

Chapter 8

RESULTS

8.1 INTRODUCTION

The previous chapter provided a theoretical discussion of the research and statistical methodology. This chapter focuses on the interpretation and discussion of the research results. Factor analysis, reliability and item analysis, analysis of variance (ANOVA) and multiple analysis of variance (MANOVA), correlation and multiple regression analysis are all reported and interpreted.

8.2 FACTOR ANALYSIS

As mentioned previously, the statistical technique particularly appropriate to determine the dimensional nature of a number of variables is factor analysis. It is a procedure that groups items on the basis of correlations. The main aim of factor analysis is to describe a larger number of variables by means of a smaller set of composite variables. This statistical technique is excellent for the investigation of the underlying structure of a questionnaire. Those items that refer to or share the same dimension, should correlate with one another and factor analysis uses this to uncover composite variables. These composite variables are also known as “factors” and aid the substantive interpretation of data.

In the present study a principal factor analysis with varimax rotation was done for each of the sections. The purpose was to identify the latent variables underlying AA fairness, treatment of AA employees in the workplace and the commitment of employees.

The factor analysis of sections B, C and D of the questionnaire will now be discussed. The tables and figures below illustrate the eigenvalues, scree plots and rotated factor matrices for each of the sections.

8.2.1 Perceptions of the fairness of affirmative action (section B)

In the first round of exploratory factor analysis, the 40 items of AA fairness were intercorrelated and rotated to form a simple structure by means of the varimax rotation. In order to determine which variables to keep, the factor loadings, the cross-loading of items on more than one factor, the reliability and importance of a variable were taken into consideration before deleting certain items. After deleting 11 items, another factor analysis was done. Based on Kaiser’s criterion, four factors were postulated (see table 8.2). As indicated in table 8.1, the Kaiser-Meyer-Olkin (KMO) test for measuring sampling adequacy and Bartlett’s test of sphericity display satisfactory results. The KMO value (0.933) is greater than 0.7 which means the data set is likely to factor well. Bartlett’s test rejects the hypothesis (at $p < 0.001$) that the correlation matrix

8.2

is an identity matrix, without significant correlations between variables. Both diagnostic tests confirm that the data are suitable for factor analysis.

TABLE 8.1: KMO MEASURE AND BARTLETT'S TEST: AA FAIRNESS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy Bartlett's Test of Sphericity		0.933
	Approx Chi-Square	5374.294
	df	406
	Sig	0.000

TABLE 8.2: EIGENVALUES AND TOTAL VARIANCE EXPLAINED BY THE FACTORS OF AFFIRMATIVE ACTION FAIRNESS

Factor	Initial	% of	Cumulative %	Rotation Sums of	% of	Cumulative %
	Eigenvalues			Total		
	Total	Variance		Total		
1	10.904	37.601	37.601	4.423	15.253	15.253
2	3.287	11.335	48.937	3.680	12.691	27.944
3	1.214	4.187	53.123	3.664	12.635	40.579
4	1.161	4.003	57.126	2.905	10.016	50.595
5	0.909	3.134	60.260			
6	0.868	2.992	63.252			
7	0.837	2.885	66.137			
8	0.790	2.724	68.861			
9	0.737	2.540	71.402			
10	0.677	2.334	73.735			
11	0.628	2.165	75.900			
12	0.597	2.057	77.958			
13	0.559	1.927	79.885			
14	0.527	1.819	81.704			
15	0.514	1.774	83.477			
16	0.502	1.729	85.207			
17	0.473	1.630	86.836			
18	0.454	1.566	88.402			
19	0.426	1.470	89.872			
20	0.399	1.376	91.247			
21	0.375	1.293	92.540			
22	0.353	1.218	93.758			
23	0.347	1.197	94.955			
24	0.290	1.001	95.955			
25	0.279	0.962	96.917			
26	0.269	0.927	97.844			
27	0.240	0.827	98.671			
28	0.197	0.680	99.351			
29	0.188	0.649	100.000			

According to the eigenvalues in table 8.2, four factors have eigenvalues greater than 1.0, which is a common criterion for a factor to be useful. The scree plot (fig 8.1) below supports a four factor solution.

FIGURE 8.1: SCREE PLOT - FACTOR ANALYSIS: AFFIRMATIVE ACTION FAIRNESS

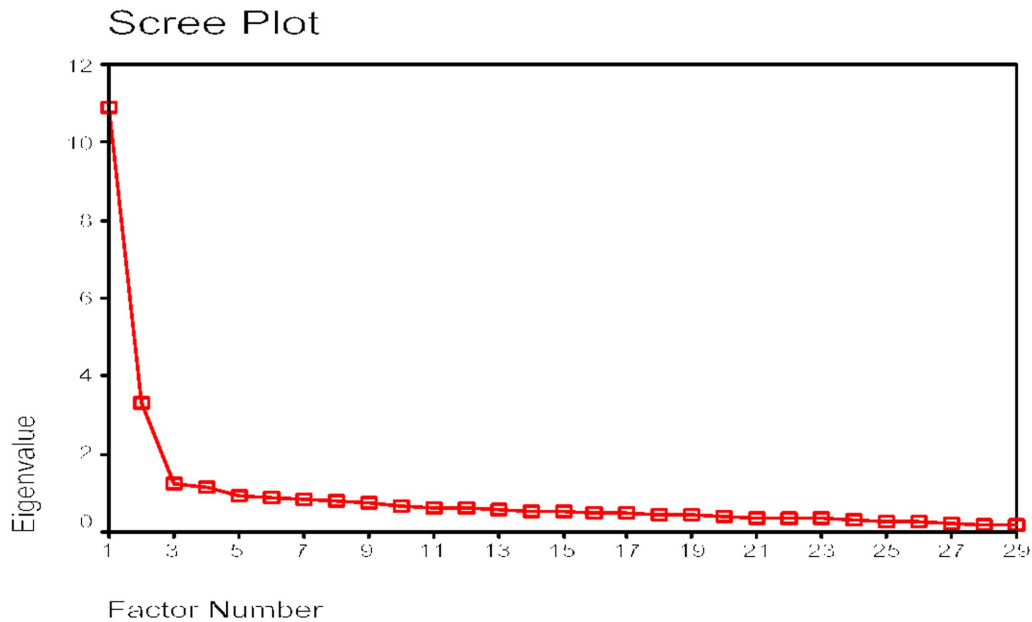


TABLE 8.3: ROTATED FACTOR MATRIX FOR AFFIRMATIVE ACTION FAIRNESS

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1				
Recognise the value of AA employees	0.727			
AA employees are capable	0.644			
Guiding AA iro realistic career expectations	0.590			
Informing employees about EE policy	0.572			
Training supervisors to manage diversity	0.519			
Accommodating AA culture when socialising	0.507			
Accurate and complete records available	0.491			
Informing: EE implications for careers	0.488			

TABLE 8.3 (continued)

8.4

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 2				
All employees' careers equally important		0.681		
Opportunity to appeal		0.677		
Equal chance to influence selection decision		0.614		
Joint decision making		0.550		
Mechanisms to protect against discrimination		0.520		
Applying rules/procedures strictly & consistently		0.491		
Adjust systems to integrate AA employees		0.435		
Factor 3				
Apply selection criteria consistently			0.742	
Use accurate performance data for evaluation			0.702	
Same performance standards			0.681	
Use predetermined, job-related selection criteria			0.601	
Use more than one performance appraiser			0.503	
Disciplinary action applied strictly and consistently			0.447	
Factor 4				
Giving black managers token positions				0.682
Training AA employees to replace jobholder				0.668
Unrealistically high salaries for AA managers				0.653
Appointing/promoting less qualified people				0.650
Recruiting AA people through provisions in ad				0.504
Use EE plan and workforce profile to appoint				0.481
Focus on development/advancement of AA				0.464
Use criteria (ethnicity, gender) to appoint				0.434

Section B of the questionnaire attempts to determine how employees form perceptions of the fairness of AA. As discussed in chapter 4, employees' perceptions about the fairness of AA are influenced by the actual outcome of an AA decision (distributive fairness), the procedures applied in making an AA decision (procedural fairness) and the way they are treated during the AA intervention (interactional fairness). The results of the study support the theory and identified four factors in respect of fairness. Each of these factors will now be discussed.

8.2.1.1 Factor B1: interactional justice

This factor includes issues relating to how employees are treated and which employees regard as important when judging the fairness of AA. The elements of this factor include recognising the value and abilities of employees from designated groups, helping employees from designated groups to build realistic career expectations, keeping employees informed about employment equity issues, training supervisors to manage diversity, having complete and accurate records available about any decisions that were based

on employment equity provisions and accommodating diverse cultures. The focus is primarily on how employees are treated and how interpersonal relationships influence employees' perceptions of the fairness of AA.

8.2.1.2 Factor B2: procedural justice - input

This factor refers to the procedures in particular, the opportunities employees receive to influence the final outcome of or decision about AA issues. The elements of this factor include regarding all employees' careers as equally important, allowing employees to appeal, affording employees the opportunity to influence a selection decision, making use of joint decision making, providing mechanisms to protect employees against discrimination, applying rules and procedures strictly and consistently, and adjusting systems to integrate AA employees.

8.2.1.3 Factor B3: procedural justice - criteria/standards

This factor also refers to the procedures used to handle AA issues, but focuses on the criteria or standards used in making a decision. The elements of this factor include applying selection criteria consistently, using accurate performance data when evaluating an employee, applying the same performance standards to all employees, using predetermined, job-related selection criteria, using more than one person to appraise an employee's performance, and taking disciplinary action strictly and consistently.

8.2.1.4 Factor B4: distributive justice

This factor refers to the actual decision on or outcome of AA. When a decision is based on the following, employees perceive it as unfair: giving black employees token positions, training AA employees to replace current jobholders, paying unrealistically high salaries to AA managers, appointing or promoting less qualified employees, recruiting AA employees by means of special provisions in advertisements, making selection decisions on the basis of the employment equity plan and workforce profile, focusing on the development and advancement of AA employees and making selection decisions on the basis of criteria such as ethnicity and gender.

8.2.2 Treatment of AA employees in the workplace (section C)

In the first round of exploratory factor analysis, the 26 items on treatment of AA employees in the workplace were intercorrelated and rotated to form a simple structure by means of the varimax rotation. To determine which variables to keep, the factor loadings, the cross-loading of items on more than one factor, and the reliability and importance of a variable were taken into consideration before deleting certain items. After deleting four items, another factor analysis was performed. Based on Kaiser's criterion, four factors were postulated. As indicated in table 8.4, the Kaiser-Meyer-Olkin (KMO) test for measuring sampling adequacy and Bartlett's test of sphericity display satisfactory results. The KMO value (0.942) is above 0.7 which means the data set is likely to factor well. Bartlett's test rejects the hypothesis (at $p < 0.001$) that the

correlation matrix is an identity matrix, without significant correlations between variables. Both diagnostic tests confirm that the data are suitable for factor analysis.

TABLE 8.4: KMO MEASURE AND BARTLETT'S TEST: TREATMENT OF AA EMPLOYEES

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity		0.942
	Approx. Chi-Square	5457.667
	df	231
	Sig.	0.000

TABLE 8.5: EIGENVALUES AND TOTAL VARIANCE EXPLAINED BY THE FACTORS OF TREATMENT OF AA EMPLOYEES IN THE WORKPLACE

Factor	Initial Eigenvalues Total	% of Variance	Cumulative %	Rotation Sums of Squared Loadings Total	% of Variance	Cumulative %
1	11.197	50.894	50.894	4.107	18.667	18.667
2	1.578	7.171	58.065	3.793	17.239	35.906
3	1.284	5.837	63.902	3.000	13.638	49.544
4	1.009	4.584	68.487	2.742	12.462	62.006
5	0.742	3.374	71.861			
6	0.666	3.029	74.890			
7	0.636	2.891	77.781			
8	0.568	2.581	80.362			
9	0.533	2.425	82.787			
10	0.460	2.089	84.876			
11	0.425	1.930	86.806			
12	0.376	1.709	88.516			
13	0.369	1.677	90.192			
14	0.334	1.519	91.711			
15	0.315	1.432	93.143			
16	0.296	1.346	94.490			
17	0.265	1.202	95.692			
18	0.257	1.168	96.860			
19	0.206	0.936	97.796			
20	0.190	0.862	98.658			
21	0.157	0.716	99.374			
22	0.138	0.626	100.000			

According to the eigenvalues in table 8.4, four factors have eigenvalues greater than 1.0, which is a common criterion for a factor to be useful. The scree plot (see fig 8.2) below supports a four-factor solution.

FIGURE 8.2: SCREE PLOT - FACTOR ANALYSIS: TREATMENT OF AA EMPLOYEES IN THE WORKPLACE

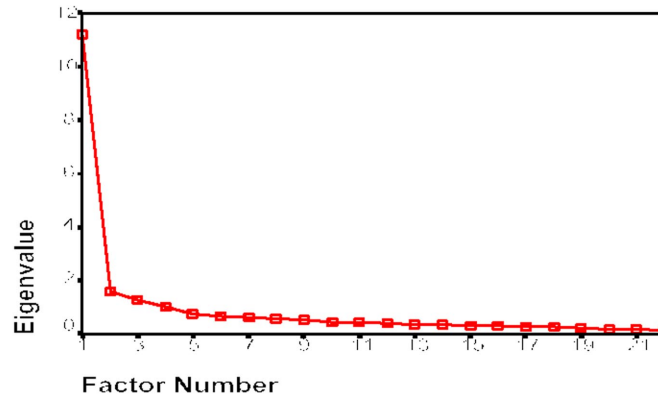


TABLE 8.6: ROTATED FACTOR MATRIX FOR TREATMENT OF AA EMPLOYEES IN THE WORKPLACE

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1				
Significant and important jobs	0.646			
Opportunity to use initiative or judgment	0.627			
Challenging jobs	0.623			
Variety of skills and competencies	0.616			
Jobs that provide feedback on performance	0.591			
Jobs that require cooperation with others	0.579			
Jobs with clearly defined tasks	0.577			
Determine their own work pace, order of tasks	0.494			
Factor 2				
Treated with respect and dignity		0.868		
Listened to when they make suggestions		0.676		
Free do discuss problems with co-workers		0.653		
Recognised for work done well		0.575		
AA employees are seen as contributors to success		0.573		
Social events consider cultural differences		0.463		

TABLE 8.6 (continued)

8.8

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 3				
Responsible for assignments and projects			0.861	
Responsible for equipment and facilities			0.719	
Responsible for initiating assignments and projects			0.664	
Responsible for budgets and expenditures			0.595	
Factor 4				
Expected to meet realistic performance standards				0.721
Expected to meet realistic workloads				0.583
Held accountable for their decisions				0.567
Personally responsible for work performed				0.558

Section C of the questionnaire attempts to determine how AA employees are treated in the workplace. As discussed in chapter 5, employees are most concerned about being treated *fairly* and with *respect*, to work in an environment of *trust* and to have supervisors who are *concerned* about their well-being. The results of the study support the theory and identified four factors relating to how AA employees are treated in the workplace. Each of these factors will now be discussed.

8.2.2.1 Factor C1: Task autonomy

This factor refers to the level of autonomy employees from designated groups have in the workplace. The elements of this factor include the significance, importance and difficulty of jobs performed by AA employees, the opportunity they have to use their initiative and judgment, the extent to which the job allows them to use a variety of skills and competencies, whether they receive feedback on performance, the level of cooperation required to perform a task, the extent to which tasks are defined, and whether they are allowed to determine their own work pace and the order in which tasks need to be completed.

8.2.2.2 Factor C2: Respect

This factor refers to the way employees from designated groups are treated in the workplace, and in particular how they are treated as human beings. According to this factor, employees feel that they are treated with respect when they are treated with dignity, listened to when they make suggestions, free to discuss problems with co-workers, recognised for work done well, regarded as contributors to the success of the department and their cultural differences taken into consideration at social events.

8.2.2.3 Factor C3: Responsibility

This factor refers to the responsibility with which employees from designated groups wish to be entrusted. Employees from designated groups want to accept responsibility for important tasks such as specific

assignments and projects, equipment and facilities, initiating assignments and projects, and budgets and expenditures.

8.2.2.4 Factor C4: Realistic expectations

This factor refers to the way employees from designated groups expect to be treated with regard to expectations. It indicates that AA employees should be expected to meet realistic performance standards and workloads. In addition, they expect to be held accountable for their decisions and the work they perform.

Each of these factors comprises three or more variables recommended by Thurstone (Kimm & Mueller, 1978).

8.2.3 Commitment (section D)

In the first round of exploratory factor analysis, the 37 items in respect of commitment were intercorrelated and rotated to form a simple structure by means of the varimax rotation. In order to determine which variables to keep, the factor loadings, the cross-loading of items on more than one factor, the reliability and importance of a variable were taken into consideration before deleting certain items. After deleting 16 items, another factor analysis was performed. Based on Kaiser's criterion, four factors were postulated. As indicated in table 8.6, the Kaiser-Meyer-Olkin (KMO) measure for measuring sampling adequacy and the Bartlett's test of sphericity display satisfactory results. The KMO value (0.879) is greater than 0.7 which means the data set is likely to factor well. Bartlett's test rejects the hypothesis (at $p < 0.001$) that the correlation matrix is an identity matrix, without significant correlations between variables. Both diagnostic tests confirm that the data are suitable for factor analysis.

TABLE 8.7: KMO MEASURE AND BARTLETT'S TEST: COMMITMENT

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity		0.875
	Approx. Chi-Square	2479.872
	df	190
	Sig.	0.000

TABLE 8.8: EIGENVALUES AND TOTAL VARIANCE EXPLAINED BY THE FACTORS OF COMMITMENT

Factor	Initial Eigenvalues Total	% of Variance	Cumulative %	Rotation Sums of Squared Loadings Total	% of Variance	Cumulative %
1	6.120	30.601	30.601	3.606	18.032	18.032
2	2.308	11.539	42.140	1.871	9.353	27.384
3	1.441	7.207	49.347	1.811	9.055	36.439
4	1.144	5.718	55.065	1.658	8.290	44.729
5	0.927	4.634	59.699			
6	0.862	4.311	64.010			
7	0.802	4.008	68.018			
8	0.756	3.778	71.796			
9	0.711	3.553	75.349			
10	0.681	3.406	78.755			
11	0.619	3.093	81.848			
12	0.564	2.820	84.668			
13	0.530	2.649	87.317			
14	0.482	2.408	89.725			
15	0.460	2.298	92.023			
16	0.382	1.911	93.934			
17	0.344	1.720	95.654			
18	0.330	1.648	97.302			
19	0.312	1.558	98.860			
20	0.228	1.140	100.000			

According to the eigenvalues in table 8.7, four factors have eigenvalues greater than 1.0, which is a common criterion for a factor to be useful. The scree plot (fig 8.3) below supports this solution.

FIGURE 8.3: SCREE PLOT - FACTOR ANALYSIS: COMMITMENT

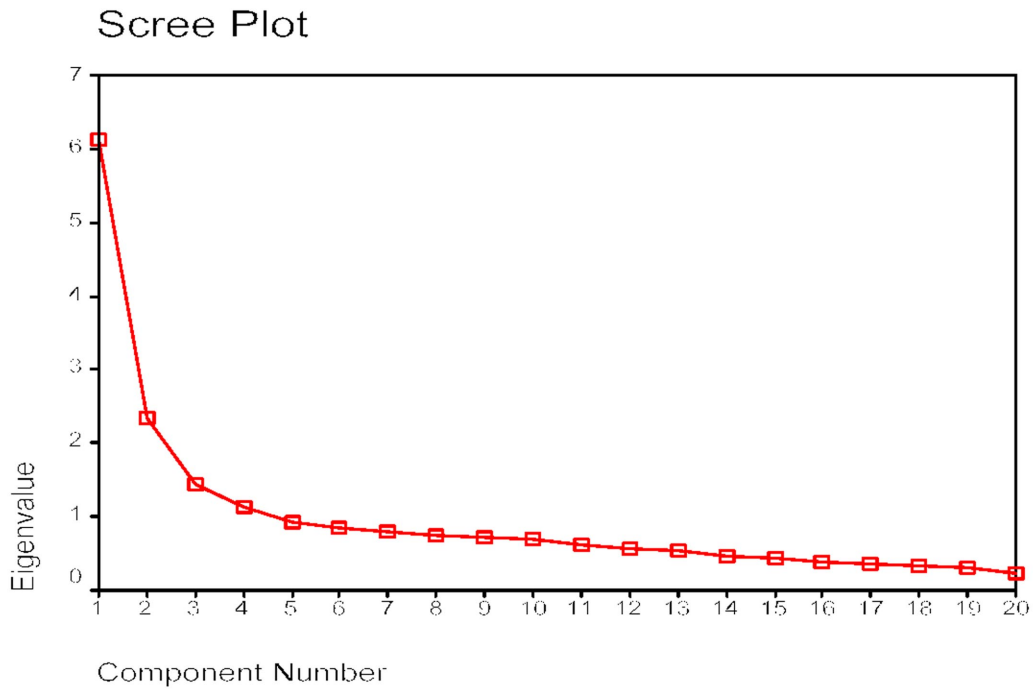


TABLE 8.9: ROTATED FACTOR MATRIX FOR COMMITMENT

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1				
Treats bank property with care	0.754			
Obeys bank rules and regulations	0.667			
Concerned about the bank's image	0.613			
Keeps workplace clean and tidy	0.578			
Punctual	0.552			
Does not take unnecessary long breaks	0.515			
Helps others with heavy workloads	0.495			
Stays informed about the bank	0.499			
Prevents problems with colleagues	0.460			
Never absent without a valid reason	0.432			

TABLE 8.9 (continued)

8.12

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 2				
Enjoys job		0.793		
Pleasant work environment		0.618		
Sense of personal satisfaction - good work		0.579		
Factor 3				
Shares ideas for new projects/improvements			0.663	
Makes suggestions to improve operations			0.645	
Attends and participates in bank meetings			0.562	
Factor 4				
Not resigning -obligation to remain				0.736
Not resigning - like my job				0.666
Seldom think about resigning				0.504
Not resigning - costs too high				0.413

Section D of the questionnaire attempts to determine employees' commitment by means of their behaviour in the workplace. As discussed in chapter 5, the behaviour of employees can be grouped into five categories: *altruism*, *courtesy*, *sportsmanship*, *conscientiousness* and *civic virtue*. Inkeles (1969) identifies three categories of work behaviour, namely *obedience*, *loyalty* and *participation*. The results of the study support the theory, and identified four factors relating to how employees behave in the workplace. Each of these factors will now be discussed.

8.2.3.1 Factor D1: Obedience (conscientiousness)

This factor refers to the way employees adhere to rules and procedures and behave according to group norms. The elements of this factor include treating bank property with care, obeying bank rules and regulations, being concerned about the bank's image, keeping the workplace clean and tidy, being punctual and not taking unnecessary long breaks, helping others with heavy workloads, staying informed about the bank, preventing problems with colleagues, and having valid reasons for staying away from work.

8.2.3.2 Factor D2: Job satisfaction

This factor refers to employees' satisfaction with their jobs. According to this factor, employees are satisfied with their jobs when they enjoy working, have a pleasant work environment and experience a sense of personal satisfaction when they perform well.

8.2.3.3 Factor D3: Participation (civic virtue)

An important aspect of employees' commitment is the extent to which they participate and are involved in work-related issues. The elements of this factor include the opportunity employees are afforded to share ideas or make suggestions on new projects or changes, and whether they attend and participate in bank meetings.

8.2.3.4 Factor D4: Loyalty

Loyalty plays a vital part of employees' commitment and is often measured by their attitudes toward remaining with the organisation. According to this factor there are various reasons why employees will not resign. The first is because they feel they have an obligation not to resign. The second is because they like their jobs, and lastly, they cannot afford to resign because the costs are too high. Resigning would, in such instances, mean losing accumulated leave days and retirement contributions.

Each of these factors consists of three or more variables which are recommended by Thurstone (Kimm & Mueller, 1978).

8.2.4 Factorial reliability

The internal consistency coefficient, Cronbach alpha (Lemke & Wiersma, 1976), was computed for each of the factors identified. The means, variance, standard deviation, skewness and kurtosis for the total sample regarding the identified factors and the Cronbach alpha values are provided in tables 8.10 to 8.21.

TABLE 8.10: RELIABILITY ANALYSIS - FACTOR B1 (INTERACTIONAL JUSTICE)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
B22	3.8099	1.2962	.7395	.8619
B24	3.8630	1.3482	.6905	.8663
B15	4.2962	1.4295	.6098	.8745
B20	3.9038	1.3956	.6748	.8677
B21	3.9152	1.4568	.5646	.8793
B23	3.7384	1.4368	.6350	.8719
B34	4.2170	1.4040	.6235	.8730
B25	3.8475	1.2709	.7038	.8655
Statistics for Scale	Mean 31.5910	Variance 67.4864	Std deviation 8.2150	Variables 8
Skewness		-.198	S/error skewness	.131
Kurtosis		-.222	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 8	Alpha = .8844

TABLE 8.11: RELIABILITY ANALYSIS - FACTOR B2 (PROCEDURAL JUSTICE: INPUT)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
B10	3.8343	1.6914	.7161	.8330
B 7	3.6793	1.5562	.6628	.8410
B 5	3.6287	1.6098	.6262	.8463
B 1	3.8459	1.4372	.6253	.8465
B13	3.7304	1.5665	.6573	.8418
B12	3.9566	1.5742	.6257	.8463
B 8	3.7936	1.3480	.5293	.8583
Statistics for Scale	Mean 26.4689	Variance 64.3630	Std deviation 8.0227	Variables 7
Skewness		-.006	S/error skewness	.131
Kurtosis		-.717	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 7	Alpha = .8642

TABLE 8.12: RELIABILITY ANALYSIS - FACTOR B3 (PROCEDURAL JUSTICE: CRITERIA)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
B28	3.7493	1.4665	.7776	.8439
B30	3.9766	1.4698	.7714	.8449
B29	3.9708	1.5441	.7495	.8481
B27	3.8830	1.3276	.6383	.8670
B31	3.6058	1.6404	.5895	.8769
B16	3.0640	1.5689	.6197	.8706
Statistics for Scale	Mean 23.2494	Variance 50.9708	Std deviation 7.1394	Variables 6
Skewness		-.147	S/error skewness	.131
Kurtosis		-.711	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 6	Alpha = .8796

TABLE 8.13: RELIABILITY ANALYSIS - FACTOR B4 (DISTRIBUTIVE JUSTICE)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
B39	3.5572	1.6099	.5576	.7786
B40	3.5906	1.4311	.6199	.7702
B19	3.5868	1.7129	.5111	.7869
B11	3.6841	1.6475	.5259	.7839
B 6	4.3848	1.3826	.4864	.7893
B 2	4.0671	1.4238	.4536	.7938
B 9	4.1652	1.3850	.4833	.7879
B32	4.2674	1.3660	.5283	.7837
Statistics for Scale	Mean 31.3033	Variance 61.1748	Std deviation 7.8214	Variables 8
Skewness		-.194	S/error skewness	.131
Kurtosis		.029	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 8	Alpha = .8064

TABLE 8.14: RELIABILITY ANALYSIS - FACTOR C1 (TASK AUTONOMY)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
C2	3.9395	1.2728	.7016	.9007
C5	3.0287	1.2500	.7955	.8924
C7	3.0776	1.3249	.7742	.8942
C1	3.8818	1.1599	.6968	.9011
C3	3.9856	1.1829	.7408	.8974
C4	4.3006	1.1406	.7134	.8998
C6	4.1902	1.1713	.7358	.8979
C8	3.6424	1.3054	.5527	.9140
Statistics for Scale	Mean 32.0465	Variance 59.4969	Std deviation 7.7134	Variables 8
Skewness		-.235	S/error skewness	.131
Kurtosis		-.103	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 8	Alpha = .9112

TABLE 8.15: RELIABILITY ANALYSIS - FACTOR C2 (RESPECT)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
C21	4.3797	1.3383	.8614	.8649
C20	4.0862	1.3190	.7758	.8778
C25	3.9684	1.4862	.7446	.8821
C11	4.1826	1.4218	.7192	.8858
C22	4.0665	1.4339	.6977	.8891
C24	3.9971	1.3968	.6033	.9027
Statistics for Scale	Mean 24.6805	Variance 47.2988	Std deviation 6.8774	Variables 6
Skewness		-.505	S/error skewness	.131
Kurtosis		-.358	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 6	Alpha = .9014

TABLE 8.16: RELIABILITY ANALYSIS - FACTOR C3 (RESPONSIBILITY)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
C15	3.5607	1.3209	.7206	.8322
C16	3.2478	1.4311	.6578	.8593
C17	3.6715	1.2871	.8015	.8011
C18	3.7098	1.3664	.7111	.8359
Statistics for Scale	Mean 14.1898	Variance 20.9942	Std deviation 4.5819	Variables 4
Skewness		.039	S/error skewness	.131
Kurtosis		-.423	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 4	Alpha = .8687

TABLE 8.17: RELIABILITY ANALYSIS - FACTOR C4 (REALISTIC EXPECTATIONS)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
C13	4.1264	1.2959	.7058	.8025
C14	4.2435	1.2124	.7566	.7810
C 9	4.2261	1.2110	.6740	.8159
C10	4.2219	1.2433	.6244	.8366
Statistics for Scale	Mean 16.8179	Variance 16.9983	Std deviation 4.1229	Variables 4
Skewness		-.214	S/error skewness	.131
Kurtosis		-.657	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 6	Alpha = .8500

TABLE 8.18: RELIABILITY ANALYSIS - FACTOR D1 (OBEDIENCE)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
D 6	5.5072	0.6849	.7160	.8130
D 2	5.3582	0.7809	.6160	.8180
D 5	5.2730	0.9301	.6440	.8140
D 9	5.3075	0.8306	.5360	.8250
D 4	5.3266	0.8982	.5400	.8240
D 3	5.2779	1.0450	.4910	.8310
D 1	4.8539	0.9907	.4880	.8300
D 8	4.9685	1.0836	.5510	.8240
D11	5.7176	0.6572	.3860	.8370
D13	5.2845	0.8724	.4470	.8320
Statistics for Scale	Mean 52.8748	Variance 32.2510	Std deviation 5.6789	Variables 10
Skewness		-.975	S/error skewness	.131
Kurtosis		1.143	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 10	Alpha = .8400

TABLE 8.19: RELIABILITY ANALYSIS - FACTOR D2 (JOB SATISFACTION)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
D25	4.6801	1.2147	.6787	.5725
D26	4.4957	1.2940	.6170	.6543
D27	5.2882	0.9902	.5033	.7733
Statistics for Scale	Mean 14.4640	Variance 8.3753	Std deviation 2.8940	Variables 3
Skewness		-.873	S/error skewness	.131
Kurtosis		-.885	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 3	Alpha = .7602

TABLE 8.20: RELIABILITY ANALYSIS - FACTOR D3 (PARTICIPATION)

Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
D17	4.4783	1.1915	.5550	.6598
D10	4.8510	1.0937	.6457	.5500
D 7	5.0948	1.0879	.4888	.7304
Statistics for Scale	Mean 14.4241	Variance 7.4635	Std deviation 2.7319	Variables 3
Skewness		-.853	S/error skewness	.131
Kurtosis		-.858	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 3	Alpha = .7364

TABLE 8.21: RELIABILITY ANALYSIS - FACTOR D4 (LOYALTY)

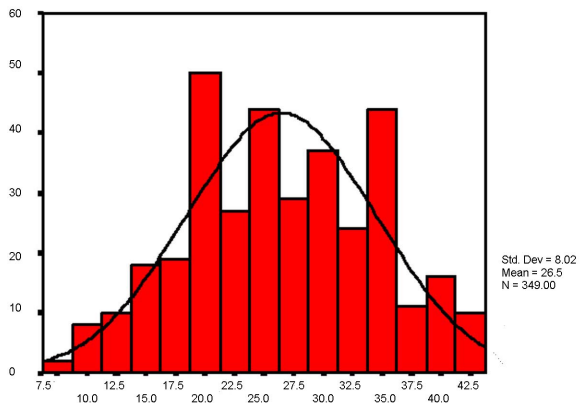
Item statistics	Mean	Std Deviation	Corrected Item Total Correlation	Alpha if Item deleted
D29	3.4121	1.5444	.5960	.5730
D31	4.1034	1.4955	.6030	.5710
D15	3.8736	1.6103	.4910	.6400
D30	3.1676	1.5890	.2950	.7550
Statistics for Scale	Mean 14.5567	Variance 20.6320	Std deviation 4.5423	Variables 4
Skewness		-.151	S/error skewness	.131
Kurtosis		-.297	S/error kurtosis	.260
Reliability Coefficients		N = 349	Number of items = 4	Alpha = .7040

As indicated in tables 8.10 to 8.21, the reliability of the factors, as measured by alpha, are all above 0.70 and none of the items, if deleted, increases the internal consistency of items in a factor. It thus proves that an item belongs to a particular factor.

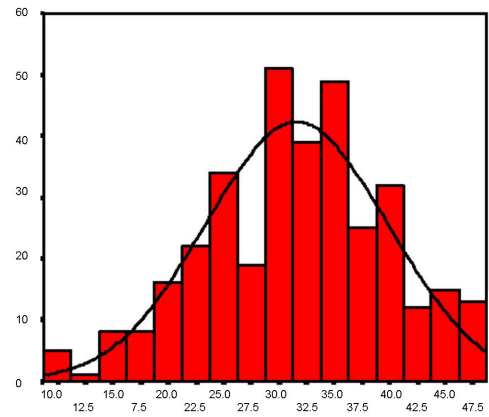
Before the factors can be used in other statistical analysis, it is also necessary to examine statistics such as the mean, variance, skewness, kurtosis and standard deviations. Figure 8.4 provides the descriptive statistics of the factors discussed above.

FIGURE 8.4: MEAN, STANDARD DEVIATION AND DISTRIBUTION OF FACTORS FOR ORGANISATIONAL JUSTICE

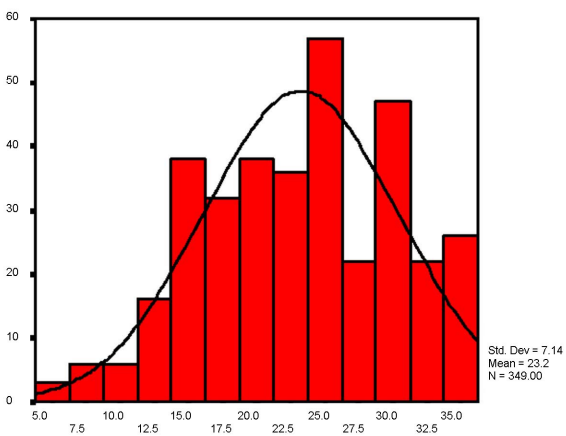
PROCEDURAL JUSTICE: INPUT



INTERACTIONAL JUSTICE



PROCEDURAL JUSTICE: CRITERIA



DISTRIBUTIVE JUSTICE

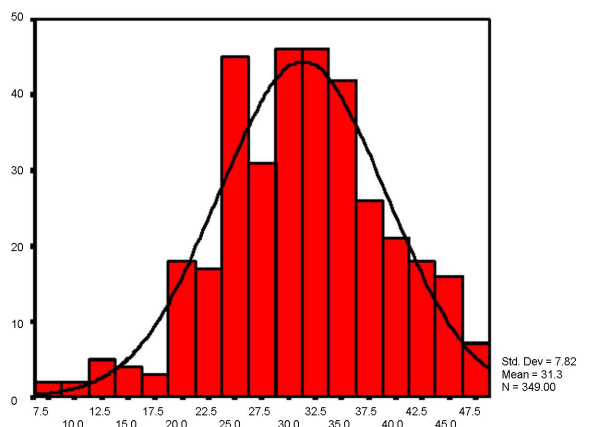
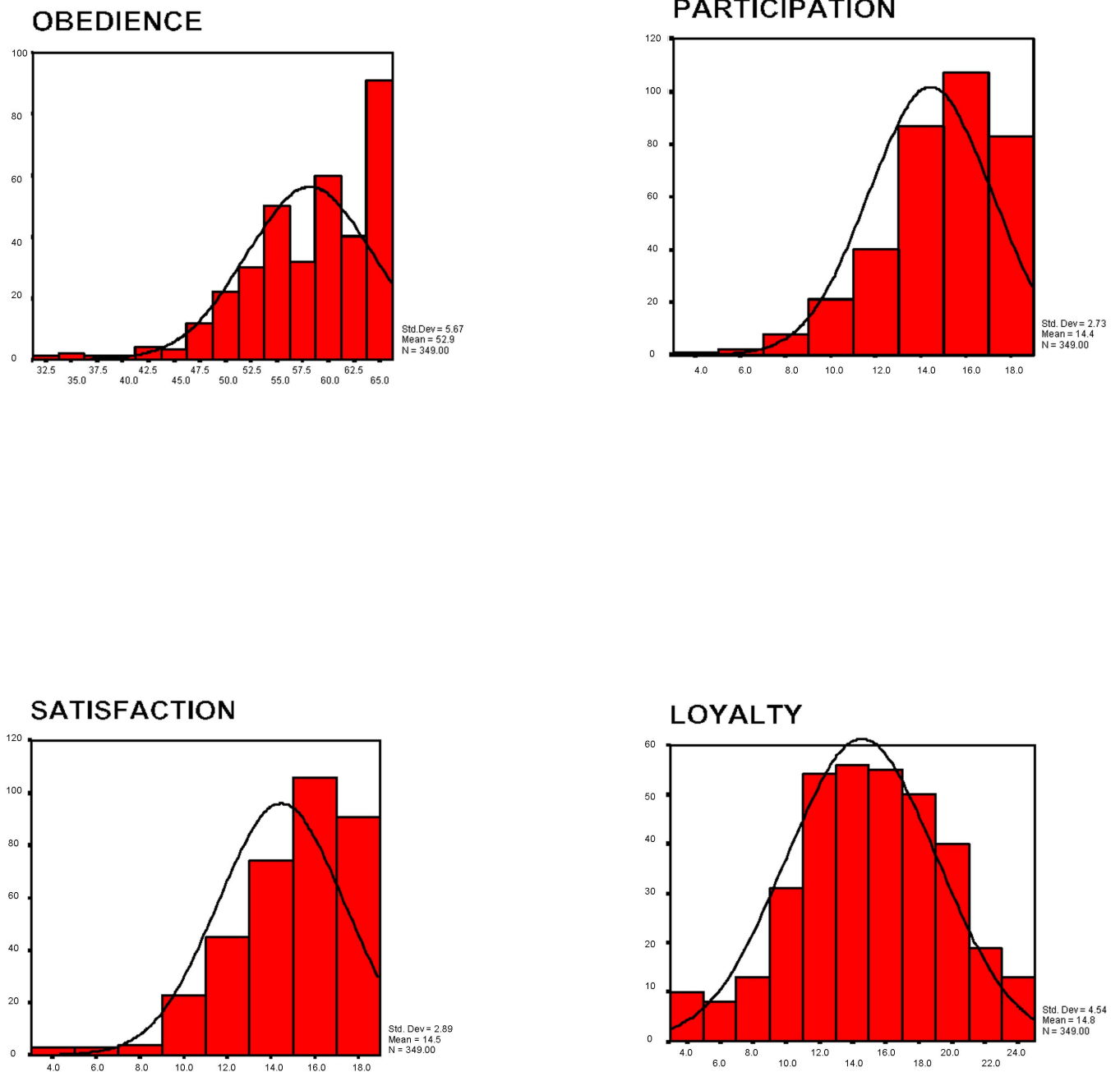


FIGURE 8.5: MEAN, STANDARD DEVIATION AND DISTRIBUTION OF FACTORS FOR TREATMENT OF AA EMPLOYEES IN THE WORKPLACE



FIGURE 8.6: MEAN, STANDARD DEVIATION AND DISTRIBUTION OF FACTORS FOR COMMITMENT



As mentioned earlier, two types of statistics, namely parametric and nonparametric are available when deciding on the most appropriate statistical method. A parametric test is appropriate when the population score is normally distributed, the variances of the groups are equal and the dependant variable is an interval scale. In order to determine whether a factor is normally distributed, the skewness and kurtosis should not be more than 2.5 times the standard error of skewness and kurtosis.

With reference to tables 8.10 to 8.21, this means that the *skewness* of a factor should be less than 0.32 (0.131×2.5) and the *kurtosis* should be less than 0.65 (0.260×2.5) for a factor to be regarded as normally distributed. A closer look at the skewness and kurtosis of factors D1 (obedience), D2 (satisfaction) and D3 (participation) indicates that the skewness and kurtosis do not meet these requirements — hence these factors are not normally distributed. This means that nonparametric statistics will have to be used in some cases.

8.3 COMPARATIVE STATISTICS

8.3.1 Students' t-test of difference of means

Students' t-test is appropriate when an independent variable with two categories and one continuous dependent are used, and the difference between the means of the various categories of the independent variable need to be tested. The data sets of the following variables were collapsed: gender, ethnicity, marital status, number of years in current position, number of years' service at the bank and staff category. After the data sets were collapsed, the difference between the means of the independent variables were determined.

Tables 8.22 to 8.27 indicate how the various groups (male/female, blacks/whites, married/single, etc) differ with regard to the various behavioural domains (factors). Since the dependent variables are approximately normally distributed and measured on a scale that at least approximates interval data, parametric t-tests were used. The SPSS program provided applicable statistics where Levens F test was significant and the assumption of normality was violated.

8.3.1.1 Gender

According to table 8.22, men and women differ significantly ($p < 0.05$) with regard to *obedience* ($p = 0.046$) and *loyalty* ($p = 0.004$). According to the mean scores, women ($\bar{x} = 58.688$) are more inclined to adhere to rules and regulations than men ($\bar{x} = 57.303$), and women ($\bar{x} = 15.064$) as opposed to men ($\bar{x} = 13.589$), display greater loyalty towards the bank. These differences, however, are not of practical significance since all the practical significance values are less than 0.50.

8.3.1.2 Ethnicity

According to table 8.23, there are statistical significant differences ($p < 0.001$) between blacks' and whites', perceptions of *organisational justice*; how employees from designated groups are *treated* in the workplace; and how employees *behave* in the workplace. The only two factors on which blacks and whites do not differ are work satisfaction ($p = 0.083$) and loyalty ($p = 0.131$). As indicated, it is also important to consider the *practical* significance of a difference. The differences between blacks and whites are of practical significance only with regard to *distributive justice* ($d = 0.93$), *autonomy* ($d = 0.60$) and *respect* ($d = 0.54$). With regard to distributive justice, the mean scores indicate that the actual decisions taken on AA issues strongly influence whites' perceptions ($\bar{x} = 33.755$) about the fairness of AA. Blacks ($\bar{x} = 27.069$), on the other hand, are less concerned about most of the decisions taken on AA when forming a perception of the fairness of AA. A possible explanation could be that most AA decisions favour blacks and they are therefore unlikely to question the fairness of a decision.

Regarding treatment in the workplace, blacks, unlike whites, believe that they receive little autonomy ($\bar{x} = 28.962$) and respect ($\bar{x} = 22.118$). However, blacks and whites seem to be equally satisfied and loyal. This is surprising if one considers the fact that blacks believe that they are treated with little respect and are given little responsibility.

8.3.1.3 Marital status

According to table 8.24, married and single employees differ significantly ($p < 0.001$) with regard to *distributive justice* ($p = 0.003$), *work satisfaction* ($p = 0.002$) and *participation* ($p = 0.007$). These differences, however, are not of practical significance since all the practical significance values are less than 0.50. According to the mean scores, married employees ($\bar{x} = 32.251$) regard distributive justice issues as vital to the fairness of AA. Married employees are also more satisfied ($\bar{x} = 14.869$) and participative ($\bar{x} = 14.738$) than single employees.

8.3.1.4 Number of years in current position

According to table 8.25, employees with more than two years of service in a specific position differ significantly from employees with less than two years of service with regard to *loyalty*. The two-tailed significance value ($p = 0.019$) is less than 0.05 which indicates that this difference is statistically significant. Although the mean scores indicate that employees with more years of service ($\bar{x} = 15.093$) tend to be slightly more loyal, the effect size ($d = 0.31$) of the difference between employees with one to two years of service and employees with more than two years is so small that it is negligible.

8.3.1.5 Years service at the bank

Table 8.26 indicates that significant differences ($p < 0.05$) exist between employees with seven or more years of service and employees with less than seven years' service. There are statistically significant differences between these two groups of employees with regard to *distributive justice* ($p = 0.000$), how AA employees are treated with regard to *autonomy* ($p = 0.004$) and *respect* ($p = 0.001$), and their behaviour in

terms of *satisfaction* ($p=0.006$), *participation* ($p=0.027$) and *loyalty* ($p=0.028$). However the practical significance of these differences is small ($d<0.50$), and one can therefore conclude that the number of years' service has only a minor effect on the perceptions of the fairness of AA, treatment of AA employees in the workplace and commitment. According to the mean scores, although these are not conclusive, employees with more than seven years of service ($\bar{x}=33.041$) seem to regard distributive justice issues as critical to the fairness of AA. They also believe that employees from designated groups do receive autonomy ($\bar{x}=33.205$) and are treated with respect ($\bar{x}=25.849$) in the workplace. Regarding commitment, employees with more than seven years of service tend to be more participative ($\bar{x}=14.744$) and loyal ($\bar{x}=15.093$). Since there is a significant association ($\eta = 0.498$) between years of service at the bank and ethnicity, it is possible that ethnicity rather than the number of years of service determines perceptions of AA fairness and the treatment of AA employees.

8.3.1.6 Staff category

According to table 8.27, there are significant differences ($p<0.05$) between management and clerical staff in respect of *distributive justice* ($p=0.000$), *autonomy* ($p=0.005$), *respect* ($p=0.004$) and *participation* ($p=0.000$).

As far as the practical significance of differences between management and clerical staff is concerned, it is only with regard to *distributive justice* ($d>0.50$) that the difference is of any practical importance. AA decisions such as giving AA employees token positions, paying unrealistically high salaries to AA managers, appointing less qualified employees, focusing on the development and advancement of AA employees, and making selection decisions based on criteria such as ethnicity and gender play a prominent role in forming perceptions about the fairness of AA. According to the mean scores, management view distributive justice ($\bar{x}=33.442$), the criteria used when dealing with AA issues ($\bar{x}=24.173$) and the way people are treated ($\bar{x}=32.541$) as vital considerations when forming perceptions about the fairness of AA. In contrast to the opinion of clerical staff, management believe that employees from designated groups are given autonomy ($\bar{x}=33.233$) and treated with respect ($\bar{x}=25.757$). Management appear to be more satisfied ($\bar{x}=14.799$) and participative ($\bar{x}=14.985$) than clerical staff.

TABLE 8.22: STUDENTS' T-TEST: COMPARISON OF MEAN SCORES OF **GENDER** GROUPINGS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Gender	N	Mean	Std deviation	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed) p	Practical significance d
					F	Sig				
B. INTERACTIONAL JUSTICE	Male	120	30.946	8.316	0.279	0.598	-1.062	347	0.289	
	Female	229	31.929	8.160			-1.055	237.761	0.292	
B. PROCEDURAL JUSTICE (Input)	Male	120	25.773	7.802	0.083	0.774	-1.174	347	0.241	
	Female	229	26.834	8.129			-1.189	250.584	0.235	
B. PROCEDURAL JUSTICE (Criteria)	Male	120	23.088	7.023	0.234	0.629	-0.306	347	0.760	
	Female	229	23.334	7.213			-0.309	247.451	0.758	
B. DISTRIBUTIVE JUSTICE	Male	120	31.427	8.600	4.581	0.033*	0.213	347	0.832	
	Female	229	31.239	7.400			0.203	212.544	0.839	
C. AUTONOMY	Male	120	32.414	7.377	1.760	0.185	0.643	347	0.520	
	Female	229	31.854	7.893			0.657	256.423	0.512	
C. RESPECT	Male	120	24.512	6.614	1.732	0.189	-0.332	347	0.740	
	Female	229	24.769	7.024			-0.338	254.762	0.735	
C. RESPONSIBILITY	Male	120	14.388	4.251	2.925	0.088	0.585	347	0.559	
	Female	229	14.086	4.752			0.605	266.241	0.546	
C. REALISTIC EXPECTATIONS	Male	120	16.737	4.218	0.093	0.760	-0.264	347	0.792	
	Female	229	16.860	4.081			-0.261	234.867	0.794	
D. OBEDIENCE	Male	120	57.303	6.267	0.174	0.677	-1.999	347	0.046	0.22
	Female	229	58.688	6.088			-1.981	235.710	0.049	
D. SATISFACTION	Male	120	14.204	2.901	0.047	0.829	-1.216	347	0.225	
	Female	229	14.600	2.888			-1.215	240.791	0.226	
D. PARTICIPATION	Male	120	14.783	2.488	2.137	0.145	1.784	347	0.075	
	Female	229	14.236	2.839			1.859	270.971	0.064	
D. LOYALTY	Male	120	13.589	4.080	1.910	0.168	-2.912	347	0.004	0.31
	Female	229	15.064	4.696			-3.042	272.917	0.003	

* Unequal variance

TABLE 8.23: STUDENTS' T-EST: COMPARISON OF THE MEAN SCORES OF **ETHNIC** GROUPINGS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Ethnic group	N	Mean	Std Deviation	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed) p	Practical significance d
					F	Sig.				
B. INTERACTIONAL JUSTICE	Black	128	29.950	9.564	15.113	0.000*	-2.870	347	0.004	0.27
	White	221	32.542	7.175			-2.663	210.389	0.008	
B. PROCEDURAL JUSTICE (Input)	Black	128	25.345	8.208	0.001	0.971	-2.000	347	0.046	0.21
	White	221	27.120	7.859			-1.977	255.987	0.049	
B. PROCEDURAL JUSTICE (Criteria)	Black	128	21.787	7.215	0.031	0.861	-2.945	347	0.003	0.32
	White	221	24.097	6.972			-2.918	257.958	0.004	
B. DISTRIBUTIVE JUSTICE	Black	128	27.070	7.094	0.316	0.574	-8.436	347	0.000	0.93
	White	221	33.755	7.159			-8.457	267.335	0.000	
C. AUTONOMY	Black	128	28.962	8.018	3.278	0.071	-5.961	347	0.000	0.60
	White	221	33.833	6.947			-5.739	235.719	0.000	
C. RESPECT	Black	128	22.118	7.442	11.642	0.001*	-5.517	347	0.000	0.54
	White	221	26.165	6.068			-5.227	224.418	0.000	
C. RESPONSIBILITY	Black	128	13.462	4.506	0.381	0.538	-2.270	347	0.024	0.25
	White	221	14.611	4.583			-2.281	269.052	0.023	
C. EXPECTATIONS	Black	128	16.053	4.343	2.939	0.087	-2.662	347	0.008	0.28
	White	221	17.261	3.932			-2.592	244.411	0.010	
D. OBEDIENCE	Black	128	57.132	6.438	0.631	0.428	-2.505	347	0.013	0.26
	White	221	58.837	5.944			-2.452	248.423	0.015	
D. SATISFACTION	Black	128	14.092	3.232	4.197	0.041*	-1.833	347	0.068	
	White	221	14.679	2.663			-1.742	226.349	0.083	
D. PARTICIPATION	Black	128	13.665	2.903	3.015	0.083	-4.039	347	0.000	0.41
	White	221	14.864	2.532			-3.895	237.011	0.000	
D. LOYALTY	Black	128	14.074	4.752	1.797	0.181	-1.514	347	0.131	
	White	221	14.836	4.403			-1.484	249.113	0.139	

* Unequal variance

TABLE 8.24: STUDENTS' T-TEST: COMPARISON OF THE MEAN SCORES OF **MARITAL STATUS** GROUPINGS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Marital status	N	Mean	Std deviation	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed) p	Practical significance d
					F	Sig				
B. INTERACTIONAL JUSTICE	Single	132	31.067	8.774	1.992	0.159	-0.953	346	0.341	
	Married	216	31.933	7.870			-0.928	254.065	0.354	
B. PROCEDURAL JUSTICE (Input)	Single	132	26.400	8.318	0.873	0.351	-0.088	346	0.930	
	Married	216	26.477	7.858			-0.086	264.852	0.931	
B. PROCEDURAL JUSTICE (Criteria)	Single	132	22.657	7.357	0.521	0.471	-1.166	346	0.245	
	Married	216	23.576	6.994			-1.151	266.178	0.251	
B. DISTRIBUTIVE JUSTICE	Single	132	29.725	7.762	0.222	0.638	-2.953	346	0.003	0.33
	Married	216	32.251	7.734			-2.950	276.226	0.003	
C. AUTONOMY	Single	132	31.261	8.548	5.969	0.015*	-1.421	346	0.156	
	Married	216	32.467	7.102			-1.359	238.931	0.175	
C. RESPECT	Single	132	24.087	7.145	1.068	0.302	-1.226	346	0.221	
	Married	216	25.019	6.707			-1.208	263.511	0.228	
C. RESPONSIBILITY	Single	132	14.132	4.557	0.109	0.741	-0.194	346	0.846	
	Married	216	14.231	4.617			-0.195	279.797	0.846	
C. REALISTIC EXPECTATIONS	Single	132	16.995	4.188	0.001	0.975	0.615	346	0.539	
	Married	216	16.714	4.098			0.612	272.323	0.541	
D. OBEDIENCE	Single	132	57.742	5.944	0.003	0.956	-1.090	346	0.276	
	Married	216	58.486	6.321			-1.106	290.183	0.269	
D. SATISFACTION	Single	132	13.804	3.289	7.065	0.008*	-3.375	346	0.001	0.32
	Married	216	14.869	2.556			-3.179	226.673	0.002	
D. PARTICIPATION	Single	132	13.898	2.985	3.987	0.047*	-2.809	346	0.005	0.28
	Married	216	14.738	2.524			-2.698	242.267	0.007	
D. LOYALTY	Single	132	14.321	4.820	2.399	0.122	-0.788	346	0.431	
	Married	216	14.717	4.373			-0.770	256.423	0.442	

* Unequal variance

TABLE 8.25: STUDENTS' T-TEST: COMPARISON OF THE MEAN SCORES OF **NUMBER OF YEARS IN CURRENT POSITION** GROUPINGS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Years in current position	N	Mean	Std deviation	Levene's Test		t	df	Sig. (2-tailed) p	Practical significance d
					F	Sig.				
B. INTERACTIONAL JUSTICE	1-2 years	159	31.551	9.059	9.513	0.002*	-0.004	341	0.997	
	3-66 years	184	31.555	7.397			-0.004	305.079	0.997	
B. PROCEDURAL JUSTICE (Input)	1-2 years	159	27.066	8.014	0.112	0.739	1.537	341	0.125	
	3-66 years	184	25.738	7.948			1.536	333.027	0.126	
B. PROCEDURAL JUSTICE (Criteria)	1-2 years	159	23.566	7.450	1.015	0.314	0.899	341	0.369	
	3-66 years	184	22.871	6.875			0.893	324.414	0.372	
B. DISTRIBUTIVE JUSTICE	1-2 years	159	30.924	8.165	0.545	0.461	-0.897	341	0.370	
	3-66 years	184	31.688	7.603			-0.893	325.625	0.373	
C. AUTONOMY	1-2 years	159	31.825	7.799	0.069	0.794	-0.213	341	0.832	
	3-66 years	184	32.001	7.499			-0.212	329.643	0.832	
C. RESPECT	1-2 years	159	24.243	7.357	5.681	0.018*	-1.021	341	0.308	
	3-66 years	184	25.005	6.458			-1.012	317.085	0.312	
C. RESPONSIBILITY	1-2 years	159	13.802	4.573	0.059	0.808	-1.356	341	0.176	
	3-66 years	184	14.471	4.541			-1.355	333.132	0.176	
C. REALISTIC EXPECTATIONS	1-2 years	159	16.582	4.073	0.126	0.723	-0.877	341	0.381	
	3-66 years	184	16.973	4.154			-0.879	335.608	0.380	
D. OBEDIENCE	1-2 years	159	57.890	5.723	0.573	0.450	-0.758	341	0.449	
	3-66 years	184	58.399	6.586			-0.766	340.988	0.444	
D. SATISFACTION	1-2 years	159	14.229	3.059	2.155	0.143	-1.232	341	0.219	
	3-66 years	184	14.617	2.761			-1.223	321.313	0.222	
D. PARTICIPATION	1-2 years	159	14.371	2.586	0.730	0.393	-0.273	341	0.785	
	3-66 years	184	14.451	2.782			-0.274	339.161	0.784	
D. LOYALTY	1-2 years	159	13.905	4.568	0.076	0.783	-2.352	341	0.019	0.25
	3-66 years	184	15.057	4.484			-2.349	331.934	0.019	

* Unequal variance

TABLE 8.26: STUDENTS' T-TEST: COMPARISON OF THE MEAN SCORES OF YEARS' SERVICE AT THE BANK GROUPINGS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Years service	N	Mean	Std. Deviation	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed) p	Practical significance d
					F	Sig.				
B. INTERACTIONAL JUSTICE	1-7 years	173	31.011	8.824	4.588	0.033*	-1.273	343	0.204	
	8-39 years	172	32.140	7.603			-1.274	336.217	0.204	
B. PROCEDURAL JUSTICE (Input)	1-7 years	173	26.360	8.225	0.164	0.686	-0.138	343	0.890	
	8-39 years	172	26.479	7.900			-0.138	342.593	0.890	
B. PROCEDURAL JUSTICE (Criteria)	1-7 years	173	22.692	7.232	0.023	0.879	-1.370	343	0.172	
	8-39 years	172	23.746	7.054			-1.370	342.876	0.172	
B. DISTRIBUTIVE JUSTICE	1-7 years	173	29.599	7.932	0.005	0.945	-4.167	343	0.000	0.43
	8-39 years	172	33.041	7.398			-4.168	341.607	0.000	
C. AUTONOMY	1-7 years	173	30.809	7.714	0.556	0.456	-2.914	343	0.004	0.31
	8-39 years	172	33.205	7.556			-2.914	342.924	0.004	
C. RESPECT	1-7 years	173	23.402	7.201	4.803	0.029*	-3.345	343	0.001	0.34
	8-39 years	172	25.849	6.360			-3.347	338.298	0.001	
C. RESPONSIBILITY	1-7 years	173	13.746	4.615	0.030	0.862	-1.955	343	0.051	
	8-39 years	172	14.705	4.496			-1.955	342.859	0.051	
C. REALISTIC EXPECTATIONS	1-7 years	173	16.448	4.265	2.836	0.093	-1.731	343	0.084	
	8-39 years	172	17.215	3.960			-1.732	341.410	0.084	
D. OBEDIENCE	1-7 years	173	57.763	5.907	0.029	0.864	-1.326	343	0.186	
	8-39 years	172	58.645	6.448			-1.325	340.047	0.186	
D. SATISFACTION	1-7 years	173	14.032	3.013	2.417	0.121	-2.741	343	0.006	0.1
	8-39 years	172	14.880	2.730			-2.742	340.088	0.006	
D. PARTICIPATION	1-7 years	173	14.093	2.824	1.164	0.281	-2.220	343	0.027	0.23
	8-39 years	172	14.744	2.619			-2.220	341.353	0.027	
D. LOYALTY	1-7 years	173	14.019	4.502	0.102	0.750	-2.201	343	0.028	0.24
	8-39 years	172	15.093	4.562			-2.201	342.876	0.028	

* Unequal variance

TABLE 8.27: STUDENTS' T-TEST: COMPARISON OF THE MEAN SCORES OF **STAFF CATEGORY** GROUPINGS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Staff category	N	Mean	Std deviation	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed) p	Practical significance d
					F	Sig				
B. INTERACTIONAL JUSTICE	Management	168	32.541	7.495	4.061	0.045*	2.092	347	0.037	0.21
	Clerical	181	30.709	8.759			2.104	344.761		
B. PROCEDURAL JUSTICE (Input)	Management	168	26.914	7.585	1.226	0.269	0.998	347	0.319	
	Clerical	181	26.056	8.408			1.002	346.723		
B. PROCEDURAL JUSTICE (Criteria)	Management	168	24.173	6.945	0.038	0.846	2.344	347	0.020	0.25
	Clerical	181	22.392	7.229			2.347	346.583		
B. DISTRIBUTIVE JUSTICE	Management	168	33.442	7.490	0.321	0.571	5.094	347	0.000	0.54
	Clerical	181	29.319	7.615			5.097	345.826		
C. AUTONOMY	Management	168	33.233	6.701	9.759	0.002*	2.795	347	0.005	0.27
	Clerical	181	30.945	8.416			2.819	339.258		
C. RESPECT	Management	168	25.757	5.858	18.242	0.000*	2.846	347	0.005	0.27
	Clerical	181	23.681	7.584			2.873	336.094		
C. RESPONSIBILITY	Management	168	14.645	4.273	1.381	0.241	1.794	347	0.074	
	Clerical	181	13.767	4.825			1.802	346.251		
C. REALISTIC EXPECTATIONS	Management	168	16.793	3.997	1.327	0.250	-0.108	347	0.914	
	Clerical	181	16.841	4.248			-0.108	346.934		
D. OBEDIENCE	Management	168	58.460	5.630	4.449	0.036*	0.722	347	0.471	
	Clerical	181	57.982	6.650			0.727	344.150		
D. SATISFACTION	Management	168	14.799	2.402	15.015	0.000*	2.090	347	0.037	0.2
	Clerical	181	14.154	3.262			2.114	330.247		
D. PARTICIPATION	Management	168	14.985	2.351	10.650	0.001*	3.765	347	0.000	0.37
	Clerical	181	13.904	2.955			3.796	339.193		
D. LOYALTY	Management	168	14.171	4.241	3.208	0.074	-1.532	347	0.126	
	Clerical	181	14.915	4.789			-1.539	346.253		

* Unequal variance

8.3.2 One-way analysis of variance

In this study, one-way ANOVA was used for *education*, *salary* and *employment equity appointments* since all of these variables had three categories. Tables 8.28 to 8.35 indicate how the various categories of the independent variables (education level, salary and EE appointments) differ with regard to the various factors.

In order to determine an appropriate post hoc test, the overall significance (F-value) and the assumption of equality of variances were investigated. Whenever the overall F-value was significant ($F < 0.05$) a post hoc test was performed. Where Levene's tests of homogeneity of variance confirmed that the assumption of equality of variance was met ($p > 0.05$), Tukey's post hoc multiple comparison technique was used to determine the statistical difference between groups. Dunnett C's-test was employed in cases where these conditions were not met ($p < 0.05$).

8.3.2.1 Education

The respondents were categorised according to three categories of education level, namely grade 12 and lower, certificate/diploma and degree. Tables 8.28 to 8.30 provide the group means, Levene's test of homogeneity of variance and the significance of the variances and the overall F-values. The results of the post hoc tests are also provided.

8.3.2.2 Salary

The respondents were categorised according to three categories of salary, level namely R5 000 or less, R5 001 - R15 000, and more than R15 000. Tables 8.31 to 8.33 provide the group means, Levene's test of homogeneity of variance and the significance of the variances and the overall F-values. The results of the post hoc tests are also provided.

8.3.2.3 Employment equity appointment

The responses of respondents regarding whether they had been appointed by means of AA were categorised into three categories, namely *yes*, *no*, and *not sure*. The number of respondents who answered "yes" was 44, while the number of respondents who answered "no" was 226. Of the respondents, 75 were "not sure" whether they had been appointed by means of AA. In order to make meaningful comparisons it was decided to use a harmonic mean sample size of 44 respondents for each of these categories. The SPSS program was used to select 44 cases by means of random sampling. Tables 8.34 to 8.35 indicate the group means, Levene's test of homogeneity of variance and the significance of the variances and the overall F-values. The results of the post hoc test are also provided.

TABLE 8.28: COMPARISON OF MEAN SCORES OF THE THREE **EDUCATION GROUPS** IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Education level	N	Mean	Std. Deviation	Levene's Test		Anova F	Significance p(F)
					F	Sig		
B. INTERACTIONAL JUSTICE	Grade12 & lower	171	32.038	8.265	0.024	0.976	0.564	0.569
	Cert/Diploma	110	31.065	8.279				
	Degree	65	31.157	8.067				
	Total	346	31.563	8.223				
B. PROCEDURAL JUSTICE (Input)	Grade12 & lower	171	27.019	7.932	1.535	0.217	0.923	0.398
	Cert/Diploma	110	26.098	8.481				
	Degree	65	25.574	7.473				
	Total	346	26.455	8.027				
B. PROCEDURAL JUSTICE (Criteria)	Grade12 & lower	171	23.184	6.918	1.536	0.217	0.089	0.915
	Cert/Diploma	110	23.415	7.565				
	Degree	65	22.951	7.088				
	Total	346	23.213	7.142				
B. DISTRIBUTIVE JUSTICE	Grade12 & lower	171	30.756	7.577	2.092	0.125	1.483	0.228
	Cert/Diploma	110	31.290	7.677				
	Degree	65	32.724	8.763				
	Total	346	31.295	7.854				
C. AUTONOMY	Grade12 & lower	171	32.044	8.036	1.294	0.275	0.327	0.722
	Cert/Diploma	110	31.588	7.728				
	Degree	65	32.554	6.789				
	Total	346	31.995	7.704				
C. RESPECT	Grade12 & lower	171	24.625	7.064	0.994	0.371	0.404	0.668
	Cert/Diploma	110	25.020	6.984				
	Degree	65	24.052	6.279				
	Total	346	24.643	6.887				

TABLE 8.28 (continued)

8.34

Behavioural domain	Education level	N	Mean	Std. Deviation	Levene's Test		Anova F	Significance p(F)
					F	Sig		
C. RESPONSIBILITY	Grade12 & lower	171	14.043	4.677	0.253	0.776	0.180	0.835
	Cert/Diploma	110	14.311	4.510				
	Degree	65	14.378	4.489				
	Total	346	14.191	4.579				
C. REALISTIC EXPECTATIONS	Grade12 & lower	171	16.829	4.094	0.222	0.801	0.063	0.939
	Cert/Diploma	110	16.661	4.242				
	Degree	65	16.831	3.990				
	Total	346	16.776	4.111				
D. OBEDIENCE	Grade12 & lower	171	58.060	6.478	2.291	0.103	0.163	0.849
	Cert/Diploma	110	58.460	6.378				
	Degree	65	58.031	5.012				
	Total	346	58.182	6.183				
D. SATISFACTION	Grade12 & lower	171	14.497	2.965	0.543	0.581	0.043	0.958
	Cert/Diploma	110	14.400	2.944				
	Degree	65	14.415	2.686				
	Total	346	14.451	2.900				
D. PARTICIPATION	Grade12 & lower	171	14.052	2.990	4.063	0.018	3.266	0.039
	Cert/Diploma	110	14.664	2.551				
	Degree	65	14.954	2.168				
	Total	346	14.416	2.734				
D. LOYALTY	Grade12 & lower	171	15.389	4.403	0.446	0.641	6.986	0.001
	Cert/Diploma	110	13.863	4.644				
	Degree	65	13.277	4.241				
	Total	346	14.507	4.528				

In this study, because “loyalty” had an equal variance, Tukey’s test was used. Levene’s test indicated that the F-value for “*participation*” was significant (<0.05). Hence because its variance was unequal, a Dunnett C’s was used. Since the group sizes were unequal, the harmonic mean of the group sizes (98.933) was used.

TABLE 8.29: TUKEY’S HSD MULTIPLE COMPARISON OF EDUCATION IN RELATION TO LOYALTY

(I) EDUCATION	(J) EDUCATION	Mean Difference (I-J)	Std. Error	Sig	Practical significance
Grade12 & lower	Cert/Diploma	1.526*	0.544	0.015	0.34
	Degree	2.113*	0.650	0.004	0.47
Cert/Diploma	Grade12 & lower	-1.526*	0.544	0.015	
	Degree	0.587	0.696	0.678	
Degree	Grade12 & lower	-2.112*	0.649	0.004	
	Cert/Diploma	-0.587	0.696	0.678	

The mean difference is significant at the 0.05 level.

According to table 8.29, there is a significant difference in the mean loyalty scores between employees with grade 12 or lower ($\bar{x}=15.389$) and employees with a degree ($\bar{x}=13.277$). As indicated in table 7.8, mostly management and whites have degrees. One should thus be cautious about concluding that education influences an employee’s loyalty instead of considering the impact of staff category on an employee’s loyalty.

TABLE 8.30: DUNNETT C’S MULTIPLE COMPARISON OF EDUCATION IN RELATION TO PARTICIPATION

(I) EDUCATION	(J) EDUCATION	Mean difference (I-J)	Std error	Sig	Practical significance
Grade12 & lower	Cert/Diploma	-0.612	0.334	0.185	0.23
	Degree	-0.902*	0.353	0.050	0.33
Cert/Diploma	Grade 12 & lower	0.612	0.334	0.185	0.23
	Degree	-0.290	0.363	0.793	0.11
Degree	Grade 12 & lower	0.902*	0.353	0.050	0.33
	Cert/Diploma	0.290	0.363	0.793	0.11

Table 8.30 indicates statistically significant differences ($p<0.05$) in the mean participation scores between employees with different educational qualifications. Although employees with degrees seem to be more participative, the practical significance of effect size is small ($d = 0.33$).

TABLE 8.31: COMPARISON OF THE MEAN SCORES OF THE THREE **SALARY GROUPS** IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	Salary	N	Mean	Std. Deviation	Levene's Test		Anova F	Significance p(F)
					F	Sig		
B. INTERACTIONAL JUSTICE	R5 000 & less	159	31.026	8.786	2.634	0.073	0.973	0.379
	R5 001-R15 000	112	32.437	8.047				
	R15 001 & more	70	31.725	7.106				
	Total	341	31.633	8.225				
B. PROCEDURAL JUSTICE (Input)	R5 000 & less	159	26.334	8.325	0.154	0.858	0.491	0.612
	R5 001-R15 000	112	27.101	7.872				
	R15 001 & more	70	25.985	7.608				
	Total	341	26.514	8.023				
B. PROCEDURAL JUSTICE (Criteria)	R5 000 & less	159	22.685	7.207	0.101	0.990	1.161	0.315
	R5 001-R15 000	112	23.741	6.897				
	R15 001 & more	70	23.998	7.032				
	Total	341	23.302	7.074				
B. DISTRIBUTIVE JUSTICE	R5 000 & less	159	29.607	7.753	0.221	0.802	9.168	0.000
	R5 001-R15 000	112	31.743	7.311				
	R15 001 & more	70	34.220	7.956				
	Total	341	31.256	7.835				
C. AUTONOMY	R5 000 & less	159	31.126	8.576	8.139	0.000	3.620	0.028
	R5 001-R15 000	112	31.983	7.379				
	R15 001 & more	70	34.071	5.412				
	Total	341	32.012	7.690				
C. RESPECT	R5 000 & less	159	23.872	7.566	7.642	0.001	3.075	0.048
	R5 001-R15 000	112	24.950	6.361				
	R15 001 & more	70	26.263	5.683				
	Total	341	24.717	6.871				
C. RESPONSIBILITY	R5000 & less	159	14.133	4.934	1.979	0.140	1.902	0.151

TABLE 8.31 (continued)

8.37

Behavioural domain	Salary	N	Mean	Std. Deviation	Levene's Test		Anova F	Significance p(F)
					F	Sig		
	R5 001-R15 000	112	13.768	4.288				
	R15 001 & more	70	15.114	4.214				
	Total	341	14.215	4.599				
C. REALISTIC EXPECTATIONS	R5 000 & less	159	16.857	4.341	1.586	0.206	0.369	0.692
	R5 001-R15 000	112	16.583	3.956				
	R15 001 & more	70	17.114	3.903				
	Total	341	16.820	4.122				
D. OBEDIENCE	R5 000 & less	159	58.294	6.534	1.993	0.138	0.036	0.965
	R5 001-R15 000	112	58.205	6.249				
	R15 001 & more	70	58.057	5.321				
	Total	341	58.216	6.192				
D. SATISFACTION	R5 000 & less	159	14.116	3.250	4.803	0.009	2.332	0.099
	R5 001-R15 000	112	14.799	2.522				
	R15 001 & more	70	14.786	2.553				
	Total	341	14.478	2.902				
D. PARTICIPATION	R5 000 & less	159	14.054	3.014	4.376	0.013	5.991	0.003
	R5 001-R15 000	112	14.308	2.491				
	R15 001 & more	70	15.386	2.280				
	Total	341	14.411	2.750				
D. LOYALTY	R5 000 & less	159	15.115	4.925	2.924	0.055	2.217	0.111
	R5 001-R15 000	112	14.045	4.408				
	R15 001 & more	70	14.129	3.818				
	Total	341	14.561	4.565				

TABLE 8.32: TUKEY'S HSD MULTIPLE COMPARISON OF SALARY IN RELATION TO DISTRIBUTIVE JUSTICE

(I) SALARY	(J) SALARY	Mean Difference (I-J)	Std. Error	Sig	Practical significance
R5 000 & less	R5 001-R15 000	-2.136	0.944	0.063	0.28
	R15 001 & more	-4.613*	1.098	0.000	0.60
R5 001-R15 000	R5 000 & less	2.136	0.944	0.063	0.28
	R15 001 & more	-2.477	1.166	0.087	
R15 001 & more	R5 000 & less	4.613*	1.098	0.000	0.60
	R5 001-R15 000	2.477	1.166	0.087	

* The mean difference is significant at the 0.05 level.

According to table 8.32, there is a significant difference ($p < 0.001$) in the mean scores relating to *distributive justice* between employees earning R5 000 or less per month and employees earning R15 001 and more per month. The mean scores of employees earning low salaries ($\bar{x} = 29.607$) indicate that distributive justice strongly influences their perceptions of the fairness of AA. They are therefore most concerned about decisions affecting their financial position. Decisions on appointments, promotions, career advancement and training thus have a direct influence on their perceptions of the fairness of AA.

TABLE 8.33: DUNNETT C'S MULTIPLE COMPARISON OF SALARY IN RELATION TO AUTONOMY, RESPECT AND PARTICIPATION

Dependent Variable	(I) SALARY	(J) SALARY	Mean Difference (I-J)	Std. Error	Sig	Practical significance
AUTONOMY	R5 000 & less	R15 001 & more	-2.945*	1.095	0.014	0.39
	R5 001-R15 000	R15 001 & more	-2.088	1.163	0.123	
RESPECT	R5 000 & less	R15 001 & more	-2.390*	0.980	0.027	0.35
	R5 001-R15 000	R15 001 & more	-1.312	1.041	0.325	
PARTICIPATION	R5 000 & less	R15 001 & more	-1.332*	0.389	0.001	0.49
	R5 001-R15 000	R15 001 & more	-1.078*	0.413	0.020	0.40

* The mean difference is significant at the 0.05 level.

There are significant differences ($p < 0.05$) between the various income groups with regard to *autonomy* ($p = 0.014$), *respect* ($p = 0.027$) and *participation* ($p = 0.001$). Employees earning R5 000-00 or less believe that AA employees do not have autonomy or are treated with respect in the workplace. Contrary to this belief, employees earning R15 000-00 or more believe that AA employees do have autonomy and are treated with respect. Since income level correlates highly with staff category and ethnicity, one should guard against concluding that income level influences autonomy, respect and participation without taking into consideration the influence of variables such as staff category and ethnicity. Employees earning R15 000-00 or more appear to be more participative than employees earning less than R15 000-00. Once again, variables such as staff category (management) or ethnicity (whites) could account for the difference in participation.

TABLE 8.34: COMPARISON OF THE MEAN SCORES OF THE THREE **EE APPOINTMENT** GROUPS IN RESPECT OF THE BEHAVIOURAL DOMAINS

Behavioural domain	EE Appointment	N	Mean	Std. Deviation	Levene's Test		Anova F	Significance p(F)
					F	Sig		
B. INTERACTIONAL JUSTICE	Yes	44	33.697	8.732	1.951	0.146	1.597	0.206
	No	44	31.178	6.257				
	Not sure	44	31.021	8.423				
B. PROCEDURAL JUSTICE (Input)	Yes	44	28.963	8.356	2.421	0.093	2.633	0.076
	No	44	25.834	7.376				
	Not sure	44	25.804	6.401				
B. PROCEDURAL JUSTICE (Criteria)	Yes	44	23.869	7.059	0.378	0.686	0.442	0.644
	No	44	22.590	5.988				
	Not sure	44	23.011	6.427				
B. DISTRIBUTIVE JUSTICE	Yes	44	31.897	7.675	1.299	0.276	3.344	0.038
	No	44	32.575	7.372				
	Not sure	44	28.902	6.132				
C. AUTONOMY	Yes	44	32.977	8.485	1.055	0.351	1.381	0.255
	No	44	32.345	6.949				
	Not sure	44	30.302	8.165				
C. RESPECT	Yes	44	25.298	7.719	0.800	0.452	1.388	0.253
	No	44	25.205	6.472				
	Not sure	44	23.054	7.197				
C. RESPONSIBILITY	Yes	44	15.929	4.752	1.111	0.332	4.555	0.012
	No	44	13.996	3.779				
	Not sure	44	13.114	4.819				
C. REALISTIC EXPECTATIONS	Yes	44	17.774	3.990	0.358	0.777	3.777	0.025
	No	44	16.636	4.232				
	Not sure	44	15.301	4.443				
D. OBEDIENCE	Yes	44	58.260	5.562	0.822	0.442	0.761	0.469
	No	44	58.818	5.521				
	Not sure	44	57.264	6.792				

TABLE 8.34 (continued)

8.40

Behavioural domain	EE Appointment	N	Mean	Std. Deviation	Levene's Test		Anova F	Significance p(F)
					F	Sig		
D. SATISFACTION	Yes	44	15.296	2.922	0.869	0.422	2.858	0.061
	No	44	14.568	2.510				
	Not sure	44	13.799	3.319				
D. PARTICIPATION	Yes	44	14.397	2.805	0.120	0.887	0.218	0.805
	No	44	14.375	2.672				
	Not sure	44	14.056	2.651				
D. LOYALTY	Yes	44	15.822	5.318	0.853	0.429	1.747	0.178
	No	44	14.636	4.177				
	Not sure	44	13.938	4.773				

TABLE 8.35: TUKEY'S HSD MULTIPLE COMPARISON OF EMPLOYMENT EQUITY APPOINTMENTS IN RELATION TO DISTRIBUTIVE JUSTICE, RESPONSIBILITY AND EXPECTATIONS

Dependent Variable	(I) EE appointed	(J) EE appointed	Mean Difference (I-J)	Std. Error	Sig.	Practical significance
B. DISTRIBUTIVE JUSTICE	Yes	No Not sure	-0.678 2.996	1.512 1.512	0.895 0.121	
	No	Yes Not sure	0.678 3.674*	1.512 1.512	0.895 0.040	0.51
	Not sure	Yes No	-2.996 -3.674*	1.512 1.512	0.121 0.040	0.51
C. RESPONSIBILITY	Yes	No Not sure	1.933 2.815*	0.954 0.954	0.110 0.010	0.63
	No	Yes Not sure	-1.933 0.882	0.954 0.954	0.110 0.626	
	Not sure	Yes No	-2.815* -0.882	0.954 0.954	0.010 0.626	0.63
C. EXPECTATIONS	Yes	No Not sure	1.138 2.474*	0.901 0.901	0.419 0.020	0.59
	No	Yes Not sure	-1.138 1.336	0.901 0.901	0.419 0.303	
	Not sure	Yes No	-2.474* -1.336	0.901 0.901	0.020 0.303	0.59

* The mean difference is significant at the .05 level.

There are significant differences between AA employees and employees who have not been appointed on the basis of AA with regard to perceptions of distributive justice, the responsibility accorded to AA employees and how realistic managers' expectations are of AA employees' performance. For future research, it would be worthwhile to investigate the role EE appointment plays. Since the size of each subset in the sample was only 44, it could not be regarded as being representative of the population.

8.3.3 Multiple analysis of variance (MANOVA)

As mentioned in the previous chapter, multiple analyses of variance (MANOVA) is utilised to determine the main and interactional effects of partially independent categorical variables on multiple dependent variables. MANOVA is thus a complex statistic similar to ANOVA but with multiple dependent variables analysed together. MANOVA provides a multivariate F-value based on a linear combination of dependent variables, as well as univariate F-values, for each separate dependent variable. The dependent variables should be related conceptually correlated with one another at a low to moderate level. If they are too highly correlated one runs the risk of multicollinearity. If they are uncorrelated there is usually no reason to analyse them together.

The GLM procedure of SPSS (<http://search.marsfind.com/ufts.html>) was used to analyse the differences in the vectors of means between groups in respect of ethnicity, gender, staff category and age in the 12 behavioural domains. Several analyses were performed to investigate the following scenarios:

- (1) As factors *gender* and *ethnic* groups, and as covariates, age, years in current position and at the bank, educational qualification and gross salary.
- (2) As factors *gender* and *staff* groups, and as covariates, age, years in current position and at the bank, educational qualification and gross salary.
- (3) As factors *gender*, *ethnic* and *staff* groups, and as covariates, age, years in current position and at the bank, educational qualification and gross salary.

As a first step it was necessary to perform the Box's M test. This test for homogeneity of variance-covariance matrices indicates that the observed covariance matrices of the dependent variables are equal across the groups and that the assumption of equality has not been violated. Whenever the F-values are significant, the assumption of normality is violated. In such a case nonparametric tests should be used and the GLM procedure should be performed on rank data. In general this was found to be the case in the current study. (<http://www.med.monash.edu.au/psych/research/rda/Nonparametric%20MANOVA.htm>)

As indicated in tables 8.36 to 8.38, all the covariance matrices of the dependent variables are significant and thus unequal. The Box's M test results for the above scenarios are as follows:

TABLE 8.36: BOX'S M TEST OF EQUALITY OF COVARIANCE MATRICES IN RESPECT OF GENDER AND ETHNIC GROUPS

Box M	388.214
F	1.521
df1	234
df2	68710.158
Sig.	0,000

TABLE 8.37: BOX'S M TEST OF EQUALITY OF COVARIANCE MATRICES IN RESPECT OF GENDER AND STAFF GROUPS

Box M	374.606
F	1.462
df1	234
df2	57234.025
Sig.	0,000

TABLE 8.38: BOX'S M TEST OF EQUALITY OF COVARIANCE MATRICES IN RESPECT OF GENDER, ETHNIC AND STAFF GROUPS

Box M	511.97
F	1.463
df1	312
df2	48100.194
Sig.	0,000

Multivariate tests were performed as the next stage in the analyses of rank data.

8.3.3.1 MANOVA: behavioural domains by gender and ethnicity

The factors included *gender* and *ethnicity* groups and the covariates were age, years in current position and bank, educational qualification and gross salary

TABLE 8.39: MANOVA: BEHAVIOURAL DOMAINS BY GENDER AND ETHNICITY

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
Intercept	Pillai's Trace	0.201	6.457	0.000	0.201
	Wilks' Lambda	0.799	6.457	0.000	0.201
	Hotelling's Trace	0.252	6.457	0.000	0.201
	Roy's Largest Root	0.252	6.457	0.000	0.201
Age	Pillai's Trace	0.075	2.093	0.017	0.075
	Wilks' Lambda	0.925	2.093	0.017	0.075
	Hotelling's Trace	0.082	2.093	0.017	0.075
	Roy's Largest Root	0.082	2.093	0.017	0.075
Years in current position	Pillai's Trace	0.027	0.718	0.734	0.027
	Wilks' Lambda	0.973	0.718	0.734	0.027
	Hotelling's Trace	0.028	0.718	0.734	0.027
	Roy's Largest Root	0.028	0.718	0.734	0.027
Years of service at bank	Pillai's Trace	0.013	0.350	0.979	0.013
	Wilks' Lambda	0.987	0.350	0.979	0.013
	Hotelling's Trace	0.014	0.350	0.979	0.013
	Roy's Largest Root	0.014	0.350	0.979	0.013
Education	Pillai's Trace	0.049	1.324	0.203	0.049
	Wilks' Lambda	0.951	1.324	0.203	0.049
	Hotelling's Trace	0.052	1.324	0.203	0.049
	Roy's Largest Root	0.052	1.324	0.203	0.049
Salary	Pillai's Trace	0.066	1.805	0.047	0.066
	Wilks' Lambda	0.934	1.805	0.047	0.066
	Hotelling's Trace	0.070	1.805	0.047	0.066
	Roy's Largest Root	0.070	1.805	0.047	0.066

TABLE 8.39 (continued)

8.44

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
Gender	Pillai's Trace	0.061	1.677	0.071	0.061
	Wilks' Lambda	0.939	1.677	0.071	0.061
	Hotelling's Trace	0.065	1.677	0.071	0.061
	Roy's Largest Root	0.065	1.677	0.071	0.061
Ethnicity	Pillai's Trace	0.143	4.289	0.000	0.143
	Wilks' Lambda	0.857	4.289	0.000	0.143
	Hotelling's Trace	0.167	4.289	0.000	0.143
	Roy's Largest Root	0.167	4.289	0.000	0.143
GENDER * ETHNICITY	Pillai's Trace	0.033	0.873	0.575	0.033
	Wilks' Lambda	0.967	0.873	0.575	0.033
	Hotelling's Trace	0.034	0.873	0.575	0.033
	Roy's Largest Root	0.034	0.873	0.575	0.033

Table 8.39 indicates that there are significant differences ($p < 0.05$) in the vectors of the mean ranks of the subsets of *ethnicity* ($F = 4.289$; $p = 0.000$), *age* ($F = 2.093$; $p = 0.017$) and *salary* ($F = 1.805$; $p = 0.047$). The following variables do not contribute to the explanation of the 12 behavioural domains ($p > 0.05$), namely the interaction between the factors, gender and ethnicity ($F = 0.873$) and the covariates, years of service in current position ($F = 0.718$), years of service at the bank ($F = 0.350$) and educational qualification ($F = 1.324$). When these variables were left out of the analysis, the following results were obtained:

TABLE 8.40: MANOVA: BEHAVIOURAL DOMAINS BY ETHNICITY, AGE AND SALARY

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
Intercept	Pillai's Trace	0.290	10.911	0.000	0.290
	Wilks' Lambda	0.710	10.911	0.000	0.290
	Hotelling's Trace	0.408	10.911	0.000	0.290
	Roy's Largest Root	0.408	10.911	0.000	0.290
ETHNIC	Pillai's Trace	0.171	5.502	0.000	0.171
	Wilks' Lambda	0.829	5.502	0.000	0.171
	Hotelling's Trace	0.206	5.502	0.000	0.171
	Roy's Largest Root	0.206	5.502	0.000	0.171
AGE	Pillai's Trace	0.111	3.351	0.000	0.111
	Wilks' Lambda	0.889	3.351	0.000	0.111
	Hotelling's Trace	0.125	3.351	0.000	0.111
	Roy's Largest Root	0.125	3.351	0.000	0.111
SALARY	Pillai's Trace	0.132	4.066	0.000	0.132
	Wilks' Lambda	0.868	4.066	0.000	0.132
	Hotelling's Trace	0.152	4.066	0.000	0.132
	Roy's Largest Root	0.152	4.066	0.000	0.132

Table 8.41 indicates the results of the tests between subject effects for the dependents measured by ethnicity, age and salary groups per factor.

TABLE 8.41: ANOVA: BEHAVIOURAL DOMAINS BY ETHNICITY, AGE AND SALARY

SOURCE	DEPENDENT VARIABLE	F	SIG <0.01	PARTIAL ETA SQUARED
CORRECTED MODEL	RANK of B. INTERACTIONAL JUSTICE	2.301	0.077	0.020
	RANK of B. PROCEDURAL JUSTICE (Input)	0.972	0.406	0.009
	RANK of B. PROCEDURAL JUSTICE (Criteria)	3.431	0.017	0.030
	RANK of B. DISTRIBUTIVE JUSTICE	25.149	0.000	0.185
	RANK of C. AUTONOMY	11.639	0.000	0.095
	RANK of C. RESPECT	8.504	0.000	0.071
	RANK of C. RESPONSIBILITY	3.874	0.010	0.034
	RANK of C. REALISTIC EXPECTATIONS	1.837	0.140	0.016
	RANK of D. OBEDIENCE	4.528	0.004	0.039
	RANK of D. SATISFACTION	5.660	0.001	0.049
	RANK of D. PARTICIPATION	6.919	0.000	0.059
	RANK of D. LOYALTY	9.803	0.000	0.081
INTERCEPT	RANK of B. INTERACTIONAL JUSTICE	52.422	0.000	0.136
	RANK of B. PROCEDURAL JUSTICE (Input)	58.305	0.000	0.149
	RANK of B. PROCEDURAL JUSTICE (Criteria)	54.683	0.000	0.141
	RANK of B. DISTRIBUTIVE JUSTICE	35.972	0.000	0.098
	RANK of C. AUTONOMY	67.032	0.000	0.168
	RANK of C. RESPECT	46.942	0.000	0.124
	RANK of C. RESPONSIBILITY	62.128	0.000	0.158
	RANK of C. REALISTIC EXPECTATIONS	67.098	0.000	0.168
	RANK of D. OBEDIENCE	45.478	0.000	0.120
	RANK of D. SATISFACTION	20.431	0.000	0.058
	RANK of D. PARTICIPATION	46.371	0.000	0.123
	RANK of D. LOYALTY	18.877	0.000	0.054
ETHNICITY	RANK of B. INTERACTIONAL	3.123	0.078	0.009
	RANK of B. PROCEDURAL JUSTICE (Input)	1.904	0.169	0.006
	RANK of B. PROCEDURAL JUSTICE (Criteria)	4.073	0.044	0.012
	RANK of B. DISTRIBUTIVE JUSTICE	38.580	0.000	0.104
	RANK of C. AUTONOMY	25.441	0.000	0.071
	RANK of C. RESPECT	15.430	0.000	0.044
	RANK of C. RESPONSIBILITY	3.101	0.079	0.009
	RANK of C. REALISTIC EXPECTATIONS	4.141	0.043	0.012
	RANK of D. OBEDIENCE	5.539	0.019	0.016
	RANK of D. SATISFACTION	0.013	0.911	00.00
	RANK of D. PARTICIPATION	7.253	0.010	0.021
	RANK of D. LOYALTY	0.463	0.497	0.001

TABLE 8.41 (continued)

8.46

SOURCE	DEPENDENT VARIABLE	F	SIG <0.01	PARTIAL ETA SQUARED
AGE	RANK of B. INTERACTIONAL	0.297	0.586	0.001
	RANK of B. PROCEDURAL JUSTICE (Input)	0.192	0.662	0.001
	RANK of B. PROCEDURAL JUSTICE (Criteria)	0.068	0.794	0.000
	RANK of B. DISTRIBUTIVE JUSTICE	3.605	0.058	0.011
	RANK of C. AUTONOMY	0.166	0.684	0.000
	RANK of C. RESPECT	1.540	0.216	0.005
	RANK of C. RESPONSIBILITY	0.382	0.537	0.001
	RANK of C. REALISTIC EXPECTATIONS	0.130	0.719	0.000
	RANK of D. OBEDIENCE	3.676	0.056	0.011
	RANK of D. SATISFACTION	12.226	0.001	0.036
	RANK of D. PARTICIPATION	0.275	0.601	0.001
	RANK of D. LOYALTY	23.113	0.000	0.065
SALARY	RANK of B. INTERACTIONAL	0.304	0.582	0.001
	RANK of B. PROCEDURAL JUSTICE (Input)	0.071	0.791	0.000
	RANK of B. PROCEDURAL JUSTICE (Criteria)	1.552	0.214	0.005
	RANK of B. DISTRIBUTIVE JUSTICE	1.215	0.271	0.004
	RANK of C. AUTONOMY	0.948	0.331	0.003
	RANK of C. RESPECT	0.048	0.827	0.000
	RANK of C. RESPONSIBILITY	5.065	0.025	0.015
	RANK of C. REALISTIC EXPECTATIONS	0.223	0.637	0.001
	RANK of D. OBEDIENCE	4.927	0.027	0.015
	RANK of D. SATISFACTION	0.042	0.838	0.000
	RANK of D. PARTICIPATION	3.418	0.065	0.010
	RANK of D. LOYALTY	11.212	0.001	0.033

As indicated in table 8.41, on the 0.01 level of significance, there are significant differences between the ethnic groups with regard to *distributive justice* ($F_{1,347}=38.580$; $p=0.000$), *autonomy* ($F_{1,347}=25.441$; $p=0.000$), *respect* ($F_{1,347}=15.430$; $p=0.000$) and *participation* ($F_{1,347}=7.253$; $p=0.007$). The mean rank scores show that whites regard distributive justice issues ($\bar{x}=206.710$) as crucial to the fairness of AA. In contrast to blacks, whites believe that AA employees are accorded autonomy ($\bar{x}=198.310$) and treated with respect ($\bar{x}=196.300$). Regarding participation, whites ($\bar{x}=190.780$) appear to be more participative than blacks ($\bar{x}=146.570$). As far as age is concerned, people differ in respect of satisfaction and loyalty. Older employees tend to be more satisfied and loyal than their younger counterparts. However, when the effect size of these differences, as measured by partial eta squared, is taken into consideration, the differences have a moderate to small effect ($\eta_p^2 < 0.14$)

8.3.3.2 MANOVA: behavioural domains by gender and staff category

The factors included *gender* and *staff* groups, and the covariates were age, years in current position and at the bank, educational qualification and gross salary.

TABLE 8.42: MANOVA: BEHAVIOURAL DOMAINS BY GENDER AND STAFF

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
Intercept	Pillai's Trace	0.168	5.174	0.000	0.168
	Wilks' Lambda	0.832	5.174	0.000	0.168
	Hotelling's Trace	0.202	5.174	0.000	0.168
	Roy's Largest Root	0.202	5.174	0.000	0.168
Age	Pillai's Trace	0.077	2.132	0.015	0.077
	Wilks' Lambda	0.923	2.132	0.015	0.077
	Hotelling's Trace	0.083	2.132	0.015	0.077
	Roy's Largest Root	0.083	2.132	0.015	0.077
Years in current position	Pillai's Trace	0.025	0.668	0.782	0.025
	Wilks' Lambda	0.975	0.668	0.782	0.025
	Hotelling's Trace	0.026	0.668	0.782	0.025
	Roy's Largest Root	0.026	0.668	0.782	0.025
Years of service at bank	Pillai's Trace	0.023	0.594	0.847	0.023
	Wilks' Lambda	0.977	0.594	0.847	0.023
	Hotelling's Trace	0.023	0.594	0.847	0.023
	Roy's Largest Root	0.023	0.594	0.847	0.023
Education	Pillai's Trace	0.043	1.146	0.322	0.043
	Wilks' Lambda	0.957	1.146	0.322	0.043
	Hotelling's Trace	0.045	1.146	0.322	0.043
	Roy's Largest Root	0.045	1.146	0.322	0.043
Salary	Pillai's Trace	0.049	1.312	0.210	0.049
	Wilks' Lambda	0.951	1.312	0.210	0.049
	Hotelling's Trace	0.051	1.312	0.210	0.049
	Roy's Largest Root	0.051	1.312	0.210	0.049
Gender	Pillai's Trace	0.054	1.454	0.140	0.054
	Wilks' Lambda	0.946	1.454	0.140	0.054
	Hotelling's Trace	0.057	1.454	0.140	0.054
	Roy's Largest Root	0.057	1.454	0.140	0.054
Staff	Pillai's Trace	0.061	1.669	0.073	0.061
	Wilks' Lambda	0.939	1.669	0.073	0.061
	Hotelling's Trace	0.065	1.669	0.073	0.061
	Roy's Largest Root	0.065	1.669	0.073	0.061
GENDER * STAFF	Pillai's Trace	0.019	0.501	0.913	0.019
	Wilks' Lambda	0.981	0.501	0.913	0.019
	Hotelling's Trace	0.020	0.501	0.913	0.019
	Roy's Largest Root	0.020	0.501	0.913	0.019

With reference to table 8.42, the following variables do not affect the behavioural domains: years of service in current position ($p=0.782$), years of service at the bank ($p=0.847$), educational qualification ($p=0.322$), salary ($p=0.210$) and gender * staff ($p=0.913$).

Table 8.43 indicates the results of multivariate tests that have excluded the above variables, except for gender.

TABLE 8.43: MANOVA: BEHAVIOURAL DOMAINS BY AGE, GENDER AND STAFF

EFFECT		VALUE	F	SIG	PARTIAL ETA
				<0.05	SQUARED
Intercept	Pillai's Trace	0.245	8.848	0.000	0.245
	Wilks' Lambda	0.755	8.848	0.000	0.245
	Hotelling's Trace	0.324	8.848	0.000	0.245
	Roy's Largest Root	0.324	8.848	0.000	0.245
Age	Pillai's Trace	0.126	3.928	0.000	0.126
	Wilks' Lambda	0.874	3.928	0.000	0.126
	Hotelling's Trace	0.144	3.928	0.000	0.126
	Roy's Largest Root	0.144	3.928	0.000	0.126
Gender	Pillai's Trace	0.069	2.024	0.022	0.069
	Wilks' Lambda	0.931	2.024	0.022	0.069
	Hotelling's Trace	0.074	2.024	0.022	0.069
	Roy's Largest Root	0.074	2.024	0.022	0.069
Staff	Pillai's Trace	0.124	3.876	0.000	0.124
	Wilks' Lambda	0.876	3.876	0.000	0.124
	Hotelling's Trace	0.142	3.876	0.000	0.124
	Roy's Largest Root	0.142	3.876	0.000	0.124

Table 8.44 indicates the results of the test between subject effects for the dependents by age, gender and staff groups.

TABLE 8.44: ANOVA: BEHAVIOURAL DOMAINS BY AGE, GENDER AND STAFF

SOURCE	DEPENDENT VARIABLE	F	SIG	PARTIAL
			<0.01	ETA
				SQUARED
CORRECTED MODEL	RANK of B. INTERACTIONAL	2.953	0,033	0.025
	RANK of B. PROCEDURAL JUSTICE (Input)	1.857	0.137	0.016
	RANK of B. PROCEDURAL JUSTICE (Criteria)	2.701	0.046	0.023
	RANK of B. DISTRIBUTIVE	13.770	0.000	0.109
	RANK of C. AUTONOMY	3.299	0.021	0.028
	RANK of C. RESPECT	3.840	0.010	0.033
	RANK of C. RESPONSIBILITY	1.429	0.234	0.012
	RANK of C. REALISTIC EXPECTATIONS	0.439	0.725	0.004
	RANK of D. OBEDIENCE	3.908	0.009	0.033
	RANK of D. SATISFACTION	6.866	0.000	0.057
	RANK of D. PARTICIPATION	4.986	0.002	0.042
	RANK of D. LOYALTY	13.270	0.000	0.105

TABLE 8.44 (continued)

8.49

SOURCE	DEPENDENT VARIABLE	F	SIG <0.01	PARTIAL ETA SQUARED
INTERCEPT	RANK of B. INTERACTIONAL	46.630	0.000	0.121
	RANK of B. PROCEDURAL JUSTICE (Input)	47.860	0.000	0.124
	RANK of B. PROCEDURAL JUSTICE (Criteria)	47.260	0.000	0.122
	RANK of B. DISTRIBUTIVE	23.140	0.000	0.064
	RANK of C. AUTONOMY	45.290	0.000	0.118
	RANK of C. RESPECT	32.540	0.000	0.088
	RANK of C. RESPONSIBILITY	59.850	0.000	0.150
	RANK of C. REALISTIC EXPECTATIONS	46.250	0.000	0.120
	RANK of D. OBEDIENCE	30.030	0.000	0.081
	RANK of D. SATISFACTION	19.180	0.000	0.054
	RANK of D. PARTICIPATION	45.340	0.000	0.118
	RANK of D. LOYALTY	7.624	0.006	0.022
AGE	RANK of B. INTERACTIONAL	0.905	0.342	0.003
	RANK of B. PROCEDURAL JUSTICE (Input)	0.610	0.435	0.002
	RANK of B. PROCEDURAL JUSTICE (Criteria)	0.866	0.353	0.003
	RANK of B. DISTRIBUTIVE	12.350	0.001	0.035
	RANK of C. AUTONOMY	1.404	0.237	0.004
	RANK of C. RESPECT	4.733	0.030	0.014
	RANK of C. RESPONSIBILITY	0.000	0.943	0.000
	RANK of C. REALISTIC EXPECTATIONS	1.000	0.318	0.003
	RANK of D. OBEDIENCE	5.174	0.024	0.015
	RANK of D. SATISFACTION	13.150	0.000	0.037
	RANK of D. PARTICIPATION	1.691	0.194	0.005
	RANK of D. LOYALTY	28.520	0.000	0.078
GENDER	RANK of B. INTERACTIONAL	3.612	0.058	0.011
	RANK of B. PROCEDURAL JUSTICE (Input)	4.358	0.038	0.013
	RANK of B. PROCEDURAL JUSTICE (Criteria)	2.202	0.139	0.006
	RANK of B. DISTRIBUTIVE	0.875	0.350	0.003
	RANK of C. AUTONOMY	0.613	0.434	0.002
	RANK of C. RESPECT	2.144	0.144	0.006
	RANK of C. RESPONSIBILITY	0.000	0.932	0.000
	RANK of C. REALISTIC EXPECTATIONS	0.250	0.617	0.001
	RANK of D. OBEDIENCE	6.440	0.012	0.019
	RANK of D. SATISFACTION	4.572	0.033	0.013
	RANK of D. PARTICIPATION	0.166	0.684	0.000
	RANK of D. LOYALTY	8.878	0.003	0.026
STAFF	RANK of B. INTERACTIONAL	3.680	0.056	0.011
	RANK of B. PROCEDURAL JUSTICE (Input)	0.836	0.361	0.002
	RANK of B. PROCEDURAL JUSTICE (Criteria)	3.809	0.052	0.011
	RANK of B. DISTRIBUTIVE	11.240	0.001	0.032
	RANK of C. AUTONOMY	4.578	0.033	0.013
	RANK of C. RESPECT	1.809	0.180	0.005
	RANK of C. RESPONSIBILITY	3.171	0.076	0.009
	RANK of C. REALISTIC EXPECTATIONS	0.264	0.608	0.001
	RANK of D. OBEDIENCE	0.000	0.957	0.000
	RANK of D. SATISFACTION	0.277	0.599	0.001
	RANK of D. PARTICIPATION	6.095	0.014	0.018
	RANK of D. LOYALTY	7.948	0.005	0.023

Table 8.44 shows that on the 0.01 significant level, differences exist between the age, staff category and gender groups in respect of the behavioural domains. Older employees appear to be more concerned about *distributive justice* issues ($F_{3,343}=12.350$; $p=0.000$) and are more *satisfied* ($F_{3,343}=13.150$; $p=0.000$) and *loyal* ($F_{3,343}=28.520$; $p=0.000$). Although there are significant differences between the views of managers ($\bar{x}=207.060$) and clerical staff ($\bar{x}=121.540$) about the way *distributive issues* ($F_{1,347}=11.240$; $p=0.000$) influence perceptions of AA fairness, this difference has a low effect size ($\eta_p^2=0.032$). The mean rank scores indicate that clerical staff ($\bar{x}=183.380$) are more loyal than managerial staff ($\bar{x}=166.490$), but as in the previous case, the effect size ($\eta_p^2=0.023$) is minimal.

Regarding gender, there are significant differences in respect of loyalty ($F_{1,347}=8.878$; $p=0.000$). According to the mean rank scores, women ($\bar{x}=177.980$) are far more loyal than men ($\bar{x}=155.310$). The effect size, however, is minimal ($\eta_p^2=0.026$). Only age has a medium effect on the perceptions of the respondents regarding loyalty to the bank.

8.3.3.3 MANOVA: behavioural domains by gender, ethnicity and staff category

The factors included *gender, ethnicity and staff category* and the covariates were age, years service in current position, years service at bank, educational qualification and salary.

TABLE 8.45: MANOVA: BEHAVIOURAL DOMAINS BY GENDER, ETHNICITY AND STAFF

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
Intercept	Pillai's Trace	0.179	5.533	0.000	0.179
	Wilks's Lambda	0.821	5.533	0.000	0.179
	Hotelling's Trace	0.218	5.533	0.000	0.179
	Roy's Largest Root	0.218	5.533	0.000	0.179
Age	Pillai's Trace	0.078	2.145	0.140	0.078
	Wilks's Lambda	0.922	2.145	0.140	0.078
	Hotelling's Trace	0.085	2.145	0.140	0.078
	Roy's Largest Root	0.085	2.145	0.010	0.078
Years in current position	Pillai's Trace	0.026	0.681	0.770	0.026
	Wilks's Lambda	0.974	0.681	0.770	0.026
	Hotelling's Trace	0.027	0.681	0.770	0.026
	Roy's Largest Root	0.027	0.681	0.770	0.026
Years of service at bank	Pillai's Trace	0.015	0.382	0.969	0.015
	Wilks's Lambda	0.985	0.382	0.969	0.015
	Hotelling's Trace	0.015	0.382	0.969	0.015
	Roy's Largest Root	0.015	0.382	0.969	0.015
Qualification	Pillai's Trace	0.040	1.056	0.397	0.040
	Wilks's Lambda	0.960	1.056	0.397	0.040
	Hotelling's Trace	0.042	1.056	0.397	0.040
	Roy's Largest Root	0.042	1.056	0.397	0.040

TABLE 8.45 (continued)

8.51

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
Salary	Pillai's Trace	0.050	1.324	0.204	0.050
	Wilks's Lambda	0.950	1.324	0.204	0.050
	Hotelling's Trace	0.052	1.324	0.204	0.050
	Roy's Largest Root	0.052	1.324	0.204	0.050
Ethnicity	Pillai's Trace	0.121	3.483	0.000	0.121
	Wilks's Lambda	0.879	3.483	0.000	0.121
	Hotelling's Trace	0.137	3.483	0.000	0.121
	Roy's Largest Root	0.137	3.483	0.000	0.121
Staff	Pillai's Trace	0.062	1.663	0.070	0.062
	Wilks's Lambda	0.938	1.663	0.070	0.062
	Hotelling's Trace	0.066	1.663	0.070	0.062
	Roy's Largest Root	0.066	1.663	0.070	0.062
Gender	Pillai's Trace	0.046	1.220	0.268	0.046
	Wilks's Lambda	0.954	1.220	0.268	0.046
	Hotelling's Trace	0.048	1.220	0.268	0.046
	Roy's Largest Root	0.048	1.220	0.268	0.046
ETHNICITY * STAFF	Pillai's Trace	0.048	1.283	0.227	0.048
	Wilks's Lambda	0.952	1.283	0.227	0.048
	Hotelling's Trace	0.051	1.283	0.227	0.048
	Roy's Largest Root	0.051	1.283	0.227	0.048
ETHNICITY * GENDER	Pillai's Trace	0.042	1.121	0.342	0.042
	Wilks's Lambda	0.958	1.121	0.342	0.042
	Hotelling's Trace	0.044	1.121	0.342	0.042
	Roy's Largest Root	0.044	1.121	0.342	0.042
STAFF * GENDER	Pillai's Trace	0.023	0.601	0.841	0.023
	Wilks's Lambda	0.977	0.601	0.841	0.023
	Hotelling's Trace	0.024	0.601	0.841	0.023
	Roy's Largest Root	0.024	0.601	0.841	0.023
ETHNICITY * STAFF * GENDER	Pillai's Trace	0.028	0.725	0.727	0.028
	Wilks's Lambda	0.972	0.725	0.727	0.028
	Hotelling's Trace	0.029	0.725	0.727	0.028
	Roy's Largest Root	0.029	0.725	0.727	0.028

Based on the results of the multivariate tests, the following variables do not affect the behavioural domains: number of years of service in current position ($p=0.770$), years of service at bank ($p=0.969$), educational qualification ($p=0.397$), salary ($p=0.204$), gender ($p=0.268$), as well as the following interactions: ethnicity * gender ($p=0.342$), staff * gender ($p=0.841$), and ethnicity * staff * gender ($p=0.727$). With the exception of staff, the variables which do not affect the behavioural domains were deleted and the following multivariate results obtained:

TABLE 8.46: MANOVA: BEHAVIOURAL DOMAINS BY ETHNICITY, STAFF AND AGE

EFFECT		VALUE	F	SIG <0.05	PARTIAL ETA SQUARED
INTERCEPT	Pillai's Trace	0.274	10.333	0.000	0.274
	Wilks's Lambda	0.726	10.333	0.000	0.274
	Hotelling's Trace	0.378	10.333	0.000	0.274
	Roy's Largest Root	0.378	10.333	0.000	0.274
ETHNICITY	Pillai's Trace	0.161	5.234	0.000	0.161
	Wilks's Lambda	0.839	5.234	0.000	0.161
	Hotelling's Trace	0.191	5.234	0.000	0.161
	Roy's Largest Root	0.191	5.234	0.000	0.161
STAFF	Pillai's Trace	0.125	3.913	0.000	0.125
	Wilks's Lambda	0.875	3.913	0.000	0.125
	Hotelling's Trace	0.143	3.913	0.000	0.125
	Roy's Largest Root	0.143	3.913	0.000	0.125
AGE	Pillai's Trace	0.098	2.978	0.001	0.098
	Wilks's Lambda	0.902	2.978	0.001	0.098
	Hotelling's Trace	0.109	2.978	0.001	0.098
	Roy's Largest Root	0.109	2.978	0.001	0.098

TABLE 8.47: ANOVA: BEHAVIOURAL DOMAINS BY ETHNICITY, STAFF AND AGE

SOURCE	DEPENDENT VARIABLE	F	SIG <0.01	PARTIAL ETA SQUARED
ETHNICITY	RANK of B. INTERACTIONAL	2.556	0.111	0.007
	RANK of B. PROCEDURAL JUSTICE (Input)	1.687	0.195	0.005
	RANK of B. PROCEDURAL JUSTICE (Criteria)	3.387	0.070	0.010
	RANK of B. DISTRIBUTIVE JUSTICE	35.430	0.000	0.095
	RANK of C. AUTONOMY	25.413	0.000	0.070
	RANK of C. RESPECT	15.327	0.000	0.043
	RANK of C. RESPONSIBILITY	3.619	0.060	0.011
	RANK of C. REALISTIC EXPECTATIONS	7.264	0.000	0.021
	RANK of D. OBEDIENCE	5.416	0.020	0.016
	RANK of D. SATISFACTION	0.017	0.897	0.000
	RANK of D. PARTICIPATION	5.769	0.020	0.017
	RANK of D. LOYALTY	1.817	0.179	0.005
STAFF	RANK of B. INTERACTIONAL	0.700	0.403	0.002
	RANK of B. PROCEDURAL JUSTICE (Input)	0.010	0.925	0.000
	RANK of B. PROCEDURAL JUSTICE (Criteria)	0.817	0.367	0.002
	RANK of B. DISTRIBUTIVE JUSTICE	1.419	0.234	0.004
	RANK of C. AUTONOMY	0.071	0.789	0.000
	RANK of C. RESPECT	0.133	0.716	0.000
	RANK of C. RESPONSIBILITY	1.195	0.275	0.004
	RANK of C. REALISTIC EXPECTATIONS	2.384	0.124	0.007
	RANK of D. OBEDIENCE	1.953	0.163	0.006
	RANK of D. SATISFACTION	0.000	0.994	0.000
	RANK of D. PARTICIPATION	3.032	0.080	0.009
	RANK of D. LOYALTY	15.715	0.000	0.044

TABLE 8.47 (continued)

8.53

SOURCE	DEPENDENT VARIABLE	F	SIG <0.01	PARTIAL ETA SQUARED
AGE	RANK of B. INTERACTIONAL	0.240	0.624	0.001
	RANK of B. PROCEDURAL JUSTICE (Input)	0.162	0.687	0.000
	RANK of B. PROCEDURAL JUSTICE (Criteria)	0.169	0.681	0.000
	RANK of B. DISTRIBUTIVE JUSTICE	3.953	0.050	0.012
	RANK of C. AUTONOMY	0.021	0.885	0.000
	RANK of C. RESPECT	1.220	0.270	0.004
	RANK of C. RESPONSIBILITY	0.186	0.666	0.001
	RANK of C. REALISTIC EXPECTATIONS	0.070	0.792	0.000
	RANK of D. OBEDIENCE	2.470	0.117	0.007
	RANK of D. SATISFACTION	12.270	0.000	0.035
	RANK of D. PARTICIPATION	0.402	0.527	0.001
	RANK of D. LOYALTY	22.435	0.000	0.062

According to table 8.47, there are significant differences ($p < 0.01$) between the mean rank scores of whites ($\bar{x} = 207.350$) and blacks ($\bar{x} = 120.420$) in respect of distributive justice issues ($F_{1,347} = 35.430$; $p = 0.000$). Whites regard distributive justice issues as crucial when forming perceptions about the fairness of AA. Whites and blacks also have different perceptions of the way AA employees are treated in respect of *autonomy* ($F_{1,347} = 25.413$; $p = 0.000$) and *respect* ($F_{1,347} = 15.327$; $p = 0.000$). Contrary to what blacks feel, whites believe that AA employees are treated with respect ($\bar{x} = 195.140$), have autonomy in their jobs ($\bar{x} = 198.220$) and supervisors do have realistic expectations ($\bar{x} = 185.070$) of them.

The only significant difference between the views management and clerical staff has to do with loyalty ($F_{1,346} = 15.715$; $p < 0.001$). According to the mean rank scores, clerical staff ($\bar{x} = 183.380$) appear to be more loyal and would thus be less inclined to resign. However, when the effect size of the above differences is taken into consideration, all the differences seem to have a moderate to small effect on the behavioural domains ($\eta_p^2 < 0.14$).

Regarding the analysis of all the MANOVAs and ANOVAs, it is clear that there are primarily three biographical variables that affect employees' perceptions of the fairness of AA, namely ethnicity, staff category and age. All three of these biographical variables have medium effect sizes which need to be considered for their practical implications.

8.4 ASSOCIATIONAL STATISTICS

8.4.1 Correlation

The product-moment correlation coefficients between the various factors were determined. The results are provided in tables 8.48 to 8.50. In instances where the distribution of scores was skewed, Spearman's rank order correlations were computed. Cohen (1985) sets a cutoff point of 0.30 (medium effect) for the practical significance of correlation coefficients.

TABLE 8.48: CORRELATIONS BETWEEN JUSTICE AND TREATMENT IN THE WORKPLACE

	Pearson correlation	AUTONOMY	RESPECT	RESPONSI- BILITY	REALISTIC EXPECTATIONS
INTERACTIONAL JUSTICE	Pearson Correlation Sig. (2-tailed) N	.610* .000 349	.588* .000 349	.398* .000 349	.478* .000 349
PROCEDURAL JUSTICE: (Input)	Pearson Correlation Sig. (2-tailed) N	.516* .000 349	.534* .000 349	.346* .000 349	.470* .000 349
PROCEDURAL JUSTICE: (Criteria)	Pearson Correlation Sig. (2-tailed) N	.558* .000 349	.543* .000 349	.369* .000 349	.493* .000 349
DISTRIBUTIVE JUSTICE	Pearson Correlation Sig. (2-tailed) N	.422* .000 349	.394* .000 349	.224* .000 349	.196* .000 349

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

As expected, the way AA employees are treated in the workplace plays a major role in employees' perceptions of the fairness of AA with regard to interpersonal relationships. The correlation analysis between AA fairness perceptions and treatment of AA employees in the workplace supports research findings by Skarlicki and Folger (1997) which emphasised that when supervisors show adequate sensitivity towards and concern for employees, treating them with dignity and respect, these employees seem more willing to tolerate injustices such as unfair pay distribution and unfair procedures that would otherwise contribute to poor commitment. It is thus possible to conclude that a supervisor personifies the organisation for an employee.

Table 8.48 indicates a significant and positive relationship between procedural justice and the treatment of AA employees in the workplace. The results suggest that procedural and interactional justice are capable of functioning as substitutes for each other.¹ Distributive justice, however, interacted only at low levels with responsibility ($r=0.224$) and realistic expectations ($r=0.196$). The association is not of practical significance ($r<0.30$).

A corollary of this implication is that perceptions of fairness based on interactional justice may be the easiest perceptions of fairness to manage. Distribution of outcomes may be constrained by forces outside the manager's control. Similarly, the presence or absence of fair procedures may be a function of organisation policy. By comparison, the fairness of the interactions between managers and employees is often a matter of a manager's being sensitive to the interests of the employees and convincing them that it is in the manager's interest to be fair.

¹ The intercorrelation coefficients of all the behavioural factors are set out in annexure C.

TABLE 8.49: CORRELATIONS BETWEEN JUSTICE AND COMMITMENT

Spearman's rank order		OBEDIENCE	SATISFACTION	PARTICIPATION	LOYALTY
Nonparametric correlations					
INTERACTIONAL JUSTICE	Correlation	.304*	.353*	.286*	.234*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	349	349	349	349
PROCEDURAL (Input)	Correlation	.207*	.312*	.245*	.193*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	349	349	349	349
PROCEDURAL (Criteria)	Correlation	.215*	.339*	.233*	.161*
	Sig. (2-tailed)	.000	.000	.000	.002
	N	349	349	349	349
DISTRIBUTIVE JUSTICE	Correlation	.280*	.231*	.289*	.123
	Sig. (2-tailed)	.000	.000	.000	.022
	N	349	349	349	349

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

The correlation coefficients in table 8.49 indicate that all the factors are positively correlated. On the 0.30 cutoff point for practical significance of the correlation coefficient, distributive justice does not appear to have a major effect on the commitment of employees. There is, however, a significant relationship between interactional justice and employees' behaviour with regard to obedience ($r=0.304$) and satisfaction ($r=0.353$). Satisfaction appears to be a direct result of the way employees are treated ($r=0.353$), the opportunities they are afforded to provide input ($r=0.312$) and the criteria used to make decisions ($r=0.339$). In this regard, it is interesting to note that distributive justice does not have a significant influence on employees' loyalty ($r=0.123$), since they seem to be much more concerned about the way they are treated. According to table 8.49, employees appear to be more obedient ($r=0.304$) when they perceive interactions to be fair.

TABLE 8.50: CORRELATIONS BETWEEN TREATMENT OF AA EMPLOYEES IN THE WORKPLACE AND COMMITMENT

Spearman's rank order		OBEDIENCE	SATISFACTION	PARTICIPATION	LOYALTY
Nonparametric correlations					
AUTONOMY	Correlation Coefficient	.340*	.398*	.404*	.201*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	349	349	349	349
RESPECT	Correlation Coefficient	.351*	.391*	.348*	.205*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	349	349	349	349
RESPONSIBILITY	Correlation Coefficient	.228*	.281*	.299*	.203*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	349	349	349	349
EXPECTATIONS	Correlation Coefficient	.300*	.371*	.327*	.173*
	Sig. (2-tailed)	.000	.000	.000	.001
	N	349	349	349	349

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

The correlation coefficients in table 8.50 indicate that there is a positive and significant relationship ($r > 0.30$) between the treatment of AA employees and commitment. According to this table, the autonomy AA employees have, plays a major role in their commitment when it comes to obedience ($r = 0.340$), satisfaction ($r = 0.398$) and participation ($r = 0.404$). There is also a positive and significant relationship ($r > 0.30$) between respect shown and obedience ($r = 0.351$), satisfaction ($r = 0.391$) and participation ($r = 0.348$). AA employees appear to be more satisfied ($r = 0.371$), obedient ($r = 0.300$) and participative ($r = 0.327$) when the employer has realistic expectations of them.

8.4.2 Multiple regression

The scores in respect of the treatment of AA employees in the workplace were used to predict employees' perceptions about the fairness of AA. Organisational justice consists of four dimensions, namely interactional justice, procedural justice: criteria, procedural justice: input and distributive justice. Each of these forms of justice was used as a dependent (criterion) variable and the factors relating to treatment in the workplace as independent (predictor) variables. The results and conclusions of these multiple regression models are as follows:

8.4.2.1 Multiple regression of treatment of AA employees in the workplace with interactional justice perceptions

TABLE 8.51: MULTIPLE REGRESSION OF TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH INTERACTIONAL JUSTICE PERCEPTIONS

Regression model: interactional justice			R = 0.638	R ² = 0.408	f ² = 0.69*	df = 2.346
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				9.784		
Autonomy	0.610	0.372	205.360	0.411	<0.001	37.2
Respect	0.638	0.408	119.029	0.351	<0.001	3.6

* Practical significance: $f^2 \geq 0.35$ (large effect)

As indicated by the value of multiple correlation, there is a significant relationship ($p < 0.001$) between the independent variables autonomy and respect and the dependent variable, interactional justice. The more autonomy employees have and respect they are shown, the more likely they are to perceive AA as interactionally fair. Autonomy explains 37.2 percent of the variance in the perceptions of interactional justice whereas respect explains 3.6 percent of the variance. It is interesting to note that perceptions of the interactional fairness of AA are not influenced by ethnicity or staff category. The multiple correlation of 0.64 is practically significant ($f^2 = 0.69$) (large effect). Table 8.51 shows that autonomy and respect for AA employees are the best predictors of interactional justice perceptions.

8.4.2.2 *Multiple regression of treatment of AA employees in the workplace with procedural justice (input) perceptions*

TABLE 8.52: MULTIPLE REGRESSION OF TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH PROCEDURAL JUSTICE (INPUT) PERCEPTIONS

Regression model: Procedural justice (inputs)			R = 0.567	R ² = 0.321	f ² = 0.47*	df = 3.345
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				7.156		
Respect	0.534	0.285	138.518	0.357	<0.001	28.5
Autonomy	0.560	0.313	78.934	0.191	<0.001	2.8
Realistic expectations	0.567	0.321	54.403	0.261	<0.001	0.8

* Practical significance: $f^2 \geq 0.35$ (large effect)

As indicated by the value of the multiple correlation, there is a significant relationship ($p < 0.001$) between the independent variables respect, autonomy and realistic expectations and the dependent variable, procedural justice:input. The more respect and autonomy employees have and the more realistic expectations are about their performance, the more likely they will be to perceive that they have had an opportunity to influence AA decisions. Respect explains 28.5 percent, autonomy 2.8 percent and realistic expectations 0.8 percent of the variance in the perceptions of the procedural fairness of AA. Ethnicity and staff category do not play a role in influencing employees' perceptions about how fair the opportunities they are afforded to provide input are. The multiple correlation of 0.57 is practically significant with a large effect size ($f^2 = 0.47$).

8.4.2.3 *Multiple regression of the treatment of AA employees in the workplace on procedural justice (criteria) perceptions*

TABLE 8.53: MULTIPLE REGRESSION OF TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH PROCEDURAL JUSTICE (CRITERIA) PERCEPTIONS

Regression model: Procedural justice (criteria)			R = 0.593	R ² = 0.351	f ² = 0.54*	df = 3.345
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				5.018		
Autonomy	0.558	0.285	156.867	0.250	<0.001	31.1
Respect	0.586	0.313	90.691	0.261	<0.001	3.3
Realistic expectations	0.593	0.321	62.260	0.224	<0.001	0.7

* Practical significance: $f^2 \geq 0.35$ (large effect)

There is a significant multiple correlation ($p < 0.001$) between the independent variables autonomy, respect and realistic expectations and the dependent variable, procedural justice:criteria. The more autonomy and respect employees have, and the more realistic expectations about their performance are, the more likely they are to perceive the criteria used in making AA decisions to be fair. Autonomy explains 31.1 percent, respect 3.3 percent and realistic expectations 0.7 percent of the variance in the perceptions of the fairness of the criteria used to make AA decisions. Ethnicity and staff category, however, do not influence employees' perceptions of the fairness of the criteria used. The multiple correlation of 0.59 is practically significant ($f^2 = 0.54$) (large effect).

8.4.2.4 Multiple regression of ethnicity and the treatment of AA employees in the workplace with distributive justice perceptions

TABLE 8.54: MULTIPLE REGRESSION OF ETHNICITY AND THE TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH DISTRIBUTIVE JUSTICE PERCEPTIONS

Regression model: distributive justice			R = 0.547	R ² = 0.299	f ² = 0.43*	df = 4.344
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				18.783		
Autonomy	0.442	0.178	75.086	0.371	<0.001	17.8
Ethnicity	0.517	0.267	62.950	4.543	<0.001	8.9
Realistic expectations	0.330	0.284	45.709	-0.454	<0.001	1.8
Respect	0.547	0.299	36.662	0.218	<0.001	1.4

* Practical significance: $f^2 \geq 0.35$ (large effect)

Ethnicity was coded as a dummy variable. Binary codes 1 and 0 were used where whites were coded as 1 and blacks as 0, 1 presenting the omitted reference group. A significant beta coefficient for any included group means that the group is significantly different from the reference group. There is a significant multiple correlation ($p < 0.001$) between the independent variables of autonomy, ethnicity, realistic expectations and respect and the dependent variable, distributive justice. According to the regression model, it would seem that the more autonomy employees have, the more likely they will be to perceive AA decisions as fair. Autonomy explains 17.8 percent and the other variables 12.1 percent of the variance in employees' perceptions of the fairness of AA decisions. The results indicate that ethnicity does play a prominent role when employees form perceptions of the fairness of AA. This makes sense because blacks are more likely to perceive decisions taken about AA to be fair compared with whites. The multiple correlation of 0.55 of the regression model is practically significant with a large effect size ($f^2 = 0.43$)

Attempts were also made to determine how justice perceptions and treatment of AA employees relate to employees' commitment. The factors pertaining organisational justice and treatment of AA employees in the workplace were correlated with commitment. The results and conclusions of these multiple regression models are as follows:

8.3.2.5 *Multiple regression of justice perceptions and treatment in the workplace with obedience***TABLE 8.55: MULTIPLE REGRESSION OF JUSTICE PERCEPTIONS AND TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH OBEDIENCE**

Regression model: Obedience			R = 0.378	R ² = 0.143	f ² = 0.17*	df = 3.345
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				46.663		
Autonomy	0.339	0.115	44.990	0.165	<0.001	11.5
Distributive justice	0.364	0.133	26.470	0.103	<0.001	1.8
Interactional justice	0.378	0.143	19.150	0.096	<0.001	1.0

* Practical significance: $f^2 < 0.35$; $f^2 \geq 0.15$ (medium effect)

There is a significant multiple correlation ($p < 0.001$) between the independent variables autonomy, distributive and interactional justice and the dependent variable, obedience. The autonomy employees are accorded, and how fair they perceive AA decisions to be, including how well they are treated in the workplace, have a positive relationship with their willingness to obey rules and regulations. Autonomy explains 11.5 percent, distributive justice 1.8 percent and interactional justice 1.0 percent of the variance in employees' obedience levels. Employees' preparedness to adhere to rules and conform to group norms are thus a direct result of the way they are treated in terms of the type of jobs they are assigned, the opportunity afforded to apply their skills and competencies and to determine their own work pace and methods. Obedience is also influenced by the outcome of AA decisions (distributive fairness). It is worthwhile noting that obedience is not influenced by ethnicity or staff category. The multiple correlation of 0.38 is practically significant ($f^2 = 0.17$) (medium effect).

8.4.2.6 *Multiple regression of justice perceptions and treatment in the workplace with satisfaction***TABLE 8.56: MULTIPLE REGRESSION OF JUSTICE PERCEPTIONS AND TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH SATISFACTION**

Regression model: satisfaction			R = 0.447	R ² = 0.200	f ² = 0.25*	df = 2.346
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				8.686		
Autonomy	0.422	0.178	75.309	0.116	<0.001	17.8
Interactional justice	0.447	0.200	43.163	0.065	<0.001	2.1

* Practical significance: $f^2 < 0.35$; $f^2 \geq 0.15$ (medium effect)

There is a significant multiple correlation ($p < 0.001$) between the independent variables autonomy and interactional justice and the dependent variable, satisfaction. The more autonomy employees have, and the more they are treated in an interactionally fair manner, the more satisfied they will be. Autonomy explains 17.8 percent and interactional justice 2.1 percent of the variance in employees' satisfaction levels. As in the case of obedience, ethnicity or staff category do not influence employees' satisfaction levels. The multiple correlation of 0.44 is practically significant ($f^2 = 0.25$) (medium effect).

8.4.2.7 Multiple regression of staff category, justice perceptions and treatment of AA employees in the workplace with participation

TABLE 8.57: MULTIPLE REGRESSION OF STAFF CATEGORY, JUSTICE PERCEPTIONS AND TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH PARTICIPATION

Regression model: participation			R = 0.427	R ² = 0.182	f ² = 0.22*	df = 2.346
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				10.485		
Autonomy	0.403	0.163	67.400	0.135	<0.001	16.3
Staff category	0.427	0.182	38.539	-0.772	<0.001	2.0

* Practical significance: $f^2 < 0.35$; $f^2 \geq 0.15$ (medium effect)

There is a significant multiple correlation ($p < 0.001$) between the independent variables, autonomy and staff category and the dependent variable, participation. The autonomy employees have and their job category, have a direct influence on their preparedness to participate in work-related matters. Autonomy explains 16.3 percent and staff category 2.0 percent of the variance in employees' participation scores. The negative beta coefficient for the predictor staff category indicates that management tend to be more participative than clerical staff. The regression model has a medium effect size of $f^2 = 0.22$.

8.4.2.8 Multiple regression of age, staff category, justice perceptions and treatment of AA employees in the workplace with loyalty

TABLE 8.58: MULTIPLE REGRESSION OF AGE, STAFF CATEGORY, JUSTICE PERCEPTIONS AND TREATMENT OF AA EMPLOYEES IN THE WORKPLACE WITH LOYALTY

Regression model: loyalty			R = 0.393	R ² = 0.154	f ² = 0.18*	df = 4.338
Predictor variables	R	R ²	F	Beta	p	% Variance
(Constant)				3.433		
Interactional justice	0.262	0.069	25.150	0.120	<0.001	6.9
Age	0.316	0.100	18.816	0.124	<0.001	3.1
Staff category	0.379	0.143	18.917	2.210	<0.001	4.4
Responsibility	0.393	0.154	15.437	0.114	<0.001	1.1

* Practical significance: $f^2 < 0.35$; $f^2 \geq 0.15$ (medium effect)

There is a significant multiple correlation ($p < 0.001$) between the independent variables, interactional justice, age, staff category, responsibility and the dependent variable, loyalty. If employees are treated respectfully and humanely this has a direct influence on their loyalty towards the organisation. The job level of an employee also influences his or her loyalty. The positive beta coefficient (2.210) for the predictor staff category indicates that clerical staff appear to be more loyal than managerial staff. The loyalty of staff is also influenced by the fairness of AA decisions. Interactional justice explains 6.9 percent, age 3.1 percent, staff category 4.4 percent and responsibility 1.1 percent of the variance in employees' loyalty levels. The multiple correlation of 0.39 is practically significant ($f^2 = 0.18$) (medium effect).

8.5 SUMMARY

This chapter dealt with the results of the survey. Using a factor analysis, four factors relating to organisational justice were identified, namely interactional, procedural:input, procedural:criteria and distributive justice. The four factors that were identified with regard to treatment of AA employees in the workplace included task autonomy, respect, responsibility and realistic expectations. The four factors identified for commitment included obedience, job satisfaction, participation and loyalty.

On completion of the factor analysis, the reliability of the various factors was analysed. The reliability of the factors, as measured by Cronbach alpha, was all above 0.70.

Statistical tests such as Students' t-test of difference of means, one-way analysis of variance, multiple analysis of variance and multiple regression analysis were used to investigate the relationship between the various behavioural domains and employee groupings.

This concludes the analysis of the statistical tests performed. The next chapter summarises the principal findings and makes recommendations for future research.