordinates and give support direction, assurance and security, leaders still have the task of creating an awareness that improved productivity, performance and organisational effectiveness are as important as good relationships in order to survive in a competitive environment. When leaders create the conditions for followers to do so, they need to commit themselves to excellence and their own best efforts.

The research has shown that the answer for developing a workable, practical approach for effective leadership in Africa is neither singular, nor simplistic. It is vital to incorporate and reinforce those attributes of both Afrocentric and Eurocentric perspectives that will enhance organisational effectiveness and competitive performance. This should be done through positive dialogue, where one group does not try to enforce its own culture on the other. The extent to which the application of the principles of transformational leadership might satisfy this dual requirement are discussed under the conclusions based on the empirical research.

#### 11.4 CONCLUSIONS BASED ON EMPIRICAL RESEARCH

In this section a summary of the empirical research results will be discussed in terms of the work-related value dimensions of both the Survey of Work Values

and the Value Survey Module as well as locus of control and leadership behaviour. As far as the value dimensions are concerned, there is a low level of individualism among respondents in general. The scores indicate a tendency towards Masculinity and a high level of Uncertainty Avoidance. The results further show a high Power Distance as experienced between leaders and followers. Respondents indicated a much higher preference for the values associated with intrinsic needs, viz Pride in Work, Job Involvement and Activity Preference than for those associated with extrinsic needs, viz Attitude towards Earnings and Social Status of the Job.

Although significant differences between population groups regarding locus of control were found, the results indicate a tendency towards higher internality. In terms of leadership behaviour, the results reflected a higher preference for all five the elements of transformational leadership, than for transactional leadership styles, viz Management-by-Exception (both active and passive) and Constructive Transaction. A significant positive correlation between the transformational behaviours and the three outcomes, viz Extra Effort, Effectiveness and Satisfaction was found.

Due to the fact that the study is cross-cultural in nature, it is noteworthy that most of the significant differences reported were found to be between Africans and one or more of the other groups. On all of the dimensions where significant differences were found, Africans differ from at least one of the other three groups, except on Inspirational Motivation. On all these dimensions this group differ significantly from whites and/or coloureds. On two of the leadership outcomes, viz Effectiveness and Satisfaction, as well as both the Idealised Influence dimensions, Africans and coloureds were found to be the only groups differing significantly.

#### 11.4.1 INDIVIDUALISM

The subjects in the study showed a tendency away from individualism towards collectivism. This is applicable, not only for Africans but also for all three other population groups, viz Asians, whites and coloureds. Despite this general tendency towards collectivism, Africans differ significantly from all the other population groups. No differences between whites, coloureds and Indians were found. Individualism is also influenced by occupational level (rank) as well as educational qualifications. There seems to be a gradual move away from individualism along with promotion in rank. Junior supervisors were found to differ significantly from middle management. With regards to education, subjects with grade 10, as well as those with matric or a a diploma, differed significantly from graduates. With higher educational qualifications, a tendency away from individualism shows a significant negative correlation with transformational leadership and a significant positive correlation with the

Laissez Faire style. No correlation could be found between Individualism and transactional leadership.

In order to develop and establish a transformational leadership culture, a strong focus on teamwork is required. Transformational leaders inspire followers by communicating high expectations of the team as a whole. They encourage followers to focus away from self-interest towards the good of the group or team. In a leadership approach where participative practices should be encouraged, an individualistic belief system, where only individual performance and achievement is encouraged, might easily be considered to be inhibiting. However, it is important to note that a successful transformational approach should not be based only on collectivistic thinking and principles. A transformational approach does not imply a choice between individualistic or collectivistic values, and individualistic values do not have to be rejected or ignored for the sake of teamwork. Individualism can also be accepted as morally correct. Individualised consideration has been shown to be as important (Bass et al, 1994) as the encouragement of teamwork. According to Davis (2000), the critical factor is teamwork, not teams. Teamwork in itself does not refer to bonding, developing more meaningful relationships or fuller harmony. Although all these things are valuable, they are not regarded as essential for teamwork. Teamwork should be seen as aligned individualism, where everyone (as an individual) takes responsibility for the overall results, not just for individual contributions. As such, transformational leaders should focus on teamwork for accomplishing tasks and objectives together, that individuals cannot accomplish alone, while also ensuring that each individual has the opportunity to develop to the best of his potential through continuous individualised consideration. When teamwork is healthy, it should support individuality.

#### 11.4.2 POWER DISTANCE

None of the population groups have shown significant differences on the dimension 'power distance'. No significant differences could be found on any of the other independent variables either. Awareness of a large power distance is applicable to the members of all four culture groups. This is probably the result of the very essence of the formal hierarchical military rank system where the distribution of power is formalised through many levels of authority. The large power distance between superior and follower may pose a problem for implementing a transformational culture where the empowerment of employees and access to resources, information and problem solving are required to create higher levels of collaboration, involvement and commitment.

The implementation of more participative leadership practices is required to ensure a smaller power distance. Such a participative approach should be based on a belief system that subordinates inherently have both the willingness and ability (they can and want) to do what needs to be done and that they can be empowered to use their own discretion and make their own decisions about the work they do and know best. The many levels of formalised power do not facilitate the smooth institutionalisation of the SAAF's new values, that require the appreciation of all inherent competencies of all employees. This situation calls for the creative use of power sharing and employee involvement within units and sections. The reduction of a power distance orientation should not be inhibited by the existence of formal hierarchical levels. In fact, the essence of empowerment is the sharing of power between the powerful at a higher level and the powerless at a lower level. In order to improve follower performance, transformational leaders should help them to firstly acquire, and secondly use the power they need to make decisions affecting their own work.

#### 11.4.3 UNCERTAINTY AVOIDANCE

As was the case with power distance, none of the population groups have shown any significant differences in terms of uncertainty avoidance. All the groups show a tendency towards security and stability and a reduced willingness to take risks i.e. to avoid uncertainty. Again, this may be due to the fact that for many years the military was seen as a stable organisation offering good job security. The fast and sometimes radical socio-political changes, which also heavily impacted on the previously stable and predictable work environment of the Department of Defence, created high levels of uncertainty, especially amongst white male employees. The only independent variable where significant differences were observed, is subjects' age. The young group of subjects (20 to 24 years) differed significantly from all the older groups. No correlations between uncertainty avoidance and any of the leadership dimensions of both transactional and transformational leadership could be found.

The relatively high need for stability and security and to avoid uncertainty, poses special challenges to leaders in a transformational paradigm. The SAAF's high degree of uncertainty avoidance could be associated with Handy's (1991) Role-culture which is typically found in organisations where a structured system with strict rules and procedures provide protection and security to employees. This culture will only function well in an environment characterised by stability, predictability, order and consistency, a scenario that is no longer applicable to the current reality of the DOD and the SAAF. One of the characteristics of a transformational leader is his ability to prompt problem solving through questioning assumptions and encouraging followers to look at problems in new ways. This intellectually stimulating behaviour inevitably brings about change. Leadership development in the SAAF should also strongly focus on the ability and willingness of leaders to take risks in a

continuously changing environment. To do this, fewer written rules are required and deviance from set rules should not always be seen as threatening. If rules serve no productive purpose, they should be changed.

#### 11.4.4 MASCULINITY

The masculinity-femininity dimension is related to the values of success, money and things (masculinity), or caring for others and the quality of life (femininity). There is a tendency among subjects towards masculinity. Significant differences between Africans and both Asians and whites were found, with Africans showing more feminine tendencies than whites and Asians. A negative but significant correlation between masculinity and all the transformational leadership elements were identified. Transformational behaviours proved to be more feminine in nature.

Individualised Consideration (one of the transformational leadership elements) have been indicated to contribute towards the required leadership outcomes of extra effort and follower satisfaction, and refers to the importance that leaders assign to supporting, mentoring and coaching individual followers to higher levels of performance. The DOD culture change objectives require that all leadership approaches should, in the first place be people-centred. For the development of a true transformational leadership culture in the SAAF, leadership development interventions should focus on developing these feminine traits. A lower level of masculine traits such as assertiveness, aggression, competitiveness, and an insensitivity to feelings, is required to ensure that humanity is put back into the military workplace. In this research significant support was found for the fact that business success is not only achieved through masculine influence. This holds particular relevance for South Africa, where the humanistic approach was confirmed to be stronger supported and preferred by the black man than the white. In the context of the humanistic values of ubuntu, which is strongly rooted in Africa, and in terms of leadership, where effective transformational behaviour is characterised by (amongst others) the skills of caring, empathy and concern, a biased support of a masculine approach in the work environment could prove to be a blockage for organisational performance. The research confirmed the emphasis of blacks on Lessem's (1993) fourth world - values, i.e. the realisation of the essential dignity and worth of man.

#### 11.4.5 INTRINSIC AND EXTRINSIC WORK VALUE DIMENSIONS

When the six value dimensions of the Survey of Work Values were analysed in terms of subject preference, it became evident that there is a strong tendency towards the three values associated with intrinsic needs, viz Pride in Work, Job Involvement and Activity Preference. Subjects have shown a definite need for job satisfaction, involvement in decision-making and to stay busy in their work. There is also a clear need for seeking higher level jobs (Upward Striving). The importance of making money on the job proved to be valued much less than the intrinsic value dimensions. Although the higher tendencies towards the intrinsic value dimensions also apply to blacks, this group were found to score significantly lower on all three these dimensions than whites. In terms of Job Involvement and Activity Preference Africans also scored significantly lower than coloureds. Occupational level also seems to have influenced intrinsic and extrinsic value dimensions scores. The results indicate that middle and senior management have a significant stronger need to be busy in their work (Activity Preference) than is the case with junior supervisors. In terms of subjects' attitude towards earnings as well as the social status acquired by one's job, the opposite was found. The values of making money on the job and earning a high social status through one's job are significantly more important to junior subjects than seniors. A significant positive correlation exists between all three intrinsic value dimensions and transformational leadership behaviour. This is also the case for the dimension Upward Striving (Progress). No significant correlation could be found between the intrinsic value dimensions and Management-by-Exception. Neither could any correlation be found between any of the extrinsic value dimensions and any of the leadership styles.

A high power distance is founded in the theory-X assumptions of McGregor (1967) that workers do not have the inherent creative ability to make jobrelated decisions, that they are predominantly lazy, do not like their work, and that everything employees do, need to be controlled by superiors. Based on these assumptions, leaders then believe that power cannot be shared with those doing the work. The research findings have rejected the truth of these assumptions. In terms of Upward Striving, Pride in Work and Job Involvement, employees at all levels have indicated that the intrinsic value of doing work means much more to them than the extrinsic rewards that can be associated with doing a job. They have shown that they are willing contributors, that they want to be successful and that they can be allowed to be involved and be part of problem solving and decision-making processes.

## 11.4.6 LOCUS OF CONTROL

Locus of control was also found to have an influence on leadership and follower behaviour. In this study a person's locus of control was regarded as the extent to which people see the ability to exert control over specific events as being present either in themselves or in the environment. Internality therefore, refers to people's belief that they can control events in their own lives themselves. Differences in terms of locus of control between the various culture groups in South Africa have been confirmed. Despite the general tendency towards Internality, blacks provided significantly lower scores on internality than all the other population groups. No differences between whites, coloureds and Indians were found. Internality is also influenced by occupational level (rank) as well as work experience. The results indicate that both middle management and senior supervisors have a stronger belief of personal control than is the case with junior supervisors. There seems to be a gradual move away from individualism along with promotion in rank. Junior supervisors were found to differ significantly from middle management. Internality scores were also found to increase with an improvement in educational qualifications. Graduates reported a significantly higher level of internality than members only having matric. The correlation analysis results significant positive correlation between indicated а internality and transformational leadership behaviours. No correlation could be found between internality and transactional leadership.

The lower internality scores of Africans may be attributed to the policies of apartheid and the fact that they were deprived from opportunities, including those of making decisions regarding the issues affecting their lives. For many years the minority white group politically controlled the country and therefore also had an influence on the fate of other culture groups. These people were at the mercy of external factors and as a result believed that they had little control over their desperate situation. It should therefore not be seen (as is often the tendency in western cultures) as a prediction of blacks being less successful than the other groups. An approach of adapting to external pressures and influences could also prove effective. Less inner-directed does not mean fate-directed. Outer-directed may also mean to acknowledge external forces such as direction from customers and to learn from experience, i.e. to be directed by external influences that have proven to be the best options in the past. Therefore, for leaders the best approach is not one of internality or externality, but one where one can position oneself to gain the best advantage from external influences. Participation and involvement of followers should also be seen as part of these external influences. In terms of leadership, the danger is that inner directed individuals could feel successful when they experience that their way of thinking have won over those of others, which is not transformational. In contrast, a transformational leader would stress how much he has learnt from the feedback and inputs from others, including followers, which is outer-directed behaviour. Inner-directed behaviour however, remains important, especially in the SA military environment where followers are looking for direction and where quick decisions (often of a strategic nature) have to be taken. The research has clearly shown that, although internality predicts more natural transformational behaviours, the critical factor remains whether leaders have the ability to ensure the required outcomes of extra effort and employee satisfaction. This can be achieved by both internals and externals. The results of this research have firmly rejected the notion that most organisational behaviour theory is limited to internals only. In formal and informal leadership development sessions, internals should be sensitised towards the fact that in the new SAAF

culture, and in terms of the newly accepted core values, the leader's way should not necessarily and always win over those of followers.

#### 11.4.7 LEADERSHIP

Leadership preferences of subjects were measured in terms of a range of leadership styles, which could be divided into Laissez Faire, transactional and transformational behaviours. In terms of the five elements of transformational leadership. Africans have shown a significant difference from whites and coloureds, except on Inspirational Motivation, where only whites and coloureds differed significantly. On all the transformational dimensions where significant differences were found, Africans scored lower than whites and coloureds. Nevertheless, Africans still indicated a strong tendency towards transformational behaviours away from transactional behaviours. In terms of Inspirational Motivation, coloureds scored significantly higher than whites. Membership of specific population groups proved to have no influence on any of the Laissez Faire, MBE, or Constructive Transaction scores. There is a significant positive correlation between transformational leadership and all the leadership outcomes of Extra Effort, Effectiveness and Satisfaction. Transactional leadership and the Laissez Faire style correlate negatively with the three outcomes.

The constructive transaction (CT) style of leadership takes the form of an exchange process and is only effective when the leader have rewards available to offer for required performance. As members with a higher orientation towards internality hold stronger expectancies that effort will result in good performance and that good performance will lead to rewards, the CT style should be more effective when working with internals. Therefore, in the absence of rewards for performance the expectancy levels for rewards in exchange for performance should show no difference between internals and externals. The research results revealed that, due to the fact that transformational leaders pay more attention to the value of intrinsic rewards, the transformational approach is much more effective, both in terms of resultant follower performance and follower satisfaction, and that this is applicable to both internals and externals. The CT style can only be effective to a limited extent as followers deliver results only to meet the contracted expectations of the leader. The style shows no leader actions that are aimed at inspiring followers to do more than what was expected. This can only be achieved through focussing on the intrinsic value associated with individual and team achievements and doing a job well.

It became obvious that followers with an internal orientation prefer a participative style of supervision. As leaders they also prefer a participative style, while externals were found to prefer a more directive style. Important here is that transformational leadership should not rigidly be associated with

participation, and transactional behaviours with being directive. Bass <u>et al</u> (1994) explain that a transformational leader can also be directive and that a transactional leadership approach may also show participative behaviours. It is clear that in leading black followers in South Africa, at least in the short term, the most appropriate style of leadership seems to be a directive version of inspirational motivation, intellectual stimulation and individualised consideration. It is also important to note that as internals were found to be more task-oriented and externals more socially oriented, whites in South African companies may find it more difficult and less natural to follow the transformational principles when leading followers.

Although it is evident that transformational leadership principles and practices lead to improved follower performance, the use of transactional approaches in certain situations remains necessary. In the military, deviations and mistakes cannot be ignored. The management-by-exception (MBE) style can therefore not be rejected completely. However, when dealing with mistakes and errors, leaders should become involved in the work of their followers not only because they want to rectify mistakes, but because they want to use the event as a learning opportunity for the follower. MBE could therefore be used in a positive sense with the focus of reinforcing the leader's transformational objectives. By only using the MBE style, leaders will guickly create a culture of mistrust and a workforce of risk avoiders because they are afraid of making mistakes when trying to be innovative. This will undoubtedly reinforce the existence of a high level of uncertainty avoidance. Furthermore, the research results support the notion that the followers of MBE-leaders do not perform at high levels. The research firmly established the fact that, also in the African context, leadership styles differ in terms of follower effectiveness and that higher levels of employee participation and involvement, inspirational motivation and individualised consideration (i.e. transformational behaviours) lead to higher levels of follower performance and effectiveness.

The study has indicated that the implementation of the Full Range Leadership development programme in the SAAF has not yet contributed significantly to the establishment of a transformational culture in the organisation. The ensuing implications together with some recommendations will be discussed in the next section.

#### 11.5 CONSEQUENCES AND IMPLICATIONS FOR THE DEVELOPMENT AND IMPLEMENTATION OF EFFECTIVE LEADERSHIP PRACTICES AND POLICIES IN A TRANSFORMATIONAL PARADIGM

#### 11.5.1 ROLE OF SENIOR LEADERSHIP

Senior, strong-minded and influential leaders can be regarded as the ultimate source of an organisation's culture. For a transformational culture to be created and maintained, top leaders with transformational values and convictions are needed, leaders who can actively create an environment that encourages true collaboration and pride in work. They have to give the assurance of and commit themselves to modelling the required behaviours associated with the values that need to be institutionalised. They should communicate the major assumptions and basic beliefs on which a transformational culture is built, in a clear and unambiguous manner. Their beliefs, values and underlying assumptions, particularly regarding their workforce, should be reflected in the decisions they make and their reactions to critical incidents. Although verbal communication is necessary, what top leaders say is not as important as what they do in practice. What young, inexperienced leaders learn from them, is worth much more than what they are formally taught in training sessions. This role of executive leaders demand time, patience and endurance. Their commitment should be visible and cannot be delegated.

As part of the leadership culture change strategy, senior leadership should also play an important role in appointing leaders already displaying the required behaviours and competencies to critical posts. Immediate modelling of the desired behaviours and practices assists a great deal in changing the leadership styles and approaches of junior leaders.

#### 11.5.2 HUMAN RESOURCES POLICY

Formal organisational policy, procedures and regulations form an equally important culture driver and impact on the behaviour of both leaders and followers at all levels. The cultural limitations to leadership have consequences for company policy formulation. Policy and regulations formalise the things that are regarded as really important in the organisation's culture. To ensure a successful transition from a highly structured, rule-bound culture to a value-driven, transformational culture, characterised by collaborative practices and employee empowerment, all HR policies and practices need to be revised and aligned with the requirements of the desired future culture. These include the alignment of HR policy with the SAAF's new core values. Two examples of policies that need to be revised and aligned, are grievance channels and decision-making. The ways in which lower-level members in the organisation can bring their complaints to the attention of those at the top, are a reflection of the perceived power distance and the distribution of power in the organisation. It is difficult to establish open grievance channels in large power distance cultures. When power distance is reduced through the implementation of real participative practices and leader accessibility, subordinates will not fear retaliation, and grievance channels will not be used for personal revenge against inaccessible superiors.

As far as decision-making is concerned, the essential principle is that the way decisions are made, should reflect the values of those in the environment in which the decisions have to be effective. The values that are most influential here are found on the masculinity vs femininity dimension. According to Hofstede (1980), in complex decision-making situations, "facts" (which fit the masculine orientation) cannot always exist independently from the people who define them. The use of intuition and consensus might prove to be more valuable and appropriate in a less masculine culture, which is typically the case for blacks in South Africa. If the commitment of many people are needed for the implementation of decisions in such a culture, consensus seems to be the best approach.

#### 11.5.3 LEADERSHIP DEVELOPMENT

Research (Bass et al, 1997) have clearly shown that transformational leadership qualities can be taught, both formally and informally and that training is particularly effective early in the careers of young leaders. However, as referred to above, the research subjects indicated that the implementation of the Full Range Leadership development programme in the SAAF per se have not contributed significantly to the establishment of a transformational culture in the organisation. This is probably due to the fact that firstly, the training programme has not been adapted to either the current constraints and opportunities of the SAAF organisational setting, or the culture change process currently being implemented in the organisation. Secondly, most participants were exposed to only one training intervention and in most instances there was a lack of retraining and refresher programmes. The development of transformational leadership cannot be left to a single workshop. Coaching and development efforts should be ongoing and these efforts should also be blended with other ongoing organisational development efforts. Thirdly, the programme was not implemented with a top-down approach, with the effect that upper-level leaders did not have the opportunity to practice transformational leadership and to model the expected behaviours.

In terms of the current research results, leadership development should start with the establishment of new basic beliefs about people in the workplace and the values they hold with regards to the work that they do. These beliefs are reflected in the basic principles of SAAF leadership development and were discussed in Chapter 5. The research has once again clearly rejected the generalised notion that work is a negative experience and that the human being do not like work and will avoid it as far as possible. Significant support was obtained for the fact that, even in the African environment, people have a need for growth and development and that doing a good job is a means of feeling good about oneself. Furthermore, people generally have the willingness and the inherent competence to do what needs to be done. Once future and existing leaders have made these values their own, the rest of their leadership competencies and skills can be further developed with much less blockage and resistance.

To ensure the achievement of the SAAF's future vision and the establishment of a truly transformational culture, leadership development should be aligned with the culture change process (as described in Chapter 5) and the new SAAF values. All OD interventions at all levels should be planned and structured around the development of the desired transformational culture of air power excellence. This includes formal training at the SAAF's training institutions. Organisational values should not be seen as separate from dayto-day practices and employee behaviour, they should form the foundation for all habits and practices. Leaders should be taught how to demonstrate the true meaning of transformational values in practice. In this, the Directorate Management and Renewal Services at SAAF Headquarters and the internal OD consultants should play a pivotal role.

#### 11.5.4 EMPLOYEE MOTIVATION

The implication of the different motivation patterns in different countries is that personnel policies aiming at motivating people will have different effects in different cultures and even in different organisations. Herzberg's popular twofactor theory of motivation (Herzberg, Mausner & Snyderman, 1959) has been found to be culturally determined to a great degree (Hofstede, 1964) and is more applicable to some cultures than others. The theory claims that certain "motivators" have positive but no negative motivation potential. These motivators are related to the higher needs of Maslow's (1970) needs hierarchy and refer to the intrinsic aspects of work, those aspects having been confirmed in this study to play a more important role in the work-related value system of SAAF employees, including members of all culture groups. "Hygiene factors", in terms of the theory, are extrinsic in nature and have negative but no positive motivational potential. They refer to Maslow's lower order needs of safety and security. In motivational perspective, SAAF leaders should focus more on the provision of intrinsic goal objects than merely the offering of extrinsic rewards.

As leadership can be regarded as a complement to subordinateship, the key to the motivational role of leaders is the type of subordinate expectations one is likely to find in a culture. This means that for leaders to be successful, they have to take the values and needs of subordinates into account, especially when applying a transactional leadership style. However, the rewards offered in a transactional approach is often extrinsically focussed (material needs of employees are addressed). Transactional leadership behaviours and the rewards offered, simply do not go far enough in developing the motivation to achieve the full potential of a leader's workforce. They only serve the purpose of removing high levels of dissatisfaction, but do not have real motivational value. As the work-related values and needs in the study show a strong tendency towards the intrinsic value of work, SAAF leaders should move away from a dominant transactional approach towards encouraging followers to achieve more than they originally thought possible. Motivational practices in the SAAF should focus on the development of the employee's self-esteem. The research did not produce any support for previous predictions that blacks in South Africa have a significantly lower level of need for achievement than their white counterparts. On the contrary, substantial evidence was found to confirm that black workers start to match many of the motivational patterns of whites as they become more industrialised, obtain higher levels of education, and move up the organisational hierarchy. Individualised consideration with a focus on the growth, development and performance of each individual should therefore play an increasingly important role in the motivation of all culture groups in South Africa.

Whilst in a high individualistic culture such as the USA, the popularity of expectancy theories, in terms of which people are pulled by the expectancy of outcomes, resulted in the "calculative" involvement with the organisation (Hofstede, 1980), the tendency of the subjects in the current study towards collectivism refers to a more "moral" involvement with the organisation. This further confirms the appropriateness of the transformational behaviours of support, concern and encouragement.

The role of rewards in the work-related behaviour of internals and externals, deserve reference. As mentioned earlier, externals do not associate performance with attaining rewards (and when they do, it is less so for externals than for internals). Reward systems applied in organisations are often built on the assumptions of internal locus of control and may be less effective when working with a diverse workforce in terms of locus of control. The use of the transactional style of constructive transaction could therefore be the wrong option when working with less internally oriented black employees. A transformational approach with a stronger focus on the intrinsically rewarding aspects of work, especially the need of people to learn and to develop, could well prove to be more successful in this case.

#### 11.5.5 THE USE OF POWER

Leadership from a transformational perspective should see everyone as a potential leader and should be based on the premise that people are competent. Any attempt to develop leadership must address leaders' existing attitudes to power and followers. If leaders operate from the premise that people are incompetent, they will resist the sharing of power and any change effort will be cosmetic. The use of power is only effective to the extent that it really leads to increased levels of follower effort, performance and satisfaction. In previous chapters it was stated that the most influential approach of leadership is when power is shared and true collaboration and involvement is encouraged. Hall's (1993) research has clearly confirmed that both leader and follower have a more positive experience regarding the job to be done when power is shared than when all power is kept by the leader (i.e. a control orientation). In an organisational culture characterised by a large power distance, such as the one being studied, instead of pushing towards models of mere formal participation, the approach should rather be one of increasing the sharing of power so that the level of power distance can gradually be reduced. To establish a more transformational leadership culture in accordance with the requirements of the DOD, decision-making power can no longer be reserved for those in higher levels of the multi-levelled military organisation. A mindset that needs to be established in the military, is that empowerment refers to the transfer of power to lower levels (without giving up power) and that it does not require the removal of certain hierarchical levels to create a flatter organisational structure. Empowerment is vested in a leadership belief system and not in a particular type of structural design.

## 11.5.7 PRINCIPLES FOR THE TRANSFORMATION OF THE SAAF'S LEADERSHIP CULTURE

For the implementation of a successful culture change process in terms of leadership practices, the following principles are offered as being essential:

- Organisation culture (thus leadership practices too) should be managed as an integral part of the strategic management process, since it impacts directly on all core processes of the SAAF.
- Top management, officers commanding and directors, as well as other leaders at all levels should accept responsibility for and commit themselves to the inculcation of the desired organisational culture as it is described in the SAAF's vision 2012 and the new set of core SAAF values and its supporting behaviours. Commitment should be personal and visible.
- An integrative strategy should be followed, in terms of which all policy development, planning, training and OD interventions are aligned with the requirements of the transformed organisational culture.

- Acceptance and internalisation of the organisation's core value system is a prerequisite for success.
- Periodical assessment of progress made is essential. Probably the most important in this regard will be continuous self-assessment and reflection by all leaders on the effectiveness of their own behaviours in terms of follower performance and satisfaction. Performance management must be an integral part of the assessment process.
- Progress should be communicated continuously throughout the organisation in an open, honest, timeous and transparent way. Line functionaries play a pivotal role in this process and should accept their responsibility in this regard.

In a high uncertainty avoidance culture, employees show a high need for security and direction and a low level of willingness to explore new ways of doing things. This poses special challenges to leaders in a transformational paradigm. A critical task of senior leadership in this regard will be to firstly communicate a clear statement of what the organisation will be like in future. A positive and clearly understood vision will serve as a strong motivator to employees and will transmit clarity of what is expected from them. Secondly, senior leadership needs to continuously encourage followers to take risks. In the process followers should be allowed to make mistakes as part of the learning process.

## 11.6 SOME FINAL COMMENTS

The research findings have confirmed the validity of adopting a transformational leadership culture for the military (particularly the SAAF) and that the new core SAAF values as well as the principles on which current leadership development in the SAAF is based, are in line with and accommodate both Western and African work-related values. The leadership practices on which the culture for the future is based, should have one central theme in common: a keen sense of concern for people, their well-being and their growth and development. Leadership efforts should all be based on creating the conditions for follower collaboration and commitment.

The personal aspirations of people in the workplace as well as the basic assumptions about why people work and the importance of work in their lives have for many years been ignored or (at least) misunderstood. The myth that people in general only work for financial compensation and that management can make all decisions so that followers can just do the work is slowly being replaced by the assumption that people come to work with a complex array of personal needs and aspirations to be fulfilled. They join others in the workplace with intrinsic motivation and a curiosity in learning. It is more and more accepted that the focus should not only be on extrinsic motivation where people are being ruled by external forces and where reward is often only available for the one at the top (and punishment for the one at the bottom), but rather on the creation of organisational conditions where the whole system is optimised, one where all employees display a sense of commitment, involvement and ownership. In Africa, perhaps more so than anywhere else, the essence of business survival lies in the ability, skill and commitment of leaders to put humanity back into the workplace. The best source of competitive advantage for the future will be the organisation's ability to enable, empower, and liberate human resources.

The conclusion is that South African leaders will be required to facilitate a process of integrating and synthesising the appropriate conventional management theories and techniques with African value systems, thereby creating a new African management perspective that will acknowledge the realities of the continent on the one hand while still enhancing the ability of South African companies to compete globally on international competitive markets. The search for a suitable leadership model for a transforming South Africa should therefore not run the risk of only focusing on either African- or Western-specific cultural value systems. The focus should much rather be on finding and developing leadership approaches that could successfully integrate the best of both worlds. To this end, the transformational leadership approach was found to be the most suitable, at least as a point of departure and reference for further leadership development efforts.

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