

DOCTOR OF PHILOSOPHY

Organisational commitment among academics in an institution of Higher Learning - the case of Malaysia

Yaacob, Arzmi

Award date:
1998

Awarding institution:
Coventry University

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of this thesis for personal non-commercial research or study
- This thesis cannot be reproduced or quoted extensively from without first obtaining permission from the copyright holder(s)
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

COVENTRY UNIVERSITY

COVENTRY BUSINESS SCHOOL

UNITED KINGDOM

**ORGANISATIONAL COMMITMENT AMONG ACADEMICS IN AN
INSTITUTION OF HIGHER LEARNING
-THE CASE OF MALAYSIA**

by

ARZMI YAACOB

**A Thesis Submitted In Partial Fulfilment Of The Requirements Of
Coventry University For The Degree Of Doctor Of Philosophy**

SEPTEMBER 1998

**Coventry Business School, Coventry University In Collaboration With The
MARA Institute Of Technology, 40450 Shah Alam, Selangor DE, Malaysia.**

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	ACKNOWLEDGEMENTS	XIII
	ABSTRACT	XVI
1	OVERVIEW AND RATIONALE	1
1.1	INTRODUCTION	1
1.2	BACKGROUND TO THE ISSUE	1
1.3	THE NEW REMUNERATION SCHEME	7
1.4	INSTITUTION MANAGEMENT CULTURE	13
1.5	RELEVANT KEY CONCEPTS	15
1.6	RESEARCH SAMPLING	19
1.7	METHODOLOGY	20
1.8	THE SIGNIFICANCE OF THE STUDIES	20
	REFERENCES	23
2	HIGHER EDUCATION IN MALAYSIA	27
2.1	INTRODUCTION	27
2.2	BRIEF BACKGROUND OF HIGHER INSTITUTIONS IN MALAYSIA	27
2.3	AIM AND OBJECTIVES OF HIGHER EDUCATION	29
2.4	THE NEED AND DEMAND FOR HIGHER EDUCATION	30
2.5	CONTROL AND COORDINATION OF HIGHER EDUCATION	33
2.6	ISSUES AND PROBLEMS	35
2.7	CONCLUSION	40
	REFERENCES	41
3	MARA INSTITUTE OF TECHNOLOGY - An Historical Background	45
3.1	INTRODUCTION	45
3.2	RIDA TRAINING INSTITUTE (1956-1965)	45
3.3	MARA AND MARA COLLEGE	46
3.4	THE MARA INSTITUTE OF TECHNOLOGY- <i>INSTITUT TEKNOLOGI MARA</i>	47
3.5	CAMPUSES	48
3.6	PHILOSOPHY, PRINCIPLES, OBJECTIVES AND STRATEGIES	49
3.6.1	Philosophy	49
3.6.2	Principles	49
3.6.3	Objectives	50
3.6.4	Strategies	50
3.7	ADMINISTRATION	52
3.7.1	The Board Of Council	52

3.7.2	The Director	53
3.7.3	The Registrar	53
3.7.4	Schools and Branches	53
3.8	ITM TODAY	54
	REFERENCES	56
4	LITERATURE REVIEW	57
4.1	INTRODUCTION	57
4.2	RELATIONSHIP WITH JOB SATISFACTION	58
4.2.1	Differences In Conceptualisation	58
4.2.2	Differences In Determinants	60
4.3	ANTECEDENTS OF ORGANISATIONAL COMMITMENT	61
4.3.1	Individual Demographic Factors	62
4.3.1.1	Personality	67
4.3.1.2	Education	68
4.3.1.3	Rewards	72
4.3.2	Organisational Factors	77
4.3.2.1	Experiences at work	80
4.3.2.2	Organisational culture	82
4.3.3	Ethnic Cultural Differences	84
4.3.4	Effects of Organisational Commitment	88
4.3.4.1	Labour turnover	89
4.3.4.2	Performance	89
4.3.5	Summary of the Antecedents of Organisational Commitment	90
4.4	STAGES IN ORGANISATIONAL COMMITMENT	92
4.4.1	Anticipation	92
4.4.1a	Personality	92
4.4.1b	Job choice	93
4.4.1c	Pre-setting job expectations	95
4.4.2	Period of Initiation	96
4.4.2a	Expectations versus experiences	98
4.4.2b	Time frame	100
4.4.3	The Period of Entrenchment	102
4.4.4	Stages of Organisational Commitment-A Summary	104
4.5	CONCLUSION	105
	REFERENCES	107
5	RESEARCH JUSTIFICATION	129
5.1	INTRODUCTION	129
5.2	KEY TERMS	129
5.2.1	Organisational Commitment	129
5.2.2	Organisational Commitment Questionnaire (OCQ)	131
5.2.3	Academic Staff	132
5.2.4	Institutions of Higher Learning in Malaysia	132
5.3	THE IMPORTANCE OF HIGHER EDUCATION IN A DEVELOPING COUNTRY	133

5.4	PROMOTION SYSTEMS	134
5.5	ECONOMIC FACTORS	135
5.6	HYPOTHESES	135
	REFERENCES	137
6	THE SAMPLE	142
6.1	INTRODUCTION	142
6.2	PERSONAL PROFILE	143
6.2.1	Schools and Departments	144
6.2.2	Campuses	147
6.2.3	Tenure	150
6.2.4	Past Working Experience	152
6.2.5	Present Job Status	153
6.2.6	Annual Gross Fixed Income	154
6.2.7	Gender	156
6.2.8	Age	156
6.2.9	Ethnic Origin	158
6.2.10	Marital Status	160
6.2.11	Educational Qualifications	161
6.2.12	Professional Body/Association	163
6.2.13	Spouse Employment	164
6.2.14	Spouse Income	166
6.2.15	Children	167
6.3	ATTITUDE TOWARDS PAY	167
6.4	ATTITUDE TOWARDS PROMOTION POLICY	170
6.4.1	Promotion Policy and Procedural Justice	173
	REFERENCES	175
7	RESPONSE TO THE ORGANISATIONAL COMMITMENT QUESTIONNAIRES	179
7.1	INTRODUCTION	179
7.2	EFFORT	180
7.2.1	Age	181
7.2.2	Tenure	182
7.2.3	Gender	182
7.2.4	Educational Qualifications	182
7.3	GOOD ORGANISATION	183
7.3.1	Age	183
7.3.2	Tenure	184
7.3.3	Gender	184
7.3.4	Educational Qualifications	185
7.4	LOYALTY	185
7.4.1	Age	186
7.4.2	Tenure	186
7.4.3	Gender	186
7.4.4	Educational Qualifications	187
7.5	ASSIGNMENT	187
7.5.1	Age	188
7.5.2	Tenure	189

7.5.3	Gender	189
7.5.4	Educational Qualifications	190
7.6	VALUES	190
7.6.1	Age	191
7.6.2	Tenure	191
7.6.3	Gender	192
7.6.4	Educational Qualifications	192
7.7	PRIDE	193
7.7.1	Age	193
7.7.2	Tenure	193
7.7.3	Gender	194
7.7.4	Educational Qualifications	194
7.8	WORKING ELSEWHERE	195
7.8.1	Age	195
7.8.2	Tenure	196
7.8.3	Gender	196
7.8.4	Educational Qualifications	197
7.9	INSPIRATION	197
7.9.1	Age	197
7.9.2	Tenure	198
7.9.3	Gender	198
7.9.4	Educational Qualifications	199
7.10	LEAVING THE ORGANISATION	199
7.10.1	Age	200
7.10.2	Tenure	200
7.10.3	Gender	201
7.10.4	Educational Qualifications	201
7.11	RIGHT CHOICE	202
7.11.1	Age	202
7.11.2	Tenure	203
7.11.3	Gender	203
7.11.4	Educational Qualifications	204
7.12	INDEFINITE STAY	204
7.12.1	Age	205
7.12.2	Tenure	206
7.12.3	Gender	206
7.12.4	Educational Qualifications	206
7.13	EMPLOYEES' MATTERS	207
7.13.1	Age	208
7.13.2	Tenure	208
7.13.3	Gender	209
7.13.4	Educational Qualifications	209
7.14	ORGANISATION'S FUTURE	210
7.14.1	Age	210
7.14.2	Tenure	211
7.14.3	Gender	211
7.14.4	Educational Qualifications	212
7.15	BEST ORGANISATION	212
7.15.1	Age	212

7.15.2	Tenure	213
7.15.3	Gender	214
7.15.4	Educational Qualifications	214
7.16	WRONG DECISION	215
7.16.1	Age	215
7.16.2	Tenure	216
7.16.3	Gender	216
7.16.4	Educational Qualifications	217
7.17	SUMMARY OF RESPONSE TOWARDS THE ORGANISATIONAL COMMITMENT QUESTIONNAIRES	217
7.18	EVALUATIONS OF VARIABLES	219
7.18.1	Age	219
7.18.2	Tenure	222
7.18.3	Gender	223
7.18.4	Educational Qualifications	225
7.19	SUMMARY	227
	REFERENCES	228
8	FACTOR ANALYSIS	230
8.1	INTRODUCTION	230
8.1.1	Correlation Matrix	231
8.1.2	Sample Size	234
8.1.3	Principal Components	235
8.1.4	Number of Factors to be Considered	238
8.1.5	Factor Rotation	238
8.2	FACTOR ONE - A Strong Belief in and Acceptance of Organisational Goals and Values	240
8.2.1	Age	241
8.2.2	Tenure	243
8.2.3	Gender	243
8.2.4	Educational Qualifications	244
8.3	FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation	245
8.3.1	Age	246
8.3.2	Tenure	248
8.3.3	Gender	249
8.3.4	Educational Qualifications	250
8.4	FACTOR THREE - The willingness of employees to exert considerable energy on behalf of the organisation	250
8.4.1	Age	252
8.4.2	Tenure	252
8.4.3	Gender	253
8.4.4	Educational Qualifications	254
8.5	CONCLUSION	255
8.5.1	Age	255
8.5.2	Tenure	256
8.5.3	Gender	256

8.5.4	Educational Qualifications	257
	REFERENCES	259
9	THE APPLICATION OF MULTIPLE REGRESSION	260
9.1	INTRODUCTION	260
9.2	MULTIPLE REGRESSION: AN OVERVIEW	261
9.3	ASSUMPTIONS ASSOCIATED WITH MULTIPLE REGRESSION	264
9.4	AN ANALYSIS THROUGH THE STEPWISE METHOD	265
9.5	FACTOR ONE - A Strong Belief and Acceptance of Organisational Goals and Values	266
9.5.1	Age	267
9.5.2	Tenure	268
9.5.3	Gender	268
9.5.4	Educational Qualifications	269
9.5.5	Attitude Towards Pay	270
9.5.6	Attitude Towards Promotion Policy	270
9.5.7	Findings	271
9.6	FACTOR ONE - Multiple Regression Without Attitude Towards Pay and Attitude Towards Promotion Policy	273
9.6.1	Findings	275
9.7	FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation	277
9.7.1	Age	279
9.7.2	Tenure	279
9.7.3	Gender	279
9.7.4	Educational Qualifications	280
9.7.5	Attitude Towards Pay	280
9.7.6	Attitude Towards Promotion Policy	281
9.7.7	Findings	281
9.8	FACTOR THREE - A Willingness to Exert Considerable Energy on Behalf of the Organisation	283
9.8.1	Findings	285
	REFERENCES	286
10	ATTITUDES TOWARDS PAY AND PROMOTION POLICY	287
10.1	INTRODUCTION	287
10.2	ATTITUDE TOWARDS PAY	287
10.2.1	Findings on Attitude Towards Pay Through Multiple Regression	288
10.3	ATTITUDES TOWARDS PROMOTION POLICY	290
10.3.1	Findings on Attitude Towards Promotion Policy Through Multiple Regression	292

10.3.2	Response Towards the Three Factors of Organisational Commitment Based on Attitude Towards Promotion Policy	293
10.4	OVERALL FINDINGS ON ATTITUDES TOWARDS PAY AND PROMOTION POLICY	296
11	CONCLUSION AND RECOMMENDATIONS	297
11.1	INTRODUCTION	297
11.2	THE REWARDS SYSTEM - ATTITUDES TOWARDS PAY AND PROMOTION POLICY	298
11.3	INDIVIDUAL DEMOGRAPHIC VARIABLES	299
11.4	WITHOUT ATTITUDES TOWARDS PAY AND PROMOTION POLICY	300
11.5	CONCLUSION	302
11.6	RECOMMENDATIONS	305
	REFERENCES	313

LIST OF TABLES

TABLE	TITLES	PAGE
1.3.1	Example of a matrix salary schedule	8
2.4.1	Malaysia's Population Growth	33
2.4.2	Malaysia's Human resource growth	33
6.2.1	Samples according to school/centre	145
6.2.1A	Schools/Centres reorganised	146
6.2.2	Samples according to campus	147
6.2.2A	Distribution of samples by regions	149
6.2.3	Distribution of respondents by tenure	151
6.2.3A	Tenure - years reclassified	151
6.2.4	Numbers of working and non-working experience	152
6.2.4A	Agencies previously worked with	153
6.2.5	Samples according to status	154
6.2.6	Samples according to annual gross fixed income	155
6.2.7	Samples according to gender	156
6.2.8	Samples according to age	157
6.2.8A	Age group - reorganised	157
6.2.9	Ethnic origin of respondents	159
6.2.9A	Ethnic percentage of respondents - reorganised	159
6.2.10	Marital status of respondents	160
6.2.10A	Marital status - reorganised	161
6.2.11	Educational qualifications of respondents	162
6.2.11A	Educational qualifications - reorganised	162
6.2.12	Professional membership	164

6.2.13	Percentage of spouse employed	165
6.2.13A	Type of organisations spouses employed at	165
6.2.14	Annual income of spouse	166
6.2.15	Respondents with children	167
6.3	Response to attitude towards pay	169
6.4	Response to attitude towards promotion policy	172
7.2	Effort	181
7.2.1	Effort - Age	181
7.2.2	Effort - Tenure	182
7.2.3	Effort - Gender	182
7.2.4	Effort - Educational qualifications	183
7.3	Good Organisation	183
7.3.1	Good organisation - Age	183
7.3.2	Good organisation - Tenure	184
7.3.3	Good organisation - Gender	184
7.3.4	Good organisation - Educational qualifications	185
7.4	Loyalty	185
7.4.1	Loyalty - Age	186
7.4.2	Loyalty - Tenure	186
7.4.3	Loyalty - Gender	187
7.4.4	Loyalty - Educational qualifications	187
7.5	Assignment	187
7.5.1	Assignment - Age	188
7.5.2	Assignment - Tenure	189
7.5.3	Assignment - Gender	189
7.5.4	Assignment - Educational qualifications	190
7.6	Values	190
7.6.1	Values - Age	191
7.6.2	Values - Tenure	192
7.6.3	Values - Gender	192
7.6.4	Values - Educational qualifications	192
7.7	Pride	193
7.7.1	Pride - Age	193
7.7.2	Pride - Tenure	193
7.7.3	Pride - Gender	194
7.7.4	Pride - Educational qualifications	194
7.8	Working Elsewhere	195
7.8.1	Working elsewhere - Age	195
7.8.2	Working elsewhere - Tenure	196
7.8.3	Working elsewhere - Gender	196
7.8.4	Working elsewhere - Educational qualifications	197
7.9	Inspiration	197
7.9.1	Inspiration - Age	198
7.9.2	Inspiration - Tenure	198
7.9.3	Inspiration - Gender	199
7.9.4	Inspiration - Educational qualifications	199
7.10	Leaving the Organisation	200
7.10.1	Leaving the organisation - Age	201

7.10.2	Leaving the organisation - Tenure	201
7.10.3	Leaving the organisation - Gender	201
7.10.4	Leaving the organisation - Educational qualifications	201
7.11	Right Choice	202
7.11.1	Right choice - Age	202
7.11.2	Right choice - Tenure	203
7.11.3	Right choice - Gender	204
7.11.4	Right choice - Educational qualifications	204
7.12	Indefinite Stay	204
7.12.1	Indefinite stay - Age	205
7.12.2	Indefinite stay - Tenure	206
7.12.3	Indefinite stay - Gender	206
7.12.4	Indefinite stay - Educational qualifications	207
7.13	Employees' Matters	207
7.13.1	Employees' matters - Age	208
7.13.2	Employees' matters - Tenure	208
7.13.3	Employees' matters - Gender	209
7.13.4	Employees' matters - Educational qualifications	209
7.14	Organisation's Future	210
7.14.1	Organisation's future - Age	210
7.14.2	Organisation's future - Tenure	211
7.14.3	Organisation's future - Gender	211
7.14.4	Organisation's future - Educational qualifications	212
7.15	Best organisation	212
7.15.1	Best organisation - Age	213
7.15.2	Best organisation - Tenure	213
7.15.3	Best organisation - Gender	214
7.15.4	Best organisation - Educational qualifications	214
7.16	Wrong Decision	215
7.16.1	Wrong decision - Age	215
7.16.2	Wrong decision - Tenure	216
7.16.3	Wrong decision - Gender	216
7.16.4	Wrong decision - Educational qualifications	217
7.17	Scores reevaluated	218
7.18.1	Scores reevaluated - Age	220
7.18.2	Scores reevaluated - Tenure	222
7.18.3	Scores reevaluated - Gender	224
7.18.4	Scores reevaluated - Educational qualifications	226
8.1.1	Correlation Matrix	232
8.1.1A	Significance Matrix	232
8.1.3	Initial Statistics	236
8.1.4	Item loading on first three principal components	237
8.1.4A	Final Statistics	238
8.1.5	Rotated Matrix - Item loading on orthogonally rotated factors	239
8.1.5A	Negative and positive commitments factor score	240
8.2	Factor One - A strong belief in and acceptance of organisational goals and values	240

8.2A	Factor One score - A strong belief in and acceptance of organisational goals and values	241
8.2.1	Frequency and percentage of organisational commitment for Factor One by age	242
8.2.2	Frequency and percentage of organisational commitment for Factor One by tenure	243
8.2.3	Frequency and percentage of organisational commitment for Factor One by gender	244
8.2.4	Frequency and percentage of organisational commitment for Factor One by educational qualifications	245
8.3	Factor Two - A strong desire to maintain membership in the organisation	245
8.3A	Factor Two score - A strong desire to maintain membership in the organisation	246
8.3.1	Frequency and percentage of organisational commitment for Factor Two by age	247
8.3.2	Frequency and percentage of organisational commitment for Factor Two by tenure	248
8.3.3	Frequency and percentage of organisational commitment for Factor Two by gender	249
8.3.4	Frequency and percentage of organisational commitment for Factor Two by educational qualifications	250
8.4	Factor Three: The willingness to exert considerable energy on behalf of the organisation	251
8.4A	Factor Three score - The willingness to exert considerable energy on behalf of the organisation	251
8.4.1	Frequency and percentage of organisational commitment for Factor Three by age	252
8.4.2	Frequency and percentage of organisational commitment for Factor Three by tenure	253
8.4.3	Frequency and percentage of organisational commitment for Factor Three by gender	253
8.4.4	Frequency and percentage of organisational commitment for Factor Three by educational qualifications	254
9.5	Factor One - A strong belief and acceptance of organisational goals and values	266
9.6	Factor One - A strong belief and acceptance of organisational goals and values without attitude towards pay and and attitude towards promotion policy	274
9.7	Factor Two - A strong desire to maintain membership in the organisation	278
9.8	Factor Three - A willingness to exert considerable energy on behalf of the organisation	283

10.2	Attitude towards pay	288
10.2.1	Distribution of job status by educational qualifications	289
10.3	Attitude towards promotion policy	291
10.3.1	Distribution of job status by gender	292
10.3.2A	Frequency and percentage of organisational commitment for Factor One by response to organisation's promotion policy is unfair.	294
10.3.2B	Frequency and percentage of organisational commitment for Factor Two by response to organisation's promotion policy is unfair.	294
10.3.2C	Frequency and percentage of organisational commitment for Factor Three by response to organisation's promotion policy is unfair.	295
11.6.1	Distribution of job status by race	311
11.6.1A	Distribution of race by gender	311

LIST OF FIGURES

FIGURE	TITLE	PAGE
3.5	Map of Malaysia and location of ITM's Campuses	48A
6.2.1	Response from schools and centres	145
6.2.1A	Schools/Centres reorganised	147
6.2.2	Samples according to campus	148
6.2.2A	Distribution of samples by regions	150
6.2.3A	Tenure - years reclassified	151
6.2.4	Percentage of working and non-working experience	152
6.2.4A	Agencies previously worked with	153
6.2.5	Percentage of samples according to status	154
6.2.6	Annual gross fixed income of respondents	155
6.2.7	Response according to gender	156
6.2.8	Age group - reorganised	158
6.2.9	Ethnic percentage of respondents	160
6.2.10	Marital status of respondents - reorganised	161
6.2.11	Educational qualifications - reorganised	163
6.2.12	Professional membership	164
6.2.13	Percentage of spouse employed	165
6.2.13A	Percentage of spouse at types of organisations employed at	166
6.2.14	Distribution of income among spouses	167

APPENDIXES

APPENDIX A	Questionnaires	318
APPENDIX B	Letter of Consent From ITM	324
APPENDIX C	Example of Form for Application for Promotion in ITM	325

ACKNOWLEDGEMENTS

To acknowledge the support and assistance given in any task is never easy. This is especially so as many have helped to sustain me throughout this endeavour of completing my thesis.

I am grateful to Allah the Almighty for the strength given to sustain any pressure in life, and time spent in doing this research was no exception.

A special token of appreciation is reserved for my employer, the MARA Institute of Technology for providing the financial support and granting me study leave for the task of doing the research. The support shown by the staff at the Scholarship and Training Division is commendable and so is the efficiency of Puan Hajah Paridah Mohammed Khatib and her staff at the Institute's Bursar Office. I am also indebted to the Registrar Office of the Institute for furnishing the relevant data. To Puan Normah Dali and her staff at the Institute's Statistics Centre, I offer my sincere thanks for compiling the necessary data to be used in the analysis of this research. To the academics serving the Institute, thank you for encouraging me to choose this topic on Organisational Commitment. May the results be of benefit to you and the Institute.

The following individuals have immensely contributed throughout my doctoral programme. Without their kind attention and positive criticism, it would not be possible to complete this thesis.

My Director of Studies and first supervisor, Dr. David Morris whose constant attention and patient supervision was instrumental in helping me to complete the thesis. My second supervisor, Nigel Berkeley for his help in analysing the data and ensuring the task of completing this endeavour would be in the utmost proper perspective. The comments made by the external experts, Professor Tony Watson of Nottingham Trent University, and Professor William Brown of Cambridge University were of immense help.

I also thank the staff of the Coventry Business School, Coventry University for their willingness in providing me the necessary help without which the completion of this thesis would be difficult. This is also extended to Ms Hansa Dhokia from the Computing Services of Coventry University who helped in organising the questionnaire

My brother Dato' Yahya Yaacob for his effort in ensuring that the latest data were available for my use in the thesis and for keeping in touch with me throughout my stay in the United Kingdom ensured that I was not left behind regarding news and latest development in Malaysia. I received similar help from my other brother Colonel Ariffin Yaacob. My sister Zaharah Yaacob and her husband Hussain Yacob have also done their part in helping to furnish the relevant data necessary for this thesis. All my other brothers and sisters have in certain ways contributed to the success of my work. My step mother Rugayah Bujang who constantly called from Malaysia helped to lessen the feeling of homesickness one would tend to endure far from home. Her success in assuming the role of my late mother, Saffiah Bujang who did not live long enough to witness the progress and success of her children and is sadly missed, would be an envy to all mothers.

I am touched by the constant encouraging support given by my nephews and nieces and their concern about my family well being during our stay in the United Kingdom. Muammar Q. Ariffin kept reminding me not to give up on my work. Similar reminders came from my nieces Haryati Yahya, Hartini Yahya, Aida Ariffin and my sports minded nephew Imran Yahya.

To my wife, Zainon Nani, your patience and ever support have been invaluable. Your determination in ensuring that the children, Azman Arzmi, Azmah Arzmi, Ahmad Arzmi and Ariff Arzmi did not neglect their religious knowledge could only be rewarded by Allah the Almighty. To my children, if I neglected you all during the course of my work it was not on purpose as it was necessitated by this thesis.

A high appreciation is finally reserved for my dad, Yaacob bin Hitam for his ever encouraging support and constant stress that education is the best asset a man could ever have. Your willingness to finance my studies from primary to tertiary brought pain and joy. I dedicate this thesis to you.

ABSTRACT

Attitudes are commonly investigated in management research as they have predictive value to achievement and a positive attitude helps to produce desirable outcome. This thesis explores organisational commitment among academic staff in a Malaysian institution of higher learning. A thorough review of the literature revealed that there have been a number of previous studies of organisational commitment but none within this context.

As the term organisational commitment is abstract it is operationally defined by simplifying it into observable characteristics. Organisational commitment is manifested in a) a strong belief in and acceptance of organisational goals and values; b) a willingness to exert considerable energy on behalf of the organisation; and c) a strong desire to maintain membership in the organisation. These elements can be measured using a questionnaire developed by Porter and Smith (1970). Factor Analysis is used to group responses into categories as dependent variables. Multiple Regression Analysis is then used to explore statistical relationships between organisational commitment factors derived from Factor Analysis and attitudes towards pay and promotion and to socio-demographic characteristics.

The sample size of 818 respondents was derived from 2000 accessible academics from all schools and branches (except Sarawak) of the MARA Institute of Technology (ITM). A self administered questionnaire was selected as the mode of data collection.

Overall organisational commitment among the academics towards their Institution was found to be high. Differences in levels of individuals' measured indicated organisational commitment could be statistically determined by demographic factors. However attitudes towards pay and promotion were found to be much more

important as determinants of organisational commitment when they were included in the analysis and relationships tested with the use of Multiple Regression Analysis.

CHAPTER 1

OVERVIEW AND RATIONALE

1.1 INTRODUCTION

The Malaysian Government's aim of turning the nation into an industrialised country by the year 2020 has received wide support from all the Government's agencies and the private sector. In line with the Government call, the institutions of higher learning in Malaysia have redrawn their strategy and policy to meet the demand of producing graduates of high calibre and professionalism that will be vital in the growth towards industrialisation. However the Government has often expressed its concern at the high turnover of academic staff. This raises questions as to the quality of staffing, the status of staff in Malaysian universities and, most importantly, the viability of the Government's long run economic and social objectives.

Along with a sound strategy and strong financial position, the organisational commitment of the staff is a major factor in determining the future of an organisation. Likewise the success of the institutions of higher learning in Malaysia in meeting the demand to produce graduates of the highest calibre depends heavily on the organisational commitment of their academic staff. It is the objective of this research to investigate the correlates of organisational commitment among academic staff in institutions of higher learning in Malaysia, and hence suggesting ways in which staff turnover might be reduced.

1.2 BACKGROUND TO THE ISSUE

The shortage of staff in institutions in Malaysia is of great concern. Although staff resignations are common in any organisation, they simply cannot be ignored. This is especially so in institutions of higher learning in a nation that is rapidly progressing. In reporting that the students intake at University of

Northern Malaysia for the 1993/4 session would be considerably lower than the year before, the then Vice-Chancellor, Dr. Othman Yeop Abdullah cited that it was necessary in view of the shortage of academic staff faced by the university and not due to fewer application by potential students (*Utusan Malaysia*, Kuala Lumpur, 21 April 1993).

Responding to his statement, a national local newspaper undertook a survey and found that, between 1985 and 1993, a total of 600 academics had resigned from the University of Technology, Malaysia (Universiti Teknologi Malaysia-UTM), University of Northern Malaysia (Universiti Utara Malaysia-UUM), and the MARA Institute of Technology (Institut Teknologi MARA-ITM). Following this disclosure, the University of Malaya (Universiti Malaya-UM) later issued a statement that within the same period, 256 members of its academic staff too had resigned. Combined with the other remaining institutions in Malaysia, the resignation figure could be close to 1000. This figure did not take into consideration the number of academic staff needed at the soon to be established the University of Malaysia in Sarawak (Universiti Malaysia, Sarawak-UMS) and the University of Sabah. Added to this is the figure of those who have to retire upon reaching the compulsory age of 55 and it can be seen that turnover amongst academics is worryingly high.

The number of resignations is an added burden to the staff shortage already faced by the institutions. For example, according to Dr. Othman Yeop Abdullah the loss of twelve was bad enough, but the fact was UUM was in need of 100 more. This situation can be worsened when staff take sabbatical leave or pursue further studies. Also a number of academics are frequently seconded to several research institutes in the country for their expertise in relevant areas. Added to all these the Government has grand plans to raise the number of undergraduates at university to 30% of the present enrolment by the end of the decade.

The shortage of academic staff in Malaysia is not a new phenomenon. It has been continuous ever since the establishment of the first institution in the country.

With this shortage the loss of a staff member is worrying especially if he/she teaches in a specialised subject and that particular subject is taught at the later stage of a course.

Another worrying factor to consider is to know where the loss of staff tends to occur. Should a small percentage be scattered over the whole institution its effect may not be great. However if a high percentage of resignations tend to occur in a particular department or faculty then the consequences can be serious and will have strong implications on the standard of graduates produced in that particular course.

For example, 50% of academic staff resignation at UM in 1992 was from the Medical Faculty. This was not an improvement of the scenario in 1990. That same year the General Medical Council of Britain (GMC) stopped recognising medical degrees from UM citing the high staff student ratio as one of its reasons (*Berita Harian*, 1993). Rather than finding the cause of this high ratio, a tone of nationalism was raised by the politicians, but not the academicians, blaming the GMC for refusing to recognise the medical degree issued by UM as it was taught in the Malay language. This was denied by the GMC.

Now the 'brain drain' is the focus of attention in every institution of higher learning in Malaysia despite the presence of other problems like lack of facilities and obsolete equipment. It is perhaps easier to bow down to pressure and admit more students rather than maintain an acceptable staff student ratio which may in part, determines the quality of graduates produced.

Whatever the answer given for the high labour turnover of academics the main problem remains. The shortage of academics in the institutions in Malaysia has severe implications on the standard of higher education in the country. It is rational and in the national interest to confront this problem with a positive attitude and also accept the existence of the push and pull factors that contribute towards this high labour turnover.

The push factors are those elements, or the lack of them, from within the institution itself and the pull factors are those from outside that attract academics to leave. The practical consequence of both the push and the pull factors are the same; that is the resignation of the staff from the institution concerned.

It must however be understood that there are a number who leave one institution to join another. In this case, while statistically it shows that the nation maintains an equilibrium of academic staff strength, one institution gains at the expense of another. A gap therefore still exists.

Pull factors have a greater weight than push factors. Presently most universities find it difficult to attract new suitable recruits to fill in the vacant posts. To maintain harmony the management has to attract the best while at the same time retains the best.

The shortage of academic staff should also be analysed from the aspect of quality. When a resignation occurs, will those who replace be as good if not better than those who leave? If the situation holds that those who replace are better than those who leave, then the institution's advancement is assured. But should it be the other way round than either the status quo is maintained or the institution will face deterioration.

The question now is not whether there is a shortage of academic staff but how serious it is. It is estimated, as indicated earlier on in this chapter, that about 1000 are needed to fill in the various academic posts in the country. This means a high number of potential students are not allowed to enrol, not because of lack of qualification, but because of lack of manpower. Should the local institutions accept them regardless of the academic staff shortage then the quality of graduates will be questioned. Hence the dilemma.

Given, as mentioned earlier, the Government's aim to turn the nation into an industrialised one by the year 2020, the nation cannot afford to lose either the quantity nor the quality of the work force needed to achieve development. This strengthens the case for the need to recognise the existence of shortage of academic staff and its high labour turnover. The issue ought to be taken seriously and the problem be approached positively.

From the point of view of human resource development and management, this problem needs to be overcome through a carefully drawn out, integrated long term programme. The trend in most Malaysian universities now is to offer specialised courses that are very marketable and relevant to nation-building. Here the problem is how to maintain the specialists who teach and are experienced and to recruit candidates who will be committed to the organisation and thus be a part of the academic system that ensures the long-term stability of the institute.

Consider this scenario. A candidate joins a university with a first degree as the minimum qualification required to be a tutor. To progress to be a full-time lecturer he needs two years for his master's degree. Another four years will be needed to complete his doctorate. Plus a year, as his entitlement if he meets the eligibility criteria, to be spent for sabbatical. These are continuous programmes offered by universities to academics. In between there is no guarantee that a candidate will stay on and be a part of the academic system. Thus the necessity for an integrated programme to ensure that only the right candidates are chosen to fill academic posts.

The shortage of academic staff can partly be due to academic posts being less attractive compared to what the staff can command in the private sector. Institutions in Malaysia are finding difficulties in attracting candidates that have the qualities needed to be academics. Among these qualities are good academic qualification(s), interest and ability to teach and to do research in the subject concerned, and the potential to advance further both in position and

academically. However these qualities are also sought by the private sector who are more than able to match what a university can offer to a candidate in such terms as monetary rewards and conditions of service.

In presenting a paper at a seminar on higher education in 1986, two prominent Malaysian academicians said;

"There are two major problems with our lecturers. First, we are short of them and second we lack incentives to retain them. Both these problems are not only major but are related and perpetive."

Leaving aside ITM which already has more than 10,000 students spreading across ten campuses, they went on to say;

"Currently Malaysia has seven universities and if the target maximum enrolment is 10,000 per university in ten years time, there would have to be at least 5000 lecturers to handle them. The big question is are there sufficient human resources available within this short period of time? We could of course train these resource personnel to fill up these vacancies. However if the present inducement and reward systems remain the same, we would envisage that resource personnel in some professional areas such as medicine engineering, law and business, to name a few, will continue to have high turnover rates."

(Arof and Ismail, 1986)

Employee work attitudes are a function of actual human resource programmes, mediated by perceptions of organisational commitment to human resource effort (Kinicki *et al*, 1992). However any programme that would reduce labour turnover should revolve around giving employees both extrinsic (economic) and intrinsic (psychological) reasons to stay (Hafer and Moerer, 1992).

It is natural for many to desire to be economically prosperous and well off. It is therefore obvious for one to choose an organisation that offers better pay. In this

sense working with the private sector is better than working with an institution of higher learning in Malaysia (Tan, 1993). Salary seems to be the first criterion to be evaluated when a person is in a position to choose a job or career. Those whom the institutions are trying to recruit and maintain come from this category who are in a position to choose a job or career, and they possess the qualities needed to be academics (Hamid, 1993).

1.3 THE NEW REMUNERATION SCHEME

In an effort to encourage members of the civil service to be more efficient, productive and to demonstrate more initiative, the Government introduced, at the start of 1992, a new salary planning schedule called the New Remuneration Scheme (NRS). This scheme was based on the concept of total quality management (TQM). It was also intended to prevent brain drain among those in the civil service including academicians, and reward deserving cases. The NRS replaced the Cabinet Scheme which had been in existence since 1978.

Under the scheme promotion and pay are based on the assessment of the individual's job performance. This is because the NRS is designed on an individual and personal basis. It attempts to give incentive in order to improve individual and organisational performance and create a new performance-based culture. Under NRS, pay is based on an assessment of the individual's job performance. Accordingly pay is linked to performance which is measured by a number of specific objectives. In the case of the academics among these are students' evaluation, the Dean's report, writing and research done. This rewards output rather than input, and judging the qualitative rather than quantitative aspect of performance. Thus NRS reflects a move towards a more positive assessment of performance. If carefully implemented, NRS rewards those who do better than others. This is different from the previous scheme where, unless under exceptional case like absent without permission, fraud and making false claim, all workers in the same group get the same pay rise.

Under the NRS, all Government employees are subjected to four modes of annual salary movement based on a matrix system. In this system an employee can either;

- a) be retained on the same basic pay,
- b) move horizontally a step,
- c) move vertically a step, or
- d) move diagonally.

As a simple explanation, a matrix is shown below in Table 1.3.1. For easy reference let us assume the horizontal to be T and vertical to be P.

Table 1.3.1: Example of a matrix salary schedule

	T1	T2	T3	T4	T5
P1	3240	3350	3460	3570	4980
P2	3360	3480	3600	3720	5280
P3	3490	3620	3750	3880	5590

If an employee is drawing a basic salary of RM3460 per month, as is in the cell T3P1, as shown in the matrix, he can be moved to the scales stated below based on the four types of annual recommendation proposed by his superior or department;

- a) **STATIC:** RM3460 (T3P1) maintained at RM3460 (still at T3P1)-for those with unsatisfactory performance reports.
- b) **HORIZONTAL:** RM3460 (T3P1) to RM3570 (T4P1)-for those whose performance is satisfactory.
- c) **VERTICAL:** RM3460 (T3P1) to RM3600 (T3P2)-for those who are ranked good.
- d) **DIAGONAL:** RM3460 (T3P1) to RM3720(T4P2)-for excellent performers.

Under the NRS, the Government has set only a 5% quota each for those to be qualified for diagonal and horizontal incremental moves. The Director General of the Malaysian Public Services Department (the department responsible for the administration of the Malaysian Civil Service) reminded that those in the static

recommendation will be asked to leave the service if their performance did not improve (The Star, 1991).

The introduction of the NRS for the Civil Service thus brought an end to the general annual across-the-board pay increases. Consequently the NRS has a retention purpose to halt the loss of key personnel. This is a break from the past since now a civil servant earns a pay rise rather than gets it, as good performance will get paid more than average or mediocre performance. Thus this ends the era in which poor performers can stay in the civil service since they will not now continue to be rewarded well.

It therefore aims at rewarding better performance which is paramount in recognising among others those who have individual initiative. Rewarding good performance is seen as more important than motivation although NRS can be linked with appraisal to provide motivation through recognition and feedback.

However the NRS, implemented at the beginning of 1992, failed to prevent brain drain among those in the Government services, especially the academics. Worse, it was criticised by many academic staff associations for benefiting those who were already in senior positions.

When asked for his comments on the NRS, the President of UM's Academic Staff Association said;

" The NRS will encourage more brain drain from the local universities than promote academic excellence. More young lecturers are bound to leave the University. Under the old system, a new lecturer with PhD could be confirmed for the A11 category pay scheme within three years. Under the NRS the equivalent post with equivalent pay will take six years. He has to wait another 12 years to be promoted to the equivalent of the former super-scale grade compared to six years previously. Such discrepancies will only discourage aspiring lecturers from seeking employment in universities and encourage the existing ones to leave." (Khir, 1992)

Recognising that medical faculties experienced among the highest academic staff labour turnover, the NRS categorised medical staff under a different scale. But this was no solution as many left after it was implemented. The announcement of this categorisation even brought angry reaction among other academic staff. Dr. Wan Abdul Manan Wan Muda, the President of USM's Academic Staff Association explained:

"Under the NRS academicians are being categorised. In order to prevent the exodus of Medical Staff, they are considered to be under the critical service and enjoy extra financial benefits and allowances. But this did not solve the problem. Moreover categorising academicians into medical lecturers and non-medical lecturers and according special privileges to one and neglecting the other is not conducive to the growth of universities in Malaysia."

(Muda, 1992)

In early 1994 Malaysian academia was rattled by allegations of plagiarism in UM's Faculty of Arts and Social Sciences. Controversy rose after a lecturer who had allegedly plagiarised her student's work besides 'fiddling' with research data eight years ago was promoted to professor.

While the controversy dragged on, accusations were pointed to the demands made by NRS on criteria for promotion. The NRS was blamed as essentially a bureaucratic set of rules tailored more for the civil service rather than the peculiarities of academia. A well known Malaysian academic commented,

"Plagiarism , it is said is a side-effect of the publish or perish doctrine so peculiar to academia. In its strictest sense, plagiarism refers to the appropriation or imitation of another's idea or manner of expressing them, and of trying to pass them as one's own. The doctrine in the Malaysian context has assumed a new and more urgent twist following the implementation of NRS in 1992. Implicit in the way promotions are carried out under the NRS is the requisite for lecturers to publish or literally

perish in stagnation. Because the university leadership has been unable to give it (NRS) a creative and intellectual interpretation, an unintended consequence has been the yardage of publication rather than quality."

(Ali, 1994)

A leading economics professor with the University of Malaya concurred:

"The NRS has given rise to an 'academic rat race' for position, particularly professorships, since a professor's pay is several fold that of a mere lecturer or even associate professor. Thus in the fight for promotion to professorship the incentive to be deceptive is tremendous"

(Sundaram, 1994)

The controversial issue on plagiarism that was discussed above however should not paint a bad picture of the Malaysian academia.

"By and large, academicians are people of integrity. For every plagiarist, there are dozens other honest scholars."

(Said, 1994)

Echoing the above comment Dr. Norani Othman, a sociologist from UKM added;

"An intellectual career calls for lofty ideals, one of which is intellectual honesty. If you can't live up to it, then it is better to do something else."

(Othman,1994)

In the present scenario it is difficult to attract high calibre persons to serve in the institutions, and if the institutions are successful in securing their services they will then face the severe task of retaining them. The call for them to sacrifice materialism for the sake of the well being of the nation is often made by the Government. But the call is idealistic in nature.

Academic staff are among the group of employees that possess high academic qualifications. Within this group it is natural to expect some whose ego and eccentricity are high and extraordinary but do not have teaching as their vocation. To manage academics who include this group, poses a serious challenge to any university administrators. The administrators must also be able to distinguish those with penchant towards teaching, research and achievement of organisational goals from those who are not.

Hamid (1993) divides the interests of those who offer their services to a university into two groups. The first group consists those that show more interest in teaching and research. They normally are not keen to perform works that are not related to teaching or research. They are easily attracted to the world of academia. They love and seek to improve knowledge and like to be their own leaders. They are at ease with books rather than people. A professor is commonly depicted in a caricature with a description befitting this group. In fact this is a common pictorial perception of any serious academic or researcher.

The second group also consists of those with academic interest. They are however equally effective when performing other functions and are easily approachable by society. They basically join a university when not forced to make other sacrifices, especially financial.

From the description the first group tends to stay longer at the university compared to the second. Those in the second group are easily swayed by attractive financial offers from organisations outside the university.

Unfortunately for any university, those that belong to the first group are small in number compared to the second (Hamid, 1993). It is impossible for a university anywhere to exist depending on the first group alone. That makes it imperative to recruit those from the second group. As a result a university has to provide attractive pay and conditions of service to recruit and maintain those from the second group. When a university provides a poor pay scheme, poor conditions of

service, poor facilities and has too many criteria for promotion, then the likely results is brain drain. Thus from the description above those who will leave are most likely to consist of those from the second group.

While the first group may not easily resign on issues relating to pay, they may have second thoughts if a good offer is made from other institutions that will allow them to perform similar functions. These include research institutes that seem to have taken over from the institutions of higher learning as the Government's think-tank. Should they (members of the first group) stay, it may be despite of "internal bleeding" i.e. a sense of dissatisfaction. While on paper this may not seem bad compared to resignation the effect can be worse. They may produce minimum work and will not use their initiative to help achieve organisational goals. Nor are they willing to contribute ideas for the development of the institution they serve.

1.4 INSTITUTION MANAGEMENT CULTURE

The conventional superior-subordinate relationship which exists commonly in most organisations is absent when it comes to managing academic staff. Managing academic staff in Malaysian institutions is more of management of peers rather than subordinates. In Malaysia, as is described in section 2.2 of Chapter Two, most administrative posts in universities including ITM, and in some cases including the Vice-Chancellor, are filled by fellow academics for a specific period on a rotational basis. When a Dean's term is up for example, he will once again revert back to his post as an academic with the academic rank he holds. This scenario is peculiar to institutions of higher learning and can rarely be found in other organisations.

However such a situation makes decision making very difficult. This is especially so when a Dean has to evaluate a lecturer for his annual evaluation and/or promotion. Facing such a dilemma demands that a Dean has to have strong character in order to be frank in the evaluation of his fellow academics who are

his colleagues and maybe friends. In other words he has to have a professional attitude. It is not surprising that to avoid such a situation many decline administrative duties when they are offered despite the extra perks that accompany the posts. It is also not surprising to find that there are heads of department who often award high marks to avoid earning the wrath of academic colleagues. They bear in mind that there is a possibility that one day the very same persons they evaluated may occupy the Deanship and may exact an act of vendetta against them.

The wearing of robes are necessary in three professions. They are judge, priest and an intellectual. The robes characterise those who wear them to signify maturity, freedom to make decisions and being responsible to their conscience and to God. The robe also signifies understanding and appreciation of similar values. For example an academic should not only accept the institution as his work place but also as an asset that belongs to him and his fellow colleagues. Thus they must be devoted and dedicated to the job and place. It is important that an institution ensures that such feelings exist and implants positive values to prevent brain drain. This is easily done if more academicians are recruited from the first group indicated by Hamid (1993).

The future and the integrity of an institution very much depends on the quality, dedication, motivation, productivity and commitment of its academic staff. The administrators, which include the Government, have to be sensitive and aware of the needs of the academics and to give their utmost attention.

While there are problems that constantly lead to the exodus of academics from institutions, the profession nevertheless brings joy to those who are dedicated. Whenever an academic sees that his/her ex-student performs well in his/her vocation it brings great satisfaction. The satisfaction is greater when ex-students acknowledge the contribution made by the academics towards their ascendancy in the corporate hierarchy.

1.5 RELEVANT KEY CONCEPTS

The key term and dependent variable to be used in this research is organisational commitment. Due to its importance in determining staff loyalty to an organisation the concept of organisational commitment has been the centre of numerous management researches. To March and Simon (1958) organisational commitment implies identification with organisation and acceptance of its goals and values as one's own. Mowday, Porter and Steers (1982) explain that conceptually, it can be characterised by three factors: (a) a strong belief in and acceptance of the organisation's goals and values; (b) a willingness to exert considerable effort on behalf of the organisation; and (c) a strong desire to maintain membership in the organisation.

Several demographic factors have been used in the studies of organisational commitment. They have included age, tenure, educational level, gender and race. Age and tenure have been found to have positive relationship to organisational commitment (Angle and Perry, 1981; Morris and Sherman, 1981). Older workers are in general more committed to their organisation and more satisfied with their jobs (Lincoln and Kallenberg, 1990). Tenure, or the number of years of service in an organisation, is among the strongest predictors of commitment in an organisation. The longer employees work in an organisation, the more likely they are to report high levels of commitment (Brown, 1969; Hall *et al.*, 1970). The attribution is that, when staff are attached for a long period, a strong bond of loyalty to the place of work and co-worker will exist.

Gender differences will be examined in relation to organisational commitment. Hrebiniak and Alluto (1972) found women as a group were more committed than men. Grusky (1966) had earlier explained this relationship by arguing that women generally had to overcome more barriers to attain positions in the organisation, thereby making organisation membership more important to them. Stronger commitment could be found especially in the case of married women in a dual income family who would tend to derive greater satisfaction by doing the

best possible job where they are. This ensures that they remain with the same organisation for a long time. According to Hopfl (1992), the satisfaction that men derive from work appears to make them more accommodating to the construction of particular frames of organisational behaviour and, in this sense, commitment can be viewed as a consensual interpretation of appropriate organisational action. Women, however, have more ambiguous and conflictual interests which are not easily reconciled with male reality definitions. For example while men work to earn reward as bread winner of the family, women may tend to compete with men to show they are equally competent in work.

Education is a key indicator of social position as well as a major source of variation in status and economic rewards. It is interesting to note that many researches on education and work attitudes in America consistently conclude that better educated Americans are less committed to their companies (Lincoln and Kallenberg, 1990). This can be attributed to greater opportunities for the better educated to find fulfilment outside the work role. While most PhD and Masters' holders in universities in Malaysia are assumed to obtain their post graduate degrees with the financial aid of their institutions, they are expected to develop stronger loyalties and identifications than those with lower degrees. This expectation is from the institutions' point of view, based on the investment given to the staff to pursue their postgraduate studies. It is reasonable to assume that the staff will also expect higher rewards from the institutions in return for their service. If these rewards are not forthcoming, those with advanced degrees are in better position to market their knowledge and find employment in another organisation that does offer such rewards.

Organisational commitment is distinct from work commitment. Employees may behave in ways that coincide with the aspiration of the organisation and its management. But there is a difference between the worker who is highly motivated because of interest in and commitment to the work itself and one whose efforts are expended primarily out of devotion to the organisation. The work-committed employee may be oriented to an occupational speciality and less

inclined to accept alternative tasks for the good of the organisation or for the sake of maintaining an employment relationship with it (Lincoln & Kallenberg, 1990). For example, it is quite common for academically oriented staff to decline administrative posts like Dean of a faculty or head of a division so that they can indulge more in teaching or research, even though this may jeopardise their chances of promotion.

Another important term that has to be distinguished is professional commitment. In differentiating the terms, Clark and Larkin (1992) define organisational commitment as the relative strength of an individual's involvement in and identification with a particular organisation. Professional commitment is defined as dedication to work and long-term career aspirations. As an organisation, a college faces the important problem of securing from its academic staff who are professionals the commitment, loyalty, and cooperation necessary for effective goal attainment. Moreover professionals may have commitments and loyalties to a reference group composed of other professionals and to a definite set of normative standards governing their works, besides their commitment to the organisation. These differing sets of commitments are often contradictory and may result in organisational conflicts (Grusky and Miller, 1970).

Professionals specialise in the development of technical knowledge. Because a long period in higher education is necessary, and because professionals belong to national and even international bodies defining the nature of their tasks, professional expertise cannot easily be reduced to bureaucratic duties. When professionals are employed within large organisations they do not fit in neatly within the hierarchy of authority. They usually have more autonomy in their work than others in middle and lower levels of management. Professors and lecturers are employed by universities and colleges to teach students in them. But in their work, especially in writing and research, they are oriented to the scholarly communities in their disciplines (Giddens, 1993). Academics who are lawyers, doctors and accountants, for example, may also belong to the associations of their respective qualifications, the Bar Council, the Medical

Council, and the Accountancy bodies. It is quite normal for these professionals to first register themselves as members of their association before becoming staff of an organisation. Thus before they take an oath undertaking loyalty to their employer they had already committed to the rules and norms of the associations that govern their qualifications. How much control professionals within organisations enjoy over their work tasks varies according to several factors; the size and level of bureaucratisation of the organisation, the nature of the profession in question and the strength of the professional association to which the individual worker belongs (Freidson, 1986). For example, even when working in large organisations rather than specialised practices, lawyers usually have more control over their tasks compared to professionals like nurses. The Bar Council of Malaysia for instance, is very strong and is able to define the codes of conduct which lawyers follow. Lawyers accept some administrative constraints but their work can only be fully assessed if supervised by others who are also members of the legal profession.

The strongest or most predictable behavioural outcome of employee commitment should be reduced labour turnover (Mowday, Porter and Steers, 1982). Graham and Bennet (1992) define labour turnover as the movement of people into and out of the firm. They mention that it is usually convenient to measure it by recording movements out of the firm on the assumption that a leaver is eventually replaced by a new employee and that the term separation is used to denote an employee leaves for any reason. Livy (1988) interprets labour turnover as the severance of employees from employers. In the case of the institutions in this research, the academic staff are government servants and the government is the employer. Therefore from the point of view of the employer it is not labour turnover if a staff leaves one government institution to join another government institution because he does not leave the government service. Thus the government service is not experiencing turnover. However the particular institutions involved are experiencing it as it is still a movement of people into and out of the firm as defined by Graham and Bennet (1992). Livy accepts that what often happens where there is local competition for labour is that employers react by offering

higher pay rates, thereby easing their own recruitment problems, but inducing turnover elsewhere.

Stoikov and Raimon (1968) examine the role of economic factors on turnover. The major finding from their study is that when business conditions are good, monetary rewards have a sizeable effect on turnover. Armknecht and Early (1972) conclude that labour mobility increases in prosperous times and declines in less prosperous times. Though generally, labour turnover decreases in recession and increases in boom conditions, economic factors alone are not enough to explain persistent differences between one organisation and another, nor one department and another (Livy, 1988).

Pettmam (1979) identifies two main factors affecting labour turnover: (1) the perceived desirability of movement on the part of the employees and (2) the perceived ease of movement. Bowey (1974) identifies the processes which lead to labour turnover as being either 'pull' or 'push' in nature. 'Pull' processes attract the employee from the organisation, and 'push' processes help him on his way out.

1.6 RESEARCH SAMPLING

The population for the research will comprise about 800 of the full time academic staff of the various schools, departments and divisions of the MARA Institute of Technology, situated at all branches. ITM is chosen because it is the biggest institution in Malaysia and is expanding more rapidly than any other institution in the country. Its central campus is in Shah Alam. Plans are under way to build campuses in Penang, Kedah and Negri Sembilan before the end of the decade to enable ITM to have branches in all states in Malaysia. In terms of location, each of the branches differs geographically, economically and socially. Therefore the academic staff are well distributed through out the country in different environments and settings. ITM, with a student population of almost 40,000, the biggest in the country, offers qualifications ranging from undergraduate pre-

diploma to masters. Courses too are well diversified, ranging from secretarial science to architecture. ITM also experiences a higher rate of academic staff turnover than any other institution in Malaysia. Thus the selection of ITM for the research is justifiable.

1.7 METHODOLOGY

A thorough review of related literature on previous researches in similar areas was done to gather information closely linked to the study. The research uses primary data collected through questionnaire to test hypothesis derived from reviews of secondary data.

The concept of organisational commitment and other relevant concepts in this research are abstract and subjective. They were operationally defined by simplifying them into observable characteristic behaviours. A measurement was then carried out by observing the behavioural dimensions, facets, or properties denoted by the concepts. They were then categorised into observable and measurable elements. When the variables were measured, it was then possible to place individuals on a continuum.

A questionnaire consisting of a number of items relevant to the research was distributed and collected personally if and whenever possible. This was to ensure that as many as possible received and responded to the questionnaire. The questionnaire was administered before and at the beginning of a semester. This was the time the academics were back from their break and would not be busy with the preparation of examinations.

1.8 THE SIGNIFICANCE OF THE STUDY

The study of organisational commitment is important in understanding and predicting organisational behaviour. In light of the “downsizing syndrome” of modern organisations, the study of organisational commitment deserves special

attention (Locke and Latham, 1990). This study will thus provide a significant contribution to the study of management, especially in the area of organisational commitment.

Studies of organisational commitment undertaken so far have concentrated mainly on organisations in western countries especially in the United States (Lydka, 1991). The American emphasis on free will and the related belief that people can control and dominate the environment deeply influence their view of organisational design and change (Gummer, 1992). Given the individualistic orientation in the United States, it is perhaps not surprising that American theoretical structure fails to include a full range of explanations for organisational commitment and the lack thereof. No findings can be accepted universally unless they have been tested and proven in another culture or environment. This research will focus on an Asian organisation with a strong Malay and Islamic background and environment.

Secondly, the methodology of previous works seem to concentrate on one setting of an organisation and conclude the findings based on that setting. A feature of this research is that the study is based on an organisation with ten branches each with different settings ranging from urban to rural. And from conservative Islamic environments in Kota Baru and Dungun to a more liberal one in Shah Alam. All branches will be covered in the research so as not to discriminate. This will help to ensure that the findings will be more accurate and acceptable.

Race is a sensitive issue to be covered in any research especially if a comparison can be made through the findings. More so in a multi-racial and pluralist society like Malaysia. Though it is categorised as a demographic factor, the review undertaken by the researcher indicates that it is omitted in several researches on organisational commitment. This research will include the race of the respondents as an independent variable. Though ITM is an institution that caters for students of the indigenous stock (mainly the Malays), the academic staff are multi racial in composition, which, other than the Malays, includes Chinese, Indians and others.

Another interesting aspect of the institution is that the administrative staff are mostly Malay. Thus any innuendoes regarding discrimination or the commitment of non-Malays working in a Malay organisation can be confirmed or denied in the findings.

Overall, the study intends to promote a better theoretical understanding and clarification of the complexities associated with overall organisational commitment. Moreover, it can contribute significantly towards future theoretical advancements in organisational models.

Beyond academic purposes, this research will be useful to the organisation involved. The findings of the research will hopefully highlight the success or failure of ITM's policies in recruitment of academic staff, their placement, transfer and promotion. The findings may provide answers and solutions on issues like resignation, early retirement and other acts of labour turnover thus ensuring greater loyalty and commitment to the organisation. ITM will also have the opportunity to know the level of commitment of the non-Malay academics. This will help ITM to reconsider, and if necessary, stop implementing policy which may be interpreted as non favourable by the non-Malays.

REFERENCES

Ali, Abdul Halim, *New Straits Times* (Kuala Lumpur), 23 March 1994, p. 12 col. 1.

Angle, H, & Perry, J (1981), "An Empirical Assessment of Organizational Commitment and Organizational Effectiveness", *Administrative Science Quarterly*, 26, 1-14

Arof, Dr. Razali and Ismail, Dr. Nik Abdul Rashid "*Crisis in the University Discipline*", Paper presented on Seminar on Higher Education in Malaysia: A Reevaluation, 4-5 January 1986.

Armknetcht, PA, and Early, JF (1972), "Quits in Manufacturing: A study of Their Causes", *Monthly Labour Review*, 95, 31-37.

Berita Harian, (Kuala Lumpur), 9 June 1993 p. 5 Col. 1.

Bowey, A (1974), *A Guide to Manpower Planning*, London: Macmillan.

Brown, ME (1969), "Identification and Some Conditions of Organizational Involvement", *Administrative Science Quarterly*, 14, 346-355.

Clark, CE, and Larkin, JM (1992), "Internal Auditors: Job Satisfaction and Professional Commitment", *Internal Auditing*, 8 (1), 9-17.

Freidson, E (1986), *Professional Powers: A study of the Institutionalization of Formal Knowledge*. Chicago: University of Chicago Press.

Giddens, A (1993), *Sociology*. Cambridge: Polity Press.

Graham, HT and Bennet, R (1992), *Human Resources Management*. London: Pittman Publishing.

Grusky, O (1966), "Career Mobility and Organizational Commitment", *Administrative Science Quarterly*, 10, 488-503.

Grusky, O, and Miller, GA (1970), *The Sociology Of Organizations*. New York: The Free Press,

Gummer, B (1992) "Rethinking Organizations: Parochial Dinosaurs, Doom Loops, and Paradoxical String Quartets", *Administration in Social Work*, 16 (2), pp. 101-118.

Hafer, J and Moerer, T (1992), "How to Attain Long-Term TSR Employment", *Telemarketing Magazine*, 10 (11), pp: 78-81, 88-89.

Hall, DT; Schneider, B and Nygren, HT (1970), "Personal factors in organizational identification" *Administrative Science Quarterly*, 15, 176-190.

Hamid, Abu Bakar, "Punca Jawatan Akademik Tidak Begitu Dimanati", *Berita Harian* (Kuala Lumpur) 9 June 1993, p. 5 col. 1.

Hopfl, H (1992), "Commitment and Conflicts: Corporate Seduction and Ambivalence in Women Managers", *Women in Management Review*, 7 (1), pp. 9-17.

Hrebiniak, LG and Alluto, J (1972), "Personal and role-related factors in the development of organizational commitment", *Administrative Science Quarterly*, 18, 555-572.

Khir, Mahadzir Mohamed, *New Straits Times* (Kuala Lumpur), 27 January 1992, p. 13 col.1.

Kinicki, AJ; Carson, KP and Bolhander, GW (1992) "Relationship Between an Organization's Actual Human Resource Efforts and Employee Attitudes", *Group and Organization Management*, 17 (2), pp. 135-152.

Lincoln, JR and Kallenberg, AL (1990), *Culture, Control, and Commitment. A study of work organization and work attitudes in the United States and Japan*. Cambridge: Cambridge Press.

Livy, B (1988), *Corporate Personnel Management*. London, Pitman Publishing.

Locke, EA and Latham, GP (1990) *A Theory of Goal Setting and Task Performance*, Prentice-Hall, Englewood Cliffs, N.J., pp. 249-250.

Lydka, ML (1991), "Organizational Commitment-A Review of Research" A working paper series, Henley The Management College.

March, JG, and Simon, (1958), *HA Organizations*. New York: Wiley.

Morris, J and Sherman, JD (1981), "Generalizability of an Organizational Commitment Model" *Academy of Management Journal* 24, 512-526.

Mowday, RT; Porter LW and Steers, RM (1982), *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism and Turnover*. New York. Academy Press.

Muda, Dr. Wan Abdul Manan Wan, "USM Staff: Expect More Brain Drain", *The Star* (Kuala Lumpur), 27 January 1992, p.3, col. 5.

Othman, Dr. Norani, *New Straits Times*, Kuala Lumpur, 2 March 1994, p. 12 col. 1.

Pettman, BO (1979), *Some Factors Influencing Labour Turnover: A Review of Some Research*. London: Gower.

Said, Dr. Abdul Rahman, *New Straits Times*, Kuala Lumpur, 28 June 1993, p. 3 col. 7.

Stoikov, V and Raimon, RL (1968), "Determinants of Differences in the Quit Rate Among Industries", *American Economic Review*, 1283-1298.

Tan, J "Materialism a Big Factor Causing Varsity Brain-Drain" *New Straits Times*, Kuala Lumpur, 28 June 1993, p. 3 col. 1.

The Star (Kuala Lumpur), 24 December 1991, p. 1, col. 5.

Sundaram, Dr. Jomo, *The Star* (Kuala Lumpur), 3 March 1994, p. 3, col. 4.

Utusan Malaysia (Kuala Lumpur), Dato' Dr. Othman Yeop Abdullah, "Masalah Tenaga Akademik", 21 April 1993, p. 8 col. 1.

Chapter 2

HIGHER EDUCATION IN MALAYSIA

2.1 INTRODUCTION

The concept of higher in Malaysia education seems to change with the passage of time. The scope and coverage of higher education mentioned in several documents often show the different concepts. In the book, *Education In Malaysia* (1980) published by the Malaysian Ministry of Education, higher education takes into account only education at university level and education at college level that prepares students for diploma and degree courses, excluding education at teaching colleges. This interpretation is being used in all the Malaysian Plans to date (the present Seventh Malaysian Plan ends in 1999). Similar interpretation is also used in the book, *Higher Education and Economic Growth in Southeast Asia* by Pang *et al* (1976). However according to *Educational Statistics in Malaysia*, the scope of higher education, as defined by the Malaysian Ministry of Education (1972), encompasses education at teaching colleges. A Similar interpretation was also used in the book, *Higher Education in Malaysia: A Bibliography* (1983), which defined higher education as,

"....all level of courses offered after secondary education that led to the issue of degree, diploma or certificate."

Isahak Haron (1988) emphasises that any discussion on higher education should be limited to education at university level only.

Based on the argument above, higher education in the context of this research covers only education at university and college level, excluding teaching education, that prepares students for diploma and degree courses only, specifically at institutions run by the Government.

2.2 BRIEF BACKGROUND OF HIGHER INSTITUTIONS IN MALAYSIA

The oldest university in Malaysia is the University of Malaya. It was originally set up in Singapore just after the Second World War. A branch was later established in Kuala Lumpur to cater for the growing demand for tertiary education. Later it was decided that the two colleges of the university be independent of each other. The one in Singapore became the University of Singapore (now the National University of Singapore) and the Kuala Lumpur branch maintained the name University of Malaya (UM). As the country progressed, the demand for more universities could not be ignored. The University of Science, Malaysia (USM), was established in 1967 at Penang. This was followed in 1970 by the establishment of the National University of Malaysia (UKM). It occupied a temporary campus in Kuala Lumpur before moving to its present site at Bangi in the neighbouring state of Selangor. Later the Technical College and the College of Agriculture were accorded university status and became known as the University of Technology (UTM), and the University of Agriculture (UPM) respectively. As it has branched out to include several non agricultural courses, UPM was renamed Universiti Putra Malaysia in March 1997, in honour of the country's first Prime Minister, Tunku Abdul Rahman Putra. The initials UPM are maintained. The International Islamic University (IIU), was set up in 1983 with the purpose of having an institution offering courses similar to any university but having them taught in accordance with Islamic principles. The University of Northern Malaysia (Universiti Utara Malaysia-UUM) was formed in 1984. The University of Malaysia, Sarawak (UMS) received its first intake of students at the beginning of 1994 and the University of Sabah in 1996.

The MARA Institute of Technology (ITM) was originally set up in 1956 as RIDA College to cater for the needs of providing post secondary education and professional qualifications for the indigenous race, mainly Malay. It changed to its present name in 1972. Other than pre-bachelor diplomas ITM also awards bachelor degrees. ITM has twinning programmes with local and foreign universities offering courses at bachelor and master's levels. As in universities,

ITM staff hold qualifications ranging from bachelor's to doctorates. ITM is also included in inter-university academic activities and games both at staff and student levels. For further information on ITM, refer to the relevant Chapter 3 on the history and background of the Institution.

Officials for the top posts who have executive powers, like Vice-Chancellors, Deputy Vice-Chancellors in the universities and ITM are appointed by the Government. Virtually all the top posts and other administrative positions occupied by academicians are not permanent. That is, normally the posts are held by the holders for a term of usually two or three years. The posts are renewable to the holders depending on the circumstances. The usual academic ranks, from bottom to top are commonly in the order of; tutor, assistant lecturer, lecturer, associate professor and professor. In the case of ITM, the academic posts are tutor, assistant lecturer, lecturer, senior lecturer, and principal lecturer. The higher category of senior lecturer post in ITM is equivalent to associate professor and principal lecturer is equivalent to professor. Both the administrative and academic staff in these institutions are subject to conditions and terms of service governed by the General Orders similar to those of the civil service. They also enjoy similar fringe benefits, based on each individual's salary and post.

2.3 AIM AND OBJECTIVES OF HIGHER EDUCATION

Higher education plays a vital role in the development of any country. The aim and emphasis on higher education has undergone several changes in line with the change in time.

At the time of Malaysian independence in 1957 the aim and objective of education stressed the importance of instilling the spirit of unity and loyalty for the sake of national development, and as a source to produce graduates that will assume duties from foreign experts in the public and private administration (Mohamed Suffian Hashim, 1973).

At the same time higher education is an instrument that is very effective as agent of change and modernisation, answering to the needs of the Nation for qualified personnel while at the same time improving and producing researchers needed for national development (Murad Mohd. Noor, 1971). Strategically, at the beginning of the First Malaysia Plan (1956-1960), its priority was concentrated on the areas of agriculture and rural development. At the start of 1958, the stress on higher education was unified with the economic strategy of promoting diversity in the economy and industrial pioneering.

In 1969, inequalities between the politically dominant Malays and economically dominant Chinese resulted in racial riots, mainly in the capital Kuala Lumpur. As a result a major restructuring of political and social institutions was carried out to correct the imbalance. This gave birth to the New Economic Policy. In the New Economic Policy as spelled out in the Second Malaysia Plan (1971-1975), the concentration of higher education was on economic and racial equality (Pang *et al*, 1976). From the individual perspective, a higher education qualification would guarantee better occupation, social mobility and pride in status. Due to these factors higher education is important (Mohamed Suffian Hashim, 1973).

At present, other than the objectives mentioned above, higher education should encompass educating the population to the awareness of social justice, improving quality of living, participating in the development of politics and the provision of guidelines for a better social living in time to come (Saedah *et al* 1993).

2.4 THE NEED AND DEMAND FOR HIGHER EDUCATION

Higher education is a necessity for the sake of national development and advancement of society. According to Selveratnam (1983), an expert in the field of social studies in Malaysia, there are three factors that make higher education a necessity. These factors are defined below.

First is the endogenous factor. Rapid population growth, the increase in aspirations of the citizens and the ever increasing demand for human resources, especially for skilled workers, because of the nation's development are some of the reasons that lead to this factor.

Second is the exogenous factor. The nation's economic growth and development have to be related with the world economy. The growth and availability of modern communication systems means that contacts are easier, faster and more efficient. Relations with other nations are better and economic development dependency on the world market is a reality that has to be accepted. Thus higher education has an important role to prepare recruits that have the ability to compete in order to maintain and improve the Nation's standing.

Third, the appreciation factor emphasises that with limited resources, changes can only be undertaken and managed in a systematic manner if they (the resources) are used efficiently. Higher education has an important role in this respect.

The development of a country is dependent upon its economic growth. As stated in the introduction, the Government's aim to make Malaysia a developed industrialised nation by the year 2020 means that the availability of modern technology is vital. In this context the demand for engineers and technocrats will be high, thus the need for higher education to produce them. In line with economic growth will be expansion of the administrative sector. This sector needs qualified professionals such as researchers, administrators, managers, lawyers, accountants and entrepreneurs. These qualified personnel can only be obtained through higher education.

Increased productivity is an important factor that determines national economic growth and guarantees that the Nation maintains its position in the competitive international market. For productivity to increase, it needs personnel to carry out research and introduce innovation. Such persons need to possess knowledge

and skills, and be innovative, creative and be prepared to face change and to make change to achieve higher success. This means that supply of higher education has to be increased.

Malaysia is a multi-racial, cultural and religious country. Past national historical events, especially the British policy of divide and rule, had led the different peoples to adopt different ways of life that are now not conducive for economic and social development. The different races have to adapt to a national policy to achieve national harmony and unity. In this respect education as an effective instrument that can help produce better qualified people, has a responsibility towards helping to elevate better social standing for the intended group.

Higher education is not only a contributing factor to national development but it is also a symbol of national pride and acts as a gauge of a country's advancement. From national perspective, the growth and achievement of higher education in a country reflects its status.

As a nation's economy grows, one also witnesses an increase in population, increase in human resources and a better standard of living. The improvement in the standard of living brings new lifestyles and the demand for better goods. This means demand for new services and occupations thus leading to an increase in demand for more professionals and human resources.

According to figures obtained from the First Malaysia Plan to the Sixth Malaysia Plan, Malaysia 's population has witnessed growth of between 2.4% to 2.8% per year between 1965 and 1990 (see Table 2.4.1) and that of labour supply to be between 2.9% to 3.2% per year within the same period (see Table 2.4.2). The present population according to the Sixth Malaysia Plan in 1990 is 19 million and the level of qualified manpower at seven million. This constant population growth will inevitably lead to an increase in demand for higher education in the country.

Table 2.4.1: Malaysia's Population Growth

Year	Population	Percentage Growth %
1965	9,411,000	2.6
1970	10,439,530	2.6
1975	12,249,000	2.8
1980	13,879,200	2.6
1985	15,791,100	2.5
1990	19,010,200	2.4

Source: First Malaysia Plan - Sixth Malaysia Plan

Table 2.4.2: Malaysia's Human Resource Growth

Year	Numbers	Percentage Growth %
1965	2,518,000	2.7
1970	3,700,000	3.2
1975	4,225,000	3.2
1980	5,108,900	3.1
1985	5,917,100	3.0
1990	7,046,500	2.9

Source: First Malaysia Plan - Sixth Malaysia Plan

From the point of view of an individual, the demand for higher education is easy to understand because of the presence of a high correlation between educational qualification and occupation and income. Added to that higher education also means prestige in a social sense (Isahak Haron, 1988). Possessing a higher educational qualification reflects the capability and ability of a person. While this improves his social standing it also improves his income as it leads to a better job and with it a better standard of living.

The cost of higher education to the student is relatively low in Malaysia. This is because of the Government's spending and subsidising, and also due to aid given especially in the form of scholarships by several agencies like Petronas (the National Petroleum Company of Malaysia), Bank Negara Malaysia (the Central Bank of Malaysia), and MARA (the Council of Trust for the Indigenous People) in response to the aspiration of the population for higher education (Pang *et al*, 1976).

2.5 CONTROL AND COORDINATION OF HIGHER EDUCATION

The control and coordination of higher education has been closely monitored by the Government since its inception. For these purposes a committee known as the Higher Education Planning Committee was set up in 1962. Its function was to study the needs of higher education and to make recommendations for its (higher education) growth. The committee's report published in 1967 among other matters covered in detail the projected spending of higher education for 20 years ending in 1985. The Committee was replaced in 1968 by the Higher Education Advisory Council. This new Council's main function was to ensure that the need for establishing institutions of higher education be continually monitored and controlled. In 1972 the Division of Higher Education was set up in the Ministry of Education to administer and coordinate matters pertaining at this level.

In the Division of Higher Education are units for The Advisory Council for Higher Education, The Coordination and Administration of Higher Education, The Overseas Students Affairs, The Administration of Scholarship Awards, and The Processing of Application of Awards From Overseas Universities. In 1976 a new unit known as the Universities Central Unit was set up to coordinate applications for studies at local universities. This was necessary to avoid potential students duplicating application to local institutions.

In 1971, the Universities and University Colleges Act was passed and enforced. Its main aim was to control the setting up of institutions of higher learning at university level and to check on students' activities. Under this act, the Minister of Education was directly responsible on education at university level and the implementation of the Act. In 1975, a modification to the Act was made. With this modification, more heads of Government departments were selected to be members of the highest administrative body, that is the University Council at every institution involved.

The Government has the sole control over higher education. This is especially so at public institutions of higher learning. This can be testified because the Government has powers to set up institutions of higher learning, approve

programmes and courses, decide on the recruitment and appointment of staff and financial distribution for management and research purposes (Isahak Haron, 1988).

As a whole the planning of higher education in Malaysia is based on the manpower needs of the country (Lim, 1973). This is mentioned in Section 1:4:20 of the professional, sub-professional and skilled workers category spelled out in the report on the Manpower Survey of the States of Malaya 1965, and also in section 4:3:3 for arts, science and technological courses that were spelled out by UNESCO. The main aim is to fill the need for human resource for economic growth and national development. Following the racial riot in May 1969, the Majid Ismail Committee was set up to find ways and means to develop and improve social and cultural relations between students of different races at the University of Malaya (Mohamed Suffian Hashim 1973). As a result of the report made by this committee the Government set up guidelines on student intake. This was done so that student population in universities and courses offered would reflect the Nation's racial distribution and geographical location. The implementation of this policy had been controversial. Later in 1978 a quota system was adopted for students intake based on 55% for Bumiputera (indigenous race, notably Malay) and 45% for non-bumiputera. With these clear guidelines, higher education in Malaysia plays a vital role in the effort to eradicate economic and social differences not only between races but also between regions in the country.

2.6 ISSUES AND PROBLEMS

In Malaysia, the attention on higher education is one of the main strategies to mould and to guide the country towards the national socio-economic goals. To date the contribution made by higher education towards national and social development and its success has been encouraging. However the planning and controlling of the policy has brought several issues and problems.

One of the questions connected to higher education is the high social costs. Higher education needs huge spending. Because all universities and institutions of higher learning in the country are set up and run by the Government and students are charged the minimum fee, this means that the Government has to undertake heavy subsidisation. This amounts to between RM5250¹ for every student in the arts and social science stream to RM22566 for every one in the medical course per year (Shahril Marzuki, 1992). Meanwhile the internal social rate of return to education for higher education was found to be the lowest, i.e. 6% compared to 15.6% to that for primary education and 12.3% for secondary education. There is the possibility that this rate is lower than the capital's presumed marginal productivity (Pang *et al*, 1976). On the other hand, for an individual, the cost for higher education is very low. The internal private rate of return for an individual can be as high as 49.8% (Hoer, 1970). This is one of the reasons that increases the demand for higher education in the country.

The second question is related to the limited number of institutions of higher learning in the country. This has led many to continue their education abroad. It is estimated that in 1985, studying abroad contributed to external flow of about RM1200 million per year (Fifth Malaysia Plan). Added to this is the Government spending on overseas education. This currently is estimated to be at RM2.5 billion (£650 million) per year (Times Education Supplement, 1996). Other than that studying abroad can mean the unwanted influence of foreign culture on to the students concerned. Not to be discarded is the possibility of those who found job abroad and do not return on completion of their studies and thus depriving the Nation of the professionals and intellectuals needed.

The question of student intake based on race or ethnic group cannot be avoided. In the sixties the racial imbalance in the institutions and the courses offered was very evident. Policies were later adopted to increase the number of Bumiputera students in institutions of higher learning. But what is feared here is that

¹ The Malaysian currency, the Ringgit (RM) floats at about RM4 to 1£

students intake is based on quantity rather than quality (Mohamed Taib Osman, 1987).

In the late seventies there were demand from the non-Bumiputeras for equality in university entrance. This led to the adoption of a system where intake to universities to be based on racial quotas. Even though efforts have been made to achieve this, due to history and special reasons for the existence of some institutions, these efforts have not been entirely successful. For example, the enrollment at ITM and TAR (Tunku Abdul Rahman) College has always been a controversial issue. The former is composed of entirely Bumiputeras, and the latter is mainly Chinese in composition.

According to Isahak Haron (1992), the national education seems to be heading to two different directions:

- i. Most Chinese students from national type schools (schools whose medium of instruction is not in Malay) will go abroad to continue their studies via twin programmes.
- ii. Most Malay students from national schools will pursue their studies locally.

Isahak Haron (1992) is of the opinion that these directions make it very difficult for the birth of a *Malaysian Race* to be a reality. The concern of the loss of national identity had already been voiced out by the then Vice-Chancellor of the University of Malaya, Professor Ungku Aziz in 1971.

Also, higher education at local institutions is in the Malay language while that abroad are not. With the lack of academic books, articles, periodicals etc. in Malay, local students who are not well prepared have difficulty in reading and understanding books written in English. This becomes a hurdle when they have to continue their studies abroad (HEIM: The Study, 1983). Because Malaysia is moving towards the status of a developed country through industrialisation, and the economic system of the country is more oriented towards international marketing, this will mean that jobs will be more oriented towards meeting the

demands of the international market. What is feared here is that graduates of local institutions will lose out in the competition for jobs with graduates from foreign universities who are educated in English or other foreign languages (Isahak Haron, 1992). This was substantiated earlier when findings from a study covering the period from 1979-1983 indicated that more graduates of local institutions were working in the public sector and that those who were still studying (in local institutions) showed keen interest to work in that sector too rather than the private sector. This was in stark contrast to graduates from foreign universities even though other factors are involved (Singh, 1987).

Another question to be raised is the suitability of courses offered in line with the present demands of the job market. Local institutions especially the well established, were noted to be late in making adjustment to produce graduates suited to the demand of society (Selvaratnam, 1983). The Fifth Malaysia Plan (1986-1990) states:

"From the point of view of human resource, the education system that is more academic oriented has resulted in unsuitability between skills needed in the job market and those produced by educational and training institutions"

(Fifth Malaysian Plan, p:18, 1986)

Institutions are, of course, not entirely to be blamed. A large number of students consider degrees to be passports for better jobs that offer good pay and thus were not keen to do deep reading and be critical in their thinking (Lim, 1973).

In the Third Malaysia Plan (1976-1980), it was estimated that the supply of graduates in the arts and social sciences was 41% more than that needed in the job market. In 1987, a noted Malaysian economist, Dr. Kamal Salih, pointed out that about 40 thousand graduates, mostly arts and social science graduates, were unemployed (The Star, 5/8/87). However the supply of graduates needed with technical background were 48% short. Thus plans were made to lower the intake of arts and social science courses while at the same time increase those of applied sciences, technical and engineering subjects. Despite these efforts, by the end of

It is estimated that there will be a shortage of at least twenty five engineers or assistant engineers. In line with that the Nation faces the field of science education, which is expected to play a very part towards (the Nation) achieving industrialisation status by 2020.

They have to be self critical and be proactive in order to help themselves to further and thus help in the Nation's development. At the moment there is a lack of coordination between local higher educational institutions. This is due to similar courses having different syllabuses, pre-requisites and facilities (Mok, 1976). For example there is not equal attention being paid to those that are academic oriented and those that are problem solving. Also courses are known to be taught in different languages.

As mentioned in Chapter One (see 1.1) the shortage of academic staff in higher learning in Malaysia is of great concern to the nation. The quality of academics affects the ability of an institution to advance and create and disseminate new knowledge deemed necessary for the nation's progress. However the demands of a local job market that limits educational institutions towards achieving objectives of development cannot be ignored (Bedora, 1974). With the ability to advance and facilities offered by the institutions, one of the consequences is leaving the institutions for the private sector (Mohamed Taib Osman, 1993). The setting up of Government agencies that perform functions similar to higher institutions like research and training also helps in the brain drain from institutions. This is because academics are seconded to these agencies at the expense of the institutions (Saedah *et al*, 1993).

The institutional commitment of the academics to their institutions is vital for them to play their role in national development. Academics are higher education's most important asset (Kogan *et al*, 1994). Yet the study of institutional commitment of academics have largely been ignored. As in

reviewing the literature little attempt has been made on this subject, especially in a developing country.

2.7 CONCLUSION

Malaysia is a multi racial country. Education has an important role to play in bringing about the racial integration needed for national development. In line with National development, the economic and the social demands towards higher education and institutions increase. Government inability to fulfill these demands means that the private sectors' contribution is needed especially in lowering the costs of higher education.

However the Government needs to maintain its role as the highest authority in scrutinising and coordinating higher education. Despite attention paid towards science and technology, aspects of civics and morality cannot be ignored. This is to ensure that the graduates produced are not only qualified academically and technical wise but also of high moral value. Thus the need for human progressive development is important in the institutions.

REFERENCES

Atan Long (1978), "*Social Needs and /or Demand for Higher Education*", Working Paper presented at Malaysian National ASAIHL Seminar at University Malaya, 16.12.1987.

Bodora, PA (1974), "*Analysis of Some Factors Influencing The Composition of Higher Education in Malaysia*", Doctoral thesis, University of Pittsburgh.

Isahak Haron, (1988), "*The role of the Government in Higher Education in Malaysia*" An article written in "*The Role of Government in Asian Higher Education System: Issues and Prospect*", RIHED, Hiroshima University.

Isahak Haron, (1992), "*The Flow of the Development of Education and the Structure of Malaysia as an Industrial Nation in the 21st Century*" An article presented at the the University of Agriculture Malaysia (UPM) on 4th January 1992.

Higher Education in Malaysia: A Bibliography (1983) Section A: *The Study*, RIHED Bibliographical Series on higher Education in ASEAN. Singapore: RHIED (Regional Institute of Higher and Development) .

Hoerr, OD (1970), "*Education, Income and Equality in Malaysia*", Economic Report No. 176. Presented at DAS Conference in June 1970.

Kogan, K., El-Khawas, E and Moses, I (1994), "*Staffing Higher Education: Meeting New Challenges*", London: JKP pp. 9-11.

____ (1992), "*The Trend in the Expansion of Education and the Making of Malaysia as an Industrialised Nation in the 21st Century*" The Fourth Aminuddin Baki Public Lecture, presented at The Agricultural University, Malaysia, 4.1.92.

Lim, David (1973), *"Development Planning in Southeast Asia: role of the University"* Singapore.

"Malaya, A Plan of Development for Malaya, 1956-1960 (1960), Kuala Lumpur: Percetakan Negara (National Press).

____, *Second Malaya Plan, 1961-1965, (1961), Kuala Lumpur.*

____, *First Malaysia Plan (RM1), 1966-1970 (1966), Kuala Lumpur: Percetakan Negara.*

____, *Second Malaysia Plan (RM2), 1971-1975 (1970), Kuala Lumpur: Percetakan Negara.*

____, *"Mid Term Review of the Second Malaysia Plan, 1971-1975 (1973), Kuala Lumpur: Percetakan Negara.*

____, *Third Malaysia Plan (RM3), 1976-1980 (1976), Kuala Lumpur: Percetakan Negara.*

____, *Fourth Malaysia Plan (RM4), 1981-1985 (1981), Kuala Lumpur: Percetakan Negara.*

____, *Fifth Malaysia Plan (RM5), 1986-1990 (1986), Kuala Lumpur: Percetakan Negara.*

____, *Sixth Malaysia Plan (RM6), 1991-1995 (1991), Kuala Lumpur: Percetakan Negara.*

____, *"Education in Malaysia: 1980"*, The Malaysian Ministry of Education (1981), Kuala Lumpur: Education, Planning and Research Division.

____, *"Education in Malaysia: 1989"*, The Malaysian Ministry of Education (1990), Kuala Lumpur: Education, Planning and Research Division.

____, *"Educational Statistics of Malaysia"*, The Malaysian Ministry of Education (1972), Kuala Lumpur: Education, Planning and Research Division.

____, *"Educational Statistics of Malaysia 1976-79"*, The Malaysian Ministry of Education (1982), Kuala Lumpur: Education, Planning and Research Division.

____, *"Educational Statistics of Malaysia 1989"*, The Malaysian Ministry of Education (1991), Kuala Lumpur: Education, Planning and Research Division.

____, *"Educational Statistics of Malaysia 1990"*, The Malaysian Ministry of Education (1992), Kuala Lumpur: Education, Planning and Research Division.

Mohamed Suffian Hashim, (1973), *"Problems and Issues of Higher Education Development in Malaysia"*, in Yip Yat Hoong (Ed) *"Development of Higher Education in Southeast Asia: Problems and Issues"*, Singapore: RIHED.

____, (1977), *"University Education"*, in Wong, FHK (Ed) *"Reading in Malaysian Education"* Kuala Lumpur: University Malaya.

Mohamed Taib Osman, (1987), *"Kembali Kepada Asas: Pengajian Tinggi dan Isu-Isu Lain"* (Back to Basics: Higher Education and Other Issues), Kuala Lumpur: University Malaya, Department of Malay Studies.

Murad Mohd. Noor, (1971), *"Existing Relationships Between Universities and Government Planning Agencies in Malaysia"*, in Yip Yat Hoong (Ed) *"Role of Universities in National Development Planning in Southeast Asia"* Singapore: RIHED.

Pang, EF., Riaz Hassan and Nippon Kantasewi (1976), "*Higher Education and Economic Growth in Malaysia and Singapore*" in Tapingkae, A. (Ed), "*Higher Education and Economic Growth in Southeast Asia*" Singapore: RIHED.

Saedah, Dr. HS, Sharil, M, Zainun, I and Lee, PW (1993) "*Pendidikan Di Malaysia*" (Education in Malaysia).

Selvaratnam, V (1983), Foreword in *Higher Education in Malaysia: A Bibliography*, RIHED A Bibliographical Series on Higher Education in ASEAN, Singapore: RIHED.

Shahril Marzuki (1992), "Fees in Local Institutions are Still Cheap and Heavily Subsidised" in "BUDIMAN: The Forum Voice of the University of Malaya, 16 (15), Mac/April, Kuala Lumpur: University Malaya).

Singh, JS (1987), "*The World of Work*", in Ungku A. Aziz *et al.* (Eds) "*University Education and Employment in Malaysia*", Paris: International Institute for Educational Planning.

Ungku A. Aziz (1971), "*Orientation of Arts and Science Education to Meet National and Regional Needs*" in "*Role of Universities in National Development Planning in Southeast Asia*" Singapore: RIHED.

Chapter 3

MARA INSTITUTE OF TECHNOLOGY

-An Historical Background

3.1 INTRODUCTION

The history of the MARA Institute of Technology, or better known in Malaysia and universities and colleges throughout the world as ITM- the Malay abbreviation for the Institute-(Institut Teknologi MARA) began in 1955. MARA is the abbreviation for the Majlis Amanah Rakyat-Council of Trust for the Indigenous People. Thus in any address to the Institute, the abbreviation MARA will always be in capital letters. As the researcher is an academic of ITM, he has been given access to data with prior permission from the Institute.

3.2 RIDA TRAINING INSTITUTE (1956-1965)

ITM originally began with the establishment of the Dewan Latihan RIDA-RIDA Training Institute, an experimental centre offering courses for rural youths who attended schools conducted in the English language.

The RIDA Training Institute was the brain child of Datuk Onn bin Jaafar, a former chief minister of the state of Johor and later the founder of the political party, United Malays National Organisation-UMNO. The inspiration for the setting up of the Institute came as a result of his visit to Ceylon (now known as Sri Lanka), in 1950. The purpose of the visit was to study the rural development programme in that country. Following the visit a Working Paper exhibited as Paper No. 10 of 1951 was presented to the Federal Legislative Council. It was the content of this paper that formed the basis of the establishment of RIDA (The Rural and Industrial Development Authority). As a government agency, RIDA's two main objectives were to rebuild rural society and improve its economy.

In 1956, the authority established a training unit known as RIDA Training Institute situated in Petaling Jaya. The institute began its operations in November 1956 and it was officially opened February 1957. The courses then conducted were:

- i. A two year preparatory course for the London Chamber of Commerce (Higher Examination).
- ii. A one year course for the London Chamber of Commerce (Intermediate Examination).
- iii. An 18 day course for small businesses.
- iv. A two month course for "Coir making" a course on the method of making use of coconut husk. This course was terminated in May 1957.

In 1960, the institute advanced a step further by upgrading the entry requirements for its courses to Cambridge School Certificate. Three new courses were introduced, which were:

- i) Stenography
- ii) Secretaryship
- iii Accountancy-in association with the Australian Society of Accountants.

The institute continued to develop and in 1962, another professional course was introduced, the General Business Management course which prepared students for an examination conducted by the British Institute of Management. In 1964, the institute held its first award ceremony. Fifty graduates were awarded certificates by the then Deputy Prime Minister, Tun Abdul Razak.

3.3 MARA AND MARA COLLEGE

At a congress for the indigenous people known as the Bumiputera Economic Congress held in June 1965, there were 68 resolutions passed. Twenty-two of them concerned the re-evaluation of the roles and the objectives of RIDA, and

new proposals to strengthen the effectiveness of the activities conducted by the Board.

The first step was to change the name RIDA to MARA. To quote the words of the then Deputy Prime Minister, Tun Abdul Razak, who was also the Minister for Rural and Urban Development, the change was aimed at

"Giving a face-lift and a new life to RIDA" (1965)

Thus in December 1965 the *Majlis Amanah Rakyat Act* was passed by the Malaysian Parliament,

With this change in name and organisation, the RIDA Training Institute was changed to Maktab MARA or MARA College in June 1965. MARA College became the most important unit under the MARA Training Section and continued to run the courses previously handled by RIDA Training Institute.

In 1965, when the British Institute of Management was no longer the board of examiners, MARA College worked towards the running of the Business Management course by itself. Cooperation was obtained from the Ealing Technical College in London (now Thames Valley University) for the recognition of the course. The Ealing Technical College became the external examiner to vet and guarantee the standard of the diploma courses conducted at MARA College.

3.4 THE MARA INSTITUTE OF TECHNOLOGY-*INSTITUT TEKNOLOGI MARA* (October 1967)

A Manpower Survey conducted by the Federal Government with the assistance of the United Nations in 1965 indicated that there was a shortage of trained manpower at the professional and semi-professional level, especially among the Malays (Bumiputeras). There was thus the need to train more Malays to overcome this shortage and hence there was demand that the college increased its

intake of students. To overcome the shortage of space in the cramped campus in Petaling Jaya, a 300 acre site in Shah Alam, in the state of Selangor, was approved as the foundation of a new MARA College. On 14th October 1967, the foundation stone was laid in Shah Alam and MARA College was renamed the MARA Institute of Technology. Work on the new building was fully completed in 1972.

In keeping with its rapid development, at the end of 1970, ITM was given full autonomy. It became independent of the MARA Training Section and was placed directly under the Ministry of Rural and Urban Development. This gave ITM more power and opportunities to progress further in the history of higher education in Malaysia culminating with an act called the *ITM Act* passed by the Parliament in June 1976. With this Act, ITM was recognised as an institution of higher learning under the Ministry of Education.

At its 27th meeting on 18th November, the ITM Council decided to fix the birthdate of the Institute as 1956, in accordance with the original concept of the establishment of ITM.

3.5 CAMPUSES

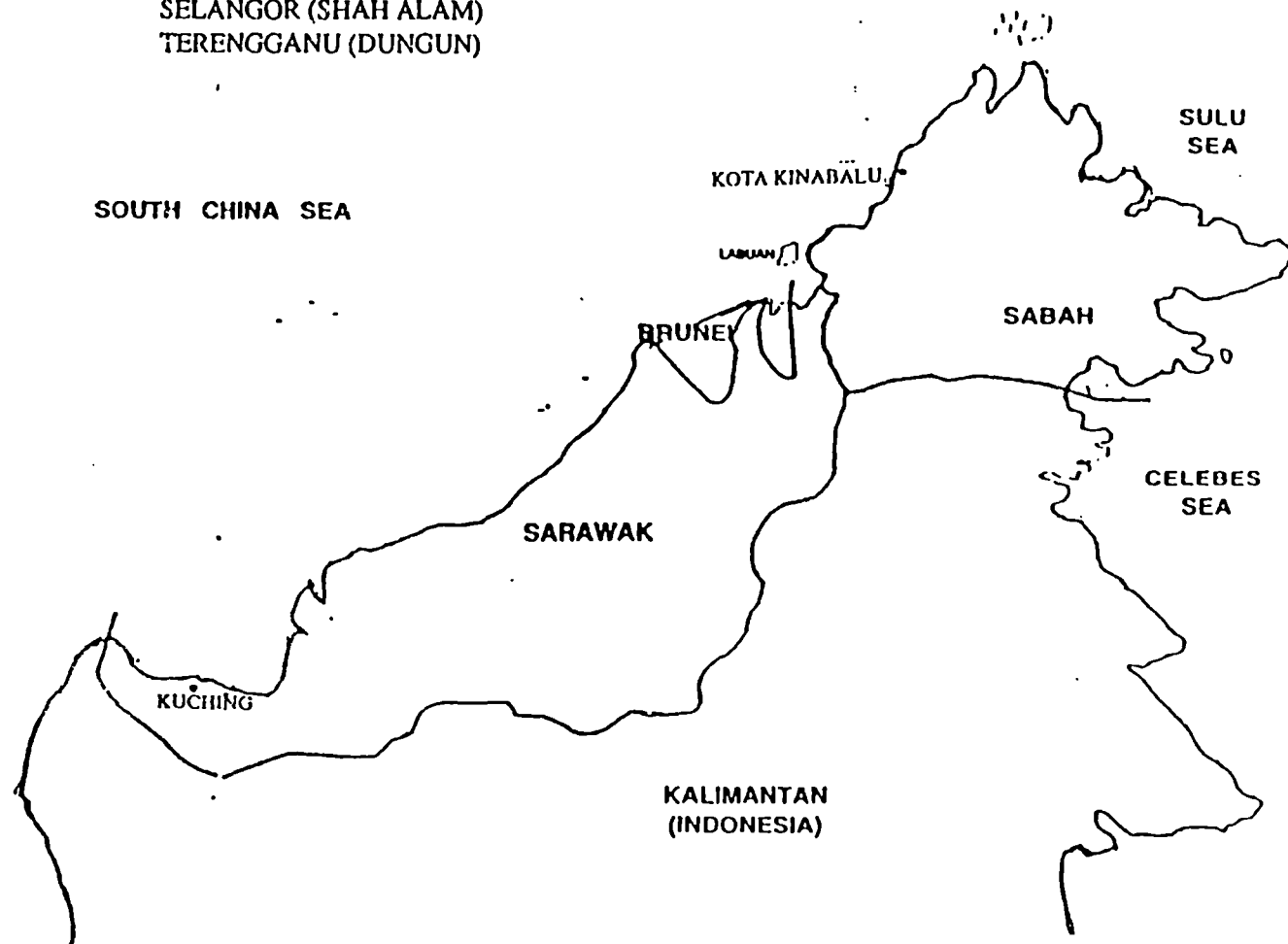
The main campus and administrative centre of ITM are at Shah Alam the capital of the state of Selangor Darul Ehsan. ITM also takes pride in its nine other branch campuses in various states in the country. Plans are underway to open branches in the remaining states of Kedah, Negri Sembilan and Pulau Pinang. The present campuses are situated in the following states (please refer to map in page : : A), Johor (Segamat), Kelantan (Kota Bharu), Melaka (Melaka), Pahang (Jengka), Perak (Setiawan) Perlis (Arau), Sabah (Kota Kinabalu), Sarawak (Kuching) and Terengganu (Dungun).

The branch campuses exist as a means to expand the Institute, thus providing more opportunities for the Bumiputeras to pursue higher education and to attain

MALAYSIA

ITM CAMPUSES

JOHOR (SEGAMAT)
KELANTAN (KOTA BAHARU)
MELAKA (MELAKA)
PAHANG (JENGKA)
PERAK (SETIAWAN)
PERLIS (ARAU)
SABAH (KOTA KINABALU)
SARAWAK (KUCHING)
SELANGOR (SHAH ALAM)
TERENGGANU (DUNGUN)



higher economic and social development. More importantly this will help to prepare them towards facing a competitive environment where scientific and technological advancements rapidly change.

3.6 PHILOSOPHY, PRINCIPLES, OBJECTIVES AND STRATEGIES.

In its mission to become a renowned institute of higher learning, ITM has made efforts to instill on its staff the importance of promoting academic excellence in higher education and professional training for the Nation's socio-economic development. The mission is guided by the philosophy, principles, objectives and strategies (ITM Prospectus, 1994) described below.

3.6.1 Philosophy

The concept behind the establishment of ITM is based on four beliefs or truths, which directly combine the educational philosophy of the Institute. A summary of these principles are as follows:

1. That every individual person possesses a natural capacity to learn.
2. That education has a close relationship with the needs and wants of community.
3. That education can play an important role in changing the socio-economic status of the society.
4. That development and success of an individual at the highest level can only be achieved through education.

Based on the changes and needs of the Nation as well as other emphasis identified by the Government for the period of the Five Year Development Plan for Malaysia, the Principles, Objectives and Strategies of the Institute for the current period are:

3.6.2 Principles

educate and train Bumiputeras to become professionals and agents of change in the development of the Nation.

.3 Objectives

To produce able candidates mentally, physically and spiritually, in the field of science, technology, business and management in accordance with the needs of the Nation.

To instill and encourage a sense of trust, dedication, tolerance and loyalty among students through the values of leadership and discipline enabling them to become able leaders who are disciplined and productive and would in turn help lift the standard of living of the poor.

To cultivate an attitude of fearlessness and truthfulness among students to enable them to become independent.

To produce professionals who are resilient.

To produce students who are diligent and industrious.

To increase the opportunities for further education among working Bumiputeras through off campus classes.

To raise the standard of education in order to achieve a high technological level to meet the needs of the Nation.

To carry out research projects through discussions and observations with the business and industrial sectors within the Nation and abroad.

3.6.4 Strategies

The objectives would be attained through the following strategies:

- 1. Offering professional courses that are not found in Institutions of higher learning in Malaysia and strengthening the existing courses.**
- 2. Establishing, completing and extending the branch campuses.**
- 3. By incorporating Islamic values in all courses with the aim of instilling these values among students.**
- 4. Establishing, developing and extending co-curricular activities to enable the values of trust, faith, dedication, tolerance, discipline and good manners be fostered among students.**
- 5. Exposing all students to working experience through practical training so as to enable them to adjust more quickly to the working environment.**
- 6. Improving the teaching and learning of English as a second language in all courses to enable students to be effectively prepared in the international world of business.**
- 7. Extending and improving the use of computers in all courses in accordance to the current technological development.**
- 8. Conducting remedial courses to enable weaker students to adjust in courses more suitable for them.**
- 9. Studying, researching and revising the curriculum for all courses that are offered to ensure that they are in accord with the needs of the Nation.**

10. Establishing relationship and improving cooperation with local and foreign institutions of higher learning to enable twinning and advanced courses to be carried out.

11. Improving the lecturer: students ratio, to ensure effective teaching and learning.

12. Improving, completing and extending the basic facilities necessary for the Institute and its students in order to create harmonious and peaceful campus environment.

13. Organising, updating and improving the training system for both academic and non-academic staff with the aim of improving their knowledge and experience which may result in a higher level of achievement for teaching , learning and servicing.

3.7 ADMINISTRATION

ITM is administered under the authority of the ITM Act., 1976 (Act 173 of the Parliament of the Federation of Malaysia). The administrative board is a body formed to manage the administration of the Institute that is headed by the Director who acts as the chief executive. The responsibilities that are carried out are in line with Act 173.

3.7.1 The Board of Council

The Board of Council is the highest policy making body of the Institute. It is headed by a Chairman. All its members including the Chairman are appointed by the Minister of Education. It is empowered with authority to oversee policy on Development and Financial matters, Administration and Staff affairs, Academic and Students affairs. The Board also has authority over the use of the official seal of the Institute.

3.7.2 The Director

The Director is the chief executive officer of the Institute. He is appointed by the Government, on the advice of the Minister of Education, normally for a period of three years. The appointment is subject to renewal. In the execution of his functions, the Director is aided by the Deputy Director of Management and the Deputy Director of Academic and Students Affairs. At present there are five assistant directors coordinating various functions. Since the formation of the Institute, the post of Director has always been held by a non-serving ITM staff. The posts of Deputy Director and Assistant Director are held by academics for a period of two years, subject to renewal.

3.7.3 The Registrar

The Registrar is the highest permanent administrative officer of the Institute. He oversees the running of the entire divisions under the Registry. The largest division is the Student Enrollment and Record Division. For the staff there are three main divisions: the Service Division, the Personnel Division and the Training and Scholarship Division. Each of these divisions is headed by a Deputy Registrar.

3.7.4 Schools and Branches

Each school of the Institute is headed by a Dean with the assistance of a Deputy Dean. Courses offered by each school are headed by Course Tutors. Subjects offered at different levels are overseen by Coordinators.

Each branch campus is headed by a Principal. He is assisted by two deputy principals, one in charge of academic affairs, and the other in charge of student affairs. The branch campuses do not have the autonomy to set up courses. This

power lies with the school concerned. The semester examinations are centralised with schools setting questions for all branches offering the subjects concerned.

3.8 ITM TODAY

The success and growth of ITM have been beyond the aspirations of those who initiated it. However like other institutions ITM too is facing shortage of academic staff due to factors such as resignation, early retirement option and not being able to attract the right candidates. Thus the organisational commitment of the academics in ITM is questioned. In a speech to mark the end of his tenure as Director of ITM in 1993, Dato Dr. Mansor Salleh appealed to the serving staff not to leave the Institute and at the same time *appealed to other organisations* particularly other institutions of higher learning not to poach staff from ITM (Beirta Harian, 1994). Between 1990 and the end of 1994 when this research began, a total of 393 academic staff left the Institute.

Since the research was undertaken changes have been introduced to ITM. The Institute is now accorded full university status with effect from 1996. The ranks of the academics have also been uniformed with that of the university. The Board of Council is now called the Senate. The post of Director is now renamed Rector. Principal of a branch campus is now called Provost. Schools are now known as faculties. Advanced Diploma courses have been converted to degree courses. ITM has also has been given the autonomy by the Government to begin post-graduate courses which previously have been carried out through twinning programmes with other universities. It is hoped that the change in status of the Institute will help to increase the commitment of the staff. Since the change took place after data had been collected, the research was based on the data up till 1995.

The Malaysian Prime Minister in declaring open the permanent campus of ITM-Melaka branch on 2nd May 1996 reiterated that ITM would always play an important role in the country's industrialisation process. Thus ITM existence is not only important at the present time but also in the future.

ITM is needed to prepare skilled workers and professionals in the era of science and technology even though more universities and colleges are being established in Malaysia including those set up by the private sector. Commenting on the contribution ITM has made, the Prime Minister said:

"I believe that if agencies like ITM did not function properly, the process of development in the country would not have gone smoothly and be at its present state."

**Dr. Mahathir Mohamed,
Prime Minister of Malaysia.**

2/5/1996

REFERENCES

Berita Harian, (Kuala Lumpur), 1 January 1994, p. 23 col. 8.

Dr. Mahathir Mohamed, Prime Minister of Malaysia, as reported in *Berita Harian* online available: <http://www.jaring.my/bharian> (accessed 3 May 1996).

ITM Prospectus, 1994, Public Relations Unit, ITM.

Chapter 4

LITERATURE REVIEW

4.1 INTRODUCTION

The loss of a skilled employee who has the potential to climb the corporate hierarchy is almost impossible to measure and interpret in monetary terms. After successfully securing a bright candidate to work for her, an organisation spends a significant sum on his/her in training, assignments and postings to important positions plus, of course, attractive salary. Over and above this, the employee must have gained considerable knowledge and experience through the period in the organisation. The knowledge and experience gained may be of great benefit to the employee concerned if or when he/she decides to leave the organisation. In turn the new organisation benefits at the expense of the old.

The point to be made here is that the retention of employees is a key issue to any organisation. However, an organisation's resources are limited. Therefore if a bargain is not reached between the employee and his employer, then the only solution is for the employee concerned to resign with regret or otherwise. With the limitation of money and staff benefits, employers normally hope that their staff have a high sense of commitment to the organisation and will stay. For a member of a staff to have such an attitude, the organisation has to realise that such feelings develop through several processes and are influenced by several variables. An employee who likes his/her job and has satisfaction performing it, will certainly benefit the organisation he/she serves. However these two factors do not guarantee that the employee will stay put in an organisation.

The study of management has as a focal point, organisations whatever business or businesses they are in. With due recognition of workers as an asset, theories and methods have been suggested and presented on ways and means to motivate and to get them to apply good technique at work. The growth in the studies of

social and industrial psychology and its application to organisational settings has helped develop a shift towards the study of employees attitudes and feelings that influence their behaviour (Lydka, 1991).

In the area of social and industrial psychology, a number studies and researches have been done on organisational commitment using several variables under different circumstances with diverse results and findings. These should be of great interest to managers, because employees with strong commitment tend to be highly productive and loyal, while those with low levels tend to have higher incidence of turnover, absenteeism, stress related health claims, and other workplace problems (Ward and Davis, 1995)

To illustrate the factors that help to develop the study of organisational commitment, this review categorises these factors into different sections .

4.2 RELATIONSHIP WITH JOB SATISFACTION

Choosing a career, which differs from a job, is a difficult option. Several factors or a combination of them help to determine a person's career. Among them are family tradition, qualifications, prestige, pay, proximity to home-town and job satisfaction. Among these factors, job satisfaction is most frequently studied in the context of organisational commitment. Research on organisational commitment became popular in the 1970s as researchers broadened their investigation from factors that influence job satisfaction to those factors that caused people to stay or leave their organisations (Peters and Waterman, 1982). In fact studies of organisational commitment have been an extension of those of job satisfaction (Lydka, 1991).

4.2.1 Differences In Conceptualisation

In most studies on organisational commitment and job satisfaction, both are generally considered as dependent variables with similar antecedents; for

example in studies relating to absenteeism and labour turnover (see 4.2.2). Their correlations and similarities are also high such as indicated in studies done by Carr and Human (1989), Cook and Wall (1980), Curry *et al* (1986), Nauman (1993) and Porter *et al* (1974). Referring to those studies done before them, Carr and Human (1989) are of the opinion that they indicate support of organisational goals by the employees and is highly related to the satisfaction of personal needs of employees within the organisation.

Despite the expectation of high correlations and similarities between organisational commitment and job satisfaction, several writers and researchers acknowledge that conceptually there exist important differences between the two variables (Cook & Wall, 1980; Mowday *et al*, 1979; Porter *et al*, 1974; Steers, 1977). This is because each appears to contribute unique information about the individual's relationship with the organisation (Porter *et al*, 1974).

Organisational commitment is a universal attitude. It reflects a general affectionate response to the total organisation or enterprise. To Mowday *et al* (1979) organisational commitment emphasises attachment to the employing organisation including its goals and values, while job satisfaction emphasises the specific task environment where an employee performs his or her duties. This can be interpreted that the specific task environment can be found in more than one organisation and that a move from one organisation to another that provides and offers a similar job will not mean a loss in job satisfaction.

This also means that in terms of time span, commitment maybe more evolutionary as it consistently develops over time. An employee is expected to need a relatively greater amount of time to determine his level of commitment to the organisation than would be the case with his level of job satisfaction (Porter *et al*, 1974). This does not mean that the levels of commitment to an organisation would be stable once an employee made his pledge. Any changes in the environment(s) internally or externally, may have a bearing on an employee's levels of commitment. Several factors may also intervene over a period of time to

help shift one's loyalty to an organisation. These may include failure to get promotion, not getting the reward expected and being posted to a department or branch not preferred by the employee.

Employees who subsequently stay and those who subsequently leave have been known to have different levels of commitment on their first days of employment as shown in a study done by Porter *et al* (1979). This is supported in a research by Meyer and Allen (1988), who found prior commitment to be a significant predictor of levels of commitment to expect from an employee in his first year of work. These findings indicate that whether commitment levels are stabilised or 'developed' in early employment or not, they still play an important part in employees behaviour towards such actions as turnover and absenteeism. They also indicate that subsequent actions such as turnover or absenteeism are better predicted by levels of commitment employees have towards their organisation rather than by job satisfaction (Farrel and Rusbult, 1981; Porter *et al*, 1974; Williams and Hazer, 1986).

4.2.2 Differences In Determinants

As their conceptions are different it is noted that organisational commitment and job satisfaction may be caused by different antecedents. A study by Glisson and Durrick (1988) shows that the predictors of the two concepts can be satisfactorily noted. High on the list of predictors for job satisfaction are the skills possessed by an employee and his function and role in the organisation. For organisational commitment they are leadership of the organisation and the number of years of its existence.

Although the possibility of each influencing each other exists, there is no clear indication of which influences which to determine the direction of causality (Steers and Mowday, 1981). The usual assumption is that job satisfaction is a determinant of organisational commitment (Angle and Perry, 1978; Buchanan, 1974; De Coninck and Stilwell, 1996; Hrebiniak and Alluto, 1972; Igbaria and

Guimaraes, 1993; Reichers, 1985; Steers, 1977). The opposite though may also hold true (Bateman and Strasser, 1984; Baugh and Roberts, 1994; Elliot and Hall, 1994; Wong *et al*, 1995). Both together may contribute to certain acts on the part of the workers. For example the findings by Sager (1994) suggest that both organisational commitment and overall job satisfaction influence intention to leave directly.

4.3 ANTECEDENTS OF ORGANISATIONAL COMMITMENT

Several variables have been used as antecedents of organisational commitment. Because of the numerous antecedents used in several studies, some have categorised the antecedents. For example, Steers (1977) and later Morris and Steers (1980) categorised them into the following:

a. personal characteristics

these include age, education and personality variables,

b. job/role characteristics

this category covers job scope, job conflict and job satisfaction,

c. work experience

under this category will be the fringe benefits of the workers, the reward system within the organisation and personal worth to the organisation and

d. structural influences

to be considered in this category are such factors as organisation size and control systems.

To simplify the above antecedents, this review is based on the Mottaz (1988) categorisation of them into two main categories, individual demographic factors and organisational factors. The category of ethnic cultural differences is added to stress its importance in future research.

4.3.1 Individual Demographic Factors

Individuals' demography is perhaps the most commonly used dependent variable in studies of organisational commitment despite disagreement expressed by Mottaz (1988). He argues that rewards and values variables account for a large proportion of the variance in organisational commitment and that demographic variables such as age and education, have little effect.

Many disagree with Mottaz. Age and tenure for example, have been found to be positively correlated to organisational commitment (Angle and Perry, 1981; Hrebiniak and Alutto, 1972; Igbaria and Siegel, 1992; Luthans *et al*, 1987, Meyer and Allen, 1984; Morris and Sherman, 1981, Sager, 1991, Smith and Hoy, 1992). In studies of managers in the service industries (Glisson and Durrick, 1988; and Morris and Steers, 1980), age was also found to be positively correlated to organisational commitment. Though Fox (1989) found, in his studies of managers and professionals in state and local government, that the correlation between age and organisational commitment to be weak, he nevertheless accepted it to be statistically significant. In assessing organisational commitment in a developing country, using Pakistan as a case study, Alvi and Shafiq (1987) found age to be inversely related to organisational commitment.

However age alone may not be the reason for the existence of high level of commitment among older workers. Age interacting with the declining mobility value of higher education strongly influences attachment (Cannings, 1989). Thus there is the need of organisations to devote more attention to motivating older workers to transfer that attachment into superior performance.

Zeitz (1990) found age to be a substitute for work experience and organisational commitment, increasing expectations for esteem, influence and monetary rewards. Should rewards be seen as inconsistent, then the tendency was to

construct a rather negative view of managerial competence and of the reward distribution system.

Cohen (1993) pointed out that tenure would have a differing effect across career stages if only supported by age when it served as the career stage indicator but not when tenure served as the indicator. Although Allen and Meyer (1993) found that affection towards an organisation increased significantly with an employee's age, tenure in the organisation and the position held were more closely related organisational commitment. They further found that the relationships between work experiences and affective commitment differ only slightly across tenure levels, and not at all employee age groups.

Despite the positive correlation between tenure and commitment in a study of government officers by Stevens *et al* (1978), they failed to find age to be similarly related. There is still uncertainty as to whether tenure influences commitment or the other way round. One may commit oneself to the organisation and therefore may serve it for a long period. On the other hand it may also be true that after a long service to an organisation a bond of loyalty may develop. Coupled with that, advancing age may deny a worker the opportunities to command higher pay elsewhere. Added to all this may be that family needs may prevent the individual from moving to another organisation which is far from their present residence.

Long service to an organisation helps an employee to accumulate several benefits from his employer. This accumulation of investing oneself to an organisation is an important factor influencing the correlation between tenure and commitment (Becker, 1960). Such correlations may hold true to staff that have long service with an organisation but not to young staff and those that have served for a short period (Reichers, 1986).

Both examples however do not take into consideration other factors that may influence the correlation between tenure and commitment. Salanchik (1977) was

of the opinion that the correlation of tenure with organisational commitment could be dependent on other factors such as the availability of jobs elsewhere.

Comparison between males and females are inevitable in most studies and research on management and the study of organisational commitment is no exception. Many studies have concluded in favouring the existence of a correlation between gender and commitment. The organisational commitment of women is now becoming more significant. This is due to the increasingly large numbers of women entering the labour force and the influence of feminism in recent years has provided the opportunity for women to redefine the relationship between their economic and domestic roles (Gray, 1989).

Females have been noted to be more committed than males (Alutto *et al*, 1973; Angle and Perry, 1981; and Hrebiniak and Alutto, 1972). However it ought to be noted that the sample used by the researchers mentioned were on jobs mainly in the domain of females such as teachers and nurses. In a research undertaken by Stevens *et al* (1978) on officers in the federal service in the United States, the findings were reversed. A high percentage (84%) of their respondents were males who held managerial positions in a male dominated profession. Similar research done by Aranya *et al* (1986) in the male dominated profession of professional accountants produced similar results. The rationale given to these findings is the discrimination felt by females in a male dominated profession.

Marsden *et al*, (1993), argued that employed men displayed slightly but significantly higher organisational commitment than employed women. His data was not based on a single organisation or sample but obtained from the 1991 Work Organisations module of the General Social Survey of America. They highlighted gender differences on job attributes such as autonomy or rewards, and gender models that stress socialisation, family ties, and differential labour market opportunities. They found that the primary explanation for the gender differences was that men are more likely than women to hold jobs with commitment-enhancing features. Gender differences in family ties do little to

affect male-female organisational commitment difference. However when job attributes, career variables, and family ties, if anything, women would tend to exhibit slightly greater organisational commitment.

Alvi and Ahmed (1987) attempted to examine the commitment of male and female employees to their organisation in a less affluent society, using Pakistan as an example. The results of their analysis indicate that both male and female workers are highly committed to their organisations. Even so the degree of organisational commitment shown by the female workers in Pakistan seems to be much higher than that of the male workers.

However one must be reminded that there are other factors that may act as an intervening variable which help to determine the level of organisational commitment of either sex. For example, Russ and McNeilly (1995) were careful to point out that their study was based on the sales force which showed that gender moderated the link between organisational commitment and turnover intentions. Gray (1989) found that personal characteristics and experience, domestic relations and gender ideology did affect the level of commitment of women. Using a sample of 271 female nurses in the United States, he found that the organisational commitment of this group had a significant negative relationship with feminist gender ideology and with the extent to which work interferes with family life. Also it showed a significant positive relationship with the presence of children.

Bar-Hayim and Berman (1992) were of the opinion that gender and educational differences, which could imply varying degrees of power or privilege, suggested differences in commitment.

Loscocco (1990) in his study on the levels and determinants of job satisfaction and organisation commitment based on a sample of blue-collar women and men, found that women's job satisfaction and organisational commitment were affected most by the intrinsic and financial rewards that their jobs provide,

similar to their male counterparts. However Loscocco was cautious in his conclusion. He commented that there were differences in the formation of work attitudes that were consistent with the feminist strand of the gender model. He suggested that both theory and social policy must consider the work-related and nonwork manifestations of the gender role division of labour.

Rosin and Korabik (1991) investigated the commitment of women using workplace variables and affective responses as precursors of intentions to leave. Their results indicated that women who felt their expectations had not been met, who described their jobs as limited in leadership, responsibility, variety, time flexibility, and autonomy, and who cited office politics and being in a male-dominated environment as potential factors in a leave decision expressed low job satisfaction and organisation commitment and had a greater intention to leave.

Along with gender, employees' marital status may have a bearing on organisational commitment. With women gaining more rights and becoming more ambitious in their professions and cherishing the challenge to climb the corporate hierarchy, marriage does not stop them from advancing in their career. Married respondents have been found to express a higher commitment than single respondents (Alutto *et al* 1973 and Meyer *et al* 1988). Perhaps searching for alternative employment does not pose greater problems to singles than to those who are married. The former do not have to worry of spouses' employment problem, school for children and so on. Jans (1989) in his study on the family and career of Australian military officers concluded that of the factors that drew an individual's interests into congruence with those of the organisation, the longer term factors such as family, career and organisational issues, had a major influence on organisational commitment.

Korabik and Rosin (1995) examined the assumption that having children reduced women's organisational commitment and involvement in their work and increased their likelihood of turnover. They found that while parenting demands might affect job involvement and the number of work hours they (parenting

demands) might not necessarily affect work-related attitudes including organisational commitment.

Organisation itself may play a part in enhancing organisational commitment among its employees that have children. Based on the 1991 General Social Survey of 745 randomly selected workers in the United states, Grover and Cooker (1995) assessed the impact of family-responsive human resource policies, such as parental leave, flexible schedules, and child care assistance on organisational attachment. They found employees who had access to family-responsive policies showed significantly greater organisational commitment and expressed significantly lower intention to quit their jobs. Over and above these, child care referral had a greater impact on affective commitment among employees eligible for that benefit. The conclusion that could be drawn here is that offering assistance to employees in need symbolises concern by the organisation for its employees and positively influences attachment to the organisation.

4.3.1.1 Personality

Personality variables have been used in the study of organisational commitment. Variables such as personal work ethics are found to be high in correlation with commitment (Buchanan, 1974; Kidron, 1978). Those who associate their job as a very important and central factor to their life also demonstrate high commitment (Dubin *et al*, 1975). Similar results were also found among high achievers (Morris and Sherman, 1981; Steers, 1977). These are indications that workers' willingness to commit themselves to their organisation when they realise the fulfilment of their self-actualisation needs can be realised in their present organisation. Using multiple regression analysis Oliver (1990) examined the influence of employee work values, demographic characteristics, and organisational rewards on levels of organisational commitment, involvement, identification, and loyalty in a UK employee owned firm. His findings were that demographic variables had little effect on levels of commitment, while both

organisational rewards and work values showed significant relationships to commitment.

Cohen (1992), and Cohen and Hudecek (1993) undertook to examine whether the relationships between organisational commitment and its antecedents differ across occupational groups. They proposed two models: the 'member model', presented by the personal variables, and the 'work experiences' model. The findings revealed that, in general, the relationship between organisational commitment and personal antecedents, representing the member model, is stronger for blue collar and non-professional white collar employees than for professional employees.

Lee *et al* (1992) recommended that managers and researchers should reassess the importance of personal characteristics during the organisational entry period. In particular they stressed that greater emphasis should be placed on valid personnel selection than on socialisation of employees because an organisation's socialisation practices may be differentially effective with different kinds of people.

4.3.1.2 Education

Qualifications, especially the level of academic achievement, have been a strong passport for entrance to any job. Holding a better qualification increases the chances of a person for better and possibly wider choices of employment with a better position. To a great extent educational qualification is the best (though not the only) measurement of a person's ability and capability prior to his employment.

Education seems to have a strong and statistically significant relationship with commitment (Igbaria and Siegel, 1992; Johnson and Johnson, 1991; and Luthans *et al*, 1987). However in the study of organisational commitment and in relation to it, Angle and Perry (1981), Hrebiniak and Alutto (1972), Morris and

Sherman (1981), and Steers (1977) are consistent in their findings that employees with better education are less committed than those that possess less formal education. This is attributed to wider alternative opportunities for those with higher education. However those that have the opportunities to move but decide to remain are considered to be more committed since they align themselves with their behaviour (Angle and Perry, 1981).

In their study of employees that had served almost a year, Meyer and Allen (1988) found that those with first degrees are more committed than those with postgraduate degrees. Although Michaels and Dixon (1994) found that the level of education helped to buffer the link between role stress and organisational commitment, they were cautious to emphasise that this occur among the industrial sales force.

Rewards aside, better educated employees also have higher expectations and are easily disillusioned if these are not to be found. Mowday *et al* (1982) and Steers (1977) share the opinion that relatively employers may find it more difficult to satisfy highly educated workers with rewards compared with lower educated workers. Thus employers are expected to resign themselves to the fact to accept low commitment from the higher educated group.

Mottaz (1986) sees the issue differently. He describes the relationship between education and organisational commitment largely as a sequence of work experiences and not simply a function of the individual's opportunities for alternative employment or the degree to which the worker is committed to a profession or a trade. His findings conclude that the opportunity and ability to apply knowledge gained from education into the work and the satisfaction gained in able to do so is itself an intrinsic reward. Thus education can be credited for this increase in intrinsic reward.

The aspiration of a worker to further his education is not to be denied by an organisation. While such an aspiration helps a worker, it will have an impact on

the issue of commitment. In their studies of nurses and teachers, Hrebiniak and Allutto (1972) discovered that those who had no aspiration to advance their formal education had a higher commitment level than those who intended to advance. Similar results were concluded by Alutto *et al* (1973) when they discovered that those respondents who expressed higher organisational commitment had less interest in furthering their formal education.

Professional commitment may also play a part in diminishing the commitment of highly educated employees. A study by Liou and Nyhan (1994) reveals that commitment of public employees may differ as a consequence of professional or non professional status. As mentioned in the introduction, professionals may have commitment loyalty to a reference group composed of other professionals and to a definite set of normative standards governing their works, besides their commitment to their organisation. Cohen (1993) in his study on white-collar employees in Israel found that the positive correlations among union, occupational, and organisational commitment did not support the notion of hidden conflict between these commitments. However he stressed that the positive effect of occupational commitment versus the negative effect of organisational and job commitment upon job and organisation withdrawal intentions did offer some support to the notion of conflict between commitment objects in the organisation to those outside the organisations. This professional commitment not only competes with but may even override employees' organisational commitment. Parasuraman and Nachman (1987) in their study to examine the correlates of organisational commitment and professional commitment of members of a symphony orchestra revealed a distinct difference between the factors that influence these two types of commitment. The dominant factors that strengthened orchestra commitment were age and leadership attention. The main determinants of professional commitment were found to be full time employment status and job involvement.

Using a sample of professionals from several departments in a hospital in Midwest USA and tellers from a bank in the same region, Shore and Martin

(1989) found that organisational commitment is more strongly related than job satisfaction with turnover intentions for the tellers, but not for the professionals.

Relating to their qualifications and professions, Gouldner (1957), divides employees into two categories to distinguish their sphere of commitment. These are :

i)Cosmopolitans: those low on loyalty to the employing organisation, high on commitment to specialised role skills, and likely to use an outer reference group orientation.

ii)Locals: those high on loyalty to the employing organisation, low on commitment to specialised role skills, and likely to use an inner reference group orientation

A lawyer is a good example of a cosmopolitan, for despite being in the employment of a college, bank or even a law firm, he is governed by the rules and norms of his profession and not only that of his organisation.

This division of employees by Gouldner presumes that the circumstances or nature of the job helps to make the locals to be more committed to their organisation than the cosmopolitans. However this may not be as conclusive as the presumption. In their studies, Bartol (1979), Larhman and Aranya (1986) and Thornton (1970) suggest that employees' commitment to their profession and organisation can be positively related. This is especially so if the organisation sees the professional groups' objectives and principles are similar to those of the organisation. Despite this it is still difficult to generalise over the similarities of commitment given to an organisation by the locals and the cosmopolitans. The pride of belonging to a professional group may be higher than that of belonging to an organisation. Nicholson and West (1988) in their research on British managers suggest that specialists give higher priority to professional commitment.

However Randall (1988), in studying the influence of extra-organisational commitment, concluded that the level of organisational commitment is not linked substantively to effort devoted to outside work interests nor to their believed importance. He emphasised that in general employees could manage work and outside work spheres separately. In investigating the impact of professional role conflict on reporting accuracy Grover (1993) concludes that those professionals high in organisational commitment have a propensity to report more accurately to the organisation and its agents than those with low commitment to the organisation. Both the works of Randall (1988) and Grover (1993) show that the levels of organisational commitment are relatively immune from the influence of external work claimants.

4.3.1.3 Rewards

Rewards are part of exchange when one puts in efforts to help in the advancement of an organisational objective. Since rewards are part of this exchange theory, when such extrinsic inducements, which among other things also include advancement in position, are not forthcoming or reduced, the attitude of the employees will be less favourable and can finally end in their leaving the organisation (March and Simon, 1958). Equity theory posits that perceptions of equitable pay play an important role in defining attitudes and behaviours concerning employment because individuals attempt to equate their ratios of outcomes to inputs (Johnson and Johnson, 1991). Johnson and Johnson, in reviewing other previous studies, found that a consistent pattern suggested that workers' perceptions of pay equity were a primary antecedent to their level of organisational commitment.

It is generally accepted that the financial pressures to remain in a job are consequential in influencing employees' attitudes and behaviour at work. In a study to examine the role of employees' financial requirements as a moderator of the relationship between their organisational commitment and performance,

Brett *et al* (1995) found that there was a stronger relationship between organisational commitment and performance for those with low financial requirements than for those with high requirements.

It is important to note here that the inducement received by the employees or expected by them need not necessarily be physical in nature. Thus in the discussion of rewards both extrinsic and intrinsic job factors are to be considered.

In his effort to examine how the levels of organisational commitment are affected by the impact of intrinsic and extrinsic work values and work rewards, Mottaz carried out studies in 1986 and 1988 using a large sample of workers consisting of different groups. Mottaz classified them into professional, managerial, clerical, service and blue-collar. In all he found work rewards to have highly positive effects on organisational commitment. With regard to high work values Mottaz found them to produce a negative effect on commitment when the effects of work rewards were held in constant.

Mottaz divides values/rewards into the following sub-groups:

- i)intrinsic-incorporating task autonomy, task significance and task involvement;
- ii)extrinsic social-incorporating supervisory and co-worker assistance; and
- iii)extrinsic organisational-incorporating working conditions, salary, promotional opportunities and fringe benefits.

Although he draws the conclusion that the key determinants of organisational commitment are work rewards, Mottaz (1988) constantly continues to emphasise the relative importance of intrinsic rewards. He argues that rewards gained intrinsically, especially task involvement or task interest, account for a more significant variation in commitment than the other rewards.

To Mowday *et al* (1982), extrinsic social rewards are less important than intrinsic rewards in explaining the variance of organisational commitment. On

ational rewards only promotional opportunities and pay have a significant positive effect on commitment (Mottaz, 1988).

Findings of Mottaz were echoed by Putti *et al* (1989) in their investigation to the relationship between work values and organisational commitment in the workplace context. Their findings suggest that intrinsic work values relate more to organisational commitment than either extrinsic work values or the measures of work values.

That those two extrinsic rewards are not to be underrated. There have been suggestions that extrinsic factors play an important role in determining organisational commitment (Fern *et al*, 1989; O'Reilly and Caldwell, 1980; Zaccaro and Barsky, 1989; and Ting 1996).

In the context of layoff and ongoing downsizing in organisations due to new technologies or budgets have generated growing concern about termination benefits such as severance pay, transition assistance and advance notice. This is especially true for public employees in Malaysia where the Government is embarking on a programme to corporatise or privatise its departments or agencies which include universities and institutions of higher learning. In a study which analysed the organisational factors that influence why governments should provide termination benefits, Ting (1996) suggests that such rewards are integral parts of organisational commitment to establish a long term relationship between the organisation and its employees, to serve the purpose of maintaining and reinforcing the organisational environment and productivity of employees, especially those who survive. On the part of the employees as a whole, knowing that there are benefits or rewards to be received upon reaching retirement age may be a factor that commits them to the organisation since such benefits may not be found elsewhere.

Allen's (1990) case study of a nursing department in one hospital provided insight into why people in the same occupation doing similar work showed different levels of commitment to their organisation. Through analysing a

questionnaires distributed to 120 nurses, the study indicated that those nurses who exhibited high levels of organisational commitment also experienced high levels of intrinsic job satisfaction. Thus Alpander concluded that employees' identification with the institution played a significant role towards contribution to the levels of organisational commitment. Similar conclusion was drawn by Witt (1993) based on two military staff organisations. He discovered that individuals ranking their occupational identification highly tend to show a higher commitment to the organisation than those ranking their occupational identification at moderate or low levels.

The demographic factors of sex, education, marital status, job tenure and family income were also tested by Mottaz (1988). Although he found them to be correlated with commitment, they accounted for only a small proportion of the variance in organisational commitment compared with that explained by work rewards and work values.

Each of the five occupational groups in Mottaz's (1988) studies were analysed on work values and rewards. The results brought answers for each group compared with the sample as a whole in the ranking of importance. However the differences in education as reflected in each group come to light in that intrinsic rewards were a much more powerful determinant among professionals than among blue-collar workers. Thus Mottaz's earlier findings (1986) that education tends to substantially increase the value assigned to intrinsic rewards are justified.

Findings by other researchers (e.g. Dunnette *et al*, 1973; and Keenan, 1980) also conclude that intrinsic work factors are more important than extrinsic ones especially among highly educated workers. Keenan (1980) found the most highly valued aspect of employment for newly qualified graduates centred around the work itself rather than conditions of employment such as pay or fringe benefits.

Dunnette *et al* (1973) argue that the intrinsic aspects of the job, such as challenge, responsibility, and opportunity for growth provide the biggest disappointment especially for those employees with tertiary education. Though their study suggests that the disappointment with intrinsic factors may be a contributing cause of turnover neither the studies made by Dunnette *et al* nor Keenan relate their findings to the actual study of organisational commitment.

However extrinsic factors are not to be ignored in any studies of employees' behaviour. They can and often play a vital and integral role in determining the destiny of the employees. O'Reilly and Caldwell (1980), found that the extrinsic factor of salary was found to be most directly related to behavioural commitment. The conclusion made by O'Reilly and Caldwell however referred to the importance of intrinsic and extrinsic factors on the choice of a job. This meant that the level of behavioural commitment was determined prior to any actual experience to either of the factors. The measurement though took place after a lapse of six months.

The results of these studies show that a state of uncertainty exists on the relationship of intrinsic factors and extrinsic factors with commitment. Such a state of existence occurs despite the tendency of graduates to demonstrate disappointment with job factors as indicated in studies done by Dunnette *et al* (1973) and Keenan (1980). As far as commitment *per se* is concerned it is still not convincing.

The weakness often shown in research on intrinsic and extrinsic factors is the failure to highlight the particular importance of individual factors. The reason may be that as a whole intrinsic characteristics have a great impact on organisational commitment, while only certain extrinsic characteristics have such a significant effect. Mottaz (1988) highlight both advancement opportunities and pay to have a positive effect on organisational commitment. In a developing country, Alvi and Ahmed (1987), in their study based on several organisations in Pakistan, found that workers expressed greater commitment to those

organisations that take better care of their financial, psychological, and other needs.

In their studies of labour turnover based on a sample of competent salespersons, Fern *et al* (1989) tried to distinguish the stayers and leavers. They found that job satisfaction and promotional opportunities to be the two most important determinants of commitment. Similar findings were also found by De Coninck and Bachmann (1994) in their study on marketing managers, although they did include job satisfaction and seniority as other significant predictors of organisational commitment. De Coninck and Stilwell (1996) came to the same conclusion in their study on factors influencing the organisational commitment of female advertising executives. The importance of promotion opportunities as a significant determinant to organisational commitment was also mentioned by Quarles (1994) in his study on the commitment of internal auditors.

In stressing the importance of rewards, Hafer and Moerer (1992) commented that programmes that would reduce turnover should revolve around giving employees both extrinsic (economic) and intrinsic (psychological) reasons to stay.

Lydka (1991) proposes that more thorough research is to be done to study the causal relationship between intrinsic and extrinsic features and commitment. Most studies done thus far have indicated initial disappointment with intrinsic job features at the early stages of commitment though this may change over a period of time.

4.3.2 Organisational Factors

Vandenberg and Scarpello (1994) suggest that occupational commitment may be an antecedent to employees' commitment to the organisation. However an employee is an integral part of an organisation. Thus the onus is also on the organisation itself to play a role in contributing towards the commitment of its staff. The factors involved in the organisation's contribution towards the

commitment of its employees are mainly the organisation itself, which includes leadership, and its characteristics. These include the organisational policy on its employees, their functional role and responsibility in their jobs.

An organisation should also pay serious attention in its quest to get the best out of employees. The search for the best employees begins within the quest for those recruiting sources most likely to yield superior employees. This is because these sources are significantly linked to differences in employee commitment to the organisation (McShulskis, 1996).

While the nature of service is different between a bank and an institution of higher learning nevertheless some points raised in the work done by Harvey (1995) in the banking industry could be applied to the latter. For example in committing itself to providing the best service, an institution must understand why the organisational commitment by the institution itself to its staff is essential. Firstly in providing excellent service to its staff may mean that the institution faces a decline in expenses like medical and false claims as there are likely to be less reporting sick and making false claims (Ward and Davis, 1995). Secondly the better the service provided by the institution to its staff means the better the chance to retain current staff and attract new ones. Thus the commitment to service excellence as a cultural issue by the organisation may help to maintain and attract new staff.

Becker (1960) studied the contribution of two concepts to the conventional view of commitment-foci of commitment (the individuals and groups to whom an employee is attached) and bases of commitment (the motives engendering attachment). The results of his study showed that the commitment of employees to the top management, supervisor and work group were important determinants of job satisfaction, intent to quit, and prosocial organisational behaviours over and above commitment to an organisation. He also discovered that compliance, identification, and internalisation as bases of commitment were unique determinants.

Greater organisational formalisation influences organisational commitment indirectly since formalisation reduces role ambiguity and role conflict (Micheals *et al*, 1988). However Agarwal (1993) in his study on influence of formalisation on organisational commitment did not agree. Using a sample of salespeople, he found that organisations that relied on formalisation to co-ordinate the efforts of employees found it to have a negative influence on organisational commitment.

The characteristics of an employee's job include job scope and responsibility, role conflict and role ambiguity. Findings by Boshoff and Mels (1995) supports the theory that organisational commitment is positively influenced by participation in decision making and negatively influenced by role conflict. Buchanan (1974) and Steers (1977) found that a widening of job scope and job challenge have a positive effect on organisational commitment. A similar finding was also reported by Martin and Hefer (1995) when they found that job involvement and organisational commitment interact jointly to affect labour turnover. They explain that the work employees do helps them to meet their intrinsic needs, such as satisfactorily performing a challenging job, which in turn, increases their sense of competence. This leads to increasing an employees' job involvement attitude. Likewise, the organisation helps employees to meet their social and other intrinsic reward needs, such as pay, fringe benefits, and promotions. This leads to increasing employees' organisational commitment attitude.

A study undertaken by McElroy *et al* (1995) provides insights regarding the relationship of job involvement and organisational commitment to work-related attitudes. Though their findings provide near universal support for the main effects of job involvement and organisational commitment, unlike Martin and Hefer (1995) they could not find evidence to support that job involvement and organisational commitment interact to affect labour turnover.

Morris and Sherman (1981) found that employees' understanding and clarification of their job are also positively correlated to organisational commitment while role conflict and ambiguity are definitely negatively

correlated. This is echoed by Tang and Sarsfield-Baldwin (1996) when they stress that employees need to know their job duties and responsibilities clearly before they get started. Thus management plays an important role in helping the employees in charting the course of organisational commitment as the more a leader structures a situation, the more committed employees are likely to be to the organisation (Luthans *et al*, 1987).

However Hrebiniak and Alluto (1972) found no significant correlation between organisational commitment and role conflict, though they nevertheless found a significant inverse relationship between role tension and commitment. To Schappe (1996) an organisation's procedures and employees' perceptions of the fairness of the procedures affect organisational commitment.

On the physical aspect, the structure of the organisation itself may contribute towards organisational commitment. This has been pointed out by Gregersen and Black (1990). Using multiple-regression analysis, they found that commitment to the parent company was a positive correlate of intent to stay the full duration of assignments, whereas commitment to the local company was not related to intent to stay. However their study covered multinational companies with respondents attached to branches abroad. As such extra perks and benefits plus the enjoyment of being posted overseas may be the factors that add to the level of commitment of the respondents to their organisation. This is in congruence to the suggestion made by Aryee and Heng (1990), who recommended that managers who desired to enhance the behavioural outcomes of commitment should first test the applicability of the model used to their specific organisations.

4.3.2.1 Experiences at work

Experiences at work, especially those that take place early after one joins an organisation, are a major influence on an individual and have correlation with psychological or attitudinal commitment (Lydka, 1991). Russ and McNeilly

(1995) found experience helped to moderate the links between job satisfaction dimensions and organisational commitment.

A wide variety of work variables have been found to be positively correlated to affective commitment to the organisation. Among these variables is the fulfilment of expectation prior to entering an organisation (Arnold and Feldman, 1982; O'Reilly and Caldwell, 1981; Mabey, 1983; Meyer and Allen, 1988; Steers, 1977). Commitment by the organisation to its employees has similar effects (Buchanan, 1974; Steers, 1977). Other factors that have been found to be positively correlated are the employees' feelings of personal importance to their organisation (Buchanan, 1974; Steers 1977), and the extent of consideration and leadership style of the management (Morris and Sherman 1981). Balfour and Wechsler (1991) revealed that higher levels of commitment were linked with the desire to remain with the organisation, but no connection was found between employee commitment and willingness to undertake efforts on behalf of the organisation. Balfour and Wechsler were of the opinion that efforts to increase organisational commitment, therefore would probably not be effective mechanisms for increasing employee effort and performance. They recommended that employee commitment and attachment to the organisation could be increased through efforts to improve the organisation's social atmosphere and sense of purpose.

Socialisation among peers and colleagues (Buchanan, 1974 and Sheldon, 1971) and positive attitude among co-workers towards the employee (Buchanan, 1974) have also been found to be positively correlated with organisational commitment. Using a path model specifying relationships between a set of antecedents and organisational commitment of salespeople, Sager and Johnston (1989) found that anticipatory socialisation, along with work and manager satisfaction, to be of primary concern to those who were orientated towards commitment rather than money, promotion and perceived alternatives. This was concurred by Darden *et al* (1989) but with an exception. While agreeing that a friendly participatory approach decreases role stress and increases organisational commitment their

findings also suggest that perceived rewards have a strong impact on commitment to careers and organisations.

Caldwell *et al* (1990) discovered that employees in firms with well-developed recruitment and orientation procedures and well-defined organisational value systems manifest higher levels of commitment to their organisation. This could be evidence that organisational recruitment and socialisation processes could influence individual members' commitment to their employing organisations.

4.3.2.2 Organisational culture

Being a corporate body, an organisation has its own culture. Concerns regarding corporate ethics have grown steadily throughout the past decade and it allows the organisation to remain competitive (Carlson and Perrewé, 1995). It has been discovered that certain peculiar cultural characteristics of an organisation have a bearing on the commitment of the employees. To Hunt *et al* (1989) corporate values are considered to be a composite of managers' individual ethical values and both the formal and informal policies on ethics of the organisation. In their research using a sample of 1200 professional marketers (marketing managers, marketing researchers, and advertising agency managers) they found strong evidence of a positive association between corporate ethical values and organisational commitment. This relationship holds across the three distinct marketing groups taken separately and when all three subsamples are combined. Given previous research demonstrating a strong link between commitment and specific organisational benefits, corporate ethics may be not only an important societal issue but a key organisational one as well. This has been emphasised by Nystrom (1993) in his study that examined the impacts of cultures on organisational commitment, in which he found that prevailing culture did appear to affect important outcomes, such as organisational commitment and performance.

The differences in organisational commitment between managers in the private and those in the public sectors as found by many empirical researchers in other countries seem to be universal (Bourantas and Papalexandris, 1992). In a study undertaken in Greece, Bourantas and Papalexandris discovered that commitment of managers decreases along a continuum from private to publicly owned organisations. Their study also showed that managers acknowledged the existence of a gap between the perceived and the desired organisational culture of their firm, and that this culture gap tended to appear more in the public sector. They concluded that organisational commitment appeared to be influenced negatively by the culture gap, and that this gap offered a plausible explanation for the lower commitment in public firms. The public-private dimension as an antecedent of organisational commitment and its effect of publicness on individual attachment to the organisation was examined and assessed by Balfour and Wechsler (1990). Their findings suggested that the strength of an individual's attachment to the organisation was a function of several dimensions of organisational experience that can be inconsistent in their effects. Public employees in particular may be simultaneously repelled by and attracted to the organisation. Their desires to serve important values may be undercut by low or negative feelings of affiliation.

The influence of individual's congruence with an organisation's culture on organisation commitment has been the focus of a growing body of research. Harris and Mossholder (1996) found the discrepancy between individuals' assessment of the current culture existing in the organisation and their ideal culture explained significant variance towards organisational commitment. Meglino *et al* (1989) emphasise that the purported advantage of a strong corporate culture presumes positive outcomes when peoples' values are congruent with those of other people. Their samples consisted of workers, supervisors and managers at a large industrial products plant. The response was later matched with the attendance and performance records of the production workers in the sample. The results demonstrate that workers were more satisfied and committed when their values were congruent with the values of their

supervisor. These results were similar to those of Yavas *et al* (1990) in their study comparing the organisational commitment of Saudis and expatriate managers in Saudi Arabia. They concluded that people with similar work values as that of the organisation would work more harmoniously and tend to be more satisfied with their jobs.

Rhodes and Steers (1981) in their research of employees-owners in a producer co-operative and employees in a conventional organisation, conclude that the higher level of commitment expressed by the co-operative employees was related to the peculiar characteristics of the co-operative, for example participation in important decision-making, positive work norms and high perception of pay equity. Of these, perceiving equity in wages was in fact the most important variable in explaining commitment in the co-operative sample. However they (Rhodes and Steers, 1981) were cautious in explaining that similar case may not be of a co-operative that is less profitable. Berman (1967) has reported that where wages have fallen below industry rates, worker-owners have chosen to ask for conventional organisation to increase their salaries although counter evidence to this has been reported to co-operatives themselves.

High commitment and perceived equity have been found to be correlated by Curry *et al* (1986) and Hrebiniak and Alutto (1972). The adverse effect has also been proven as shown in work done by Allutto *et al* (1973). For example, failure by an organisation to recognise a worker's contribution would result in negative correlation with commitment. Hence the support for equity as a factor in explaining organisation levels are conclusive.

4.3.3 Ethnic Cultural Differences

It is a virtue that organisations strike a balance between expectations for assimilation and efforts to accommodate diverse groups of people. It is a challenge for all employees to assimilate into the mainstream of corporate life regardless of ethnic background. As managers and employees from different

cultures begin to encounter one another in the workplace, the need arises to understand how organisational variables relate differently based on one's culture (Perrewe *et al* 1995).

Few studies have been undertaken to examine organisational commitment across cultures (Lydka, 1991). A rare example is that of Near (1989) using a sample of American production workers in 52 US manufacturing plants and those of Japanese workers in 46 plants in Japan. She surprisingly found that the American workers demonstrated significantly higher mean scores than Japanese workers on commitment. Near pointed out the possibility that was attributed to this findings. One, it could be that the reasonably representative sample of Japanese used in her study included many which appeared to use management methods and organisation designs somewhat less favourable to workers than suggested by the popular press. Two, that Japanese respondents had higher expectations and thus view the work situation more negatively than their American counterparts.

The cultural differences that exist in the organisational context were earlier emphasised by Beatty *et al* (1988) in their studies on American managers and Japanese managers on compensation decision-making actions. They concluded that American managers emphasised job performance strongly in setting pay increases, while the Japanese, though they did use performance, also emphasised job worth and to a lesser degree, the need for achievement, organisational commitment and years with the organisation.

Noting the lack of research based on other cultures, Randall (1993) stressed that, consistent with the growth of interest in international management over the last decade, researchers should begin to explore organisational commitment outside the United States. She further emphasised that empirical research on organisational commitment occurring outside of the United States should be reviewed in order to organise what is known about cross-cultural commitment into a coherent and useful form and to illustrate the value of an over-arching

framework for interpreting variation in the level of organisational commitment across cultures. She recommended that those seeking cross-cultural comparisons of organisational commitment should at least aim for matched or random samples of respondents, research designs acceptable within the culture.

Yavas *et al* (1990) in comparing Saudi and expatriate managers, found similar levels of commitment to their organisations from both samples, the latter were somewhat more satisfied with their jobs than the former. Yavas *et al* attributed the similarity in levels of commitment to both groups sharing similar work values.

Banai and Reisel (1993) in their study used five antecedent conditions of organisational commitment among groups of American, Dutch, Israeli and British managers in six multinational banking corporations in countries of the nationalities mentioned. Nationality was among those factors tested as correlates of organisational commitment among three groups of managers; a) headquarters officials, b) expatriate managers, and c) host-country managers in foreign subsidiaries. They could not find substantial evidence to support the widespread belief that expatriate managers were more loyal than host-country nationals. Age predicted organisational commitment more accurately than did nationality or function of an employee. Further analysis found age to be predictive of organisational loyalty or identification and that nationality predicted organisational involvement.

Agarwal (1993) was careful to emphasise that though he found organisations that relied on formalisation to co-ordinate have a negative influence on organisational commitment, the finding could not be used to predict if similar relationships would or should be observed in other countries. The rationale developed to explain these relationships in the US did not consider the cultural factors that influence them. Knowledge of other cultures helps to anticipate the nature of the relationships in different cultural environments. Agarwal acknowledged that such an approach to developing cross-national models had often been suggested

but seldom implemented. By emphasising the role of culture, practical guidelines for both practitioners and theorists are generated.

A study undertaken by Gregersen and Black (1996) found that in contrast to American repatriates, Japanese repatriates exhibited a single, global commitment to the organisation. They also found that a firm's valuing international experience was the primary correlate of organisational commitment for Japanese repatriates. Gregersen and Black also warned about generalising multiple commitments and their potential antecedents across cultural boundaries.

Even when two countries seem to have similar cultures the study of organisational commitment cannot be taken for granted. This was emphasised by Cohen and Gattiker (1992) when they tested the generalisation that organisational commitment increased with the accumulation of age, tenure, education, marital status, salary, gender, and hierarchical position, using a cross-national sample of American and Canadian respondents. Their findings indicated that while organisational commitment levels between American and Canadian respondents were similar, the effects of the variables mentioned differed between the two countries. The results suggested that previously reported correlations between age, tenure and organisational commitment cannot be replicated.

In a study to analyse whether demographic factors identified in the American based literature had the same antecedent influence on commitment of 1192 employees in 27 large Korean firms, Sommer *et al* (1996) provide evidence that the theoretical constructs predicting the organisational commitment of employees may have cross-cultural validity. Consistent with the American studies, the Korean employees' position in the hierarchy, tenure in their current position and age are all significantly related to organisational commitment. However total tenure and education are not significantly related to organisational commitment.

Lankau and Scandura (1996) found significant differences existed for levels of organisational commitment (and job satisfaction, turnover intentions and job burnout) among Whites, Blacks and Hispanics in America. Hispanics reported significantly higher job satisfaction than Whites, and Blacks, and Whites reported less organisational commitment and higher levels of job burnout than Blacks.

Circumstances other than organisational factors could determine the levels of commitment of one group against that of others. This was shown by Al-Meer (1990) in his research on the organisational commitment of Westerners, Asians and Saudis in Saudi Arabia. He found that Asian workers were more committed than the other two groups. He attributed this to the Asians being able to command higher wages in Saudi Arabia than they could had they worked in their own countries (India, Pakistan and Bangladesh). Also being Muslims, working in Saudi Arabia would give them easy opportunity to visit the holy places. There was also the contract and condition that they would have to honour to the organisation they worked for.

Organisations too may feel obliged to intervene in activities among employees even though they are informal activities. This is in order to maintain harmony among the different ethnic groups. Intervention by the management is important since those in the minority group often feel excluded from social activities or left out of informal communications networks (Rosen and Lovelace, 1994). This results in a feeling of isolation, lower organisational commitment and subsequently seeking employment elsewhere which provides a more hospitable environment.

4.3.4 Effects of Organisational Commitment

Strong organisational commitment is bound to have a strong positive effect on an organisation and its employees (Grover, 1991; McNeilly and Russ, 1992 and Starling, 1991). The lack of it naturally has adverse effects on organisation

performance. Such adverse effects are absenteeism (Steers, 1977), tardiness (Angle and Perry, 1981), and labour turnover (Angle and Perry, 1981; McNeilly and Russ, 1992; Mowday *et al*, 1979; Steers and Mowday, 1981; Johnston *et al* 1990).

4.3.4.1 Labour turnover

Of the three adverse effects, labour turnover has been found to have the greatest inverse correlation, i.e. as organisational commitment decreases the labour turnover increases (Angle and Perry, 1981; Decotiis and Summer, 1987; Elliot and Hall, 1994; Igarria and Siegel, 1992; Ingram and Lee, 1990, McNelly and Russ, 1992; Mowday *et al* 1978; Steers 1977; Johnston *et al* 1990; Wong *et al*, 1995). Despite the argument such as the lack of alternative opportunity prompts one to stay and thus reduce labour turnover, but as Angle and Perry (1981) emphasise, the commitment to stay and the commitment to work are different.

The existence of moderating variables between commitment and its consequences cannot be dismissed (Mowday *et al*, 1974). Examples are marketability of one's qualification and job alternatives (Salanchik, 1977). Stumpf and Hartman (1984) made a point of explaining that the economic and labour market conditions at the time of their study may help to explain why they failed to find a significant relationship between organisational commitment and labour turnover.

4.3.4.2 Performance

A weak and generally inconsistent relationship has been shown to exist between organisational commitment and job performance (Mowday *et al*, 1974; Porter *et al*, 1976; Leong *et al*, 1994). In a study to examine the relationship of organisational commitment and organisational effectiveness, Angle and Perry (1981) obtained mixed results which suggest the absence of a clear indication to prove of any relationship between organisational commitment and individual performance. The weakness in this relationship can be attributed to factors like

motivation and ability as suggested by Mowday *et al* (1982). They argue that though commitment may influence employee effort and affect performance, the levels are not significant.

However this is not so according to a study by Baugh and Roberts (1994). The results of their analysis based on a data collected from 114 engineers in a bureaucratic work environment indicate that organisational commitment has a significant and direct effect on performance and inverse on job problems. Investigation conducted by Begley and Czajka (1993) concludes that commitment to the organisation buffers the relationship between stress and job displeasure (which they define as a synthesis of job dissatisfaction, intent to quit, and irritation). Steffan *et al* (1996), in their study of a nursing home, found that organisational commitment could be a determinant of service quality.

4.3.5 Summary of the Antecedents of Organisational Commitment

Although a number of studies of organisational commitment have been undertaken, discrepancies in the findings relating to the antecedents are not uncommon in deciding which are the most influential determinants. A description of the discrepancies are summarised below.

The number of years of work experience and the levels of job tension have been found by Hrebiniak and Alluto (1972) to be the most important determinants of organisational commitment. Though Stevens *et al* (1978) did not deny them as determinants of organisational commitment, they however suggest that role related factors are more significant predictors in their studies among managers.

Near (1989) failed to find concrete evidence to convince of the important effects that organisational structure have on the commitment of the organisation's staff. To her the nature of job characteristics contributes more towards organisational commitment than organisational structure. Steers (1977) however finds work experience to have a greater bearing towards organisational commitment.

Bateman and Strasser (1984) found that the overall job satisfaction and environmental factors accounted for most of the variance in organisational commitment rather than personal characteristics like age and education. To Zaccaro and Dobbins (1989) met expectations, satisfaction with the organisation and opportunities for advancement or promotion are highly correlated with organisational commitment and that role conflict has a significant correlation with organisational commitment.

Hrebiniak and Alluto (1972) suggested that research which neglected the interactive effects of personal and organisational variables was probably understating the complexity of the commitment process.

Mottaz (1988) concurs and stresses that despite the large number of studies that have investigated the determinants of organisational commitment, there is still little agreement regarding the relative impact of various individual and organisational factors as shown in the studies conducted by Steers (1977), Bateman and Strasser (1984) and Reichers (1985).

Moreover, many of the of the studies are of cross-sectional design, often involving bivariate techniques of analysis. These findings should be interpreted with caution because being derived almost exclusively from research employing cross-sectional designs they rely on static correlational analyses (Meyer and Allen, 1988).

Although cross sectional research has contributed a great deal to the understanding of organisational commitment, it only deals with the concept at a specific point in time and provides limited insight into the process or the interactive nature of organisational commitment. Little is known about how commitment may change over time and whether the antecedents or consequences of commitment vary at different stages of job/career. The following section will

bring together the limited research that has been carried out to date on the stages of commitment.

4.4 STAGES IN ORGANISATIONAL COMMITMENT

Mowday *et al* (1982) argue that, despite the different theoretical traditions of behavioural and attitudinal commitment, understanding the stages of commitment is facilitated by acknowledging the reciprocal relationship between these two. The process through which commitment is developed may involve self-reinforcing cycles of attitude and behaviours that evolve on the job and over a period of time strengthen employee commitment to the organisation. Mowday *et al* (1982) subdivided their research on the stages of commitment into three main phases:

- a)anticipation, this phase encompasses factors prior to working for an organisation.
- b)initiation, this is the phase of early development where commitment is developed;
- c)entrenchment, continuing development of commitment in later stages of employment.

The following descriptions are based on the above phases to indicate some of the studies of organisational commitment according to the stages as indicated.

4.4.1 Anticipation

The three main pre-employment factors that encompass this phase are: personality of the individuals, circumstances that determine the choice of jobs and pre-setting job expectations.

4.4.1a Personality

There are suggestions that there are those who have an inclination of commitment towards an organisation compared to others, perhaps due to antecedents such as parental and educational influences that are reflected in the persons' attitude and beliefs. A case may be a strong work ethic as a reflection of a person's upbringing. The existence of this ethic has been with the person before he is employed and it has become central to his life.

Despite the limitations of studies done so far, there have been indications of different levels of identified commitment expressed by new employees on their first day at work as shown by Porter *et al* (1976). This however may reflect only a psychological predisposition towards commitment.

Although commitment levels among new employees have been found to vary even before any work in the organisation has begun, it is unlikely that this early commitment reflects a stable attachment (Mowday *et al* 1982). Any tendency of inclination towards commitment is subsequently subject to variation (either positive or negative) by such factors as work experiences, change in domestic circumstances which either strengthen organisational commitment or weaken the levels of commitment of the employees.

4.4.1b Job choice

It is not unusual for a person to be selective and careful before deciding on employment with an organisation and hence commit him/herself to that organisation even before starting work. This is relevant to those that have the luxury to choose an organisation or a particular profession at selected place. However factors may intervene that affect the level of commitment of even those who have this luxury. As pointed out by Zaccaro and Dobbins (1989) met expectations, role conflict and satisfaction with the organisation and promotion chances are related strongly with organisational commitment.

In studying the cognitive effects following the choice of a job made, Vroom (1966) found that the attractiveness of the chosen organisation increased while the attractiveness of the rejected organisation decreased. However the attitude is not stable. In a follow-up of this study, Vroom and Deci (1971) discovered that even with the chosen organisation, time and intervening factors could cause disillusionment. The attitude towards the rejected organisation could also change, normally worsen. This supports the suggestion that the concept of cognitive dissonance only reinforces attitudes with job selection decisions for a short period. In the long-run the attitudes may start to change.

O'Reilly and Caldwell (1981) studied the effects of what they termed post-decisional justification. They based their sample on a group of MBA graduates that had a relatively wide choice in selecting jobs. Their study concluded that these graduates who had the luxury of freedom of job choice, i.e. unconstrained by family or other pressure, from among several job offers and perceived their jobs as irrevocable, expressed more positive attitudinal commitment and satisfaction six months later. This is consistent with Salanchik's (1977) theory of behavioural commitment which suggests that although the job choice decision should be made voluntarily and by that, free from external pressure, once decision has been made it should be perceived as difficult to revoke.

Maybey (1983) drew similar conclusion. He found that those who expressed higher job satisfaction and organisational commitment after six months of employment were those respondents who decided on their job after evaluating offers from several organisation and whose choice was their own based highly on their own personal preference, that is free from external influences which include family considerations. Maybey however conceded that satisfaction and commitment levels increased when those factors that were considered in choosing the jobs were matched. Therefore he concluded that perceived revocability at the time of job choice did not have a statistically significant effect on subsequent commitment.

While it is apparent that the circumstances that influence the choosing of a job do have effects on commitment, the question remains over the length of period in employment that the effects have. While the first choice has been the basis of this research, there is also no real proof that the same answer could not be proved in subsequent organisations when the graduates in question decided to move on.

4.4.1c Pre-setting job expectations

An individual who has several alternative jobs to choose from naturally has a high expectation of the one he/she selects compared to those who do not have the privilege of choice. Nevertheless there is a tendency by the privileged to expect more than the reality. These high or over-inflated expectations disillusion the individual when they are not met (Maybey, 1983). Should one's experiences match the pre-entry expectations, similar feelings of disillusionment could also result due to the actual situation currently existing in the work place (Keenan and Newton, 1986; Nicholson and Arnold, 1989a and Werbel *et al*, 1996). Continuance commitment correlated most strongly with the pre-and post-entry measures of perceived alternatives (Major *et al*, 1995 and Meyer *et al*, 1991).

It is not difficult to foresee that when expectations are met, organisational commitment would certainly be positive. This however should not be taken for granted as there is contradictory evidence to reaction on organisational commitment when expectations are met. Using longitudinal methods to study graduates who were on their first year of employment, Meyer and Allen (1988) confirmed the realisation of pre-entry experience as one of the best predictors of organisational commitment. But there is no guarantee that this would not change over a long-term period.

The discrepancy between an individual's work expectations prior to joining an organisation and the individual's perceptions after becoming a member of that organisation is referred to by Dean *et al* (1988) as occupational reality shock (ORS). Dean *et al* investigated, through a longitudinal field survey, the effects of

ORS on the organisational commitment, attitude, intentions and behaviour of professional accountants. They found that the relationship between ORS and commitment to be asymmetrical: unmet expectations were negatively correlated with organisational commitment, while surpassed expectations and commitment were not related.

Those who envisage a more realistic expectation prior to entry of a job or employment are more inclined to remain with their organisation (Wanous, 1976), a conclusion similarly found by Maybey (1983). However while Maybey cautioned that his sample, composed of graduates who followed sandwich trained courses, were in a better position to envisage a more realistic pre-entry expectation, nevertheless they also expressed the least commitment after six months of employment. Maybey acknowledged that this discrepancy could be attributed to the respondents having limited choice to decide on their jobs not because of qualification but due to them having to fulfil their obligation towards those who sponsored them in their courses.

Correct and practical information on jobs and organisation would help to settle new recruits better into their job (Nicholson and Arnold, 1989a). Such information would give a realistic picture of the job and the environment and would thus moderate a person's expectations prior to entry. However unmet expectations are inevitable since not all information can be gathered prior to entry to a new organisation (Louis, 1980). Even though one gathers as much information as possible on the organisation where one intends to work, it is difficult to envisage the exact working experience. Brockner *et al* (1992) felt that the most negative reactions towards organisational commitment came from those who previously felt highly committed but who felt they were treated unfairly by the organisation. They concluded that unfair managerial practices would begin to alienate the employees that the organisation would least wish to alienate.

4.4.2 Period of Initiation

Initiation covers the early part of a person's employment in his/her new organisation. Several authors have noted the importance of the initial period of employment in an organisation in shaping employees' subsequent attitudes and behaviours. Interaction with incumbents has a strong early impact on organisational commitment of newcomers, but this effect diminished significantly over time (Baker, 1995). A possible explanation for these results is that incumbents will share commitment norms, attitudes and beliefs with the recruit. Baker points out that these socialisation agents are generally tenured, high-level performers that are committed to the organisation.

After the initial period it is probable that the effect of other organisational factors will maintain the important influence on organisational commitment. Allen and Meyer (1993) concluded (from their studies of previous authors in this subject) that newcomers' organisational socialisation experiences were negatively related to role innovation after they had been on their jobs six to twelve months and positively related to organisational commitment after six months and that role innovation and commitment were negatively correlated at the six months. Experiences in this period will confirm whether expectations can or cannot be met or maybe even already have been met. It is also the period of socialisation. Much research which covers this period is based on the first few months of a person's employment in the new organisation. Though the first few months are rather short to establish a person's commitment to an organisation, nevertheless this initial time has been noted as a critical period that helps in developing work attitudes (Buchanan, 1974; Keenan and Newton, 1986; Maybey, 1983; Mowday *et al*, 1982 and Wanous, 1976). Thus it is sufficient during this period for expectations to be formed based on the experiences one has gone through. Hence in a way here the initial experiences influence expectations.

The significance of this period to a new recruit as a time to be receptive and be accepted by the organisation was stressed by Berlew and Hall (1966). He found that as a new member, a new recruit stood at the boundary of the organisation, a very stressful location, and would be motivated to reduce this stress by becoming

incorporated into the 'interior' of the company. Being thus motivated to be accepted by this new social system and to make sense of the ambiguity surrounding him, he would be more receptive to cues from his environment than he would ever be again, and what he learned at the beginning would become the core of his organisational identity.

4.4.2a Expectations versus experiences

Several studies show that new employees have high expectations upon entering new organisations. However they are to learn later that their expectations are based on naive optimism or ideals as their early experiences proved (Maybey 1983; Wanous, 1976). Being unable to see these expectations being fulfilled has been cited (Dunnette *et al*, 1973 and Wanous 1980) as a reason for decline in organisational commitment and job satisfaction and hence high labour turnover of those in early employment.

Challenges and responsibility, plus the opportunity to advance further in work, are some of the intrinsic aspects of a job sought after by employees. The failure of employers to provide them brings disappointment especially to university educated employees (Dunnette *et al*, 1973). In their study of young workers who were engineering graduates in early employment, Keenan and Newton (1986) found that few of them felt that their aspirations were being met. This is especially so with regard to the levels of independence and influence and the development of their abilities.

Entry into a job will confirm one's expectations that have been hoped for both intrinsically and extrinsically. Expectations which are intrinsic in nature decline significantly upon a person's entry into an organisation unlike those expectations that are extrinsic in character (Wanous, 1976). Wanous explains that it is easier to assess and validate tangible extrinsic factors such as salary and working conditions compared to intrinsic factors which are more tenuous and subjective like job challenge, personal development and responsibility. Wanous' studies

however were conducted on graduate students pursuing the MBA course in business schools rather than on workers about to embark on new employment.

Newcomers tend to be more negative about the nature of work they were given (Nicholson and Arnold, 1989a). They occasionally complain about the lack of 'real' work to do. This feeling tends to apply particularly to those that have undergone long graduate training programme compared to those that attended training programmes for specific jobs only (Nicholson and Arnold, 1989a, and Maybey 1983). This helps to confirm that graduates are more keen to perform their jobs with responsibility and thus contribute towards the development of the organisations they serve.

In the context of behavioural commitment, felt responsibility leads to greater involvement in the organisation, that ensures greater attitudinal commitment as attitudes are brought in line with behaviour. Any characteristic of a person's job situation which reduces his felt responsibility will reduce his commitment (Salancik, 1977).

Disillusionment is not confined to intrinsic job factors alone although most are centred upon them. Workers' disillusionment has also been found in other aspects of an organisation's functions (Maybey, 1983; Nicholson and Arnold 1989a). Issues such as bureaucracy, office politicking and poor communication and communication facilities are some other factors that help to bring disillusionment with the work place. However Maybey (1983) acknowledges the experience of good relations and friendliness of colleagues to be consistently beyond expectation. This helps to build healthy work environment within the organisation.

Though there have been several researches regarding disillusionment following work experiences in early employment, there is a lack of studies relating its effects on commitment. Those that have been undertaken are mainly regarding disillusionment with early employment work experiences. Irving and Meyer

(1994) suggest that in order to improve attitudes and lower turnover intentions, it is advisable to focus more on providing positive work experiences than on confirming expectations. Some of the relationships between intrinsic and extrinsic factors with commitment have been mentioned previously, however these findings do not necessarily focus on the 'initiation' period. Though disenchantment was found by Maybey (1983) to have an impact on job satisfaction and organisational commitment, as shown by his study on the early period of employment of a group of graduates, and that there would be positive effects if expectations and experiences are congruent, there is still the need to focus on confirmation of these findings plus the need to examine the persistent continuity of these consequences of disconfirmed expectations.

4.4.2b Time frame

While organisational commitment may be a relatively stable construct, in times of upheaval it may be up for renegotiation (Angle and Lawson, 1993). Studies have indicated modification of expectations in the wake of experiences employees went through (Kopelman, 1977 and Nicholson and Arnold, 1989b). However there is no strong indication of the certainty of the time period needed for the modification of adjustment despite attempts made.

One such attempt was by Buchanan (1974) who undertook to study the implication of socialisation at work on organisational commitment. He suggests that a new recruit's first year allows him to come to terms with the standard expected of him/her set or influenced by his peers or reference groups. It is also the period in which he/she learns what to expect from the organisation. Buchanan also suggests that during the first few years commitment develops if an employee feels that he contributes significantly to the organisation.

Studies done on new graduates found that pre-expectation and immediate impression would give way to reality over a period of time (Nicholson and Arnold, 1989b; Bray, Campbell and Grant, 1974). Nicholson and Arnold found that the new graduates' immediate impressions were favourable. But these

impressions declined sharply in the first year, although successive years of tenure helped to bring recovery to more positive sentiments. Prior to this similar findings were also found by Bray, Campbell and Grant (1974) when they noted that the graduates held unrealistically positive expectations about the job and organisation which decline steadily over seven years of experience for both successful and unsuccessful employees. Kopelman (1977) finds that, early in their career, workers are likely to have high expectancies for obtaining outcomes or rewards that are highly valued, but these are likely to decline overtime. Nevertheless Kopelman notes that his sample of engineers seems to shift towards a balance between expectancies and values over the four year time period of his study. However he stresses that the nature of the occupation of engineers appeared to adjust them to their valuations to keep them in 'line' with reality perceptions. Nicholson and Arnold (1989b), in a follow-up to their earlier studies (1989a), also found an indication of fading disillusionment over the first four years of employment.

Allen *et al* (1995) suggest restructuring has a significant impact on attitudes such that they (the attitudes) vary over time. Furthermore, career stage moderates the effect of time on organisational commitment. Newly graduate employees tend to adjust their expectations more, normally downwards. Those in employment over four years express little desire of their expectations or all of their future potential or no expectation at all. Over a period, time helps employees to gradually replace disillusionment with acceptance (Nicholson and West, 1988).

It is difficult to set a standard initiation period. More important are the effects that disenchantment and failed expectations or revised expectations have on organisational commitment in employment. Expectations are common among employees despite having adjusted and accepted the organisation's way of life or culture especially in promotional exercises and organisational change. These are not peculiar to new workers only. Nicholson and Arnold (1989a) found that inflated expectations also existed among those who had been in the company for some time. This supported the findings of Nicholson and West (1988) of false

expectations from middle and senior managers experiencing both inter and intra-organisational job changes.

It is important that a comparison be made on the positive and negative effects work experiences have on organisational commitment. These effects may replace expectations that are not fulfilled. Meyer and Allen (1988) found strong evidence for the causal effect of work experience on commitment in the first year of a person's employment. However Bateman and Strasser (1984) and Curry *et al* (1986) found evidence for the time-lagged effect of work experiences on commitment in their research studies. This discrepancy may be related to tenure as indicated by Meyer and Allen (1988). Meyer and Allen's test was concluded using a sample of workers on their first year of employment. Those of Bateman and Strasser (1984) and Curry *et al* (1986) were of employees having on the average ten years working experience. To be more convincing, Meyer and Allen (1988) suggest that, further research is needed to examine systematically those factors that determine the strength and direction of the relationship between experience and commitment.

4.4.3 The Period of Entrenchment

The period of entrenchment referred to in the studies of organisational commitment covers the later periods of employment. However studies covering this period are few compared to those covering the first year of employment. As such there is a need to consider the development of commitment at mid and late career stages as well (Mowday *et al*, 1982 and Cohen, 1991). Cohen found that career stage moderates the relationships between organisational commitment and outcomes. The relationship between commitment and turnover was stronger in the early-career stage than in the mid- and later-career stage. The relationships of commitment with performance and absenteeism were strongest in the late-career stage.

Based on the research undertaken covering this period, the indication is that tenure is a strong predictor of organisational commitment. (e.g. Angle and Perry, 1981; and Morris and Sherman, 1981). But it is doubtful that tenure by itself influences commitment without the influence and interference of other factors. Tenure may lead to the conclusion that employees value their jobs for the intrinsic as well as the extrinsic rewards they get and hence may show greater commitment. But Mowday *et al* (1982) argue that this is only true of a minority of individuals since there are many employees that fail to attain the levels they hope for. There is a possibility that as expectations are adjusted over a period of time, the so called adjusted expectations are more likely to be realised and thus increase commitment. Meglino *et al* (1989) found that while value congruence between workers and their supervisors was not significantly correlated with workers' tenure, its effect on organisational commitment was more pronounced for longer tenured employees.

The correlation of tenure and commitment maybe due to the accumulation of 'investments' gathered over a period of time in employment with the same organisation which make leaving unlikely (Becker, 1960). Employees are most likely to benefit from investments made on them by employers during their tenure in the organisation for their loyalty, for example training, scholarship, a stake in the company's share and pension. Employees also benefit from non-organisational investment like the locality of their residence and community ties both among their profession and their neighbourhood. Another possibility to consider is that the longer one stays the less likely is one is able to find alternative employment as age may be a factor to be considered by other employers. Also as just mentioned, the community ties may be a factor too strong to let a worker go to another location. This organisational investment model has been strongly suggested in studies by Farrel and Rusbult (1981) and Rusbult and Farrel (1983).

However further studies covering later periods of employment are still needed to further establish the present demographic trends among organisations hoping to retain experienced older employees.

4.4.4 Stages of Organisational Commitment - A Summary

Mowday's *et al* (1982) typology encompassing expectation, initiation and entrenchment has been helpful in understanding stages in the development of organisational commitment. But the subject of organisational commitment is complex, and the use of this typology does not completely explain convincingly all the issues involved. Other models maybe applicable in the studies of organisational commitment with certain models suitable for certain stages of employment and accepting that the determinants and consequences of commitment are not static but may vary over time. This maybe due to the fact that over a period of time several variables may intervene and become factors that determine organisational commitment. In the early period new employees base their commitment on compliance and exchanging behaviour for extrinsic rewards. However over time they may understand and appreciate the organisational goals and values and may identify theirs with that of the organisation (O'Reilly and Chatman, 1986). Lee and Mowday (1987) regarded an employee in early career stage to be in the process of evaluating the job choice, learning about the job and the organisation, and deciding to stay or leave. Tasks and immediate work setting would be likely to be very salient in this evaluation process and very influential in the employee's decision to stay or leave. At a later career stage other factors, like non-work influences would be more salient.

The exact impact of the factors exerted towards commitment also vary during all periods of employment. This has been suggested by Rusbult and Farrel (1983) when they mention that while rewards and alternative job quality appear to affect commitment, from the outset of employment, the effects of job costs and investment have a greater impact later on.

The typology of initiation, expectation and entrenchment also lacks variation in the context of organisations served. All studies based on this typology used the

sample of employees who remain with one organisation. There is a lack of research addressing the commitment levels of workers who change jobs or organisations and who have to undergo the three stages all over again-despite being employed before. Such cycles are possible as suggested by Nicholson *et al* (1977).

Those who change jobs or organisations may also encounter the different phases of this typology. However since they have experienced them before in their previous organisation or organisations, they should be able to anticipate, encounter and adjust and be stable in the new environment better than those who have not been employed before.

4.5 CONCLUSION

Interests in the study of organisational commitment can be traced to the study of job satisfaction. Although both organisational commitment and job satisfaction have been found to be highly correlated, both these constructs have distinct features of their own. Reasons for the existence of organisational commitment have similar roots to that of job satisfaction, those that were economic in nature, equity and expectancy theories and those based on psychological theories.

Most studies on organisational commitment regard the term as a behavioural construct (Salanchik, 1977) or an affective one (Porter *et al*, 1974). While there are researchers who acknowledge the independence of these variables (Schuh, 1967; Wiener 1982), there are others who suggest a reciprocal or complementary relationship between them (Mowday *et al*, 1982; Penley and Gould, 1988).

The literature review has shown that the subject of organisational commitment is a complex, multifaceted phenomenon and it is also evidently clear that there are no universal predictors of the subject. Several explanations can be offered. One is the existence of different antecedents which are subject to treating organisational commitment as behavioural or attitudinal. It is also difficult to regard the

antecedents of organisational commitment as static. The antecedents interact with commitment and changes are bound to occur over a given time. Also there maybe causes of commitment which are peculiar to specific levels such as education, status and occupation.

It is evident that there are no universal acceptable predictors of organisational commitment. This, however, should not discourage further exploration. Researchers like Morrow (1983) and Reichers (1985) have called for the redundancy of the concept pending a consistent definition. However, there is no guarantee that this will further the debate or progress the present understanding of the construct. Pierce and Dunham (1987) have called for increasing attention in the subject so that more empirical tests on models of organisational commitment could be carried out. Lydka (1991), on the other hand, stated that as there were no general acceptable predictors of the subject of organisational commitment, further studies would add little to the current debate.

The literature also suggests that the strength of an individual's attachment to the organisation is a function of several dimensions of organisational experience that can be inconsistent in their effects. Public employees, in particular, may be simultaneously repelled and attracted to the organisation. Their desires to serve important values may be undercut by low or negative feelings of affiliation (Balfour and Wechsler, 1990).

Existing studies on organisational commitment have only had access to relatively few organisations, which may introduce a cultural bias. Additionally, even those studies tend to narrow to certain aspects rather than be more comprehensive. Also in reviewing the literature no studies on organisational commitment was undertaken on academic staff in an institution of higher learning. Over and above this is the fact that the vast majority of studies done on the subject have been undertaken in western countries, especially the United States as noted in Chapter One (see 1.9). Thus this research could further promote a better understanding associated with the overall studies of organisational commitment.

REFERENCES

Agarwal, S (1993), "Influence of Formalization on Role Stress, Organisational Commitment, and Work Alienation of Salespersons: A Cross-National Comparative Study", *Journal of International Business Studies*, 24 (4) pp. 715-739.

Al-Meer, ARA (1990), "Organisational Commitment: A Comparison of Westerners, Asians and Saudis", *International Studies of Management and Organisation*, 19 (2), pp. 78-84.

Allen, NJ and Meyer, JP (1990) "Organisational Socialization Tactics: A Longitudinal Analysis of Links to Newcomers' Commitment and Role Orientation" *Academy of Management Journal*, 33 (4) pp. 847-858.

Allen, NJ and Meyer, JP (1993) "Organisational Commitment: Evidence of Career Stage effects?" *Journal of Business Research*, 26 (1) pp. 49-61.

Allen, TD; Freeman, DM; Reizenstein, RC; and Rentz, JO (1995) "Just Another Transition? Examining Survivors' Attitudes Over Time" *Academy of Management Journal*, (Best Papers Proceedings 1995), pp. 78-82.

Alpander, GG (1990), "Relationship Between Commitment Hospital Goals and Job Satisfaction: A Case Study of a Nursing Department", *Health Care Management Review* 15, pp. 51-62.

Alutto, JA, Hrebiniak, LG and Alonso, R (1973), "On Operationalizing the Concept of Commitment", *Social Forces*, 51, pp. 448-454.

Alvi, SA and Ahmed, SW (1987), "Assessing Organisational Commitment in a Developing Country: Pakistan, a Case Study", *Human Relations*, 40 (5), pp. 267-280.

Angle, HL and Lawson, MB (1993), "Changes in Affective and Continuance Commitment in Times of Relocation" *Journal of Business Research*, 26 (1), pp. 3-15.

Angle, HL and Perry, J (1981), "An Empirical Assessment of Organisational Commitment and Organisational Effectiveness" *Administrative Science Quarterly*, 26, pp. 1-14.

Aranya, N, Kushnir, T and Valency, A (1986), "Organisational Commitment in a Male-Dominated Profession", *Human Relations*, 39 (5), pp. 433-488.

Arnold, HJ and Feldman, DC (1982), "A Multivariate Analysis of the Determinants of Job Turnover", *Journal of Applied Psychology*, 67 (3), pp. 350-360.

Aryee, S and Heng, LJ (1990) "A Note on the Applicability of an Organisational, Commitment Model", *Work and Occupations*, 17 (2), 229-239.

Aven, FF Jr; Parker, B and McEvoy, GM (1993), "Gender and Attitudinal Commitment to Organisations: A Meta Analysis", *Journal of Business Research*, 26 (1) pp. 63-73.

Baker, WK (1995), "Allen and Meyer's 1990 Longitudinal Study: A Reanalysis and Reinterpretation Using Structural Equation Modelling" *Human Relations*, 48 (2), pp. 169-186.

Balfour, DL. and Wechsler, B (1991), "Commitment, Performance, and Productivity in Public Organisations" *Public Productivity and Management Review*, 14 (4) pp. 355-367.

Balfour, DL. and Wechsler, B (1990), "Organisational, Commitment: a Reconceptualization and Empirical Test of Public-Private Differences" *Review of Public Personnel Administration*, 10 (3) pp. 23-40.

Banai, M and Reisel WD (1993), "Expatriate Managers' loyalty to the MNC: Myth or Reality? An Exploratory Study" *Journal of International Business Studies*, 24 (2) pp. 233-248.

Bar-Hayim, A and Berman, GS (1992), "The Dimensions of Organisational Commitment" *Journal of Organisational Behavior*, 13 (4), pp. 379-387.

Bartol, KM (1979), "Individual Versus Organisational Predictions of Job Satisfaction and Turnover Among Professional" , *Journal of Vocational Behaviour*, 15, pp. 55-67.

Bateman, T and Strasser, S (1984), "A Longitudinal Analysis of the Antecedents of Organisational Commitment", *Academy of Management Journal*, 27 (1), pp. 95-112.

Baugh, SG; and Roberts, RM (1994), "Professional and Organisational Commitment Among Engineers: Conflicting or Complementing?" *IEEE Transactions on Engineering Management*, 41 (2), pp. 108-114.

Beatty, JR; McCune, J.T.; Beatty, R.W (1988), "A Policy-Capturing Approach to the Study of United States and Japanese Managers' Compensation Decisions", *Journal of Management*, 14 (3), pp. 465-474.

Becker, H (1960), "Notes on the Concept of Commitment", *American Journal of Sociology*, 66, pp. 32-40.

Becker, TE (1960), "Foci and Bases of Commitment: Are They Distinctions Worth Making?", *Academy of Management Journal*, 35 (1), pp. 232-244.

Begley, TM and Czajka, JM (1993), "Panel Analysis of the Moderating Effects of Commitment on Job Satisfaction, Intent to Quit, and Health Following Organizational Change", *Journal of Applied Psychology*, 78 (4), pp. 552-556.

Berlew, DE and Hall, DT (1966), "The Socialisation of Managers: Effects of Expectations on Performance", *Administrative Science Quarterly*, 11, pp. 207-223.

Boshoff, C and Mels, G (1995), "A Causal Model to Evaluate the Relationships Among Supervision, Role Stress, Organisational Commitment and Internal Service Quality" *European Journal of Marketing* 29 (2), pp. 23-42.

Bourantas, D and Papalexandris, N (1992) "Variable Affecting Organisational Commitment: Private Versus Publicly-Owned Organisations in Greece" *Journal of Managerial Psychology*, 7 (1), pp. 3-10.

Bray, DW, Campbell, RJ and Grant, DL (1974), "Formative Years in Business", Wiley-Interscience, *New York*.

Brett, JC; Cron, WL; and Slocum, JW Jr (1995) "Economic Dependency on Work: A Moderator of the Relationship Between Organisational Commitment and Performance", *Academy of Management Journal*, 38 (1), pp. 261-271.

Brockner, J; Tyler, TR. and Cooper-Schneider R (1992), "The Influence of Prior Commitment to an Institution on Reactions to Perceived Unfairness: The Higher They Are, the Harder They Fall", *Administrative Science Quarterly*, 37 (2), pp. 241-261.

Buchanan, B (1974), "Building Organisational Commitment: the Socialisation of Managers in Work Organisations", *Administrative Science Quarterly*, 19, pp. 533-546.

Caldwell, DF.; Chatman, JA.; O'Reilly, CA (1990) "Building Organisational Commitment: A Multifirm Study", *Journal of Occupational Psychology*, 63 (3) pp. 245-261.

Cannings, K (1989), "An Exit-Voice Model of Managerial Attachment", *Journal of Economic Behavior and Organisation*, 12 (1), pp. 107-129.

Carlson, DS and Perrewe, PL (1995), "Institutionalization of Organisational Ethics Through Transformational Leadership", *Journal of Business Ethics*, 14 (10), pp. 829-838.

Carr, M and Human, P (1989), "Race as a Limiting Factor in Organisational Life: a South African Study", *Omega*, 17 (4), pp. 355-362.

Cohen, A (1991), "Career Stage as a Moderator of the Relationships Between Organisational Commitment and its Outcomes: A Meta Analysis", *Journal of Occupational Psychology*, 64 (3), pp. 253-268.

Cohen, A (1992), "Antecedents of Organisational Commitment Across Occupational Groups: A Meta Analysis", *Journal of Organisational Behavior*, 13 (6), pp. 539-558.

Cohen, A (1993), "Work Commitment in Relation to Withdrawal Intentions and Union Effectiveness", *Journal of Business Research*, 26 (1), pp. 75-90.

Cohen, A (1993) "Organisational Commitment and Turnover: A Meta-Analysis", *Academy of Management Journal*, 36 (5), pp. 1140-1157.

Cohen, A, and Gattiker, UE, (1992) "An Empirical Assessment of Organisational Commitment Using the Side-Bet Theory Approach", *Industrial Relations-Quebec*, 47 (3), pp. 439-459.

Cohen, A; and Hudecek, N (1993), "Organisational Commitment-Turnover Relationship Across Occupational Groups", *Group and Organisation Management*, 18 (2), pp. 188-213.

Cook, JD, Hepworth, SJ, Wall, TD, and Warr, PB, (1981) "The Experience of work", *Academic Press*.

Cook, J and Wall, T (1980), "New Work Attitude Measures of Trust, Organizational Commitment and Personal Need Fulfillment", *Journal of Occupational Psychology*, 53, pp. 39-52.

Curry, JP, Wakefields, DS, Price, JL, and Mueller, CW, (1986), "On the Casual Ordering of Job Satisfaction and Organizational Commitment", *Academy of Management Journal*, 29, pp. 847-858.

Darden, WR; Hampton, R.; Howell RD (1989) "Career Versus Organizational Commitment: Antecedents and Consequences of Retail Salespersons' Commitment", *Journal of Retailing*, 65 (1), pp. 80-106.

Dean, RA.; Ferris, KR.; Konstans, C (1988), "Occupational Reality Shock and Organizational Commitment: Evidence from the Accounting Profession", *Accounting, Organizations and Society*, 13 (3), pp. 235-250.

De Coninck, JB and Bachmann, DP, (1994) "Organizational Commitment and Turnover Intentions of Marketing Managers", *Journal of Applied Business Research*, 10 (3), pp. 87-95.

De Coninck, JB and Stilwell, CD, (1996) "Factors Influencing the Organizational Commitment of Female Advertising Executives", *American Business Review*, 14 (2), pp. 80-88.

DeCotiis, TA, Summers, TP (1987) "A Path Analysis of a model of the Antecedents and Consequences of Organizational Commitment", *Human Relations*, 40 (7), pp. 445-470.

Dubin, R, Champoux, J and Porter, LW (1975), "Central Life Interests and Organizational Commitment of Blue Collar and Clerical Workers", *Administrative Science Quarterly*, 20, pp. 411-421.

Dunnette, MP, Harvey, RD and Barnes, PA (1973), "Why Do They Leave?", *Personnel*, 50, pp. 25-39.

Elliot, K and Hall, M (1994), "Organizational Commitment and Job Involvement: Applying Blau and Boal's Typology to Purchasing Professionals", *American Business Review*, 12 (1) pp. 6-14.

Farrel, D and Rusubult, CE (1981), "Exchange Variables as Predictions of Job Satisfaction", *Organizational Behavior and Human Performance*, 27, pp. 79-95.

Fern, EF, Avila, RA and Grwal, D (1989), "Salesforce Turnover: Those Who Left and Those Who Stayed", *Industrial Marketing Management*, 18, pp. 1-9.

Fox, SF (1989) "Intergenerational Differences, Merit Pay, and Loyalty in State and Local Government", *Review of Personnel Administration*, 9 (2), pp. 15-27.

Glisson, C and Durrick, M (1988), "Predictors of Job Satisfaction and Organizational Commitment in Human Service Organizations", *Administrative Science Quarterly*, 33, pp. 61-81.

Gouldner, AW (1957), "Cosmopolitans and Locals: Towards an Analysis of Latent Social Roles", *Administrative Science Quarterly*, 2, pp. 281-306.

Gray, DE (1989), "Gender and Organizational Commitment Among Hospital Nurses", *Human Relations*, 42, pp. 801-813.

Gregersen, HB and Black JS (1990), "A Multifaceted Approach to Expatriate Retention in International Assignments" *Group and Organization Studies*, 15 (4), pp. 461-485.

Gregersen, HB and Black JS (1996), "Multiple Commitments Upon Repatriation: The Japanese Experience" *Journal of Management*, 22 (2), pp. 209-229.

Griffen, RW and Bateman, TS (1986), "Job Satisfaction and Organizational Commitment", *International Review of Industrial and Organizational Psychology*.

Grover, SL; (1991) "A Framework for Understanding Commitment in the R&D Organization" *Journal of Engineering and Technology Management*, 7, (3), pp. 251-265.

Grover, SL; (1993) "Why Professional Lie: The Impact of Professional Role Conflict on Reporting Accuracy" *Organisational Behavior and Human Decision Processes*, 55, (2), pp. 251-272.

Grover, SL and Cooker, KJ; (1995), "Who Appreciates Family-Responsive Human Resource Policies: The Impact of Family-Friendly Policies on the Organizational Attachment of Parents and Non-Parents" *Personnel Psychology*, 48, (2), pp. 271-288.

Hafer, J. and Moerer, T (1992), "How to Attain Long-Term TSR Employment" *Telemarketing Magazine*, 10, (11), pp. 78-81, 88-89.

Harris, SG and Mossholder, KW (1996), "The Affective Implications of Perceived Congruence With Culture Dimensions During Organizational Transformation", *Journal of Management*, 22 (4), pp. 527-547.

Harvey, T (1995), "Service Quality: The Culprit and the Cure" *Bank Marketing*, 27 (6), pp. 24-28.

Hrebiniak LG and Alutto, JA (1972), Personal and Role Related Factors in the Development of Organizational commitments", *Administrative Science Quarterly*, 18, pp. 55-73.

Hunt, SD; Wood, VR.; Chonko, LB. (1989) "Corporate Ethical Values and Organizational Commitment in Marketing", *Journal of Marketing* , 53, pp. 79-90.

Igbaria, M; and Guimaraes, T. (1993) "Antecedents and Consequences of Job Satisfaction Among Information Center Employees" *Journal of Management Information Systems*, 9 (4) pp. 145-174.

Igbaria, M; and Siegel, SR. (1992) "An Examination of the Antecedents of Turnover Propensity of Engineers: An Integrated Model" *Journal of Engineering and Technology Management*, 9 (2) pp. 101-126.

Ingram, T and Lee, KS (1990), "Sales Force Commitment and Turnover", *Industrial Marketing Management*, 19 (2), pp. 149-154.

Irving, PG and Meyer, JP (1994), "Reexamination of the Met-Expectations Hypothesis: A Longitudinal Analysis", *Journal of Applied Psychology*, 79, pp. 937-949.

Jans, NA (1989), "Organizational Commitment, Career Factors and Career/Life Stage", *Journal of Organizational Behavior*, 10, pp. 247-266.

Johnson, WR and Johnson, GJ (1991) "The Effects of Equity Perceptions on Union and Company Commitment", *Journal of Collective Negotiations in the Public Sector*, 20 (3), pp. 235-244.

Johnston, MW.; Parasuraman, A.; Futrell, CM. and Black, WM (1990) "A Longitudinal Assessment of the Impact of Selected Organizational Influences on Salespeople's Organizational Commitment During Early Employment" *Journal of Marketing Research*, 27 (3) pp. 333-344.

Keenan, A (1980), "Stress and Professional Engineer", in *White Collar and Professional Stress*, edited by Cooper CL and Marshall, J, New York, Wiley.

Keenan, A and Newton, TJ (1986), "Work Aspirations and Experiences of Young Graduate Engineers", *Journal of Management Studies*, 23 (2).

Kidron, A (1978), "Work Values and Organizational Commitment", *Academy of Management Journal*, 21, pp. 239-247.

Kopelman, RE (1977), "Psychological Stages of Careers in Engineering: An Expectancy: An Expectancy Theory Taxonomy", *Journal of Vocational Behavior*, 10, pp. 270-286.

Korabik, K and Rosin, HM (1995), "The Impact of Children on Women Managers' Career Behavior and Organizational Commitment" *Human Resource Management*, 34 (4) pp. 513-528.

Lankau, MJ; and Scandura, TA (1996), "An Examination of Job Attitudes of White, Black, and Hispanic Nurses in a Public Hospital" *International Journal of Public Administration*, 19 (3) pp. 377-398.

Larhman, R and Aranya, N (1986), "Evaluation of Alternative models of Commitment and job attitudes of Professionals", *Journal of Occupational Behavior*, 7, pp. 227-243.

Lawler III, EE (1983), "Satisfaction and Behavior" in *Motivation and Work Behavior*, edited by Steers, RM and Porter, LW, 3, McGraw Hill.

Lee TW and Mowday, RT (1987), "Voluntarily Leaving an Organization: An Empirical Investigation of Steer and Mowday's Model of Turnover", *Academy of Management Journal*, 30 (4), pp. 721-743.

Lee TW; Ashford, SJ.; Walsh, JP and Mowday, RT (1992), "Commitment Propensity, Organizational Commitment, and Voluntary Turnover: A Longitudinal Study of Organizational Entry Processes", *Journal of Management*, 18 (1), pp. 15-32.

Leong, SM; Randall, DM; and Cote, JA (1994), "Exploring the Organizational Commitment-Performance Linkage in Marketing: A Study of Life Insurance Salespeople" *Journal Business Research*, 29 (1) pp. 57-63.

Liou, KT and Nyhan, RC (1994), "Dimensions of Organizational Commitment in the Public Sector: An Empirical Assessment" *Public Administration Quarterly*, 18 (1), pp. 99-118.

Loscocco, KA (1990), "Reactions to Blue-Collar Work: A Comparison of Women and Men", *Work and Occupations*, 17 (2), pp. 152-177.

Louis, MR (1980), "Surprise and Sense Making: What Newcomers Experience in Entering Unfamiliar Organizational Settings", *Administrative Science Quarterly*, 25.

Luthans, F; Baack, D; and Taylor, L (1987), "Organizational Commitment: Analysis of Antecedents", *Human Relations*, 40 (4) pp. 219-235.

Lydkka, ML (1991), "Organizational Commitment-A Review of Research" A working paper series, Henley The Management College.

Major, DA; Kozlowski, SWJ; Chao, GT and Gardner PD (1995), "A Longitudinal Investigation of Newcomer Expectations, Early Socialization Outcomes, and Moderating Effects of Role Development Factors", *Journal of Applied Psychology*, 80 (3), pp. 418-431.

March, J and Simon, H (1958), "*Organizations*", Wiley and Sons, New York

Marsden, PV; Kalleberg, AL and Cook, CR (1993) "Gender Differences in Organizational Commitment: Influences of Work Positions and Family Roles", *Work and Occupation*, 20 (3) pp. 368-390.

Martin, TN and Hafer, JC (1995), "Turnover is Linked to Job Involvement and Organizational Commitment" *Telemarketing*, 13 (12), pp. 106-111.

Maybey, C (1983), "The Integration of Graduates Into Twenty Engineering Companies in the UK Industry", PhD Thesis (unpublished), Brunel University.

McElroy, JC; Morrow, PC; Crum, MR and Dooley, FJ (1995), "Railroad Employee Commitment and Work-Related Attitudes and Perceptions" *Transportation Journal* 34 (3), pp. 13-24.

McNelly, KM and Russ FA. (1992), "The Moderating Effect of Sales Force Performance on Relationships Involving Antecedents of Turnover" *Journal of Personal Selling and Sales Management*, 12 (1), pp. 9-20.

hulskis, E (1996), "The Best Recruiting Sources" *Human Resource magazine*, 41 (3), pp. 16-18.

golino, BM; Ravlin, EC and Adkins, CL (1989), "A Work Values Approach to Corporate Culture: A Field Test of the Value Congruence Process and Its Relationship to Individual Outcomes", *Journal of Applied Psychology*, 74, pp. 432.

eyer, JP and Allen, NJ (1984), "Testing the 'Side Bet Theory' of Organizational Commitment: Some Methodological Considerations", *Journal of Applied Psychology*, 69, pp. 372-378.

eyer, JP and Allen, NJ (1988), "Links Between Work Experiences and Organizational Commitment During the first Year of Employment: a longitudinal Analysis", *Journal of Occupational Psychology*, 61, pp. 195-209.

eyer, JP; Bobocel, DR; and Allen, NJ (1991), "Development of Organizational Commitment During the First Year of Employment: A Longitudinal Study of Pre- and Post-Entry Influences", *Journal of Management*, 17 (4), pp. 717-733.

Michaels, RE; Cron, WL; Dubinsky, AJ and Joachimsthaler, EA (1988), "Influence of Formalization on the Organizational commitment and Work Alienation of Salespeople and Industrial Buyers", *Journal of Marketing research*, 25 (4) pp. 376-383.

Michaels, RE and Dixon, AL (1994), "Sellers and Buyers on the Boundary: Potential Moderators of Role Stress-Job Outcome Relationships", *Journal of the Academy of Marketing Science*, 22 (1) pp. 62-73.

Morris, J and Steers, RM (1980), "Structural Influences on Organizational Commitment", *Journal of Vocational Behavior*, 17 pp. 50-57.

Morris, J and Sherman, J (1981), "Generalizability of an Organizational Commitment Model", *Academy of Management Journal*, 24, pp. 512-526.

Porrow, PC (1983), "Concept Redundancy in Organizational Research: The Case of Work Commitment", *Academy of Management Review*, 8 (3), pp. 486-500.

Rotter, CJ (1986), "An Analysis of The Relationships Between Education and Organizational Commitment in a Variety of Occupational Groups", *Journal of Vocational Behavior*, 28, pp. 214-228.

Rotter, CJ (1988), "Determinants of Organizational Commitment", *Human Relations*, 41(6), pp. 467-482.

Mowday, R and McDade, T (1979), "Linking Behavioral and Attitudinal Commitment: A Longitudinal Analysis of Job Choice and Job Attitudes", *Proceedings of the 39th Annual Meeting of the Academy of Management*, Atlanta, pp. 84-88.

Mowday, RT; Porter, LW and Dubin, R (1974), "Unit Performance, Situational Factors, and Employee Attitudes in Spatially Separated Work Units", *Organizational Behavior and Human Performance*, 12, 231-248.

Mowday, RT; Porter, LW and Steers, RM (1982), *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*, Academic Press, New York.

Mowday, RT; Steers, RM and Porter, LW (1979), "The Measurement of Organizational Commitment", *Journal of Vocational Behavior*, 14, pp. 224-247.

Nauman, E (1993), "Antecedents and consequences of Satisfaction and Commitment Among Expatriates Managers", *Group and Organization Management*, 18 (2), pp. 153-187.

Near, JP (1989), "Organizational Commitment Among Japanese and US Workers", *Organizational Studies*, 10 (3), pp. 281-300.

Nicholson, N and Arnold, J (1989a), "Graduate Entry and Adjustment to Corporate Life", *Personnel Review*, 18 (3), pp. 23-35.

Nicholson, N and Arnold, J (1989b), "Graduate Early Experience in a Multinational Corporation", SAPU Memo Number 995, *Personnel Review*, 7

Nicholson, N and West, M (1988), "*Managerial Job Change: Men and Women in Transition*", Cambridge University.

Nicholson, N; Wall, T and Lischeron J (1977), "The Predictability of Absence and Propensity to Leave From Employees' Job Satisfaction and Attitudes Toward Influence in Decision Making", *Human Relations*, 1977, 30, 499-514.

Nystrom, PC (1993), "Organizational cultures, strategies, and commitments in health care organizations", *Health Care Management Review*, 18 (1) pp. 43-49.

O'Reilly, III, C and Caldwell, D (1980), "Job Choice: The Impact of Intrinsic and Extrinsic Factors on Subsequent Satisfaction and Commitment", *Journal of Applied Psychology*, 65 (5), pp. 559-565.

O'Reilly, III, C and Caldwell, D (1981), "The Commitment and Job Tenure of New Employees: Some Evidence of Postdecisional Justification", *Administrative Science Quarterly*, 26, pp. 597-616.

O'Reilly, III, C and Chatman, J (1986), "Organizational Commitment and Psychological Attachment: The Effects of Compliance, Identification and Internationalization on Prosocial Behavior", *Journal of Applied Psychology*, 71 (3), pp. 492-499.

Oliver, N (1990), "Work Rewards, Work Values, and Organizational Commitment in an Employee-Owned Firm: Evidence from the UK" *Human Relations*, 43 (6) pp. 513-526.

Parasuraman, S and Nachman, SA (1987), "Correlates of Organizational Commitment: The Case of Musicians in Symphony Orchestras", *Group and Organization Studies*, 12 (3) pp. 287-303.

Penley, EL and Gould, S (1988), "Etzioni's Model of Organizational Involvement: A Perspective for Understanding Commitment to Organisations", *Journal of Organizational Behavior*, 9, pp. 43-59.

Perrewe, PL; Ralston, DA; and Fernandez, DR (1995), "A Model Depicting the Relations Among Perceived Stressors, Role Conflict and Organizational Commitment: A Comparative Analysis of Hong Kong and the United States", *Asia Pacific Journal of Management* 12 (2), pp. 1-21.

Peters, TJ and Waterman, RM, (1982), "*In Search of Excellence*", Harper and Row, New York.

Pierce, J L. and Dunham, RB (1987), "Organizational Commitment: Pre-Employment Propensity and Initial Work Experiences", *Journal of Management*, 13 (1), pp. 163-178.

Porter, LW, Steers, RM, Mowday, RT and Boulian, PV (1974), "Organizational Commitment, Job Satisfaction and turnover Among Psychiatric Technicians", *Journal of Applied Psychology*, 59, pp. 603-609.

Porter, LW, Crampon, W and Smith, F (1979), "Organizational Commitment and Managerial Turnover: A Longitudinal Study", *Organizational Behavior and Human Performance*, 15, pp. 87-98.

Porter, LW, Crampon, W and Smith, F (1976), "Organizational Commitment and Managerial Turnover: A Longitudinal Study", *Organizational Behavior and Human Performance*, 15, pp. 87-98.

Putti, JM; Aryee, S and Liang, TK (1989), "Work Values and Organizational Commitment: A Study in the Asian Context", *Human Relations*, 42 (3) pp. 275-288.

Quarles, R (1994), "An Examination of Promotion Opportunities and Evaluation Criteria as Mechanisms for Affecting Internal Auditor Commitment, Job Satisfaction and Turnover Intentions", *Journal of Managerial Issues*, 6 (2) pp. 176-194.

Randall DM (1988), "Multi Roles and Organizational Commitment", *Journal of Organizational Behavior*, 9 (4) pp. 309-317.

Randall, DM (1993) "Cross-Cultural Research on Organizational Commitment: A Review and Application of Hofstede's Value Survey Module", *Journal of Business Research*, 26 (1) pp. 91-110.

Reichers, A (1985), "A Review and Reconceptualisation on Organizational Commitment", *Academy of Management Review*, 10 (3), pp. 465-476.

Reichers, A (1986), "Conflict and Organizational Commitments", *Journal of Applied Psychology*, 71 (3), pp. 508-514.

Rhodes, SR and Steers, RM (1981), "Conventional Versus Worker-Owned Organisations", *Human Relations*, 34 (12), pp. 1013-1035.

Rosen, B and Lovelace, K (1994), "Fitting Square Pegs Into Round Holes", *HR Magazine* 39 (1), pp. 86-93.

Rosin, HM and Korabik, K (1991), "Workplace Variables, Affective Responses, and Intention to Leave Among Women Managers", *Journal of Occupational Psychology*, 64 (4), pp. 317-330.

Rusbult, C and Farrell, D (1983), "A Longitudinal Test of the Investment Model: The Impact on Job Satisfaction, Job Commitment and Turnover on Variations in Rewards, Costs, Alternatives and Investment", *Journal of Applied Psychology*, 68 (3), pp. 429-438.

Russ, FA and McNeilly KM (1995), "Links Among Satisfaction, Commitment, and Turnover Intentions: The moderating Effect of Experience, Gender and Performance", *Journal of Business Research*, 34 (1) pp. 57-65.

Sager, JK (1991), "Recruiting and Retaining Committed Salespeople", *Industrial Marketing Management*, 20 (2) pp. 99-103.

Sager, JK (1994), "A Structural Model Depicting Salespeople's Job Stress", *Journal of the Academy of Marketing Science*, 22 (1) pp. 74-84.

Sager, JK and Johnston, MW (1989), "Antecedents and Outcome of Organizational commitment: A Study of Salespeople", *Journal of Personal Selling and Sales Management*, 9 (1) pp. 30-41.

Salanchik, G, (1977), "Commitment and the Control of Organizational Behavior and Belief", in *New Directions in Organizational Behavior*, edited by Staw, B and Salanchik, G, pp. 1-54.

Schappe, SP (1996), "Bridging the Gap Between Procedural Knowledge and Positive Employee Attitudes", *Group and Organization Management*, 21 (3) pp. 337-364.

Schuh, AJ (1967), "The Predictability of Employee Tenure: A Review of Literature", *Personnel Psychology*, 20 pp. 133-152.

Sheldon, ME (1971), "Investments and Involvements as Mechanisms Producing Commitment to the Organization", *Administrative Science Quarterly*, 16, pp. 142-150.

Shore, LM and Martin. HJ (1989), "Job Satisfaction and Organizational Commitment in Relation to Work Performance and Turnover Intentions", *Human Relations*, 42 (7) pp. 625-638.

Smith, PL and Hoy, F (1992), "Job Satisfaction and Commitment of Older Workers in Small Business", *Journal of Small Business*, 30 (4), pp. 106-118.

Sommer, SM; Bae, SH and Luthans, F (1996), "Organizational Commitment Across Cultures: The Impact of Antecedents of Korean Employees", *Human Relations*, 49 (7), pp. 977-996.

Starling, G (1991), "A Framework for Understanding Commitment in the R & D Organization", *Journal of Engineering and Technology Management*, 7 (3), 251-265.

Steers, RM (1977), "Antecedents and Outcomes of Organizational Commitment", *Administrative Science Quarterly*, 22, pp. 465-56.

Steers, RM and Mowday, R (1981), "Employee Turnover and Postdecision Accommodation Processes", in L. Cummings and B. Staw (Eds) *Research in Organizational Behavior*, 3. Greenwich, CT.: JAI Press.

Steffan, TM; Nystrom, PC; and O'Connor, SJ (1996), "Satisfaction With Nursing Home", *Journal of Health Care Marketing*, 16 (3), pp. 34-38.

Stevens, J, Beyer, J and Trice, H (1978), "Assessing Personal, Role and Organizational Predictions of Managerial Commitment", *Academy of Management Journal*, 21 (3), pp. 380-396.

Stumpf S and Hartmen, K (1984), "Individual Exploration to Organizational commitment of Withdrawal", *Academy of Management Journal*, 27 (2), pp. 417-426.

Tang, TLP and Sarsfield-Baldwin, LJ (1996), "Distributive and Procedural Justice as Related to Satisfaction and Commitment", *SAM Advanced Management Journal*, 61 (3), pp. 25-31.

Thornton, R (1970), "Organizational Involvement and Commitment to Organization and Profession", *Administrative Science Quarterly*, 15, pp. 417-426.

Ting, Y (1996), "Workforce Reductions and Termination Benefits in Governments: The Case of Advance Notice", *Public Personnel Management*, 25 (2), pp. 183-198.

Vandenberg, RJ and Scarpello, V (1994), "A Longitudinal Assessment of the Determinant Relationship Between an Employee Commitments to the Occupation and then Organization", *Journal of Organizational Behavior*, 15 (6), pp. 535-547.

Vroom, VH (1966), **Organizational Choice: A Study of Pre and Post Decision Processes**", *Organizational Behavior and Human Performance*, 1, 99. 212-225.

Vroom, VH and Deci, EL (1971), **The Stability of Post Decision Dissonance: A Follow-Up Study of the Job Attitudes of Business School Graduates**", *Organizational Behavior and Human Performance*, 6, pp. 36-49.

Wanous, JP, (1976), **"Organizational Entry: From Naive Expectations to Realistic Beliefs"**, *Journal of Applied Psychology*, 61 (1), pp. 22-29.

Ward, EA and Davis, E (1995), **"The Effect of Benefit Satisfaction on Organizational Commitment"**, *Compensation and Benefits Management*, 11 (3), pp. 35-40.

Werbel, K; Landau, J and Decarlo, TE, (1996), **"The Relationship of Pre-entry Variables to Early Employment Organizational Commitment"** *Journal of Personal Selling and Sales Management*, 16(2), pp. 25-36.

Wiener, Y (1982), **"Commitments in Organisations: A Normative View"**, *Academy of Management Review*, 7 (3), pp. 418-428.

Williams, LJ and Hazer, JT (1986), **"Antecedents and Consequences of Satisfaction and Commitment in Turnover Models: A Reanalysis Using Latent Variable Structural Equation Methods"**, *Journal of Applied Psychology*, 71 (2), pp. 219-231.

Witt, LA (1993), **"Reactions to Work Assignment as Predictors of Organizational Commitment: The Moderating Effect of Occupational Identification"**, *Journal of Business Research*, 26 (1) pp. 17-30.

Wong, CS; Hui, C; and Law, KS (1995), "Casual Relationship Between Attitudinal Antecedents to Turnover" *Academy of Management Journal*, (Best Papers Proceedings 1995), pp. 342-346.

Yavas, U; Luqmani, M and Quraeshi, Z (1990), "Organizational Commitment, Job Satisfaction, Work Values: Saudi and Expatriate Managers" *Leadership and Organization Development Journal*, 11 (7) pp. 3-10.

Zaccaro, SJ and Dobbins, GH (1989), "Contrasting Group and Organizational Commitment: Evidence for Differences Among Multilevel Attachments", *Journal of Organizational Behavior (Research Note)*, 10, pp. 267-273.

Zeitz, G (1990), "Age and Work Satisfaction in a Government Agency: A Situational Perspective" *Human Relations*, 43 (5) pp. 419-438.

RESEARCH JUSTIFICATION

5.1 INTRODUCTION

This research explores the organisational commitment among academics in Malaysia via a case study of one large and diverse higher education institution, the MARA Institute of Technology (Institut Teknologi MARA-ITM). The historical background of ITM is given in Chapter Three.

5.2 KEY TERMS

5.2.1 Organisational Commitment

The key concept to be used in this research is organisational commitment. The underlying thesis is that organisational commitment has an influence on the performance of academic staff both individually and collectively and that this in turn affects organisational performance. Low levels of organisational commitment will result in some or all of higher labour turnover, greater levels of absence, public disaffection with the organisation, job dissatisfaction and poorer teaching. This thesis does not set out to test or explore the links between organisational commitment and performance *per se* but relies on previous research, as outlined in Chapter Four, for justification of such links.

The focus of this thesis is on variables which explain organisational commitment and, hence, on possible management intervention which may inspire organisational commitment and hence performance.

Clearly, other variables such as professional commitment (see section 1.5 of Chapter One) and job satisfaction (see section 4.2 of Chapter Four) are important, this work concentrates on the organisational commitment academics have towards their organisation. The definition of organisational commitment used in this research is based on that defined by Porter and Smith (1970), who manifested it as a) strong belief in and acceptance of organisational goals and values; b) a willingness to exert considerable energy on behalf of the organisation; and c) a strong desire to maintain membership in the organisation. Thus in relation to professional commitment, the definition of organisational encompasses issues of professionalism to the extent that professional values are embraced by the organisation.. Proctor (1996) states that a broader view of professionalism would add a level of skill and control of outcomes, an approach to tasks with objectivity, with confidence, and with commitment to goals and results. Proctor accepts that this broader definition of professionalism involves taking on tough assignments, unpopular challenges, high-risk tasks and achieving rare and unpredictable success. To him real professionals ask for the least attractive jobs and then produce the most gratifying results.

The examples of employee turn over (see 1.2) and plagiarism (see 1.3) in Chapter One indicate that had organisational commitment been high, the probabilities of them happening were likely to be less. This is because as stressed in the literature review (see 4.3.4), strong organisational commitment has been found to have strong positive effects on an organisation and its employees (Grover, 1991; McNelly and Russ, 1992 and Starling 1991). The lack of it has adverse effects on organisation performance (Steers, 1977), tardiness (Angle and Perry, 1981), and labour turnover (Angle and Perry, 1981; McNelly and Russ, 1992; Mowday *et al*, 1979; Steers and Mowday, 1981; and Johnston *et al* 1990).

Labour turnover has been found to have an inverse correlation with organisational commitment, i.e. as organisational commitment decreases, the labour turnover increases (Angle and Perry, 1981; Decotiis and Summer, 1987; Elliot and Hall, 1994;

Igbaria and Siegel, 1992; Ingram and Lee, 1990; McNelly and Russ, 1992; Mowday *et al*, 1979; Steers, 1977; Johnston *et al* 1990 and Wong *et al* 1995). The results of a study by Baugh and Roberts (1994) indicate that organisational commitment has a significant and direct effect on performance.

5.2.2 Organisational Commitment Questionnaire (OCQ)

The organisational commitment questionnaire (OCQ) used is that by Porter and Smith (1970). It was used in similar research by Mowday, Porter and Steers (1979) and Mowday, Steers and Porter (1982) and Porter *et al* (1976). The OCQ was developed in a challenge by Nunally (1967) for a need of an instrument that exhibits acceptable psychometric properties within the constraints of attitude measurement (Mowday *et al*, 1982). Mowday *et al* are of the opinion that in past studies the OCQ has a reasonably strong evidence for its internal consistency and test retest reliability. Mowday *et al* also stressed that compared with other measures the items of OCQ are reasonably homogeneous which results that the overall measure of organisational commitment is relatively stable over a short period of time. The OCQ is also comprehensive as the term organisational commitment in this research is also based on Porter and Smith (1970) which identifies 15 items that appear to tap the three aspects of the definition of organisational commitment; which are (a) a strong belief in and acceptance of organisational goals and values; (b) a willingness to exert considerable energy on behalf of the organisation; and (c) a strong desire to maintain membership in the organisation (Mowday *et al*, 1982). OCQ also meet the requirements spelt out by Buchanan (1974) who spelt out that any measurement of organisational commitment should be able to tap an individual's orientation towards his or her organisation through his or her attitude to, identification with and involvement in the organisation. This definition also means the attitude of organisational commitment is an ongoing process through which organisational participants express their concern for the organisation and its continued success and well being (Northcraft and Neale, 1990).

Mowday *et al* (1982) however stress that potential users of OCQ must be cautious of the instrument. The OCQ is the type of instruments that respondents may easily dissemble, if they are so inclined. The intent of the items is not disguised in such a way as to make it difficult for respondents to manipulate their scores. In this regard, the results of any particular administration of the OCQ are likely to be somewhat dependent upon the circumstances of administration. There is the possibility that employees may distort their responses if they feel, for example, threatened by completing the questionnaire or if they are unsure how the responses will be used. Therefore it is important to exercise appropriate caution in administering OCQ in any research.

5.2.3 Academic Staff

The main criterion considered to determine the population of the research is full time academic staff. Those on contract and/or serving as part time are not included. The justification for this is that the research is aimed at those who are permanent staff and whose commitment is supposed to be undivided to the one organisation that employs them.

A thorough search of the literature failed to find research done in either Asia, Australia, Canada, Europe or USA, on the academics commitment to their organisation.

5.2.4 Institutions of Higher Learning in Malaysia

The definition of an institution of higher learning is within the Malaysian context. In all the Malaysia Plans, ITM is included. According to the Malaysian Ministry of Education (1980) higher education takes into account education at university level and education at college level that prepares students for diploma and degree

courses, excluding education at teaching colleges. A similar definition is also used by Pang *et al* (1976) in defining higher education in Malaysia and Southeast Asia. Institutions that offer all level of courses after secondary education that led to the issue of degree, diploma or certificate are recognised as institutions of higher learning. Since ITM offers diploma, degree and post graduate courses, the inclusion of ITM in the context of an example of a higher institution is acceptable. There is specific mentioning of ITM in all the Malaysian Plans on funds allocation for development of institutions of higher learning.

The selection of ITM for the research is thus justified. Also as mentioned in the introduction, ITM was chosen as it is the biggest institution of higher learning in Malaysia and is expanding more rapidly than any other institutions. ITM has campuses in virtually every state in the country. In terms of location, each of the branches differs geographically, economically and socially. Therefore the academic staff serving ITM are well distributed throughout the country in different environments and settings. Thus the selection of ITM academics are more likely to represent the population of the Nation's academics. ITM, with a student population of almost 40,000, the biggest in the country, offers qualifications from undergraduate pre-diploma to masters. ITM also experiences a higher rate of academic staff turn over than other institution in Malaysia (Berita Harian, 1990). The importance of ITM in serving the nation's development was stressed by the Malaysian Prime Minister, Dr. Mahathir Mohamed, when he stressed, as mentioned in section 3.8, the failure of agencies like ITM to function would hinder the development in the country.

5.3 THE IMPORTANCE OF HIGHER EDUCATION IN A DEVELOPING COUNTRY

Higher education is one of the prime factors for the social for the social and economic development of a developing country (Sharil *et al* 1993). Failure of the

academics to be committed to their organisation means the failure of the institution to function as a breeding ground in producing professional needed for the development of the country. This has been iterated earlier by Atkinson (1990) who stressed that institutions of higher learning in developing countries need to be expanded and added to train skilled workers, administrators, technocrats, doctorates, engineers and other professionals needed to help the countries to progress. Higher education is also essential to help produce and train researchers. Along with that research work carried out by the institutions of higher learning helps to contribute to the well being of the country. Higher education provides workers who are mobile and thus can be easily transferred and easily adjusted to different places with different working environment (Singh, 1987).

Higher education helps to modernise society and allow them to view Government policy with an open mind and providing constructive criticism for improvement. Thus helping to bring about changes (Adams, 1974). Also in a multi racial country like Malaysia, improving educating standard of all ethnic groups helps to bring about social and economic equilibrium between the different races.

5.4 PROMOTION SYSTEMS

The promotion system is based on that practised in ITM. The explanation of the system is as described in section 6.4 of Chapter Six. The attitude towards the promotion policy of the organisation is important in this research because as mentioned in the Literature Review (see 4.3.1.3) when extrinsic inducements such as advancement in position are not forthcoming, the commitment of the employees to the organisation will be less favourable. This can finally end in their leaving the organisation (March and Simon, 1958). Mottaz (1988), Fern *et al* (1989), De Connick and Bachman (1994) found promotional opportunities have a significant positive effect on organisational commitment. Quarles (1994) and Wallace (1995)

found promotional opportunities to be a significant determinant of organisational commitment.

5.5 ECONOMIC FACTORS

The period covered in this research coincided with the booming Malaysian economy. Over the last eight years prior to 1996, Malaysia sustained an impressive 8% annual economic growth rate. This is important to note because when business conditions are good, monetary rewards have a sizable effect on turnover (Stoikov and Raimon, 1968) and that labour mobility increases in prosperous times and declines in less prosperous times (Armknrecht and Early, 1972).

5.6 HYPOTHESES

Based on the discussion in reviewing the Literature on organisational commitment in Chapter 4, the following are considered as the more important variables and will therefore be hypothesised and tested;

H.1 Age

The older a member of staff is, the greater will be his/her level of commitment to the organisation.

H.2 Tenure

A positive significant relationship exists between organisational commitment and tenure.

H.3 Gender

Female staff are more committed than their male counterparts.

H.4 Educational qualification

Staff with higher qualifications are less committed.

H.5 Attitude towards pay

significant relationship exists between organisational commitment and
wards pay.

e towards the promotion system

significant relationship exists between organisational commitment and
wards promotion policy.

REFERENCES

Adams DR(1974), "*Organizational Control Structures and Bases of Power in University Departments and their Faculty Job Satisfaction and Professional Output Correlates*" (Doctoral dissertation, University of Kentucky).

Angle, HL and Perry, J (1981), "An Empirical Assessment of Organisational Commitment and Organisational Effectiveness" *Administrative Science Quarterly*, 26, pp. 1-14.

Armknetcht, PA, & Early, JF (1972), "Quits in Manufacturing: A study of Their Causes", *Monthly Labour Review*, 95, 31-37.

Atkinson RC (1990) "Supply and Demand for Scientists and Engineers: A National Crisis in the Making", *Science*, 248.

Berita Harian, (Kuala Lumpur), 1 January 1994, p. 23 col. 8.

Baugh, SG; and Roberts, RM (1994), "Professional and Organisational Commitment Among Engineers: Conflicting or Complementing?" *IEEE Transactions on Engineering Management*, 41 (2), pp. 108-114.

Buchanan II, B; (1974) "Building Organizational Commitment: The Socialization of Managers in Work Situations " *Administrative Science Quarterly*, December, pp. 553-46.

De Coninck, JB and Bachmann, DP, (1994) "Organizational Commitment and Turnover Intentions of Marketing Managers", *Journal of Applied Business Research*, 10 (3), pp. 87-95.

Summers, TP (1987) "A Path Analysis of a model of the Antecedents of Organizational Commitment", *Human Relations*, 40 (7), pp.

and Hall, M (1994), "Organizational Commitment and Job Involvement: Blau and Boal's Typology to Purchasing Professionals", *American Review*, 12 (1) pp. 6-14.

Education in Malaysia: 1980", The Malaysian Ministry of Education (1981), Lumpur: Education, Planning and Research Division.

EF, Avila, RA and Grwal, D (1989), "Salesforce Turnover: Those Who Left Those Who Stayed", *Industrial Marketing Management*, 18, pp. 1-9.

er, SL; (1991) "A Framework for Understanding Commitment in the R&D Organization" *Journal of Engineering and Technology Management*, 7, (3), pp. 251-

baria, M; and Siegel, SR. (1992) "An Examination of the Antecedents of Turnover Propensity of Engineers: An Integrated Model" *Journal of Engineering and Technology Management*, 9 (2) pp. 101-126.

Ingram, T and Lee, KS (1990), "Sales Force Commitment and Turnover", *Industrial Marketing Management*, 19 (2), pp. 149-154.

Johnston, MW.; Parasuraman, A.; Futrell, CM. and Black, WM (1990) "A Longitudinal Assessment of the Impact of Selected Organizational Influences on Salespeople's Organizational Commitment During Early Employment" *Journal of Marketing Research*, 27 (3) pp. 333-344.

Mahathir Mohamed Dr., Prime Minister of Malaysia, as reported in *Berita Harian* online available: <http://www.jaring.my/bharian> (accessed 3 May 1996).

March, J and Simon, H (1958), "*Organizations*", Wiley and Sons, New York

McNelly, KM.; Russ FA. (1992), "The Moderating Effect of Sales Force Performance on Relationships Involving Antecedents of Turnover" *Journal of Personal Selling and Sales Management*, 12 (1), pp. 9-20.

Mowday, RT; Porter, LW and Steers, RM (1982), "*Employee-Organizational Linkages*", Academic Press, New York.

Mottaz, CJ (1988), "Determinants of Organizational Commitment", *Human Relations*, 41(6), pp. 467-482.

Mowday, RT; Steers, RM and Porter LW (1979), "The Measurement of Organizational Commitment," *Journal of Vocational Behavior*, 14, pp. 224-247.

Northcraft, GB; and Neale, MA (1990), *Organizational Behavior*, Dryden, Chicago, p. 465.

Pang, EF., Riaz Hassan and Nippon Kantasewi (1976), "*Higher Education and Economic Growth in Malaysia and Singapore*" in Tapingkae, A. (Ed), "*Higher Education and Economic Growth in Southeast Asia*" Singapore: RIHED.

Porter, LW, Crampton WJ and Smith FJ (1976), "Organizational Commitment and Managerial Turnover: A Longitudinal Study" *Organizational Behavior and Human Performance*, 15, pp. 87-98.

Porter, LW and Smith, FJ (1970), *The Etiology of Organizational Commitment*, University of California, Irvine.

Proctor, SD (1996)), "Professionalism in Helping Those Who Need Us Most", online available: <http://www.eduplace.com/hmco/school/keynote/proctor.html>

Quarles, R (1994) "An Examination of Promotion Opportunities and Evaluation Criteria as Mechanisms for Affecting Internal Auditor Commitment, Job Satisfaction and Turnover Intentions", *Journal of Managerial Issues*, 6 (2) pp. 176-194.

Singh, JS (1987), "The World of Work", in Ungku A. Aziz *et al.* (Eds) "University Education and Employment in Malaysia", Paris: International Institute for Educational Planning.

Starling, G (1991), "A Framework for Understanding Commitment in the R & D Organization", *Journal of Engineering and Technology Management*, 7 (3), 251-265.

Steers, R (1977), "Antecedents and Outcomes of Organizational Commitment", *Administrative Science Quarterly*, 22, pp. 465-56.

Stoikov, V and Raimon, RL (1968), "Determinants of Differences in the Quit Rate Among Industries", *American Economic Review*, 1283-1298.

Wallace JE (1995), "Organizational and Professional Commitment in Professional and Nonprofessional Organizations", *Administrative Science Quarterly*, 40 (2), pp. 228-255.

ong, CS; Hui, C; and Law, KS (1995) "Casual Relationship Between Attitudinal
ntecedents to Turnover" *Academy of Management Journal*, (Best Papers
ceedings 1995), pp. 342-346.

THE SAMPLE

6.1 INTRODUCTION

The research sample was derived from a target population consisting of academic staff of the MARA Institute of Technology (ITM). All schools and branch campuses were included for the samples except the Centre for Preparatory Education (CPE) and the campus of Sarawak. CPE as the name suggests functions as a preparatory centre for students who are selected to study abroad on Government scholarships or Government approved agencies immediately after obtaining their form five results. As such no diploma or degree is conferred to the students upon completion of their studies. They are instead sent abroad to complete their studies. The academics serving at CPE are either seconded from their respective schools or from foreign universities which have joint programme/s with CPE. Thus the reason for the exclusion of CPE.

The reason to exclude Sarawak was mainly due to time and financial constraints. Also since almost all of the academics at Sarawak's campus are from Peninsula Malaysia as at Sabah's campus, the samples from the latter should suffice and valid to represent East Malaysia which is situated on the island of Borneo.

The main criterion considered to determine the population of the research was that the respondents must be full-time academics at ITM. This means that those who were on contract and/or serving as part time were not included. The justification for this was that the research was aimed at those who were permanent staff whose commitment was supposed to be undivided to the one organisation that employed them. Being a permanent member of full-time staff also supposedly indicated that an employee had no intention of leaving the organisation in the near foreseeable future. As at the end of February 1995, the

overall population of full time academics who were permanent staff of ITM was 2593.¹

The design of this study uses unrestricted probability sampling (or simple random sampling). Every element in the population has a known and equal chance of participation. This sampling design has the least bias and offers the most generalisability (Sekaran, 1992).

In order to gather as many responses as possible and to ensure a high rate of participation and the chance for all academics to participate, a total of 2000 questionnaires were distributed to the academics of ITM holding different posts and teaching a wide variety of subjects in fourteen different departments or schools that exist in nine of the ten campuses. In all, the array of the demographic factors of the respondents is thought to be sufficiently broad to tap an acceptable representative sample of the academic population. Out of the total of almost 2,000 questionnaires that were distributed, 818 responded. This represents an almost 41% rate of response. With a total academic population of 2593 at the time of the distribution of the questionnaire, the response rate of 818 represents more than 31% of the actual population.

This high figure of response was achieved because the questionnaire was distributed and collected personally by the researcher. The survey was conducted in January and February 1995. These are the early months of the January-June semester. As such most of the academics were present. Having set aside their teaching load for the semester they were not burdened with the preparation of examination or correcting papers nor were they busy with any assignment. Thus they were more likely to be at ease in responding the questionnaire.

6.2 PERSONAL PROFILE

¹ All figures pertaining to ITM were obtained from the Registrar's office, ITM, 40450 Shah Alam, Selangor, DE, Malaysia.

Data on the personal aspects of the respondents in the questionnaire (see Appendix A) were gathered in two sections. The first from nos. 1-7 of the questionnaire dealt with personal details of the respondents at work. While the second part of the questionnaire dealt with the personal aspects of the respondents outside their work but which may have certain bearings on the respondents' commitment towards their organisation. A summary of the personal details of the respondents are described below.

6.2.1 Schools and Departments

As at January 1995 ITM has twelve schools offering courses leading to the award of diploma, advanced diploma, which is equivalent to honours degree, degree and master courses in joint programmes with local and foreign universities. Since each school could not have all the resources needed in the teaching curriculum, academic centres were created as feeders to help supplement its (school) function. Unlike a school which functions as a faculty, a centre does not create or set up courses for ITM in which diplomas or degrees are awarded. Each academic centre was created with the purpose of specialising in resources, physically and manually, that were needed for the successful completion of courses offered by ITM. At present there are five academic centres at ITM which are the Extension Education Centre (EEC), the External Courses Centre (ECC), the Islamic Education Centre (IEC), the Language Centre (LC) and Malaysia Entrepreneurship Development Centre (MEDEC).

Due to the nature of staffing, certain departments could not be included as an entity for the purpose of this research. For example, the academics serving at the EEC are all full time permanent staff serving at their respective schools which offer the courses run by the Centre. So too are those serving at the External Courses Centre. Therefore academics at both centres who participated in the survey responded to the questionnaires as members of their respective schools. The MEDEC staff are mostly seconded from the School of Business and Management. Therefore it was important MEDEC was included and treated as

part of the School of Business and Management. The Language Centre and the Islamic Education Centre have staff of their own. They are posted to other schools whose courses curriculum include areas of studies of which these two centres specialise in. Since the staff from these two centres are not seconded but attached to various schools, the centres were treated as entities on their own. Table 6.2.1 and figure 6.2.1 indicate the response from schools and centres.

Table 6.2.1: Samples according to school/centre

School/Centre	Key	Frequency	%
Business & Management	BM	164	20.0
Language Centre	LC	134	16.4
Accountancy	ACC	96	11.7
Computer Science	CS	88	10.8
Islamic Education Centre	IEC	61	7.5
Applied Science	AS	52	6.4
Architecture Planning & Surveying	APS	52	6.4
Engineering	EGN	50	6.1
Administration & Law	AL	36	4.4
Secretarial Science	SS	24	2.9
Mass Communication	MS	21	2.6
Art & Design	AD	17	2.1
Hotel Catering	HC	16	2.0
Library & Information Science	LIS	7	.9
Total		818	100.0

Fig. 6.2.1: Response from school/centre

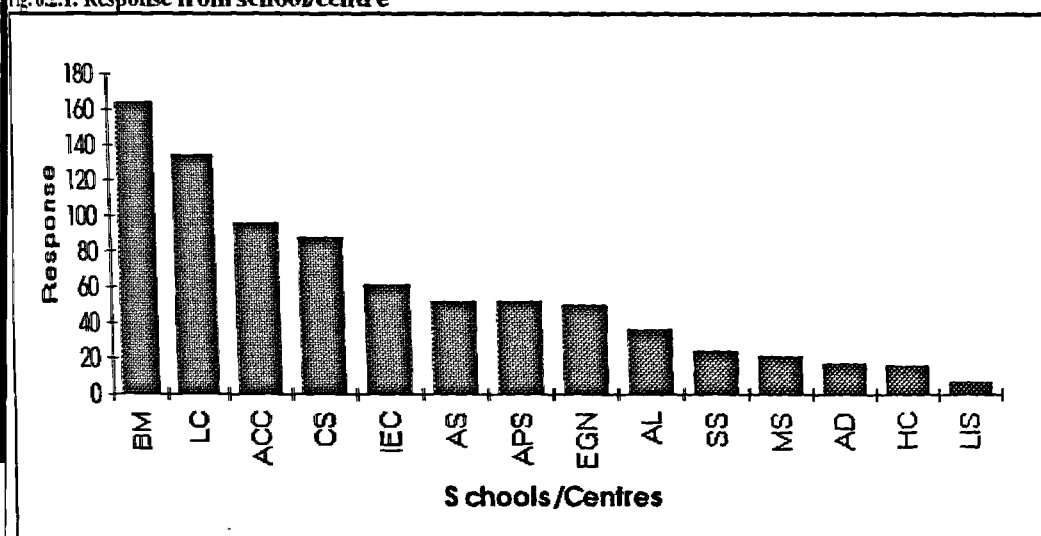


Table 6.2.1 and Fig. 6.2.1 show that the greatest number of individuals (164) in the sample came from the School of Business and Management (20%). This can

be mainly attributed to the fact that it is the biggest school in ITM. Courses relating to business are offered at all campuses. The School of Business also offers the most courses. The Diploma in Business Studies and the Diploma in Banking Studies are the two courses that have the most number of students. It is important to note too that most courses in ITM offer business related subjects such as management, economics and finance. Thus there is the need of a high number of academics to be attached at the School of Business and Management who will also be able serve other schools. With 134 respondents, the Language Centre which services all schools and campuses shared 16% of the total sample, the second highest. Accounting courses are also taught in virtually all campuses. Therefore a high rate of share in the total sample was expected. With 96 which constitutes almost 12% of the total, ACC is the third highest. While Table 6.2.1 and Fig. 6.2.1 show a seemingly low share in the total sample from the School of Library and Information Science (LIS), in actual fact that particular school has a total academic strength of only sixteen and offers only two courses. Both are taught at the main campus of Shah Alam. Therefore the actual percentage that replied is 44% of the total academic strength of LIS which is high.

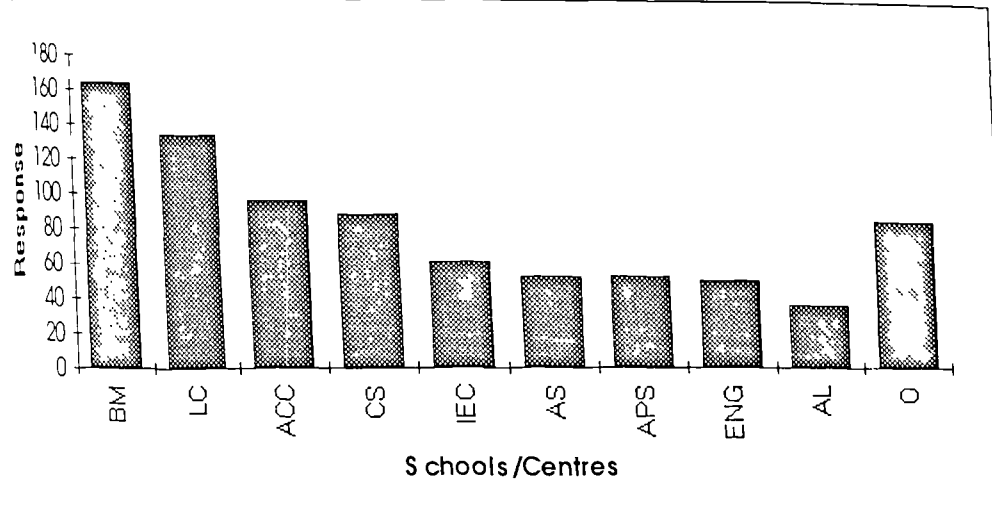
Table 6.2.1A: Schools/Centres reorganised

School/Centre	Key	Frequency	%
Business & Management	BM	164	20.0
Language Centre	LC	134	16.4
Accountancy	ACC	96	11.7
Computer Science	CS	88	10.8
Islamic Education Centre	IEC	61	7.5
Applied Science	AS	52	6.4
Architecture Planning & Surveying	APS	52	6.4
Engineering	EGN	50	6.1
Administration & Law	AL	36	4.4
Others	O	85	2.9
Total		818	100.0

For the purpose of statistical analysis using SPSS, the schools are regrouped as shown in Table 6.2.1A. This is due to the small number of staff attached to the schools concerned and thus the small response in number. The five schools with the least numerical response (less than 25) are grouped together to help eliminate the problem of empty cells (resulted from the response of the small schools) and

to minimise those cells with frequency of less than five. This enables chi-square to be used in cross tabulating schools against other variables.

6.2.1A: Schools/Centres reorganised.



2.2 Campuses

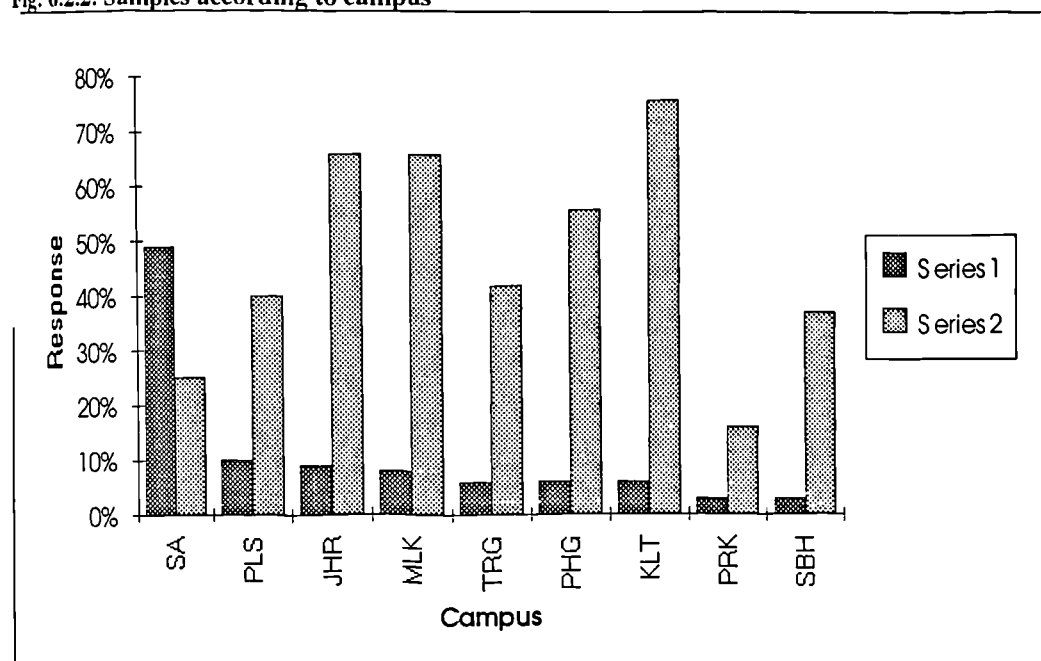
Table 6.2.2: Samples according to campus

A	B	C	D	E	F (C/E)
Branch	Key	Frequency	Frequency %	Actual	Response %
Shah Alam	SA	400	48.9	1599	25.0
Perlis	PLS	79	9.7	196	40.3
Johor	JHR	77	9.4	116	66.4
Melaka	MLK	66	8.1	100	66.0
Terengganu	TGN	52	6.4	124	41.9
Pahang	PHG	51	6.2	91	56.0
Kelantan	KLT	47	5.7	62	75.8
Perak	PK	23	2.8	140	16.4
Sabah	SBH	23	2.8	63	36.5
Total		818	100	2491	
Sarawak				102	
Overall Total				2593	

ITM has ten campuses. In order to ensure a representative response, the researcher visited all the campuses involved in the survey to personally distribute and collect the questionnaires. Sabah and Sarawak are situated on the island of Borneo. The reason to exclude Sarawak was primarily due to financial and time constraints. However Sabah is covered in the research and as a high percentage of the academics in that campus are from Peninsula

Malaysia just as Sarawak, the exclusion of the latter will not jeopardise the outcome of the findings. The breakdown of respondents according to campus is as shown in Table 6.2.2 and Fig. 6.2.2.

Fig. 6.2.2: Samples according to campus



N.B. Series 1 represent percentage of the samples. Series 2 represent percentage of the actual population of each campus that responded to the survey.

Table 6.2.2 shows that the largest response, 400, came from Shah Alam. This constitutes almost 49% of the overall samples, dwarfing other campuses. This was expected as Shah Alam is the main campus and the corporate office of ITM. All schools are present in Shah Alam. While the overall response of each campus seems small compared to Shah Alam, in actual fact, as shown in Table 6.2.2 (column F) and Fig. 6.2.2, only two campuses recorded less than 30% response rate. Shah Alam that has the highest number of response, is second lowest in term of actual academic staff percentage (25%) that responded to the survey. Perak has lowest response rate at 16%. The poor response from Perak can be attributed to the fact that the campus at Perak is situated at a temporary site with scattered buildings. The academic staff rooms are also not centrally located. Hence there was difficulty in locating the academics. In contrast, even though the campus at Kelantan is also temporary, the academic staff rooms are centrally located and the buildings are not scattered, making accessibility to its relatively

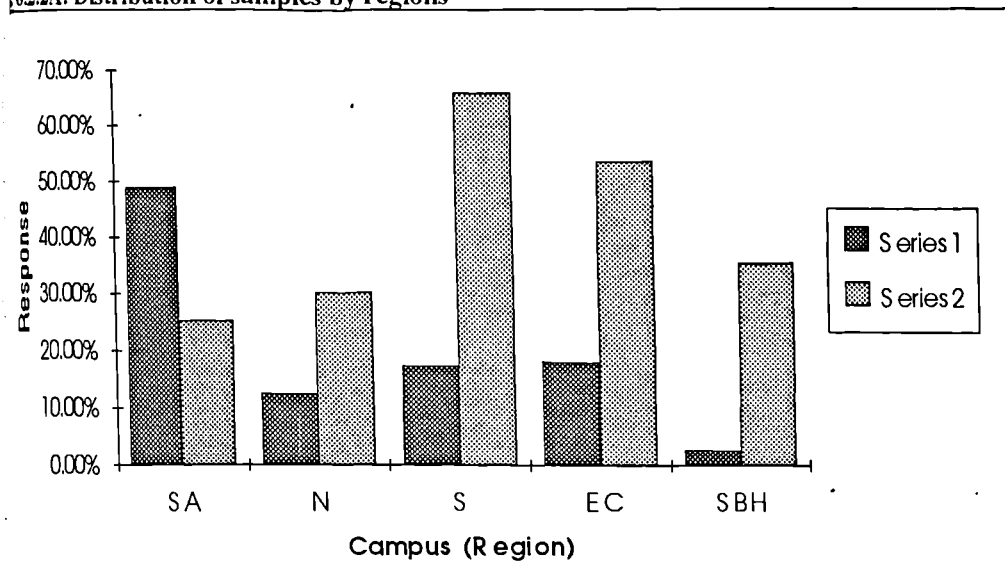
small number of academics rather easy. These greatly contributed towards the high response rate achieved at the Kelantan campus (75.8%).

To minimise the number of cells that have expected frequencies of less than five, the campuses are grouped according to the normal geographical regions of Malaysia. The campus of Shah Alam is by itself as it is the main campus and the corporate head office of the Institute. The branch campuses of Kelantan, Pahang and Terengganu are grouped under the East Coast States. The Northern States comprise the campuses of Perlis and Perak, while those of Melaka and Johor make up the Southern. Since the state of Sabah is in the island of Borneo and not Peninsular Malaysia, its ITM campus is therefore by itself.

Table 6.2.2A: Distribution of samples by regions

A	B	C	D	E	F (C/E)
Region	Key	Frequency	Frequency %	Actual	Response %
Shah Alam	SA	400	48.9	1599	25.2
North (Perlis and Perak)	N	102	12.5	336	30.4
South (Melaka and Johor)	S	143	17.5	216	66.2
East Coast (Kelantan, Pahang and Terengganu)	EC	150	18.3	277	54.1
Sabah	SBH	23	2.8	63	36.5
Total		818	100	2491	
Sarawak				102	
Grand Total				2593	

6.2.2A: Distribution of samples by regions



N.B. Series 1 indicate the samples percentage while series 2 indicate actual population percentage that responded to the survey.

According to region the distribution of the samples, as shown in and Table 6.2.2A and Fig. 6.2.2A, the highest actual response percentage by region is the South at slightly more than 66%.

6.2.3 Tenure

The category of tenure is divided into five groups: less than one year, between one and two years, between three and five years, between six and ten years and more than ten years. Those who had served less than one year were considered as very new to their organization and still in their probation stage of their service. After a year or two of service but less than three years most are expected to be confirmed in their positions as academics. Upon confirmation staff are eligible for extra fringe benefits offered by the organization subject to certain conditions as spelt out by the General Order, the official guidelines for Malaysian civil servants. Such benefits include vehicle loans and scholarship. After three years of service an academic is expected to be definitely confirmed in his/her position. Failure to be confirmed within three years implies that a member of staff has failed to perform to the expected standard. This is also a reasonable period of service. When academics enter the sixth year of service they are considered to

have served the Government for period long enough to be eligible for consideration for a housing loan. After ten years of service a member of staff is now placed under the pensionable scheme and contributions to the Employees Provident Fund cease (9% of the basic salary) which effectively means, in cash terms, an extra earning. Thus those who serve more than ten years are considered to have been with the organisation for a very long period.

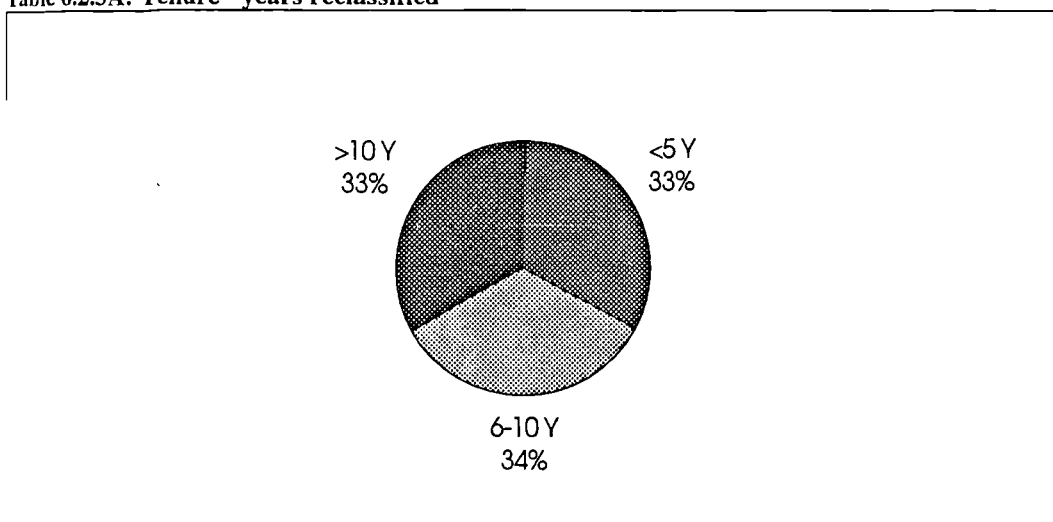
Table 6.2.3: Distribution of respondents by tenure

Years	Frequency	%
<1Y	43	5.3
1-2Y	62	7.6
3-5Y	166	20.3
6-10Y	278	34.0
>10	268	32.8
NR	1	0.0
Total	818	100.0

Table 6.2.3A: Tenure - years reclassified

Years	Frequency	%
< 5 Y	271	33.1
6-10 Y	278	34.0
> 10 Y	268	32.8
No Response	1	0.0
Total	818	100.0

Table 6.2.3A: Tenure - years reclassified



Whilst the distribution shown in Table 6.2.3 indicates that quite a high percentage (33%) have served the organisation more than ten years, a total of 67.2% have a service of ten years or less. Of this, 20.3% have served between 3-

5 years. So if the categories were to be divided into three groups, a) up to five years of service, b) six to ten years and c) ten years or more, the distribution would seem to be quite balance. i.e. a) 33.1% b) 34.0% and c) 32.8% as shown in Table 6.2.3A and Fig. 6.2.3A.

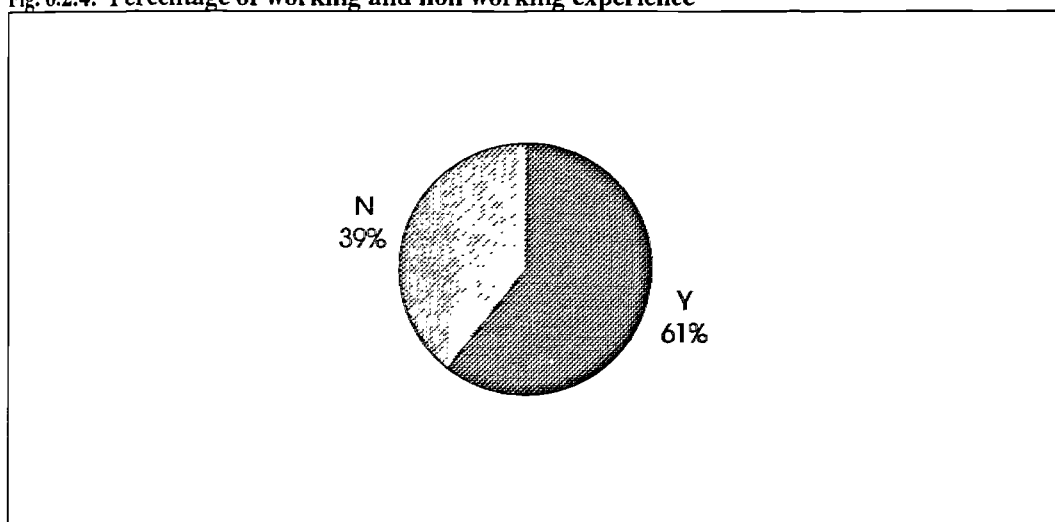
6.2.4 Past Working Experience

It is interesting to note that of the 818 respondents, 496 or 60.6% have had experience working elsewhere before joining ITM as demonstrated in Table 6.2.4 and Fig. 6.2.4.

Table 6.2.4: Numbers of working and non working experience

Previous Working Experience	Frequency	%
Yes	496	60.6
No	322	39.4
Total	818	100

Fig. 6.2.4: Percentage of working and non working experience



NB. N=no working experience, Y= with working experience

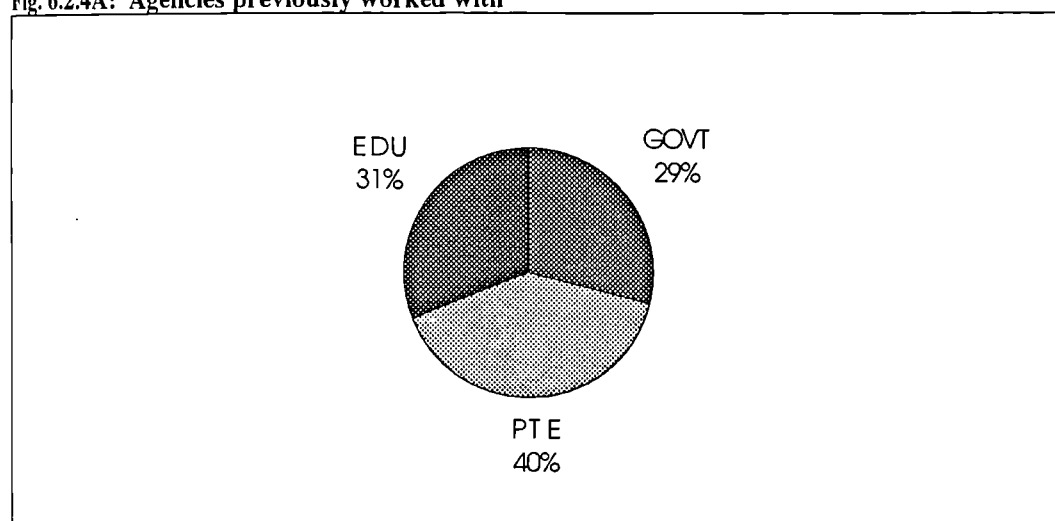
Although previous organisations indicated by the respondents were different in nature, generally for the purpose of this research, they could be broken into mainly three, government agencies, private sector and educational institutions. As shown in Table 6.2.4A and Fig. 6.2.4A of those that have working experience elsewhere, more than 29% worked for government agencies, almost 31% from

educational institutions and almost 40% from the private sector. The high percentage from the private sectors is quite surprising. It is always thought that the flow of labour would usually be from the government sector to the private sector instead of the other way round.

Table 6.2.4A: Agencies previously worked with

Category	Key	Samples	%
Government. Agencies	GOVT	146	29.4
Educational Institutions.	EDU	153	30.8
Private Sectors	PTE	197	39.7
	Total	496	100.0
Not Applicable	N/A	322	
	Overall	818	

Fig. 6.2.4A: Agencies previously worked with



6.2.5 Present Job Status

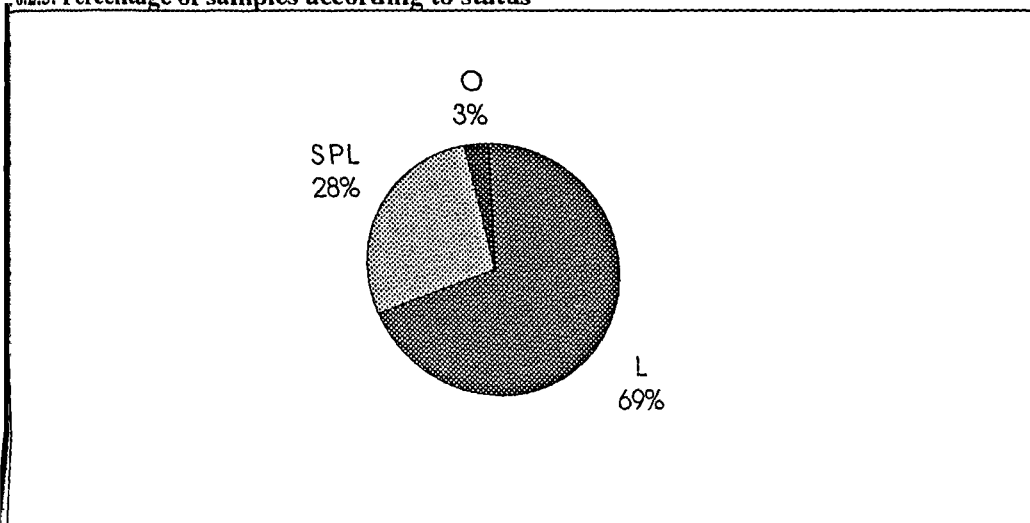
The majority of the respondents (69.7%) are lecturers, who form the bulk of the teaching force (Table 6.2.5). The reason for the low rate of response from the group categorised as others is that the posts of tutor and assistant lecturer exist in few schools. Even then, both posts are slowly being phased out in ITM and as such they will not be filled in future recruitment drives. The senior and the principal lecturers are grouped together as the actual number of the latter is very small and statistically would contribute to the increment of cells with less than

percentage allowed for SPSS application to be relevant in the analysis of data regarding job status.

6.2.5: Samples according to status

Status	Key	Samples	%
Lecturer	L	570	69.7
Senior and Principal Lecturer	SPL	225	27.5
Others	O	23	2.8
Total		818	100.0

6.2.5: Percentage of samples according to status



The letters represent the status in Table 6.2.5

6.2.6 Annual Gross Fixed Income

The gross fixed income took into consideration fixed salary and allowances. Apart from their salary, a lecturer is entitled to a fixed civil service administrative allowance. For senior lecturer and above the civil service allowance is replaced by an entertainment allowance plus housing allowance. Allowances earned for extra hours of teaching in the off-campus was not included. This is because not all courses that are taught at ITM are offered by the Education Extension Centre. Therefore not all academics have the opportunity to earn extra income through teaching extra hours at the Centre. This extra income earned is also not fixed.

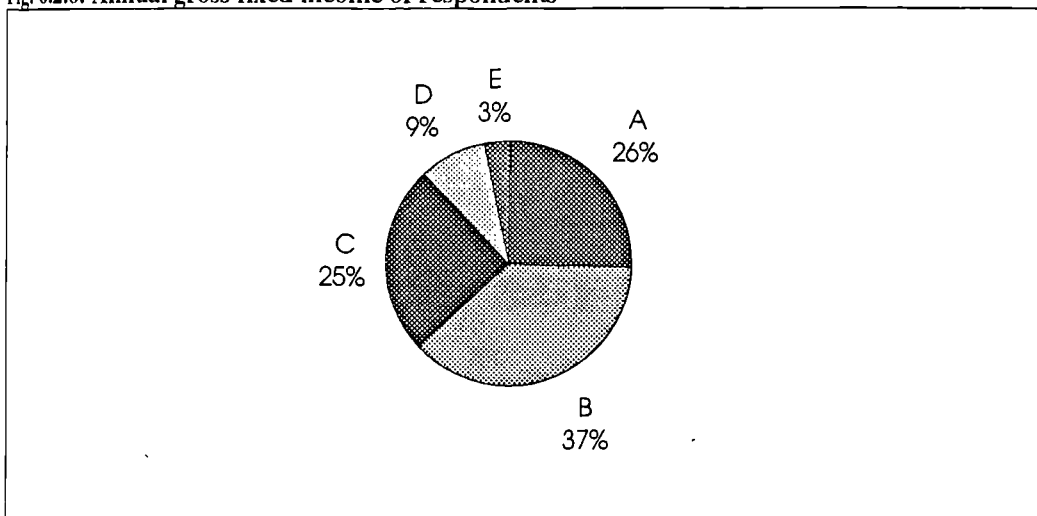
The response as shown in both Table 6.2.6 and Fig. 6.2.6, reflects the job status of the respondents of which a majority of the respondents are holding the post of lecturer as indicated in Table 6.2.5 and Fig. 6.2.5. A majority of the respondents (63.1%) are earning less than RM36000 per annum, a fair reflection of the annual range of pay of those holding the rank of lecturer.

Table 6.2.6: Samples according to annual gross fixed income

Category	Income Range	Samples	%
A	<RM24000	209	25.6
B	RM24001-36000	307	37.5
C	RM36001-48000	201	24.6
D	RM48001-60000	72	8.8
E	>RM60000	27	3.3
No Response		2	0.2
Total		818	100.0

N.B. The Malaysian currency (Ringgit) floats at an average of RM4 to £1 of the British currency.

Fig. 6.2.6: Annual gross fixed income of respondents



The letters represent the category in Table 6.2.6.

Personal and family details of the respondents such as gender, age, ethnic origin, etc, were sought in Section Two of the questionnaire. This was done to ensure that the respondents knew before hand why the personal details were warranted. By answering the questions on pay, promotion policy and organizational commitment, the respondents would be less apprehensive when the personal details were asked later. The response to the questions on personal and family details are as follows.

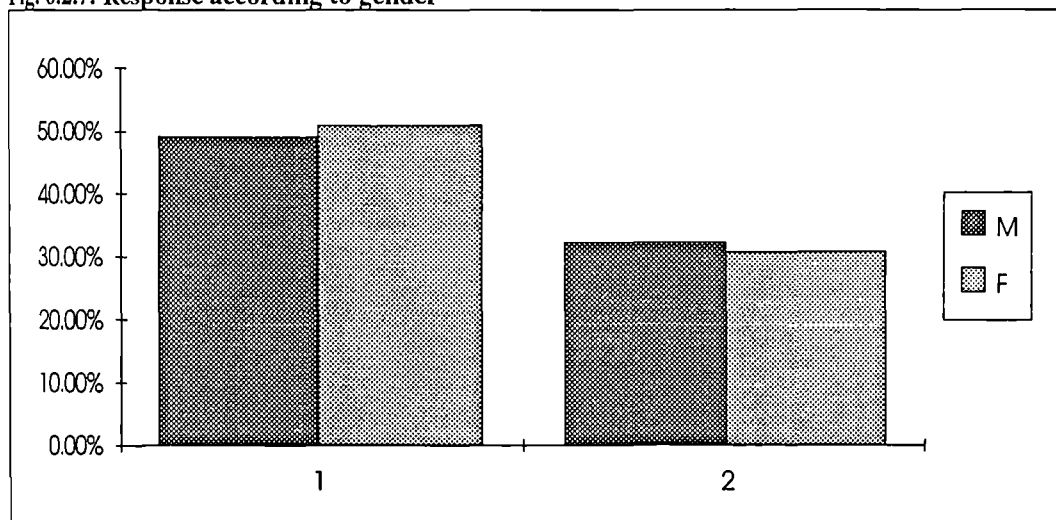
6.2.7 Gender

As previously mentioned the actual academic staff population of ITM as at January 1995 is 2593. The difference in number according to gender is as shown in column B of Table 6.2.7, where the female academics outnumber the males by 105 or 4%. Considering the total number, the difference is not wide. To emphasise the level of response, column F in Table 6.2.7 and the chart in Fig.6.2.7 show that of the total academics, 32 % of the males and 31 % of the females responded. This indicates that the response from both sexes were almost similar.

Table 6.2.7: Samples according to gender

A	B	C	D	E	F (D/B)
Gender	Actual	Actual %	Samples	% Samples	% Response
Male	1244	48.0	400	48.9	32.2
Female	1349	52.0	414	50.6	30.7
No Response			4	0.5	
Total	2593	100	818	100.0	

Fig. 6.2.7: Response according to gender



N.B. Series 1 indicate the samples percentage while series 2 indicate actual population percentage that responded to the survey. M denotes Male and F denotes Female.

6.2.8 Age

The age distribution of the respondents is displayed in Table 6.2.8. An individual that finishes school and university studies completing with a master's degree is

expected to be at least 25 years of age. This is on the assumption that the individual completes his elementary, secondary and tertiary education in Malaysia. Normally a student in Malaysia finishes form five at the age of 17 plus, followed by two years at form six (lower and upper). A normal three year degree course plus a further a year or two for the master degree will take the student to about 25 years of age. Age range is categorised into interval of five years to coincide with the extra perks earned upon completion of service within the five year frame.

Table 6.2.8: Samples according to age

Range of Age	Samples	%
<25	19	2.3
26-30	122	14.9
31-35	287	35.1
36-40	189	23.1
41-45	122	14.9
>46	75	9.2
No Response	4	0.5
Total	818	100.0

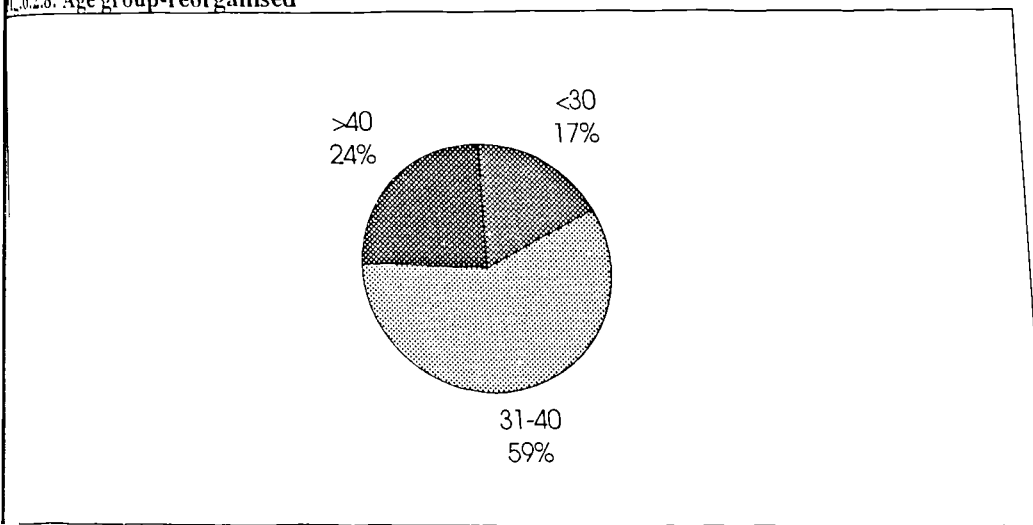
The compulsory retirement age for civil servants including academics is 55 for both male and female. However they are allowed to opt for early retirement should they wish to do so. The minimum age for option to retire early is 50 for male and 45 for female. Considering that a majority of the respondents (52.3%) are 35 years or below, which means that their compulsory retirement age is more than 20 years away, it can be said that the academic force of ITM is relatively young. A further 23% are between the ages of 36-40. For statistical analysis purposes the different age groups were reorganised as shown in Table 6.2.8A and Fig. 6.2.8.

Table 6.2.8A: Age group-reorganised

Age Group	Samples	%
< 30	141	17.2
31-40	476	58.2
>41	197	24.1
No Response	4	.5
Total	818	100.0

Tables 6.2.8 and 6.2.8A indicate a lack of equal distribution of age in the academic work force and that as one gets older, and therefore presumably serves longer, the chances of leaving are great. As shown in the section under tenure, a high percentage of the respondents has served ITM ten years or less. Thus they have not yet included in the pension scheme and will not feel any loss should they decide to leave the organisation. With such a young group of academicians, ITM is vulnerable to the danger of their staff being lured away by the private sector who has the financial resources to entice them.

Table 6.2.8: Age group-reorganised



6.2.9 Ethnic Origin

As revealed in the chapter on Literature Review, comparative studies of the levels of commitment based on race or ethnic origin are sadly neglected. Race is clearly a very sensitive issue. This is especially so in a multiracial society as is the case in Malaysia. The lack of studies on this aspect is perhaps due to avoidance rather than anything else. The fact is, for academic purposes, such studies are important. For any organisation to progress, it must have successful diversity programmes that strike a balance between expectations for assimilation and efforts to accommodate diverse groups of people. Exclusion of minorities into the mainstream of corporate life would result in isolation, lower organisational commitment, and ultimately, a decision to seek employment in a more hospitable

climate (Rosen and Lovelace, 1994). Thus in this research an attempt was made to ask respondents to identify themselves by their ethnic origin. The response was very encouraging as shown in Table 6.2.9. This may be a sign of the willingness of Malaysians to be more open about their ethnic background. The promise of confidentiality also helped to secure the high rate of response.

As anticipated the sample is dominated by Malay academics (86.3%). This is representative of the Institute as a whole (83%). Response rates were consistent across all ethnic groups with the exception of the 'Others'.

Table 6.2.9: Ethnic origin of respondents

A	B	C	D	E	F (D/B)
Category	Actual	Actual %	Samples	% Samples	% Response
Chinese	213	8.2	55	6.7	25.8
Indian	126	4.9	41	5.0	32.5
Malay	2149	82.9	706	86.3	32.8
Others	105	4.0	9	1.0	8.6
No Response			7	1.0	
Total	2593	100.0	818	100.0	

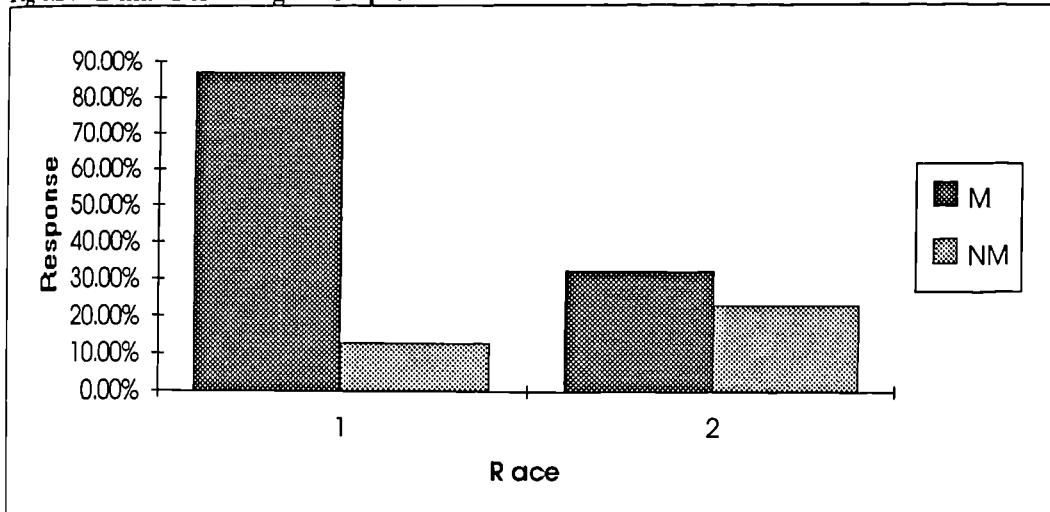
As there were only seven respondents that did not identify their race, this did not indicate a significant figure nor did it show a boycott of such items in a questionnaire. Nevertheless fear of being identified could not be ruled out for the failure of the seven to respond.

Given the small sample of respondents who are not Malay in origin, the ethnic origin of the respondents is divided into two groups, the Malays and the non-Malays as displayed in Table 6.2.9A and Fig. 6.2.9.

Table 6.2.9A: Ethnic percentage of respondents-reorganised

A	B	C	D	E	F (C/E)
Category	Key	Samples	Samples %	Actual	Actual %
Malay	M	706	86.3	2149	32.8
Non-Malay	NM	105	12.8	444	23.6
No Response	NR	7	00.9		
Total		818	100 .0	2593	

Fig 6.2.9: Ethnic Percentage of respondents



N.B. Series 1 indicate the samples percentage while series 2 indicate actual population percentage that responded to the survey. M denotes Malay, NM denote Non-Malay.

6.2.10 Marital Status

Long term factors, such as family, have a major influence on organisational commitment (Jans, 1989). It is therefore relevant that family details of the respondents are known to ensure the viability of the research.

Socially the Malaysian society is relatively conservative. Therefore in the category of marital status living with a partner without being married is unthinkable. That category is thus omitted in the questionnaire. Table 6.2.10 shows a very high percentage of the respondents to be married. Respondents that are single constitutes 108 or 13% of the sample.

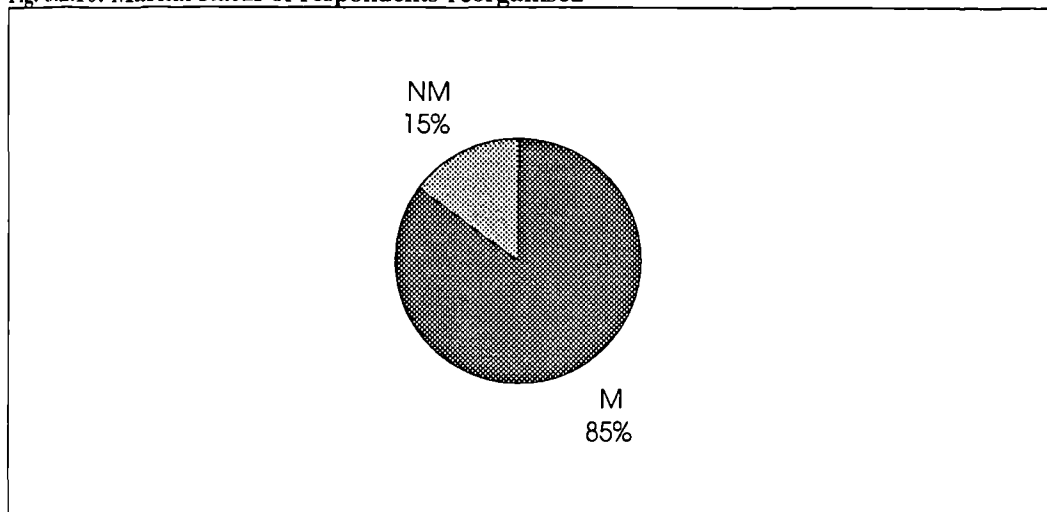
Table 6.2.10: Marital status of respondents

Category	Samples	%
Married	695	85.0
Single	108	13.0
Widow/Widower	1	.0
Divorced	12	1.0
No Response	2	.0
Total	818	100.0

Table 6.2.10A: Marital status-reorganised

Category	Key	Samples	%
Married	M	695	85.2
Not Married	NM	121	14.8
No Response	NR	2	0
Total		818	100 %

Fig. 6.2.10: Marital status of respondents-reorganised



M-Married, NM-Not married.

For the purpose of cross tabulation the categories of single, widow/widower and divorced are regrouped as not married. This helps to minimise those cells with expected frequency of less than five and to validify the results. The regrouped data are as shown in Table 6.2.10A and Fig. 6.2.10.

6.2.11 Educational Qualifications

The minimum qualification needed to be a lecturer is a bachelor degree. Priority in recruitment is given to those that posses an honours degree. Opportunities will be given to academics to advance their qualification with offers of scholarship subject to them meeting the criteria drawn by the Institute.

In ITM, MBAs are considered as on par with a master degree. Thus those with MBAs were grouped together under the category of masters.

Table 6.2.11: Educational qualifications of respondents

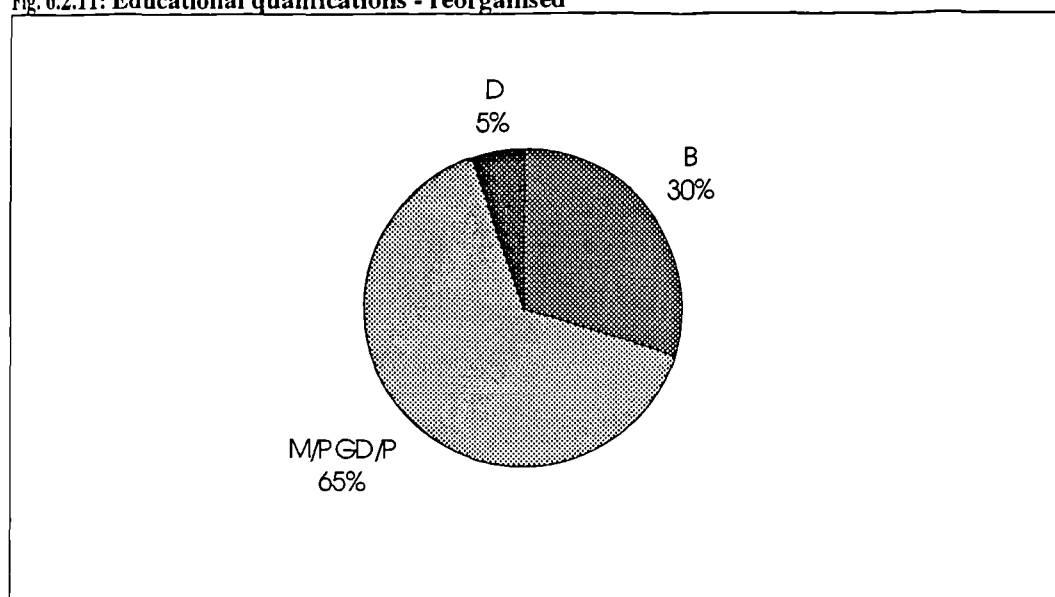
Category	Samples	%
Bachelors Degree	242	29.6
Masters	508	62.1
Doctorate	41	5.0
Professional	11	1.3
PG Diploma	9	1.1
No Response	7	.9
Total	818	100.0

Table 6.2.11 indicates that a high proportion of the respondents (62.1%) have a masters degree. This is expected as scholarships are offered quite generously by ITM to those with a first degree to advance their qualification further. Normally those that return with a masters degree must at least serve for a period of four years as part of their contract to the Institute before they could be considered for a doctorate scholarship. Many may not take up the offer for a doctorate scholarship as they have to face a tough interview over and above their record of work at the Institute. Also many do not want to be further tied down with the Institute as acceptance of the scholarship would extend serving contract to an extra ten years. Added to this is the strong probability that the masters degree has equipped them well in their profession as academics and therefore there is no need to obtain a doctorate. Again there are those that are afraid of losing their seniority in the sense that being away for another three or four years may cause them to be overlooked when a promotion exercise takes place. Thus the reasons for a wide gap in numbers between those with masters and those with doctorate. Those respondents with professional qualification are only one percent. This may be due to the reason that those that proceed to seek professional qualification intend to practise their specialised trade when their contract with the Institute expires rather than staying on as academics where the financial reward is less. There were seven respondents that did not declare their qualifications, constituting only one percent of the sample.

Table 6.2.11A: Educational qualifications-reorganised

Qualifications	Key	Samples	%
Bachelors	B	242	29.6
Masters/Post Graduate Diploma/Professionals	M/PGD/P	528	64.5
Doctorate	D	41	5.0
No Response	NR	7	.9
Total		818	100.0

Fig. 6.2.11: Educational qualifications - reorganised



B- Bachelors, M/PGD/P - Master/Postgraduate Diploma/Professional qualifications, D-Doctorate.

Since those with post graduate diploma or professional qualifications starting pay is higher than those with a first degree as their highest qualification, the first two are grouped together with those having masters as displayed in Table 6.2.11A and Fig. 6.2.11. This regrouping also helps to legitimise the SPSS data analysis application.

6.2.12 Professional Body/Association

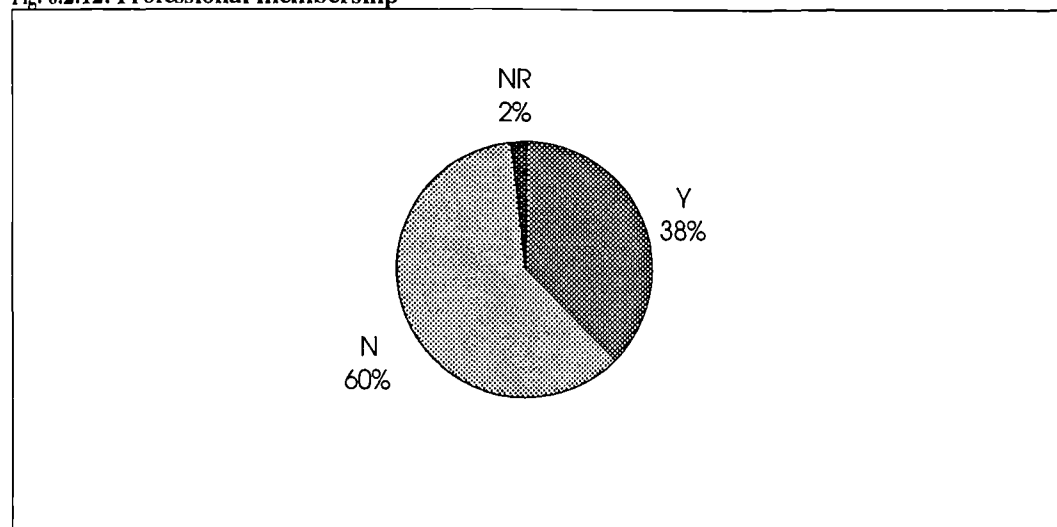
As indicated in Table 6.2.12 and Fig. 6.2.12, the membership of professional body or association is in sharp contrast to professional qualification in Table 6.2.11. This can be explained by the fact that not all professional bodies are strictly based on academic qualification as criterion for membership. For example, the Malaysian Institute of Management is liberal in the acceptance of membership and not confining to those with management qualification only. Membership of a professional association is not one of the criteria needed (even though it may be an advantage) as a qualification to be an academic in ITM or any of the institutions of higher learning in Malaysia. However being accepted to such a body and recognised by it for some contributing work like writing or

research is an advantage to the academics of these institutions as it would also be a factor to be considered for promotion .

Table 6.2.12: Professional membership

	Samples	%
Yes	308	37.7
No	496	60.6
No Response	14	1.7
Total	818	100.0

Fig. 6.2.12: Professional membership



Y-Yes, N-No, NR-No response.

6.2.13 Spouse Employment

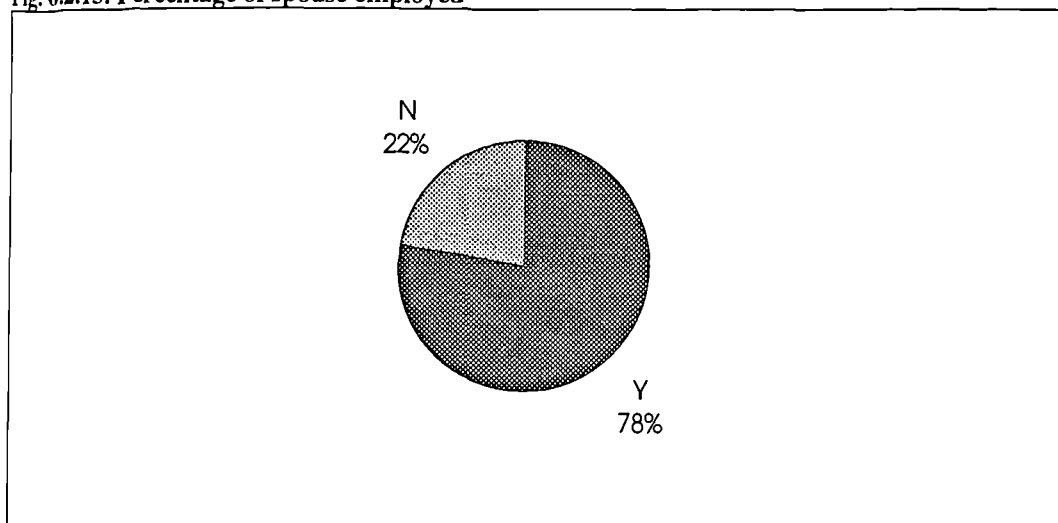
Table 6.2.13 indicates that an overwhelming (78%) of the respondents' spouses are employed. The difference between spouses that are employed and those that are not is sharp as can be seen in Fig. 6.2.13. This is perhaps a strong indication of participation in the labour market by both genders and that marriage does not stop one of the spouses from being employed. The strong economic performance of Malaysia in the last eight years which has seen an 8% economic growth demands the utilisation of human resources to the fullest. The policy of the Government in giving priority to education may also contribute to this as financially and experience wise it would be a waste to end one's career upon marriage. The social trend in Malaysia now is a dual income family to help supplement each others wages in view of the country becoming more affluent.

Thus there is no stopping the spouse from pursuing his/her own occupation and enhancing the independence of an individual career-wise.

Table 6.2.13: Percentage of spouse employed

	Samples	%
Yes	542	78.0
No	151	22.0
Total of Married Respondents	695	100.0
N. Applicable (Inc. no response)	123	
Total	818	

Fig. 6.2.13: Percentage of spouse employed



N-No, Y-Yes

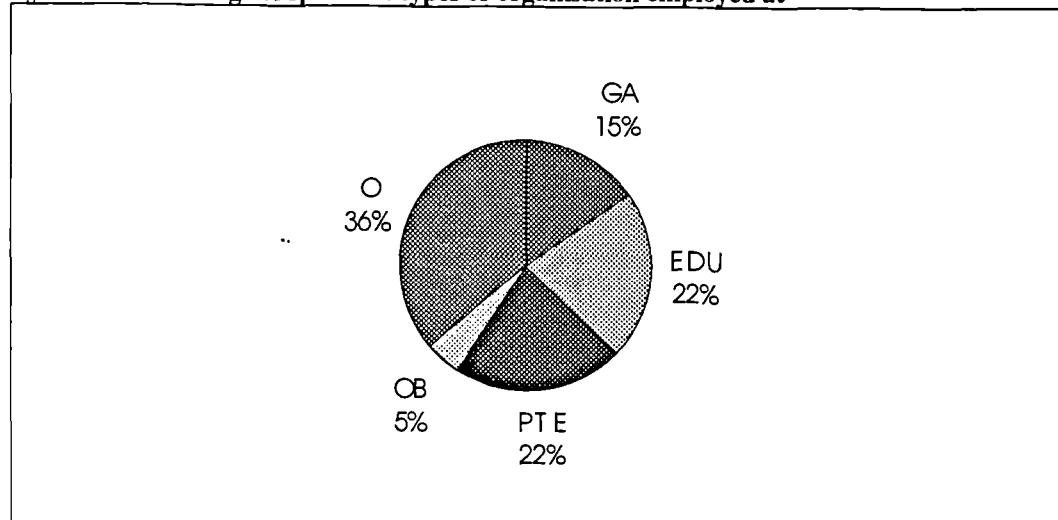
Table 6.2.13A: Types of organisations spouses employed at

Category	Samples	%
Govt. Agencies	83	15.3
Edu. Institutions	119	22.0
Private Sectors	119	22.0
Own Business	26	4.7
Others	195	36.0
Total	542	100.0

Table 6.2.13A and Fig. 6.2.13A display a breakdown of the type of organisations the spouses are employed in. A significant number are the private sector. Maybe there is complementary factor here. In the private sector while the pay tends to be higher than Government agencies, the risk of being made redundant in time of adverse economy is high. While the percentage of those employed in

Government is lower than the private sector, it must be noted that most educational institutions are also Government agencies.

Fig. 6.2.13A: Percentage of spouse at types of organisation employed at



EDU-Educational insitutes, GA-Government agencies, O - Others, OB Own business

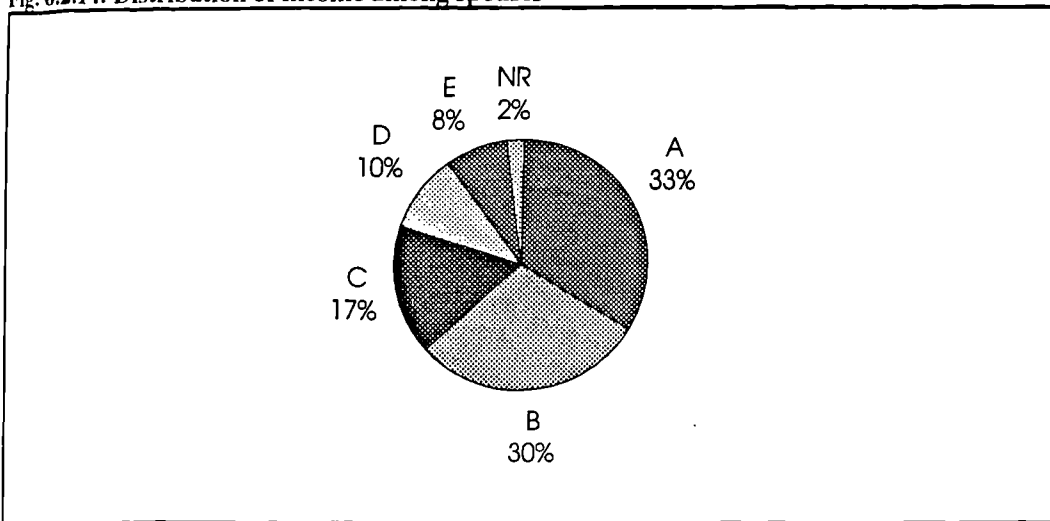
6.2.14 Spouse Income

Table 6.2.14: Annual income of spouse

Category	Income Range	Samples	%
A	<RM24000	184	34.0
B	RM24001-36000	162	30.0
C	RM36001-48000	90	17.0
D	RM48001-60000	52	10.0
E	>RM60001	42	8.0
NR	No Response	12	2.0
Working Spouse		542	100.0
Not Applicable		276	
Total		818	

A high proportion of the spouse income falls below RM24000 per annum as can be observed in Table 6.2.14 an Fig. 6.2.14. There were twelve respondents that failed to provide information. This maybe due to them not knowing the actual income of their spouses, or regarded it as really confidential. Income from the private sector may not be easy to assess even though a person may receive a fixed income monthly. This is because of bonuses which are received annually but are not fixed every year. For those spouses who are self-employed it is more difficult for them to assess the income received annually.

Fig. 6.2.14: Distribution of income among spouses



The letters represent the category in Table 6.2.14

6.2.15 Children

Table 6.2.15 shows that 80% of the respondents have children. Of those that are married 49 do not have children. This constitutes 6% of the overall respondents and 7% of those married. As ITM has several branches, those with children may be reluctant to be transferred in case such a movement affects the children's education despite the availability of primary and secondary elementary schools at all the branches.

Table 6.2.15: Respondents with children

	Response	%	Marriage %
Yes	655	80.0	93%
No	49	6.0	7%
Not Applicable	114	14.0	
(Total)	818	100.0	100

6.3 ATTITUDE TOWARDS PAY

Equity theorists (e.g. Dubinsky and Levy, 1989) propose that perceived equity influences job-related responses of employees, and research in organisational behaviour has found that perceived equity especially pay, is related to a variety of work outcomes, such as organizational commitment. Byington and Johnston (1991) in their study on the influences of turnover of internal auditors concluded

that attitude towards pay appeared to have the greatest influence on a decision to leave a firm. Johnson and Johnson (1991) found consistent patterns in past studies of organisational commitment suggesting that workers' perceptions of pay equity to be a primary antecedent to their level of organisational commitment.

It is difficult for one to just describe his attitude towards his/her pay based on one question alone. To allow the respondents a fair chance to show their feelings, the section on pay was broken into six categories. With respect to their present pay respondents were asked to indicate their degree of feelings by ticking one of the five alternative answers offered to each question. The five alternative answers provided for the respondents were; very poor (VP), poor (P), satisfactory (S), good (G) and very good (VG). Due to the very small number of responses at each extreme (Very Poor and Very Good) the ratings were made dichotomous. This involved combining the positive answers Good and Very Good, and the negative answers Poor and Very Poor. Using the Likert scale, the aggregated response on statements relating to the attitude of the respondents towards their pay is as displayed in Table 6.3. The Likert scale is used as it is among the most commonly used attitudinal measurements (Sekaran, 1992). This makes it possible to compute the means of the responses to this research and thus helps to quantify the differences in the variables which are of interest.

With an overall mean score of 1.69 (the total value for all six items divided by the total number of response for all six items = $8260/4883$), it can be noted that generally the respondents are less than happy with their pay. The response in general is similar to the grievances mentioned in Chapter One (1.2) by other academics on the pay system practised in other institutions in Malaysia.

Table 6.3: Response to attitude towards pay

Item	Poor (1)	Value	Satisfactory (2)	Value	Good (3)	Value	Total Value	Mean
1. With my qualifications my pay is	281	281	394	788	142	426	1495	1.83
2. For the number of years I have worked in this organisation my pay is	395	395	328	656	91	273	1324	1.63
3. With the amount of work I put in my pay is	398	398	313	626	102	306	1330	1.64
4. Compared with those in different professions but with similar qualifications and years of service, my pay is	589	589	159	318	59	177	1084	1.34
5. Overall my pay is	376	376	349	698	91	273	1347	1.65
6. In addition to my pay, the fringe benefit package offered by the organisation is	165	165	438	876	213	639	1680	2.06
Overall	2204	2204	1981	3962	698	2094	8260	1.69

With three (3) as the highest value attainable, it is only on item six where the fringe benefit package is taken into consideration is the score above the satisfactory level of two (2). As part of the Malaysian Government institution that falls under the General Order that defines guidelines for the civil service, the academics of ITM enjoy the fringe benefits accorded to other civil servants. Vehicle and housing loans, for example, are offered to those who are eligible. These are offered at interest rates less than what is offered if loans are taken from financial institutions, thus lowering the financial burden of the academics. As shown in the table an overwhelming are more than satisfied with the fringe benefits offered.

Item four, where the respondents were asked to compare their pay with those having similar qualifications working somewhere else, has the lowest mean at 1.34. It is natural that an individual makes a comparison with those who were his/her contemporaries in college pursuing the same qualification but are now in different professions. The response given indicates that the extrinsic reward involved in the teaching profession in Malaysia is low.

ditional comments on their attitude towards pay, a majority (61%) felt that academics in ITM and other institutions should not be treated as if they were in the Government civil service. This would allow the institutes to set their pay scales so as to be competitive and be able to attract more to become teachers. About 15% percent were not happy that a quota was introduced under the New Remuneration Scheme (see 1.3 in Chapter One), whereby five percent of the staff will not be allowed to get increment in pay and wanted to link pay to the benchmark of effort and results. The other 24% raised the issue of the organisation supplementing them in the purchase of teaching materials like books, writing utensils and films for overhead projectors to help them to be more effective in delivering their courses.

ATTITUDE TOWARDS PROMOTION POLICY

As mentioned in the Literature Review (see 4.3.1.3) when extrinsic inducements such as advancement in position are not forthcoming, the commitment of the employees to the organisation will be less favourable. This can finally end in their leaving the organisation (March and Simon, 1958). Mottaz (1986 and 1988), Fern (1989), De Connick and Bachman (1994) found promotional opportunities to have a significant positive effect on organisational commitment. Quarles (1994) and Wallace (1995) found promotional opportunities to be a significant determinant of organisational commitment.

Knowing whether there are good chances for promotion or not, has certain implications on an individual's decision to stay and commit him/herself to the organisation. As Zaccaro and Dobbins (1989), Larkin and Schweikart (1992) and Larkin and Siegel (1992), have discovered in their studies, among those factors that are related to organizational commitment are the chances of promotion and opportunities for career advancement. Looking at the samples in the categories of age and job status the bulk of the respondents are young holding the rank of lecturer. Thus promotion opportunity may be a factor determining a person's commitment to his/her organisation.

To qualify for promotion there are criteria that must be satisfied. In the lower category, the criteria for promotion in ITM seem relatively easy. For example after a year of service based on good record an academic is confirmed in his position. A failure to be confirmed by the third year may mean having to provide a “show cause” letter indicating why further probation be given. After five years of service a lecturer will be promoted to Senior Times Scale category. So far the promotion is not based on vacancy. It is based on the number of years of service coupled with good record.

However to be promoted to Senior Lecturer and Principal Lecturer, a member of staff must have served at least seven years. Over and above their function as a lecturer with 14 hours of teaching per week if not holding any administrative post, they must have articles published with weight given to where the articles are published. Membership of professional organisations and participation in societies like holding post in Parents-Teachers Associations of the school their child/children are also noted. On top of all these is the interview they have to attend which is conducted in the presence of members of ITM Council which consists of representatives from different professions appointed by the Government for a minimum of three years.

In this section of the questionnaire respondents were given the opportunity to demonstrate what they thought of ITM’s promotion policy by ticking one of the five answers given to each statement-strongly agree (SA), agree (A), uncertain (U), disagree (D) and strongly disagree (SD).

As in the response towards attitude on pay, the very small numbers of responses at the end of the scale (strongly agree and strongly disagree) made it necessary for the rating to be made dichotomous. Hence combining the positive answers of strongly agree and agree, and the negative answer of strongly disagree and disagree. As there are two statements that are negatively worded it was found necessary to level all scores. This is based on a scale of one to three, with three being high for

a favourable answer two for uncertain and one for unfavourable answer. The overall data response to the questionnaire on promotion is summarised in Table 6.4.

Table 6.4: Response to attitude towards promotion policy

Item	Agree (3)	Value	Uncertain (2)	Value	Disagree (1)	Value	Total Value	Mean
1. The organisation provides opportunities for career advancement	406	1218	223	446	180	180	1844	2.28
2. Opportunities for promotion are limited	596	596	146	292	73	219	1107	1.36
3. The promotion policy is based on ability	218	654	266	532	329	329	1514	1.86
4. The promotion policy is unfair	395	395	289	578	129	387	1360	1.67
5. Promotion exercise is held regularly	243	729	293	586	279	279	1594	1.96
6. The promotion policy is similar to the policy of the other institutions.	96	288	351	702	367	367	1357	1.67
Total	1954	3880	1568	3136	1357	1761	8777	1.80

**Items 2 & 4 are negatively worded. Therefore the value score is reversed for each of them where an agreement with the statement is value at one and disagreement at three.*

Overall as shown in Table 6.4, the respondents have a pessimistic view on their organisation's promotion policy. With adjustment on calculation made on the two statements which were negatively worded, the average mean level of the combined items on promotion is 1.80. This is below the mid-point of two on the Likert scale of one to three, with three being the highest point. Of particular concern is on item 2 where the respondents feel that opportunities for promotion are limited. This is despite a favourable response to opportunities provided by the organisation for career advancement with a mean level of 2.28. The favourable response to this issue can be attributed among others, to the generous offer of scholarship by the Institute to members of the staff to pursue postgraduate studies with full pay leave, opportunities to attend conferences and seminars, locally or abroad, in areas related to their field of studies. Thus enhancing the knowledge needed in their career as academics. The response to statements 1 and 2 indicated that the respondents were able to distinguish the difference between the opportunities provided by the Institute to advance in their career and opportunities for promotion.

On the additional comments made towards their attitude towards the promotion policy of the organisation 67% of the respondents suspect that promotion in the organisation is based more on personal relationship rather than merit. This is a big percentage that indicates the academics are not convinced that such aspects as merit, years of service, and academic contribution are the more important criteria for promotion. Almost 33% of the respondents want the organisation to be allowed to set its own criteria for promotion and not be guided by the Public Services Department. Thus seeking better autonomy by ITM should be considered.

6.4.1 Promotion Policy and Procedural Justice

In relation to procedural justice, statement 4 on the promotion policy (see Table 6.4) which touched on the fairness of the promotion policy, 395 of the 818 respondents thought that it was unfair, 289 as uncertain, and 129 thought it as fair. Thus there is serious doubt about the presence of procedural justice in ITM.

Procedural justice is defined as the perceived fairness of the process used for deciding workplace outcomes such as merit increases and promotions and is perhaps the most important workplace perception formed by employees (Certo, 1997). Procedural justice requires that rules be administered fairly, clearly stated and consistently and impartially enforced (Daft, 1997). It is an important determinant of employee behaviour (Konovsky and Pugh, 1994). Results in a study done by Wallace (1995) show that organisational commitment is highly dependent on perceived opportunities for career advancements and the criteria used in the distribution of rewards.

Schappe (1996) was of the opinion that an organisation's procedures and employees' perceptions of the fairness of the procedures affect organisational commitment. Employees actually form separate perceptions about the organisation's process for deciding outcomes on the one hand and the consequences on the other (Certo, 1997). Procedural justice examines the fairness

of the process itself. Are decisions made in accordance to clear standards? Is the process used consistently for everyone? Can I appeal the decision? Will I be able to have input? According to Certo, distributive justice, on the other hand examines only the outcome of a decision or policy: Did I receive the promotion? Did I get the raise? Research indicates that employees often view these two types of workplace justice quite differently (Greenberg, 1990).

Obviously, then employees expect the management to be fair in making selection and promotion decision, in assigning tasks and scheduling work, in choosing people for training and promotion, in conducting performance appraisal and in making pay decisions. Of all these processes the one most likely to affect attitudes and morale is performance appraisal (Dailey and Kirk, 1992). Probably because of the highly personal nature of the process, employees are especially sensitive to perceived unfairness in this area. Consequently, they base a large portion of their overall perceptions about procedural justice on their perceptions of performance appraisals (Schaubroeck *et al*, 1994).

The attitude towards organisational commitment is the main body of the questionnaire. As organisational commitment is the dependent variable under investigation in this research, the analysis is carried out, in detail, in the following chapter.

REFERENCES

Byington, JR and Johnston, JG (1991), "Influences of Turnover on Internal Auditors", *Internal Auditing*, 7 (2), pp. 3-10.

Carrel, MR; Elbert, N; and Hatfield, R (1995), *Human Resource Management*, 5th ed. Englewood Cliffs, New Jersey: Prentice-Hall International, Inc. pp. 780-84.

Certo, SC; (1997) *Modern Management*, 7th ed. New Jersey: Prentice-Hall International, Inc. pp. 442.

Daft, RL (1997) *Management*, 4th ed. Fort Worth: The Dryden Press.

Dailey, RC and Kirk, DJ (1992), "Distributive and Procedural Justice as Antecedents of Job Dissatisfaction and Intent to Turnover" *Human Relations* 45 (3), pp. 305-317.

De Coninck, JB and Bachmann, DP, (1994) "Organizational Commitment and Turnover Intentions of Marketing Managers", *Journal of Applied Business Research*, 10 (3), pp. 87-95.

Dubinsky, AJ and Levy, M (1989), "Influences of Organizational Fairness on work Outcomes of Retail Salespeople", *Journal of Retailing*, 65 (2), pp. 221-252.

Fern, EF, Avila, RA and Grwal, D (1989), "Salesforce Turnover: Those Who Left and Those Who Stayed", *Industrial Marketing Management*, 18, pp. 1-9.

Greenberg, J (1990), "Looking Fair vs. Being Fair: Managing Impressions of Organizational Justice," *Research in Organizational Behavior*; ed. Staw, BM, and Cummings, LL, 12 (Greenwich, Conn.: JAI Press).

Igbaria, M; and Siegel, SR. (1992) "An Examination of the Antecedents of Turnover Propensity of Engineers: An Integrated Model" *Journal of Engineering and Technology Management*, 9 (2) pp. 101-126.

Johnson, WR and Johnson, GJ (1991), "The Effects of Equity Perceptions on Union and Company Commitment", *Journal of Collective Negotiations in the Public Sector*, 20 (3), pp. 235-244.

Joy, VL and Witt, LA (1992), "Delay of Gratification as a Moderator of the Procedural Justice-Distributive Justice Relationship" *Group and Organization Management* 17(3), pp. 297-308.

Karambayya, JB and Lytle, A (1992), "Effects of Formal Authority and Experience on Third-Party Roles, Outcomes and Perceptions of Fairness" *Academy of Management Journal* 35, pp. 426-38.

Kim, WC and Mauborgne, RA (1993), "Procedural Justice, Attitudes and Subsidiary Top Management Compliance with Multinationals Corporate Strategic Decisions" *Academy of Management Journal* 36, pp. 502-526.

Konovsky, MA and Pugh SD, (1994), "Citizenship Behavior and Social Exchange" *Academy of Management Journal* 37(3), pp. 656-669.

Larkin, JM. and Schweikart, J (1992), "Success and the Internal Auditor", *Internal Auditor*, 49 (3), pp. 32-37.

March, J and Simon, H (1958), "Organizations" Wiley and Sons, New York

Magner, N and Johnson, GG (1995), "Municipal Officials' Reactions to Justice in Budgetary Resource Allocation" *Public Administration Quarterly* 18(4) pp. 439-456.

Mottaz, CJ (1986), "An Analysis of The Relationships Between Education and Organizational Commitment in a Variety of Occupational Groups", *Journal of Vocational Behavior*, 28, pp. 214-228.

Mottaz, CJ (1988), "Determinants of Organizational Commitment", *Human Relations*, 41(6), pp. 467-482.

Quarles, R (1994), "An Examination of Promotion Opportunities and Evaluation Criteria as Mechanisms for Affecting Internal Auditor Commitment, Job Satisfaction and Turnover Intentions", *Journal of Managerial Issues*, 6 (2) pp. 176-194.

Rosen, B and Lovelace, K (1994), "Fitting Square Pegs Into Round Holes", *Human Resource Magazine*, 39 (1), pp. 86-93.

Ruiz-Quintanilla, SA and Blancero, D (1996), "Open Door Policies: Measuring Impact Using Attitude Surveys", *Human Resource Management*, 35(3) pp. 269-291.

Schappe, SP (1996), "Bridging the Gap Between Procedural Knowledge and Positive Employee Attitudes", *Group and Organization Management*, 21 (3) pp. 337-364.

Schaubroeck, J; May, DR and Brown, FW (1994), "Procedural Justice Explanations and Employees Reactions to Economic Hardship: A Field Experiment" *Journal of Applied Psychology*, 79(3), pp. 455-460.

Sekaran, U (1992), "*Research Methods for Business*" Wiley and Sons, New York.

Victor, B; Trevino, LP; Shapiro, DL (1993) "Peer Reporting of Unethical Behavior: The Influence of Justice evaluations and Social Context Factors" *Journal of Business Ethics*, 12(4), pp. 253-263.

Wallace, JE (1995), "Organizational and Professional Commitment in Professional and Nonprofessional Organizations" *Administrative Science Quarterly*, 40(2), pp. 228-255.

Witt, LA and Myers, JG (1993) "Perceived Environmental Uncertainty and Participation in Decision Making in the Prediction of Perceptions of the Fairness of Personnel Decisions," *Review of Public Personnel Administration*, May/August 1993, pp. 48-55.

Zaccaro, SJ and Dobbins, GH (1989), "Contrasting Group and Organizational Commitment: Evidence for Differences Among Multilevel Attachments". *Journal of Organizational Commitment*, 10 (3) pp. 267-273.

RESPONSE TO THE ORGANISATIONAL COMMITMENT QUESTIONNAIRES

7.1 INTRODUCTION

Organisational commitment is the main theme of this thesis. Therefore this chapter covering responses to separate questions on organisational commitment is discussed separately. The chapter is organised with an introduction of the definition of organisational commitment. This is followed by the analysis of each separate item of organisational commitment. In each item of organisational commitment, the demographic variables which are considered to be the important contributing factors in the levels of organisational commitment are discussed.

In order to know the overall attitude of commitment respondents have towards their organisation, an analysis has to be made based on several items. The overall commitment of the respondents is best measured based on items that encompass the definition of commitment. The section on commitment was based on a set of questionnaires designed by Porter and Smith (1970). Fifteen items were identified to frame the questionnaire that appeared to tap the three aspects of their definition of commitment which are; (a) a strong belief in and acceptance of organisational goals and values; (b) a willingness to exert considerable energy on behalf of the organisation; and (c) a strong desire to maintain membership in the organisation. These three aspects of the definition were later confirmed by Mowday *et al* (1979), Mowday *et al* (1982) and Porter *et al* (1976). See Appendix B on the example of the organisational commitment questionnaires.

The fifteen items are shown below with the responses as indicated in each table that is displayed after each statement. The questionnaire was modified slightly to suit Malaysian understanding of English as it would be easier to understand. Also instead of a 7-point scale the questionnaire was remodeled to a 5-point scale as it would help to minimise cells that have expected frequency value of less than five. As previously an

interval scale using the Likert measurement is applied to enable mathematical operations on the data collected from the respondents.

Pearson Chi-square tests have been performed to consider the statistical relationship between each statement and the variables concerned. In order to meet certain conditions for the chi-square to be a good approximation of the distribution of the statistic, the response to each of the fifteen statements on organisational commitment questionnaire was further remodified from a 5-point scale to an aggregated score of agree (A); undecided (U); and disagree (D). In doing so, the statistical validity of the analysis using chi-square test was enhanced. Firstly, by eliminating any minimum expected frequency less than one, and secondly, by trying to minimise cells that have expected frequency less than five in each matrix to not more than 20%. Even though in certain items of the questionnaire this criterion is not met, it is argued that the validity can still be accepted since the condition that all expected frequencies be at least five is too stringent and conservative and therefore should be relaxed (Everitt, 1980 and Norusis, 1993). The value for the score is based on one for agreeing with the statement, two for uncertainty, and three for disagreeing.

Based on the Literature Review (Chapter 4), four individual demographic variables of age, tenure, gender and educational qualifications are expected to be important in determining the level of organisational commitment of employees. They are analysed individually against the different items that make up organisational commitment based on the definition by Porter and Smith (1970). Note that in the category of educational qualifications, M/PGD/P stand for masters, postgraduate diploma, and professional qualifications. Those with either masters, postgraduate diploma or professional qualification are grouped together in order to minimise cells that have expected frequency less than five in each matrix to not more than 20%. Also all three qualifications are considered by ITM to be above bachelor degree.

7.2 EFFORT

I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.

Table 7.2 shows that a very high percentage, 89% of the respondents, agree with the above statement of which a further 29% feel strongly about it. This is a strong indication of the academics willingness to help the organisation to forge ahead in its effort to improve itself further by putting in more effort than normally expected. Thus the dedication of the academics is beyond question. In a study by Leong *et al* (1994), their results revealed that the influence of organisational commitment was mediated by working hard. This suggests the effect effort has on organisational commitment.

With 89% of the respondents agreeing with the above statement as indicated in Table 7.2 it shows that overall there is a strong indication of the willingness of the academics to exert themselves for the sake of the organisation.

Table 7.2: Effort

	Agree	Uncertain	Disagree	No Response	Total
Response	729	60	25	4	818
	89%	7%	3%	1%	100%

7.2.1 Age

Table 7.2.1: Effort-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
30	129	9	3	141	1.11	.37
31 - 40	421	40	14	475	1.14	.43
>40	176	11	8	195	1.14	.45
Overall	726	60	25	811	1.14	.42

Missing observations: 7; Sig. level .57467.

The significance level of the response to the statement cross-tabulated with the age variable is more than .57 This is very much higher than the 5% significance level indicating that the observed relationship is more likely to have occurred by chance. Table 7.2.1 shows little variation in the staff's commitment in relation to their willingness to put in additional effort to ensure the organisation's success whatever their age is. However, of the total number of 85 respondents that are uncertain or do not agree to exert effort for the sake of the organisation 54 or 64% of them are between the age of 31-40.

7.2.2 Tenure

Table 7.2.2: Effort-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
1	41	1	1	43	1.07	.34
2	56	3	3	62	1.14	.47
3-5	148	16	2	166	1.12	.36
6-10	250	19	8	277	1.13	.41
10	233	21	11	265	1.16	.47
Overall	728	60	25	813	1.13	.42

Missing observations: 5; Significance: .50763; Cells with $EF < 5=4/15=26.7\%$.

Even though there is not much variation in the means shown in Table 7.2.2, the score for the less than one year group indicates that it agrees with the statement more than the other groups. The standard deviation of the group also shows that it is more clustered around the mean than the others. Of the total number of 85 that are uncertain (60) or do not agree (25), 59 of them or about 69% have served more than six years with the organisation. As can be noted overall, effort appears to decrease with tenure. The level of the significance test between tenure and the statement is about .51. This indicates that the probability that the observed relationship between tenure and the statement occurs by chance is high.

7.2.3 Gender

Table 7.2.3: Effort-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	356	33	10	399	1.13	.41
Female	371	26	15	412	1.14	.44
Overall	727	59	25	811	1.134	.42

Missing observations: 7; Significance: .38058.

The significance level at .38 indicates that the probability of the observed relationship between willingness to exert more effort and gender to occur by chance is high. Table 7.2.3 shows almost an identical mean for both groups although the standard deviation for the females is slightly more dispersed than that of males.

7.2.4 Educational Qualifications

Table 7.2.4: Effort-Educational qualifications

Qualifications	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	219	14	9	242	1.13	.44
PGD/P	467	43	15	525	1.14	.42
Ph.D.	37	3	1	41	1.12	.40
Overall	723	60	25	808	1.14	.42

Missing observations: 10; Significance: .77325; EF <5=22.2%.

Table 7.2.4 shows little variation in the response between the different groups. The significance level of the Pearson chi-square test in relationship to the statement on effort is more than .77, indicating the response occurring by chance is high.

7.3 GOOD ORGANISATION

I believe this organisation is a good organisation to work for.

Table 7.3: Good organisation

	Agree	Uncertain	Disagree	No Response	Total
Response	653	114	49	2	818
	80 %	14 %	6 %	0.2 %	100 %

The overall response to the above statement indicates an overwhelming positive attitude (80%) towards ITM as a good organisation to work for (Table 7.3). A mere 6% disagreed with the statement.

7.3.1 Age

Table 7.3.1: Good organisation-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
<30	121	18	2	141	1.16	.40
31-40	374	68	34	476	1.29	.59
>40	155	27	13	195	1.27	.58
Overall	650	113	49	812	1.26	.56

Missing observations: 6; Significance: .13689.

There is a noticeable variation in the responses as shown in Table 7.3.1. With agreement with the statement carrying a value of one, the less than 30 age group level at 1.16 shows lower commitment than either of the other two groups. It is also more clustered with the standard deviation lower than those of the other two. The 31-40 age group has the highest score at 1.29 and a more dispersed standard deviation showing the group to be

least committed and less clustered in the response. Given the significance level of .14 the possibility that the observed relationship between age and the statement on the Institute being a good organisation to work for to occur by chance is high.

7.3.2 Tenure

Table 7.3.2: Good organisation-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	S. D
1	39	4	0	43	1.09	.29
1-2	51	10	1	62	1.19	.44
3-5	136	19	11	166	1.25	.57
6-10	219	42	17	278	1.27	.57
10	207	39	20	266	1.30	.60
Overall	652	114	49	815	1.26	.56

Missing observations: 3; Significance: .37564 Min EF: 2.585; Cells with $EF < 5 = 2/15 = 13.3\%$.

The significance level of the Pearson chi-square test at almost .38 shows the degree of response to the statement by tenure to happen by chance is high. However Table 7.3.2 shows that as tenure increases the less the respondents think the organisation is a good place to work for. This indicates that despite the significance level being high to accept the response to be dependent on tenure, a pattern emerges whereby there is a negative relationship between tenure and the feeling of the organisation being a good place to work for.

7.3.3 Gender

Table 7.3.3: Good organisation-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	313	62	25	400	1.28	.57
Female	337	52	23	412	1.24	.54
Overall	650	114	48	816	1.26	.55

Missing observations: 2; Significance: .43394.

The significance level at .43 indicates that the probability of the relationship between gender and the belief that the Institute is a good organisation to work for to occur by chance is high. Table 7.3.3 displays little variation in the means of both groups though the percentage of females (82%) is more than the percentage of males (78%) in agreeing with the statement that the Institute is a good organisation to work for.

7.3.4 Educational Qualifications

Table 7.3.4: Good organisation-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	205	30	7	242	1.18	.46
Master/PGD/P	411	79	36	526	1.29	.58
Ph.D.	31	4	6	41	1.39	.74
Overall	647	113	49	809	1.26	.56

Missing observations: 9; Significance: .01825.

With a significance level of less than .02 the indication is that the relationship between the organisation being a good place to work for and educational qualifications is statistically significant. The mean levels in Table 7.3.4 indicate that although there is an overwhelming response (80 %) in favour of the statement, overall the notion that the organisation is good place to work for decreases as the level of qualifications increase.

7.4 LOYALTY

I have little loyalty for this organisation.

Table 7.4: Loyalty

	Agree	Uncertain	Disagree	No Response	Total
Response	96	110	609	3	818
%	12 %	13 %	74 %	0 %	100 %

An employer's concern about the feelings of loyalty its employees have towards it exists in all types of organisation. In this survey the respondents' loyalty towards their organisation (Table 7.4) did not contradict the feelings shown by them towards their willingness to put in more effort for the organisation (Table 7.2) and the organisation being a good place to work for (Table 7.3). This statement is negatively worded. As such a disagreement with it is a positive reaction and vice-versa. The general response by the respondents at 74% disagreeing against those 12% that agree (Table 7.4) indicates a high percentage of loyalty to the organisation. The employer's concern must be minimal.

7.4.1 Age

Table 7.4.1: Loyalty-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
<30	15	29	96	140	2.58	.68
31-40	62	61	352	475	2.61	.71
>40	19	20	157	196	2.70	.64
Overall	96	110	605	811	2.63	.69

Missing observations: 7; Significance: .03899.

The significance level of less than .04, shows that the degree of loyalty shown by respondents in relation to their age is statistically significant. Table 7.4.1, shows that the degree of loyalty to the organisation increases with age as indicated by the mean response rising from 2.58 for the less than 30 age group to 2.70 for the more than 40 age group. This is a difference of .12. The percentage disagreeing with the statement increases from 69% (96/140) to 80% (157/196).

7.4.2 Tenure

Table 7.4.2: Loyalty-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
<1	3	7	32	42	2.69	.60
1-2	3	16	43	62	2.64	.57
3-5	24	20	121	165	2.59	.73
6-10	44	40	194	278	2.54	.75
>10	22	27	218	267	2.73	.60
Overall	96	110	608	814	2.63	.68

Missing observations: 4; Significance: .00238; Min EF: 4.953. Cells with EF < 5=1=6.7%.

The significance level at .002 indicates that the observed relationship between tenure and the degree of loyalty has not occurred by chance. The mean levels in Table 7.4.2 shows that loyalty decreases steadily after the first year of service but later increases sharply after ten years.

7.4.3 Gender

The significance level at .79 confirms that the relationship between the degree of loyalty and gender is not statistically significant at the 95% confidence level. As Table 7.4.3

shows, both sexes express high loyalty towards the organisation with little variation in the mean.

Table 7.4.3: Loyalty-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	44	56	300	400	2.64	.67
Female	51	54	306	411	2.62	.70
Overall	95	110	606	811	2.63	.68

Missing observations: 7; Significance: .79356.

7.4.4 Educational Qualifications

Table 7.4.4: Loyalty-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
B	40	46	155	241	2.48	.76
M/PGD/P	48	61	417	526	2.70	.63
Ph.D.	8	3	30	41	2.54	.81
Overall	96	110	602	808	2.63	.69

Missing observations: 10; Significance: .00013.

The significance level of .00 confirms that the observed relationship between loyalty to the organisation and educational qualifications is significant at the 95% confidence level. The M/PGD/P (those with masters, post graduate diploma and professional qualifications) group displays a higher mean level indicating that its loyalty is higher than the other two groups (Table 7.4.4). The response of the M/PGD/P group is also more clustered around the mean compared to the other two. 79% of those in the M/PGD/P group disagree that they have little loyalty compared to 64% among those with Bachelor degree qualification and 73% among those with doctorate.

7.5 ASSIGNMENT

I would accept almost any type of assignment in order to keep working for this organisation.

Table 7.5: Assignment

	Agree	Uncertain	Disagree	No Response	Total
Response	377	232	203	6	818
%	46%	28%	25%	1%	100%

Ideally an organisation seeks a work force that is willing to accept any assignment given without reservation. Having a work force that is flexible and having the willingness to

accept any assignment will help an organisation in its utilisation of its staff. Despite the encouraging attitude shown towards the previous three statements, the willingness to accept any assignment has its limits as illustrated by Table 7.5. This could be attributed for example to a large number of the respondents, 706 or 86% being married and that should they be transferred, their spouses' career would be in jeopardy and their children's education disrupted (see sub sections 6.2.13, 6.2.14 and 6.2.15 of Chapter 6). Their unwillingness to be separated from their family could also be an explanation for them to disagree with the statement. While accepting an assignment, which may include transfer to a branch of the organisation, can boost a person's chances for promotion or may even be a part of a person's promotion nevertheless there has to be rational in weighing the outcome which may affect social and domestic life. Thus other than the economic factors that employees receive for their work, they are also bounded to the organisation by the non economic factors or referred to as "psychological contract" by a number of writers (e.g., Levinson *et al*, 1962). Nevertheless Table 7.5 indicate that those who are willing (46%) to accept any assignment outweigh those who are not (25%).

7.5.1 Age

Table 7.5.1: Assignment-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	61	48	31	140	1.79	.78
31 - 40	211	137	124	472	1.82	.82
> 40	104	45	47	196	1.71	.83
Overall	376	230	202	808	1.78	.82

Missing observations: 10; Significance: .13337.

Since the significance level between age and the willingness to accept any assignment is .13, the probability that the observed relationship occurs by chance is high and that the relationship is not significant at the 95% confidence level. But Table 7.5.1 suggests a wide variation in the response. The 31-40 age group to be the most willing with its mean level at 1.82. The more than 40 age group appears least willing at 1.71 to accept almost any type of assignment in order to keep working for this organisation.

7.5.2 Tenure

Table 7.5.2: Assignment-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	23	11	9	43	1.67	.81
1-2	29	24	9	62	1.68	.72
3-5	68	49	47	164	1.87	.83
6-10	128	74	73	275	1.80	.83
>10	128	74	65	267	1.76	.82
Overall	376	232	203	811	1.79	.82

Missing observations: 7; Significance: .39051.

At more than .39 the probability that the observed relationship occurs by chance is high and that the relationship between tenure and the willingness to accept any assignment is not significant at the 95% confidence level. Nevertheless the mean levels in Table 7.5.2 show a wide variation between those in their first year of service (1.67) and those in the 3-5 years group (1.87). Also a pattern emerges where the degree of commitment decreases after the first year in service and reaches its lowest at the 3-5 years group before rising after six and ten years of service though not to the level matching the less than one year group or the one to two years group.

7.5.3 Gender

Table 7.5.3: Assignment-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	210	101	87	398	1.69	.81
Female	166	129	115	410	1.88	.82
Overall	376	230	202	808	1.78	.82

Missing observations: 10; Significance: .00217.

At .002 the probability that the observed relationship between the willingness to accept any assignment and gender to occur by chance is negligible. Therefore relationship is significant at the 95% confidence level. This is further strengthened by the mean levels in Table 7.5.4 where the mean level (1.69) of the males is higher compared to the females (1.88), resulting from the response in which 53% of the males agree with the statement compared with 40% of the females. This could be attributed to the percentage of females having working spouse are higher than males. Thus females are reluctant to be transferred as it would likely pose domestic problem.

7.5.4 Educational Qualifications

Table 7.5.4: Assignment-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	116	74	47	237	1.71	.78
M/PGD/P	233	149	145	527	1.83	.83
Ph.D.	26	5	10	41	1.61	.86
Overall	375	228	202	805	1.78	.82

Missing observations: 13; Significance: .01942.

With a significance level of almost .02 the observed relationship between willingness to accept any assignment and educational qualifications is significant at the 95% confidence level. Of the three groups, the doctorate group replies with the highest percentage (63%) in agreement and thus with the highest mean level in favour of the statement as can be noted in Table 7.5.4. Interestingly those with master/postgraduate diploma and professional qualifications as highest qualifications the (M/PGD/P) which show highest loyalty (see Table 7.4.4) is the least willing to accept any assignment in order to keep working for the organisation.

7.6 VALUES

I believe that my values and the organisation's values are very similar.

Table 7.6: Values

	Agree	Uncertain	Disagree	No Response	Total
Response	400	264	149	5	818
%	49 %	32 %	18 %	1 %	100 %

An organisation being an entity has rules and regulations that govern it and upon which the values of the organisation are based and hence what and how policies are pursued. As individuals, employees have their own values which govern their behaviour. A close similarity of employee-organisation values provide positive consequences for both the individual and the organisation (Meglino *et al* 1989). This has been stressed by Hunt *et al* (1989) who consider corporate values to be a composite of managers' individual ethical values and both the formal and informal policies on ethics of the organisation. A total of 18%, as shown in Table 7.6, disagreed with the statement, suggesting that their values are out-of-step with those of the organisation. This is a small percentage. However

the percentage of the respondents that agreed (49%) was not high either. Nevertheless compared with those that disagreed the percentage of those that identified their values as being similar with the Institute is quite substantial.

7.6.1 Age

Table 7.6.1: Values-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	80	42	17	139	1.55	.70
31 - 40	225	154	97	476	1.73	.78
> 40	95	67	32	194	1.67	.74
Overall	400	263	146	809	1.69	.76

Missing observations: 9; Significance: .13145.

Despite the wide variation in the response as can be observed by the mean levels in Table 7.6.1, the significance level of .13 is too high to accept that the relationship between age and the feeling of having similar values with the organisation is significant at the 95% confidence level. The less than 30 years group with its mean at 1.55 identifies its values more closely with that of the organisation with 57% agreeing with the statement compared with 47% of those in the 31-40 age group and 48% of those more than 40 years age group.

7.6.2 Tenure

With a significance level of more than .13 the observed relationship between tenure and the feeling of having similar values with the organisation is not significant at the 95% confidence level. However Table 7.6.2 shows that after a slight increase in the level of commitment after a year of service, the level then drops after two years of service and continues to do so as tenure increases. This shows that those in early years of service appear more committed on the basis of values than those longer service. It can be noted in Table 7.6.2 that at least 50% of each of the first three groups agree with the statement that their values are similar with that of the organisation's compared with the last two groups.

Table 7.6.2: Values-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	23	17	3	43	1.53	.63
1-2	34	23	4	61	1.51	.62
3-5	84	51	31	166	1.68	.77
6-10	129	93	54	276	1.72	.77
>10	130	79	57	266	1.73	.79
Overall	400	263	149	812	1.69	.76

Missing observations: 6; Significance: .13214.

7.6.3 Gender

Table 6.6.3: Values-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	207	133	56	396	1.62	.72
Female	193	131	89	413	1.75	.79
Overall	400	264	145	809	1.68	.76

Missing observations: 9; Significance: .02169.

With a significance level of almost .02 the observed relationship between similarity in values with the organisation and gender is significant at the 95% confidence level. The figures in Table 7.6.3 show that the males' mean level is slightly higher. With 52% of the males agree that their values are similar with that of the organisation's, their standard deviation is less dispersed compared to the females'. Thus females' staff identify their values less closely with that of the organisation.

7.6.4 Educational Qualifications

The significance level of more than .13 indicates a high probability that the relationship observed is more likely to have occurred by chance. An analysis of the means in Table 7.6.4 shows that those with bachelor degree (52%) and doctorate qualifications (57%) find their values more similar with those of the organisation than that indicated by the M/PGD/P group (48%).

Table 7.6.4: Values- Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	125	82	33	240	1.62	.72
M/PGD/P	251	172	104	527	1.72	.77
Ph.D.	23	8	9	40	1.65	.83
Overall	399	262	146	807	1.68	.76

Missing observations: 11; Significance: .13253.

7.7 PRIDE

I am proud to tell others that I am part of this organisation.

Table 7.7: Pride

	Agree	Uncertain	Disagree	No Response	Total
Response	635	127	50	6	818
%	78%	16%	6%	1%	100%

Table 7.7 indicate that a high percentage of the respondents express a sense of belonging to the organisation. While a few are uncertain only a mere 6% disagreed with the statement. With such a high percentage having pride in the organisation, the onus is with ITM to utilise its academic staff efficiently to enhance its image as an institution of higher learning.

7.7.1 Age

Table 7.7.1: Pride-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	120	16	4	140	1.17	.45
31 - 40	364	81	27	472	1.29	.56
> 40	147	30	19	196	1.35	.65
Overall	631	127	50	808	1.28	.57

Missing observations: 10; Significance: .03728.

The feeling of pride towards the organisation appears to be dependent on age. The significance level of .037 suggests the relationship observed has not occurred due to chance. The mean levels in Table 7.7.1 demonstrates that as age increases there is a decline in pride towards the organisation. The standard deviations also show that the higher the age group is the less clustered is the score around the mean.

7.7.2 Tenure

Table 7.7.2: Pride-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	38	4	1	43	1.14	.41
1-2	58	2	2	62	1.10	.39
3-5	128	28	10	166	1.29	.57
6-10	212	50	12	274	1.27	.53
>10	198	43	25	266	1.35	.64
Overall	634	127	50	811	1.28	.57

Missing observations: 7; Significance: .01286; Cells with EF < 5=2/15=13.3%.

The significance level at .01 shows that pride in the organisation appears to be dependent on tenure suggesting that the relationship observed has not occurred due to chance and is therefore significant at the 95% confidence level. The mean levels in Table 7.7.2 show that after two years of service, generally there is a decrease in the feeling of pride as tenure increases, though there is a slight rise in the 6-10 years group. The mean column also shows that the more than ten years group has less pride in the organisation compared with the other groups. Also the standard deviation column shows it to be less clustered around the mean than the rest. This is shown by the group having the least percentage (74%) that agrees with the statement. With 93% agreeing with the statement the 1-2 years group is more clustered around the mean than the others.

7.7.3 Gender

Table 7.7.3: Pride-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	313	61	22	396	1.27	.55
Female	319	65	28	412	1.29	.59
Overall	632	126	50	808	1.28	.57

Missing observations: 10; Significance: .74552.

The significance level at .75 shows that the relationship between pride in the organisation and gender is likely to have occurred due to chance and is therefore not significant at the 95% confidence level. Both groups demonstrate high level of pride in the organisation with almost identical mean levels and an overall score of very well above the mid point of the Likert scale as shown in Table 7.7.3.

7.7.4 Educational Qualifications

Table 7.7.4: Pride-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	192	36	13	241	1.26	.55
M/PGD/P	408	85	31	524	1.28	.57
Ph.D.	28	6	6	40	1.45	.75
Overall	628	127	50	805	1.28	.57

Missing observations: 13; Significance .20591.

At .21, the significance level the relationship observed is likely due to chance as it is not acceptable at the 95% confidence level. Despite this the levels of the mean at Table 7.7.4 show that pride towards the organisation diminishes as qualifications increase and that the diminishing in pride shown by those with Ph.D is very marked. Although 70% of those with doctorate qualification agree with the statement of being proud to tell others of being part of the organisation this is lower compared to 78% of those in Master/Postgraduate Diploma and Professional group and 80% of those in the Bachelor group. The Ph.D group is also more dispersed around the mean than the other two groups.

7.8 WORKING ELSEWHERE

I could just as well be working for a different organisation as long as the type of work was similar.

Table 7.8: Working elsewhere

	Agree	Uncertain	Disagree	No Response	Total
Response	315	211	285	7	818
%	39%	26%	35%	1%	100%

There seems to be an evenly balanced answer to the above statement as displayed in Table 7.8. The response to the statement perhaps indicates that despite a feeling of loyalty and belonging to ITM, the academics are quite prepared to accept similar posts elsewhere. This is also an indication that there is a strong feeling of attachment to the vocation vis-à-vis the organisation. With the setting up of more universities and institutions in the country ITM has to be aware of the attraction that may lure the academics away.

7.8.1 Age

Table 7.8.1: Working elsewhere-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	57	39	43	139	1.90	.84
31 - 40	188	126	160	474	1.94	.86
> 40	67	46	81	194	2.07	.87
Overall	312	211	284	807	1.96	.86

Missing observations: 11; Significance: .26646.

Even though the significance of more than .26 indicates the likelihood of the relationship between age and the possibility of working for another organisation for a similar job to occur by chance is high, Table 7.8.1 shows that the more than 40 group has a higher percentage (42%) that disagree compared to either the less than 30 age group(31%) or the 31-40 age group (34%). While this illustrates commitment to the organisation is high among the more than 40 age group by not preferring to work for another organisation for a similar job, this could also reflect that as age increases, it becomes more difficult to find job elsewhere.

7.8.2 Tenure

The significance level at .87 indicates that the degree of commitment in the context of this statement happening by chance is high. Table 7.8.2 shows that after 3-5 years of service, the unwillingness to leave the organisation for a similar job elsewhere increases marginally. This is in parallel with the observations for age, as it shows that commitment to the organisation vis-à-vis the vocation appears to increase with the length of service.

Table 7.8.2: Working elsewhere-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	16	14	13	43	1.93	.83
1-2	25	14	23	62	1.97	.89
3-5	69	37	58	164	1.93	.88
6-10	110	73	93	276	1.94	.86
>10	95	73	97	265	2.00	.85
Overall	315	211	284	810	1.96	.86

Missing observations: 8; Significance: .86825.

7.8.3 Gender

Table 7.8.3: Working elsewhere-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	147	98	149	394	2.00	.87
Female	166	112	135	413	1.92	.85
Overall	313	210	284	807	1.96	.86

Missing observations: 11; Significance: .31180.

With a significance of .31, the willingness of the respondents to work somewhere else to perform similar job in relation to their gender is not significant at the 95% confidence

level. Despite this, the indication in Table 7.8.3 illustrates females tend to show slightly more willingness to work somewhere else for a similar job.

7.8.4 Educational Qualifications

Table 7.8.4: Working elsewhere-Educational qualifications

Qualification n	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	92	77	71	240	1.91	.82
M/PGD/P	204	128	192	524	1.98	.87
Ph.D.	16	6	18	40	2.05	.93
Overall	312	211	281	804	1.96	.86

Missing observations: 14; Significance: .05408.

The significance level at .054 is slightly above the acceptance level to indicate the willingness to work for a different organisation to be statistically dependent on educational qualifications. Observing the mean levels in Table 7.8.4 it is however noted that as qualifications increase the commitment to the organisation, based on this measure increases. Again a similarity can be drawn as that shown by age and tenure.

7.9 INSPIRATION

This organisation inspires the very best in me in the way I perform my job.

Table 7.9 Inspiration

	Agree	Uncertain	Disagree	No Response	Total
Response	316	264	230	8	818
%	39%	32%	28%	1%	100%

An organisation has to accept that other than being an employer, it has to act as an inspiration to the work force to get the best out of it. In response to this, the illustrations in Tables 7.9 show almost 39% of the academics feel inspired by the organisation as against 28% who do not. Those that are uncertain make up a substantial 32% of the sample. ITM would be wise not to accept those that are uncertain in their response towards this statement can be won over easily. Perhaps the response here provides a justification of concern on the part of ITM regarding the future of its academics and to be critical of itself.

7.9.1 Age

Table 7.9.1: Inspiration-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	70	45	25	140	1.68	.76
31 - 40	169	151	151	471	1.96	.82
> 40	76	66	53	195	1.88	.81
Overall	315	262	229	806	1.89	.81

Missing observations: 13; Significance: .00929.

The significance level at less than .01 shows that how one perceives the organisation as an inspiration in relation to age does not occur by chance. The mean levels in Table 7.9.1 indicate that those in the less than 30 age group with 50% agreeing with the statement show more commitment and has a standard deviation smaller than the other two groups. The 31- 40 group has the highest mean score to indicate that it looks towards the organisation less as an inspiration compared to the other two and with 36% agreeing with the statement has highest standard deviation to indicate its response is least clustered around the mean.

7.9.2 Tenure

Table 7.9.2: Inspiration-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	23	14	6	43	1.60	.73
1-2	31	22	9	62	1.64	.73
3-5	69	49	47	165	1.87	.83
6-10	99	93	82	274	1.94	.82
>10	93	86	86	265	1.97	.82
Overall	315	264	230	809	1.89	.81

Missing observations: 9; Significance: .04166.

The significance level at .04 shows that the probability that the observed relationship has occurred by chance is slim. The mean levels in Table 7.9.2 indicate that as tenure increases, the influence of the organisation as an inspiration becomes less. The standard deviation column also shows more dispersion around the mean as tenure increases. Some 53% of those in the first year of service are inspired compared with 35% of those with more than ten years of service.

7.9.3 Gender

Table 7.9.3: Inspiration-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	174	128	96	398	1.80	.80
Female	141	134	133	408	1.98	.82
Overall	315	262	229	806	1.89	.81

Missing observations: 12; Significance: .00887.

The feeling of being inspired by the organisation appears to be related to gender. Males tend to be more inspired by the organisation than females as shown by the mean levels in Table 7.9.3 in which the females' mean response is almost towards uncertain. With a significance level at .009, the probability of the observed relationship to occur by chance is slim at the 95% confidence level.

7.9.4 Educational Qualifications

Table 7.9.4: Inspiration-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
B	104	75	59	238	1.81	.81
M/PGD/P	192	170	163	525	1.94	.82
Ph.D.	18	17	6	41	1.71	.71
Overall	314	262	228	804	1.89	.81

Missing observations: 14; Significance: .07184.

Since the significance level .07 is slightly above the .05 limit, the feeling of being inspired by the organisation is not accepted as being statistically related to educational qualifications. Nevertheless as indicated in Table 7.9.4, the levels of response between each group varies widely. The M/PGD/P group are the least inspired with its mean of 1.94 compared with those with PhD, at 1.71, the most inspired group as 44% of those with PhD regard the organisation as an inspiration compared with 37% of those in the M/PGD/P group Those with bachelor degree at 1.81 also shows very much less confidence in the organisation as an inspiration compared with the PhD group.

7.10 LEAVING THE ORGANISATION

It would take very little change in my present circumstances to cause me to leave this organisation.

Table 7.10: Leaving the organisation

	Agree	Uncertain	Disagree	No Response	Total
Response	256	284	264	14	818
%	31 %	35 %	32 %	2 %	100 %

There seems to be an evenly balanced response to the above statement as can be observed in Table 7.10. Since it is negatively worded, a disagreement is a positive attitude shown by the respondents. While the combined percentage of those that are uncertain and those that disagree is high compared to those that agree, nevertheless the percentage that agree is quite substantial when one notes that replacement of staff is an important factor to consider for the benefit of the well being of the organisation. With majority (542 of 695 or 78%) of those married have spouses that work (see 6.2.13), a change in the status quo of the linkage between the spouses and their organisations will affect ITM. Spouses being transferred or retrenched for example will make those academics that are affected to think twice about their present position for the sake of their family. Also the response to this statement is interesting given that 74% of the respondents indicate their loyalty to the organisation (see the analysis on loyalty in 7.4).

7.10.1 Age

Table 7.10.1: Leaving the organisation-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	50	55	35	140	1.89	.77
31 - 40	144	164	161	469	2.04	.81
> 40	60	64	67	191	2.04	.82
Overall	254	283	263	800	2.01	.80

Missing observations: 18; Significance: .29757.

A significant level of .29 suggests a high probability that the observed relationship between age and the statement, that it would take a little change in the present circumstances of the employee to cause him/her to leave the organisation, has occurred by chance. To add to this the response as measured by the means does not widely vary between the groups as can be observed in Table 7.10.1.

7.10.2 Tenure

Table 7.10.2: Leaving the organisation-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	15	16	12	43	1.93	.80
1-2	23	28	11	62	1.81	.72
3-5	52	58	54	164	2.01	.81
6-10	92	84	95	271	2.01	.83
>10	74	97	92	263	2.07	.79
Overall	256	283	264	803	2.01	.80

Missing observations: 15; Significance: .20592.

With a significant level of .20 the probability is high that the observed relationship between tenure and the statement, that it would take a little change in the present circumstances of the employee to cause him/her to leave the organisation, has occurred by chance. Despite this, Table 7.10.2 indicates that after a dip shown by those in the 1-2 years group, there is a steady increase in the levels of commitment shown by the academics. At 2.07, those having served more than ten years tend to be the most positive in their commitment in relation to the statement.

7.10.3 Gender

Table 7.10.3: Leaving the organisation-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	127	138	131	396	2.01	.81
Female	127	145	132	404	2.01	.80
Overall	254	283	263	800	2.01	.80

Missing observations: 18; Significance: .95268.

Both sexes show identical means and almost similar standard deviations as shown in Table 7.10.3. Not surprisingly the significance of .95 at 95% confidence level shows the observed relationship between gender and the statement that it would take a little change in the present circumstances of the employee to cause him/her to leave the organisation to occur by chance is very high.

7.10.4 Educational Qualifications

Table 7.10.4: Leaving the organisation- Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
B	81	88	70	239	1.95	.79
M/PGD/P	163	177	179	519	2.03	.81
Ph.D.	8	18	13	39	2.13	.73
Overall	252	283	262	797	2.01	.80

Missing observations: 21; Significance: .29593.

The significance level of .30 at 95% confidence level shows the observed relationship between educational qualifications and the statement, that it would take a little change in the present circumstances of the employee to cause him/her to leave the organisation to occur by chance, is very high. This is despite the mean levels in Table 7.10.4 showing that as qualifications increase the less the academics feel that it would take a little change in their present circumstances for them to leave the organisation. As the Table shows the mean level increase markedly from 1.95 for the Bachelor group to 2.03 for the M/PGD/P and 2.13 for the PhD group. Thus those with PhD show greater intention to stay.

7.11 RIGHT CHOICE

I am glad that I chose this organisation instead of others considered before I joined this organisation.

Table 7.11: Right choice

	Agree	Uncertain	Disagree	No Response	Total
Response	489	201	125	6	818
%	59%	25%	15%	1%	100%

The figures in Table 7.11 demonstrate that about 59% of the respondents express no regret in joining the organisation. This is against the 201 that have their reservation, amounting to 25% of the respondents. The favourable percentage shows that the academics in general have a strong attitude towards the organisation that ITM must capitalise upon. There are few that indicate disagreement (15%) with the statement, indicating that those who regret in their decision to serve the Institute to be low. Overall though 40% are uncertain or disagree with the statement.

7.11.1 Age

Table 7.11.1: Right choice-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	96	31	13	140	1.41	.66
31 - 40	271	128	75	474	1.59	.75
> 40	116	42	36	194	1.59	.78
Overall	483	201	124	808	1.56	.74

Missing observations: 10; Significance: .05703.

The significance of .057 shows the probability that the observed relationship between age and the statement has occurred by chance. The indication in Table 7.11.1 however shows that those less than 30 are happier at the choice made to choose the Institute as the organisation to work for compared to the other two age groups.

7.11.2 Tenure

Table 7.11.2: Right choice-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	32	7	4	43	1.35	.65
1-2	48	10	4	62	1.29	.58
3-5	92	51	22	165	1.58	.72
6-10	163	69	44	276	1.57	.75
>10	150	64	51	265	1.63	.79
Overall	485	201	125	811	1.56	.74

Missing observations: 7; Significance: .01673.

The mean levels in Table 7.11.2 show that those that have served three years or longer seem to show more reservation about the decision made than those in their first two years. This is shown by the difference in the mean levels between those in the first two years of service and those having served more than three years. Also the standard deviation shows more dispersion among the last three groups compared with the first two groups. This can be explained by the fact that the first two groups respectively have 74% and 77% agree with the statement compared with the last three groups which all have less than 60% agree with the statement. The indication that those in early years seem happier at the decision made is similar as that in the category of age. Generally as length of service increases, the less happy the respondents are about their choice. The observed relationship is significant at the 95% confidence level.

7.11.3 Gender

The significance level at more than .20 shows that feeling of being glad in choosing the Institute instead of others considered before joining, to occur by chance is high. Both groups express similar levels of satisfaction in the decision made as shown by the mean

levels in Table 7.11.3 which do not vary greatly. There is also only a slight difference in the standard deviations.

Table 7.11.3: Right choice-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	247	88	63	398	1.54	.75
Female	237	113	60	410	1.57	.73
Overall	484	201	123	808	1.55	.74

Missing observations: 10; Significance: .20072.

7.11.4 Educational Qualifications

Table 7.11.4: Right choice-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	166	55	20	241	1.39	.74
M/PGD/P	291	139	94	524	1.62	.64
Ph.D.	24	6	10	40	1.65	.77
Overall	481	200	124	805	1.56	.86

Missing observations: 13; Significance: .00051.

The significance level at .001 shows that the probability of the observed relationship between educational qualifications and the feeling of being glad in choosing the Institute instead of others considered before joining, occurring by chance is small. The mean column in Table 7.11.4, shows a negative relationship as the higher the qualification one has the less one thinks the decision made to join the organisation to be the right one. 69% of those with Bachelor degree agree they made the right choice to join the organisation. While those with PhD have higher percentage that agree compared with the M/PGD/P qualifications, 25% of the former disagree they made the right choice compared with 18% of the latter.

7.12 INDEFINITE STAY

There is not much to be gained by staying with this organisation indefinitely.

Table 7.12: Indefinite stay

	Agree	Uncertain	Disagree	No Response	Total
Response	231	247	334	6	818
%	28 %	30 %	41 %	1 %	100 %

While those that disagree with the above statement seem to have a higher percentage than those that agree or uncertain as illustrated in Table 7.12, a combination of the latter two could pose a problem. The figures in Table 7.12 demonstrate that a combination of uncertain and agreeing with the statement, which is negatively worded, amounting to 58% is quite discouraging to ITM. It means those who believe that there is something to be gained by staying indefinitely with the organisation constitute a smaller percentage at 41%. Perhaps after the years spent in the organisation there are those that have not received the rewards or recognition accorded and thus may seek occupation elsewhere. There may also be those that may finally find the job no more a challenge and may now decide that it is unwise to stay on indefinitely. Those that disagreed with the statement could have been with the organisation for quite a while and might not have acquired a broad range of skills that would allow easy transfer to a better job in a new organisation. Perhaps realising themselves to be less marketable, it is better for them to remain where they are. The response shown by the academics is not convincing enough to indicate optimism in relation to the statement.

7.12.1 Age

Table 7.12.1: Indefinite stay-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	30	49	60	139	2.22	.78
31 - 40	141	153	179	473	2.08	.82
> 40	58	43	95	196	2.19	.86
Overall	229	245	334	808	2.13	.82

Missing observations: 10; Significance: .01164.

The level of optimism with regard to staying with the organisation indefinitely is highest with the less than 30 group (Table 7.12.1). The 31-40 group is the least enthusiastic. The probability in the scenario is that those who are less than 30 being most likely to be new to the organisation are idealistic about their future. However those in the 31-40 age group having been in the organisation are less idealistic about their attitude towards the organisation. Those in the more than 40 age group probably are resigned to the fact of being in the organisation. The observed relationship between age and the statement is statistically significant.

7.12.2 Tenure

Table 7.12.2: Indefinite stay-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
<1	5	13	25	43	2.46	.70
1-2	19	22	21	62	2.03	.81
3-5	41	51	71	163	2.18	.81
6-10	81	93	101	275	2.07	.81
>10	85	68	115	268	2.11	.86
Overall	231	246	333	811	2.13	.82

Missing observations: 7; Significance. .04995..

At less than .05 of the significance it indicates that the observed relationship between tenure and the statement is statistically significant. Table 7.12.2 shows those having served less than one year is most optimistic regarding staying indefinitely with the organisation. There is a fall in the mean level indicating a steep decline of optimism regarding indefinitely stay among those in the 1-2 years service. This is shown by .43 difference in the mean levels. This can also be observed by the percentage of those agreeing falling from 58% in the first year to 34% in 1-2 years of service. Though the mean levels later increase this is after the level of optimism goes down twice in the tenure range.

7.12.3 Gender

Table 7.12.3: Indefinite stay-Gender

	Agree	Uncertain	Disagree	Total	Mean	SD
Male	105	116	176	397	2.18	.82
Female	124	130	157	411	2.08	.82
Overall	229	246	333	808	2.13	.82

Missing observations: 10; Significance.: .20032.

With a significance of .20 of the confidence level it shows that the observed relationship between gender and the statement to occur by chance is high. The mean levels (Table 7.12.3) between the two groups however show the males to be more optimistic with 44% of them disagree with the statement compared with 38% of the females.

7.12.4 Educational Qualifications

Table 7.12.4: Indefinite stay-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
B	61	82	96	239	2.15	.80
M/PGD/P	157	153	216	526	2.11	.84
Ph.D.	11	9	21	41	2.24	.86
Overall	229	244	333	806	2.13	.83

Missing observations: 12; Significance.: .32557 .

The significance level of almost .32 indicates that the probability of the observed relationship between educational qualifications and the statement happening by chance is high. However, as can be observed in Table 7.12.4, those with PhD qualifications are the most optimistic regarding staying in the organisation indefinitely. Those in the M/PGD/P group seem the least optimistic.

7.13 EMPLOYEES' MATTERS

I find it difficult to agree with this organisation's policies on important matters relating to its employees.

Table 7.13: Employees' matters

	Agree	Uncertain	Disagree	No Response	Total
Response	444	204	163	7	818
%	54%	25%	20%	1%	100%

The dissatisfaction of the academics towards organisational policies especially those that affect them as employees may have serious negative repercussions. Policies on rewards, promotions, and transfers, for example, are among those that are closely monitored and are supposed to be jointly important to both the employees and the employing organisation. The academics response to the above statement (Table 7.13) implies that ITM may have to pay serious attention on policies made and their implementation. The high percentage (54%) of academics that find it difficult to agree with the organisation's policies on important matters relating to its employees should be of great concern to the Institute. It is a clear indication in general, of the academics feelings of dissatisfaction on the ITM's policies relating to their well being.

7.13.1 Age

Table 7.13.1: Employees' matters-Age

	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	70	46	24	140	1.67	
31 - 40	266	118	87	471	1.62	
> 40	105	40	51	196	1.72	
Overall	441	204	162	807	1.65	

Missing observations: 11; Significance: .03189.

With the significance level at .03 the probability of the observed relationship between age and the organisation's policies on employees' matters occurring by chance is remote at the 95% confidence level.. The average mean score in Table 7.13.1 is more towards agreement with the statement especially with the 31-40 group. The more than 40 age group agrees less with the statement than the other two groups. The difference in the mean levels between the 31-40 and the more than 40 age groups is .10 indicating that the former is less positive in its attitude towards the organisation in the context of the organisation policies on matters relating to its employees.

7.13.2 Tenure

Table 7.13.2: Employees' matters-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	14	15	14	43	2.00	.82
1-2	33	20	9	62	1.61	.73
3-5	98	39	28	165	1.58	.77
6-10	156	65	54	275	1.63	.79
>10	143	65	57	265	1.68	.81
Overall	444	204	162	810	1.65	.79

Missing observations: 8; Significance: .09676.

With a significance level of almost .10 the probability of the observed relationship between tenure and attitude towards the organisations policies on matters relating to its employees, happening by chance is high. Nevertheless an observation of the mean score in Table 7.13. shows a pattern where those in the first year of service are uncertain about the organisation's policies that affect the employees. The indication here is an apparent continuity of feeling after the first year when the academics become more disillusioned and later as tenure increases after the fifth year, the academics become

increasingly resigned to the nature of the Institute's policies and become more adjusted to it.

7.13.3 Gender

Table 7.13.3: Employees' matters-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	206	94	97	397	1.73	.83
Female	235	110	65	410	1.59	.75
Overall	441	204	162	807	1.65	.79

Missing observations: 11; Significance: .00968.

A significance level of .01, indicates that the chances of the observed relationship between gender and on organisation's policies on employees' matters happening by chance are remote. The difference in the levels of the mean indicate that the females find it more difficult to agree with the Institute's policies affecting its employees (Table 7.13.3). The standard deviations also show that the females are more clustered around the mean in their response.

7.13.4 Educational Qualifications

Table 7.13.4: Employees' matters-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	121	76	43	240	1.67	.76
M/PGD/P	305	115	103	523	1.61	.80
Ph.D.	15	12	14	41	1.98	.85
Overall	441	203	160	804	1.65	.79

Missing observations: 14; Significance: .00369.

With a significance level of less than .01, the probability of the observed relationship between educational qualifications and attitude towards the organisation's policies on employees levels happening by chance is remote. The mean levels shown in Table 7.13.4 confirm those with PhD to be least in agreement with the statement although they still appear as 'uncertain'. Those in the M/PGD/P group find it most difficult to agree with the organisation's policies. The range of .37 in the mean response between these two groups is very wide though that between the bachelor degree group and the M/PGD/P group is quite slim at .06.

7.14 ORGANISATION'S FUTURE

I really care about the future of this organisation.

Table 7.14: Organisation's future

	Agree	Uncertain	Disagree	No Response	Total
Response	686	107	20	5	818
%	84%	13%	2%	1%	100%

An overwhelming positive response (84%) to the above statement as shown in Table 7.14 indicates that the academics are concerned about their Institute. This may be an indication that the success of an organisation very much lies on the commitment of the employees. It also indicates that the future well being of the employees also depend on the future of the organisation they serve. More importantly perhaps is that the academics are emphasising that they are performing their duties not only for the pay but also for the well being of the organisation.

7.14.1 Age

Table 7.14.1: Organisation's future-Age

	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	117	16	5	138	1.19	.48
31 - 40	397	69	9	475	1.18	.43
> 40	168	22	6	196	1.17	.45
Overall	682	107	20	809	1.18	.44

Missing observations: 9; Significance: .52274; Min. EF :3.412; cells with EF <5= 2/9=22.2%.

The degree of significance at .52 shows that, at the 95% confidence level, the relationship between age and the feeling of concern about the organisation's future to be independent is high. The figures in Table 7.14.1 also shows the variation of the means to be negligible between the different age groups. Given that 84% in agreement that they really care about the organisation, then this is perhaps not surprising.

7.14.2 Tenure

Table 7.14.2: Organisation's future-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	37	3	2	42	1.17	.49
1-2	53	8	1	62	1.16	.41
3-5	132	27	6	165	1.24	.50
6-10	236	35	6	277	1.17	.43
>10	227	34	5	266	1.17	.42
Overall	685	107	20	812	1.18	.44

Missing observations: 6; Significance: .70253; Min EF: 1.034, Cells with EF <5 = 3/15 = 20%.

The Pearson chi-square test yields a significance level of more than .70. This indicates a high probability that the observed relationship between tenure and the degree of concern on the organisation's future has occurred by chance. This is further confirmed by the levels of the mean displayed in Table 7.14.2 where there is no significant variant in the response between each group. There is an exception shown by the 3-5 years group whose response at the mean level of 1.24 shows difference from the others. While 80% of those in this group express they care about the organisation's future, each of the other groups have 85%.

7.14.3 Gender

Table 7.14.3: Organisation's future-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	338	47	10	395	1.17	.44
Female	345	59	10	414	1.19	.45
Overall	683	106	20	809	1.18	.44

Miss. observations: 9; Significance: .61124.

The mean levels in Table 7.14.3 show that males and females are concerned about the future of the organisation. The standard deviations for both groups are almost identical. With the degree of significance at more than .61 at the 95% confidence level there is a high probability that the relationship is not statistically significant.

7.14.4 Educational Qualifications

Table 7.14.4: Organisation's future-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	194	37	9	240	1.23	.50
M/PGD/P	449	69	8	526	1.16	.41
Ph.D.	36	1	3	40	1.17	.55
Overall	679	107	20	806	1.18	.46

Missing observations: 12; Significance: .01414

With a significance level of .014 at the 95% confidence level the observed relationship between educational qualifications and degree of concern on the organisation's future is statistically significant. Despite the M/PGD/P appearing least committed on the basis of previous statements, it shows here (Table 7.14.4) to be more concerned about the future of the organisation than the other two groups plus having a standard deviation which shows to be more clustered around the mean. However there is only a very slight difference with the level of concern shown by those with PhD. At 1.23 of the mean level, the Bachelor degree group shows least concern about the future of the organisation.

7.15 BEST ORGANISATION

For me this is the best of all possible organisations to work for.

Table 7.15: Best organisation

	Agree	Uncertain	Disagree	No Response	Total
Response	332	296	188	2	818
%	41 %	36 %	23 %	0	100 %

The figures in Table 7.15 indicates 41% of the respondents consider the Institute as the best possible organisation for them to work for. Even though the percentage of agreement is not high nevertheless it is a substantial percentage that considers ITM as the best possible place to work for. Since a majority (61%) of the sample had worked in other organisations before (refer to sub-section 6.2.4 of Chapter 6), recalling the experience they might have faced while previously employed elsewhere, they are perhaps being able to compare the different circumstances to convince them that their present organisation is better.

7.15.1 Age

Table 7.15.1: Best organisation-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
<30	53	52	35	140	1.87	.78
31 - 40	191	176	109	476	1.83	.78
>40	86	67	43	196	1.78	.78
Overall	330	295	187	812	1.82	.78

Missing observations: 6; Significance: .83150.

The significance level of more than .83 indicates that the observed relationship between age and the response to the statement is not statistically significant. However the mean levels displayed in Table 7.15.1 show that as age increases the more convinced the academics feel that the Institute is the best possible organisation to work for. The percentage of agreement with the statement is also observed to increase from 38% for the less than 30 group to 40% and 44% respectively for the 31- 40 and the more than 40 groups.

7.15.2 Tenure

Table 7.15.2 Best organisation-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
<1	19	18	6	43	1.70	.71
1-2	30	19	13	62	1.73	.79
3-5	62	61	43	166	1.89	.79
6-10	118	99	60	277	1.79	.77
>10	102	99	66	267	1.86	.78
Overall	331	296	188	815	1.82	.78

Missing observations: 5; Significance: .65475.

Table 7.15.2 displays a wide variation between the less than one year group which has the highest mean at 1.70, and the 3-5 group that has the lowest at 1.89. This is a difference of .19 of the mean levels between the two groups. This is due to 44% of those in less than one year group agreeing that ITM is the best organisation to work for compared with 37% from the 3-5 years group. Also 14% of the less than one year group disagree with the statement compared with 26% from the 3-5 years group. This is a substantial 12% difference. While the positive feeling increases between the sixth and tenth year, there is a further decline after ten years of service. However with significance

of more than .65, the indication is that how one feels the organisation he is presently serving is the best organisation to happen by chance is high.

7.15.3 Gender

Table 7.13.3: Best organisation-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	187	132	80	399	1.73	.77
Female	143	164	106	413	1.91	.77
Overall	330	296	186	812	1.82	.77

Missing observations: 6; Significance: .00173.

The mean levels in Table 7.13.3, illustrate that males, compared to females, are more convinced that the organisation they work for is the best organisation. Some 47% of the males compared with 34% of the females agree with the statement. Since the significance level is less than .01, the observed relationship is statistically significant. The standard deviations show that the responses of both groups are similarly dispersed around the mean.

7.15.4 Educational Qualifications

Table 7.15.4: Best organisation-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	107	91	43	241	1.73	.74
M/PGD/P	203	189	135	527	1.87	.79
Ph.D.	18	14	9	41	1.78	.79
Overall	328	294	187	809	1.83	.78

Missing observations: 9; Significance: .19181.

The significance level of more than .19 shows that the observed relationship between educational qualifications and the attitude of the organisation to be the best organisation to work for is likely to have happened by chance. The response by the M/PGD/P group however shows difference from the other two as shown in Table 7.15.4, indicating that in the context of the statement it is the least likely to find the Institute as the best of all possible organisations to work for as 38% of them are not convinced compare with 44% each for the Bachelor degree group and the doctorate group.

7.16 WRONG DECISION

I made the wrong decision to work for this organisation.

Table 7.16: Wrong decision

	Agree	Uncertain	Disagree	No Response	Total
Response	79	180	556	3	818
%	10 %	22 %	68 %	0	100 %

Since this statement is negatively worded, the percentage disagreeing with the statement at 68% shown in Table 7.16 should be encouraging to ITM. The percentage of those that consider themselves making the wrong decision to work for the organisation is only 10%. This does not contradict the response given to statement 10, on the choice to work for ITM (section 7.11) and statement 14, on considering ITM as the best possible organisation to work for (section 7.15). The high positive percentage certainly provides ITM with a work force of academics that has no regret serving the organisation and perhaps it is an indication of the expectation they perceived before joining the organisation is congruent with the actual situation they are in.

7.16.1 Age

Table 7.16.1: Wrong decision-Age

Age	Agree	Uncertain	Disagree	Total	Mean	SD
< 30	4	31	105	140	2.72	.51
31 - 40	51	106	319	476	2.56	.68
> 40	24	42	129	195	2.54	.70
Overall	79	179	553	811	2.58	.66

Missing observations: 7; Significance: .04406.

The levels of the mean in Table 7.16.1 indicate that as age increases the more convinced the academics are that they have not made the wrong decision to work for ITM. With the significance level at below .05, at the 95% confidence level, it shows that the observed relationship between age and as to whether the decision to work for the organisation is the right one to be statistically significant.

7.16.2 Tenure

Table 7.16.2: Wrong decision-Tenure

Years	Agree	Uncertain	Disagree	Total	Mean	SD
< 1	3	6	34	43	2.72	.59
1-2	2	10	50	62	2.77	.49
3-5	14	44	108	166	2.57	.65
6-10	27	59	191	277	2.59	.66
>10	32	61	173	266	2.53	.70
Overall	78	180	556	814	2.59	.66

Miss observations: 4; Significance: .17344; Min EF: 4.120; Cells with EF < 5 = 1/15 = 6.7%.

There is a wide variation in the degree of response between the first two groups and the last three as displayed in Table 7.16.2. This indicates that those in early years of employment are more convinced of the right decision made to work for ITM. The levels of commitment based on the statement as indicated by the levels of the mean are very much higher for the less than one year group and the group having served between one to two years compared with the groups having served beyond two years. Thus if those serving up to two years are grouped together, and similarly another group consisting of those from three to more than ten years of service is formed, the wide variation is evident in which the up to two years group records a mean of 2.74 while the other group is 2.56. However, with a significance of more than .17 the observed relationship between tenure and the decision made to serve the organisation is likely to happen by chance.

7.16.3 Gender

Table 7.16.3: Wrong decision-Gender

Gender	Agree	Uncertain	Disagree	Total	Mean	SD
Male	49	83	266	398	2.54	.70
Female	30	95	288	413	2.62	.62
Overall	79	178	554	811	2.59	.66

Missing observations: 7; Significance: .05037.

The difference of .08 between the means of the two groups (Table 7.16.3) shows a variation between the mean levels of males and females where 67% of the males disagree that they made the wrong decision to work for the organisation compared with 70% of the females. While this may seem not substantial, it should be noted that a further 12% of the males agree with the statement compared with 7% of the females. However the

Pearson chi-square test with a significance of .05 at the 95% confidence level is high enough to indicate that the observed relationship is not statistically significant.

7.16.4 Educational Qualifications

Table 7.16.5: Wrong decision-Educational qualifications

Qualification	Agree	Uncertain	Disagree	Total	Mean	SD
Bachelor	18	47	176	241	2.66	.61
M/PGD/P	53	124	349	526	2.56	.67
Ph.D.	7	8	26	41	2.46	.78
Overall	78	179	551	808	2.59	.66

Missing observations: 10; Significance: .18290.

The levels of the mean shown in Table 7.16.4 indicate that the higher the educational qualification one has the less likely one feels that he/she made the right decision to work for the organisation. Other than the mean levels the table also shows that the percentage that disagree they made the wrong decision to work for the organisation decrease with qualifications from 73% for those with Bachelor degree to 66% and 63% respectively for those with master/postgraduate diploma and PhD qualifications. Similarly the percentage that agree increase from 7% for those with Bachelor degree to 10% and 17% respectively for those with master/postgraduate diploma and PhD qualifications. However at a significance of .18 this observation is not statistically significant.

7.17 SUMMARY ON RESPONSE TOWARDS THE ORGANISATIONAL COMMITMENT QUESTIONNAIRES

To standardise the scores on the negatively and positively worded statements, a recalculation was done based on a scale of one to three, with three being high for a favourable answer, two for uncertain and one for unfavourable answer. Therefore mean scores above 2.00 indicate positive commitment, whilst those below 2.00 indicate negative commitment. The outlook is as in Table 7.17.

Table 7.17: Scores reevaluated

Item	Agree (3)	Value	Uncertain (2)	Value	Disagree (3)	Value	Total Value	Mean
1. I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.	729	2187	60	120	25	25	2332	2.86
2. I believe this organisation is a good organisation to work for.	653	1956	114	228	40	40	2224	2.76
3. I have little loyalty for this organisation.*	96	96	110	220	609	1827	2143	2.63
4. I would accept almost any type of assignment in order to keep working for this organisation.	377	1131	232	464	203	203	1798	2.21
5. I believe that my values and the organisation's values are very similar.	400	1200	264	528	149	149	1877	2.31
6. I am proud to tell others that I am part of this organisation.	635	1905	127	254	43	43	2202	2.74
7. I could just as well be working for a different organisation as long as the type of work was similar.*	315	315	211	422	285	855	1592	1.96
8. This organisation inspires the very best in me in the way I perform my job.	316	948	264	528	230	230	1706	2.11
9. It would take very little change in my present circumstances to cause me to leave this organisation.*	256	256	284	568	264	792	1616	2.09
10. I am glad that I chose this organisation instead of others considered before I joined this organisation.	486	1458	201	402	125	125	1985	2.44
11. There is not much to be gained by staying with this organisation indefinitely.*	231	231	247	494	334	1002	1727	2.13
12. I find it difficult to agree with this organisation's policies on important matters relating to its employees.*	444	444	204	408	163	489	1341	1.65
13. I really care about the future of this organisation.	686	2058	107	214	20	20	2292	2.82
14. For me this is the best of all possible organisations to work for.	332	996	296	592	188	188	1776	2.18
15. I made the wrong decision to work for this organisation.*	79	79	180	360	556	1668	2107	2.59
Overall	6035	15263	2901	5802	3234	7656	28721	2.36

* These items are negatively worded. Therefore the value score is reversed for each of them where an agreement with the statement, a negative response is valued at one and disagreement, a positive response, is valued at three.

There is a wide variant between the lowest mean at 1.65 for item 12, which deals with the academics reaction towards the organisation's policies on important matters relating to its employees, and the highest mean at 2.86, for item 1 which deals with effort. This is a range of 1.21 between the lowest and the highest means indicating that a certain aspect of the organisation that the respondents are critical about and other aspect of which their commitment is unquestionable. The only other item whose mean is below the mid point of 2.00 is item 7. The response to this item, as already explained earlier, perhaps show a strong feeling of attachment to the vocation vis-à-vis the organisation. With the opening up of new universities and other institutions of higher learning in the country,

the response to item 7 indicates that despite the high level of organisational commitment shown by the academics in response to the questionnaire, there is also a warning of their willingness to work somewhere else to perform similar job.

It is significant to note that in this section of the questionnaire that is devoted to commitment, the academics have shown to have a high regard for their organisation. There is little indication to show, as can be observed in Table 7.17 that there is a lack of commitment by the academics towards their organization. This despite a strong indication of critical feelings on attitude towards pay and not entirely positive attitude on the promotion policy (see evaluation on attitudes towards pay and the promotion system in section 6.3 and 6.4 of Chapter 6). These results suggest that intrinsic work values relate more closely to organisational commitment than extrinsic work values. This however should not be interpreted that the academic work force could not be tempted to leave the organization. The responses shown on the sections on attitudes towards pay and the promotion system could be the push factors (explained in section 1.2 of Chapter 1) that could drive them to leave.

7.18 EVALUATIONS OF VARIABLES

The summary of the importance of the variables analysed above is described below. The mean scores have been recalculated to standardize the scores on the negatively and positively worded statements on a scale of one to three, with three being high for a favourable answer, two for uncertain and one for unfavourable answer.

7.18.1 Age

In the variable of age the means range from low of 1.65 to a high of 2.86. Generally organisational commitment appears to be at its highest with the less than 30 group. It dips before rising in the after 40 years and older group though not to the level of the less than 30 group. The 31-40 group seems to be more unsatisfied as the overall mean level shows in Table 7.18.1. The difference in range of 1.14 (2.86-1.72) for the more than 40

group shows it has less variance in response than the other two groups with both having identical range of 1.24.

Table 7.18.1: Scores reevaluated-Age

Item	Age group	< 30 Mean	31-40 Mean	>40 Mean	Overall item's mean
1. I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.		2.89	2.86	2.86	2.87
2. I believe this organisation is a good organisation to work for.		2.84	2.71	2.73	2.76
3. <i>I have little loyalty for this organisation.</i>		2.58	2.61	2.70	2.63
4. I would accept almost any type of assignment in order to keep working for this organisation.		2.21	2.18	2.29	2.23
5. I believe that my values and the organisation's values are very similar.		2.45	2.27	2.32	2.35
6. <i>I am proud to tell others that I am part of this organisation.</i>		2.83	2.71	2.56	2.73
7. I could just as well be working for a different organisation as long as the type of work was similar.		1.90	1.94	2.07	1.96
8. <i>This organisation inspires the very best in me in the way I perform my job.</i>		2.32	1.95	2.12	2.13
9. It would take very little change in my present circumstances to cause me to leave this organisation.		1.89	2.03	2.04	2.01
10. I am glad that I chose this organisation instead of others considered before I joined this organisation.		2.59	2.41	2.41	2.47
11. <i>There is not much to be gained by staying with this organisation indefinitely.</i>		2.22	2.08	2.19	2.13
12. <i>I find it difficult to agree with this organisation's policies on important matters relating to its employees.</i>		1.67	1.62	1.72	1.65
13. I really care about the future of this organisation.		2.81	2.82	2.83	2.82
14. For me this is the best of all possible organisations to work for.		2.13	2.17	2.22	2.17
15. <i>I made the wrong decision to work for this organisation.</i>		2.72	2.56	2.54	2.58
Overall		2.40	2.33	2.38	2.37

Items in *Italic* have significance levels that indicate the presence of statistical relationship with age.

Six items in *Italic* in Table 7.18.1, have significance levels that indicate the presence of statistical relationship with age. In item 3 (loyalty), where the significance level is below .04, the degree of loyalty seems to increase with age. The more than 40 group having the highest level of mean also has a standard deviation which is more clustered around the mean. The mean scores for item 6, show declining in pride towards the organisation as

age increases. The standard deviations also provide the indication that the higher the age group is the less clustered is the score around the mean.

How one perceives the organisation as an inspiration in the manner one does one's job (item 8) is highly likely to be dependent on age as the significance below .01 suggests. The less than 30 group is more agreeable with the statement and has a standard deviation smaller than the other two. The 31- 40 group has the lowest mean score to indicate that it looks towards the organisation less as an inspiration compared to the other two.

With the significance level at .01, the mean scores showing the 31-40 group to be less enthusiastic than the other groups in terms of staying indefinitely with the organisation (item 11) do not occur by chance. The general consensus for age with regard to item 12 is that there is a feeling of unhappiness with the manner of the organisation's treatment of its employees. It is not by chance that this is felt more by those in the 31-40 group as the Pearson chi-square significance level test is .03. The significance test at .04 proves that as age increases there is less conviction on the decision to work for the organisation to be the right decision (item 15).

On the basis of the six items discussed above which have a statistical relationship with age, the 31-40 group seems to be less committed. In three of the six items the group express more dissatisfaction than the other two groups. Commitment also appears to be higher among the younger staff as the less than 30 years age group shows where in four of the six items they display higher mean levels than the other two groups. Of the remaining nine items that have significance levels too high to accept the presence of statistical relationship with age, the 31-40 group generally shows a lower level of commitment. in three of them and sharing the same low level with the more than 40 group in two.

7.18.2 Tenure

Table 7.18.2: Scores reevaluated -Tenure

Item	Tenure					Overall item's mean
	< 1	1- 2	3-5	6-10	> 10	
1. I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.	2.93	2.85	2.88	2.87	2.84	2.86
2. I believe this organisation is a good organisation to work for.	2.91	2.79	2.75	2.73	2.70	2.78
3. <i>I have little loyalty for this organisation.</i>	2.69	2.64	2.59	2.54	2.73	2.63
4. I would accept almost any type of assignment in order to keep working for this organisation.	2.33	2.32	2.13	2.20	2.24	2.21
5. I believe that my values and the organisation's values are very similar.	2.46	2.49	2.32	2.27	2.27	2.36
6. <i>I am proud to tell others that I am part of this organisation.</i>	2.86	2.90	2.71	2.73	2.65	2.72
7. I could just as well be working for a different organisation as long as the type of work was similar.	1.93	1.97	1.93	1.94	2.00	1.96
8. <i>This organisation inspires the very best in me in the way I perform my job.</i>	2.53	2.35	2.13	2.06	2.03	2.11
9. It would take very little change in my present circumstances to cause me to leave this organisation.	1.93	1.81	2.01	2.01	2.07	2.01
10. <i>I am glad that I chose this organisation instead of others considered before I joined this organisation.</i>	2.65	2.71	2.42	2.43	2.37	2.44
11. <i>There is not much to be gained by staying with this organisation indefinitely.</i>	2.46	2.03	2.18	2.07	2.11	2.13
12. I find it difficult to agree with this organisation's policies on important matters relating to its employees.	2.00	1.61	1.58	1.63	1.68	1.65
13. I really care about the future of this organisation.	2.83	2.84	2.76	2.83	2.83	2.82
14. For me this is the best of all possible organisations to work for.	2.30	2.27	2.11	2.21	2.13	2.17
15. I made the wrong decision to work for this organisation.	2.72	2.77	2.57	2.59	2.53	2.59
Overall	2.50	2.42	2.34	2.34	2.34	2.36

Items in *Italic* have significance levels that indicate the presence of statistical relationship with tenure.

Table 7.18.2 shows that the level of commitment based on tenure is at its highest when the academics are in their first year. The level dips after the first year and maintains between three and five years till more ten years of service. The less than one year group has the least dispersion in range (1.00) indicating it is more consistent in its response to the 15 items, while the 3-5 years group which has a dispersion range of 1.30 varies more in its response than other groups.

Based on the Pearson chi-squared test, of the fifteen items asked in the organisational commitment questionnaire, a statistical relationship with tenure can be found in five (5) of them.

In item 3, loyalty to ITM tends to decrease as tenure increases though it (loyalty) increases again later as indicated by the means for the over ten years group. A similar pattern is found in the response to item 6 where the mean level shows that there is a decrease in the feeling of pride as tenure increases, though there is a slight rise in the 6-10 years group. A negative relationship can be observed for item 8 in which the mean columns indicate that as tenure increases, the influence of the organisation as an inspiration becomes less. The standard deviation indicates more dispersion around the mean as tenure increases. In item 10, after the second year of service and beyond, the longer one serves the more reservation one seems to show regarding the correctness of the decision to work for the organisation. For item 11, after one year of service there is a sudden drop in optimism about staying indefinitely in the organisation though a slight increase can be found among those between 3-5 years and after ten.

7.18.3 Gender

In terms of the overall mean, the female academics appears slightly less committed than their male counterparts. Table 7.18.3 shows that they are also less consistent in the response as reflected in their range 1.27 showing more variant than the males (1.13). In the five items that have significance levels indicating a strong possibility of statistical relationship, the degree of commitment of males is higher.

Males appear more willing to accept any assignment is higher than females' (item 4). Such factors as females social position domestically perhaps demonstrate that in the context of posting they are less mobile than males. Males seem to feel more that their values with the organisation are similar (item 5) and compared with females, tend to be more inspired by the organisation (item 8). They also find it less difficult to agree with the organisation's policies on important matters relating to its employees (item 12). Thus

it is not surprising to find the males are more convinced than the females that the organisation they work for is the best (item 14).

Even though the other items do not have significance levels to indicate a statistical relationship with gender, generally it can be noted that the males show more commitment than females in all items except for item 2, where they (females) are more convinced that the institute is a good organisation to work for and thus for item 15, are more convinced that they made the right decision to work for the Institute.

Table 7.18.3: Scores reevaluated-Gender

Item	Males	Females	Overall item's mean
1. I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.	2.86	2.86	2.86
2. I believe this organisation is a good organisation to work for.	2.72	2.76	2.74
3. I have little loyalty for this organisation.	2.64	2.62	2.63
4. I would accept almost any type of assignment in order to keep working for this organisation.	2.31	2.12	2.21
5. I believe that my values and the organisation's values are very similar.	2.38	2.25	2.31
6. I am proud to tell others that I am part of this organisation.	2.73	2.71	2.72
7. I could just as well be working for a different organisation as long as the type of work was similar.	2.01	1.92	1.96
8. This organisation inspires the very best in me in the way I perform my job.	2.20	2.02	2.11
9. It would take very little change in my present circumstances to cause me to leave this organisation.	2.01	2.01	2.01
10. I am glad that I chose this organisation instead of others considered before I joined this organisation.	2.46	2.43	2.44
11. There is not much to be gained by staying with this organisation indefinitely.	2.18	2.08	2.13
12. I find it difficult to agree with this organisation's policies on important matters relating to its employees.	1.73	1.59	1.66
13. I really care about the future of this organisation.	2.83	2.81	2.82
14. For me this is the best of all possible organisations to work for.	2.27	2.09	2.18
15. I made the wrong decision to work for this organisation.	2.54	2.62	2.58
Overall	2.40	2.33	2.36

Items in *italic* have significance levels that indicate the presence of statistical relationship with gender.

7.18.4 Educational Qualifications

The commitment level of those with Master/Post Graduate Diploma and Professional (M/PGD/P) qualifications is the lowest among the three groups measured. However the difference between the overall means of each of the three educational groups is not that great with only .05 separating the overall commitment level of the M/PGD/P and that of the doctorate group which has the highest level of commitment. Nevertheless as can be observed in Table 7.18.4, the variance between each individual item or statement and educational qualifications is wide. Those with doctorates have the lowest difference (0.9) in range in response to the 15 items (2.88-1.98), compared with the highest difference (1.25) for the M/PGD/P group (2.86-1.61).

The overall mean level of the M/PGD/P group does not necessarily mean its commitment to the organisation is low. In the six items with significance levels indicating that there is a statistical relationship with educational qualifications, the mean level of the M/PGD/P group is highest in two of them. The M/PGD/P group shows its levels of loyalty (item 3) and care (item 13) towards the organisation to be the highest among the three. However in two other items, the group displays the lowest levels of commitment. It is least willing among the groups to accept any type of assignment for the sake of working with the organisation (item 4) and also finds it most difficult to agree with the organisation's policies on important matters relating to its employees (item 12). A negative correlation appears to be present in item 2 where the higher the qualification a person has the less good he/she feels the organisation is to work for. A similar relationship is also found in item 10 where the higher the qualification a person has the less happy he/she is to be over the decision made to join the organisation.

In other items of the organisational commitment questionnaire, where the significance levels are not strong enough to indicate statistical relationship with educational qualifications, the M/PGD/P group displays the lowest commitment in five of them. These involve items on effort (item 1), values (item 5), the organisation as an inspiration (item 8), indefinite stay (item 11) and best possible organisation (item 14). The PhD group expresses high commitment relating to 5 items covering effort (item 1), working

for a different organisation (item 7), finding the organisation as an inspiration (item 8), leaving and indefinite stay (items 9 and 11). Those with first degree qualification, express the highest commitment in values (item 5), pride in the organisation (item 6), the institute as the best possible organisation (item 14) and the right decision to work for the organisation (item 15).

Table 7.18.4: Scores reevaluated-Educational qualifications

Item	B	M /PGD/P	Ph.D	Overall item's mean
1. I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.	2.87	2.86	2.88	2.86
2. I believe this organisation is a good organisation to work for.	2.82	2.71	2.61	2.74
3. I have little loyalty for this organisation.	2.48	2.70	2.54	2.63
4. I would accept almost any type of assignment in order to keep working for this organisation.	2.29	2.17	2.39	2.22
5. I believe that my values and the organisation's values are very similar.	2.38	2.28	2.35	2.31
6. I am proud to tell others that I am part of this organisation.	2.74	2.72	2.55	2.72
7. I could just as well be working for a different organisation as long as the type of work was similar.	1.91	1.98	2.05	1.96
8. This organisation inspires the very best in me in the way I perform my job.	2.19	2.05	2.29	2.11
9. It would take very little change in my present circumstances to cause me to leave this organisation.	1.95	2.03	2.12	2.01
10. I am glad that I chose this organisation instead of others considered before I joined this organisation.	2.61	2.38	2.35	2.44
11. There is not much to be gained by staying with this organisation indefinitely.	2.15	2.11	2.24	2.13
12. I find it difficult to agree with this organisation's policies on important matters relating to its employees.	1.65	1.61	1.98	1.65
13. I really care about the future of this organisation.	2.77	2.84	2.83	2.82
14. For me this is the best of all possible organisations to work for.	2.27	2.13	2.22	2.17
15. I made the wrong decision to work for this organisation.	2.66	2.56	2.46	2.58
Overall	2.38	2.34	2.39	2.37

Items in *italic* have significance levels that indicate the presence of statistical relationship with educational qualifications.

Overall it can be concluded that organisational commitment is highest among those with doctorate qualification and that those with Bachelor qualification appears to be more committed than those with Master/Postgraduate diploma and professional qualifications.

7.19 SUMMARY

Certain key points are noted in the evaluation of the response to organisational commitment questionnaire according to the variables above. The variables develop into certain patterns that may affect the levels of organisational commitment. There is a tendency for organisational commitment to be less amongst the 31-40 age group. The indication as can be observed in table 7.18.1 shows that commitment to the organisation is highest among the less than 30 age group. The consistency is further shown in tenure. The mean levels show that organisational commitment is at its highest when employees are in their first year. There after the mean levels as shown in table 7.18.2 indicate that commitment decreases as tenure increases. The commitment of males towards the organisation they work for is higher than that of the females. However as Table 7.18.3 shows, females find ITM more a good organisation to work for than males. In the variable of Educational Qualifications, The highest level of commitment can be found among those with doctorate degree. Those grouped under Master/Postgraduate Diploma/Professional qualification have less commitment than those with bachelor's degree.

As the organisational commitment questionnaire consists of fifteen items or variables, there maybe a possibility they will all be correlated with each other and thus some variables will be measuring the same factors. The aim now is to condense the fifteen items into a manageable number of organisational commitment factors. To identify which are measuring the same factors, or which factors overlap, the Factor Analysis statistical technique is used. This is done in the next chapter. Multiple Regression statistical technique will later be used to determine which variables are more important as determinants of organisational commitment.

REFERENCES

- Everitt, BS(1980), *Cluster Analysis*, 2nd ed. London: Heineman Educational Books Ltd.
- Hunt, SD; Wood, VR and Chonko, LB (1989), "Corporate Ethical Values and Organizational Commitment in Marketing" *Journal of Marketing*, 53, (3) pp. 79-90.
- Leong, S.M; Randall, DM; and Cote, J.A (1994), "Exploring the Organizational Commitment-Performance Linkage in Marketing: A Study of Life Insurance Salespeople" *Journal of Business Research*, 29 (1), pp. 57-63.
- Levinson, H; Price, CR; Munden, KJ; Mandl, HJ and Solley, CM (1962), "Men, Management and Mental Health", Cambridge, Harvard University Press.
- Meglino. BM.; Ravlin, EC and Adkins, CL (1989), "A Work Value Congruence Process and Its Relationship to Individual Outcomes", *Journal of Applied Psychology*, 74 (3), pp. 424-432.
- Mowday, RT; Porter, LW and Steers, RM (1982), "*Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*", Academic Press, New York.
- Mowday, RT; Steers, RM and Porter, LW (1979), "The Measurement of Organizational Commitment", *Journal of Vocational Behavior*, 14, pp. 224-247.
- Norusis, MJ (1993) *SPSS for Windows: Professional Statistics, Release 6.0*, Chicago: SPSS Inc.
- Porter, LW and Smith, FJ (1970), *The Etiology of Organizational Commitment*, University of California, Irvine.

Porter, LW, Crampton WJ and Smith FJ (1976), "Organizational Commitment and Managerial Turnover: A Longitudinal Study" *Organizational Behavior and Human Performance*, 15, pp. 87-98.

FACTOR ANALYSIS

8.1 INTRODUCTION

The concept of organisational commitment consists of a number of different aspects. Organisational commitment refers to various feelings employees have towards their organisation. In this research, the attitude towards the organisation are spelled out in the respondents reaction to the fifteen items asked on organisational commitment. If these different items or components that make up organisational commitment contribute to the employees' judgment of how committed they are to the organisation, it is expected that the items are interrelated. To determine this, the respondents are asked to describe their feelings towards their organisation in terms of the items in the questionnaire and to see to what extent those aspects which reflect commitment are correlated with one another.

Characteristics which go together constitute a factor and Factor Analysis refers to a number of statistical techniques that help to determine these characteristics. Factor analysis techniques are used for the purpose of assessing the degree to which items are tapping the same concept. If participants respond in similar ways in, for example three of the fifteen questions or items, it implies that these three items are not seen as being conceptually distinct by the respondents. If however their answers are unrelated, the suggestion is that their feeling towards the three items can be distinguished. The implication here is factor analysis makes it possible to assess the factorial validity of the questions by clarifying the extent to which they seem to be measuring the same concepts or variances.

Also through the use of factor analysis, large number of variables can be reduced to a smaller set. To analyse the relationship of the variables to the items on organisational commitment would mean conducting fifteen (15) separate analyses as there are fifteen items in the questions on the intended subject. This

poses a major disadvantage as it would make it more difficult to understand the findings since those interested would have to bear the results of the fifteen different tests on the variables concerned.

In relation to the above, another purpose of factor analysis is to try to make sense of the complexity of the subject, in this case organisational commitment, by reducing it to a number of factors.

Factor analysis is thus a tool for bringing to order the way analysts see the issues by determining which of the items are related and which are not. The exploratory method of factor analysis is used for this research. This is the most commonly reported kind in which the relationships between various variables are examined without determining to which results fit a particular model (Bryman and Cramer, 1990).

8.1.1 Correlation Matrix

The initial step is to compute a correlation matrix for the fifteen items or variables which make up organisational commitment. If there is no significant correlation between these items, then it means that they are unrelated and the expectation is the items would not form one or more factors and thus conducting the research further using factor analysis would be futile. Consequently computing a correlation matrix is the first stage in deciding whether to carry on the research using this method. The correlation matrix for these items and their significance levels are shown in Tables 8.1.1 and 8.1.1A respectively.

All but 12 of the related variables are significantly correlated at less than 0.05 at the 95% confidence level with one another (see Table 8.1.1A). Thus the probability is very high to indicate that the items may constitute one or more factors.

Table 8.1.1: Correlation Matrix

Items	1	2	3	4	5	6	7	8
1	1.00000							
2	.32253	1.00000						
3	-.18638	-.20837	1.00000					
4	.16672	.04883	.00567	1.00000				
5	.13941	.31904	-.07846	.24203	1.00000			
6	.23187	.39265	-.20027	.17644	.35239	1.00000		
7	-.04208	-.15099	.20679	-.02275	-.08922	-.16940	1.00000	
8	.11007	.24351	-.06261	.27763	.33735	.30315	-.12231	1.00000
9	-.07152	-.08450	.14583	.05562	.01954	-.03027	.17523	.02981
10	.19097	.37991	-.13906	.20859	.31054	.44374	-.19317	.37814
11	-.11664	-.23469	.27278	-.06122	-.15757	-.26718	.23570	-.30286
12	.02032	-.16081	.12184	-.10591	-.23992	-.18137	.15564	-.27930
13	.030536	.22534	-.20598	.13938	.16346	.24455	-.10429	.12223
14	.17008	.34123	-.05278	.26898	.29668	.28856	-.11049	.42749
15	-.08810	-.31110	.21561	-.04215	-.15743	-.34756	.18042	-.26903
Items	9	10	11	12	13	14	15	
9	1.00000							
10	-.06339	1.00000						
11	.21731	-.36861	1.00000					
12	.10749	-.27128	.41559	1.00000				
13	-.13925	.24709	-.20384	-.09750	1.00000			
14	.00725	.47011	-.26028	-.27218	.26674	1.00000		
15	.11392	-.41309	.35036	.24147	-.21280	-.29438	1.00000	

Table 8.1.1A: Significance Matrix

Items	1	2	3	4	5	6	7	8
1	.							
2	.00000	.						
3	.00000	.00000	.					
4	.00000	.08807	.43768	.				
5	.00005	.00000	.01480	.00000	.			
6	.00000	.00000	.00000	.00000	.00000	.		
7	.12191	.00001	.00000	.26437	.00666	.00000	.	
8	.00112	.00000	.04136	.00000	.00000	.00000	.00034	.
9	.02371	.00955	.00002	.06164	.29423	.20095	.00000	.20454
10	.00000	.00000	.00005	.00000	.00000	.00000	.00000	.00000
11	.00060	.00000	.00000	.04490	.00001	.00000	.00000	.00000
12	.28682	.00000	.00035	.00164	.00000	.00000	.00001	.00000
13	.00000	.00000	.00000	.00005	.00000	.00000	.00190	.00034
14	.00000	.00000	.07182	.00000	.00000	.00000	.00108	.00000
15	.00726	.00000	.00000	.12151	.00001	.00000	.00000	.00000
Items	9	10	11	12	13	14	15	
9	.							
10	.03949	.						
11	.00000	.00000	.					
12	.00142	.00000	.00000	.				
13	.00005	.00000	.00000	.00341	.			
14	.42049	.00000	.00000	.00000	.00000	.		
15	.00078	.00000	.00000	.00000	.00000	.00000	.	

The items numbered above are based on statements on organisational commitment questionnaire and are repeated below. Statements that are marked with an asterisk are negatively worded.

1. Effort

I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.

2. Good organisation

I believe this organisation is a good organisation to work for.

3. Loyalty

*I have little loyalty for this organisation.**

4. Assignment

I would accept almost any type of assignment in order to keep working for this organisation.

5. Values

I believe that my values and the organisation's values are very similar.

6. Pride

I am proud to tell others that I am part of this organisation.

7. Working elsewhere

*I could just as well be working for a different organisation as long as the type of work was similar.**

8. Inspiration

This organisation inspires the very best in me in the way I perform my job.

9. Leaving the organisation

*It would take very little change in my present circumstances to cause me to leave this organisation.**

10. Right choice

I am glad that I chose this organisation instead of others considered before I joined this organisation.

11. Indefinite stay

*There is not much to be gained by staying with this organisation indefinitely.**

12. Employees' matters

*I find it difficult to agree with this organisation's policies on important matters relating to its employees.**

13. Organisation's future

I really care about the future of this organisation.

14. Best organisation

For me this is the best of all possible organisations to work for.

15. Wrong decision

*I made the wrong decision to work for this organisation.**

8.1.2 Sample Size

The size of the sample has a bearing on the reliability of the factors that have been derived from a factor analysis. It has to be stressed here that there is no consensus on what this should be. Gorsuch (1983), for example, has proposed an absolute minimum of five subjects per variable and not less than 100 individuals per analysis. While it is possible to apply factor analysis on samples smaller than this to assess the relationships between the variables, not much confidence should be placed that these same factors would emerge in a second sample. Thus, if the primary aim of a research is to decide the factors underlying a group of variables, it is important that the sample should be sufficiently large to allow this to be reliably carried out. The 818 respondents that took part in this research is large enough for the analysis to be reliable.

8.1.3 Principal Components

One of the most widely used forms of factor analysis is Principal Components Analysis (PCA).

The primary concern of factor analysis is to describe the variation or variance shared by the scores of participants on three or more variables. This variance is called the *common variance*. It is important to distinguish it from two other types of variance. *Specific variance* describes the variation which is specific or unique to a variable and which is not shared with any other variable. Error variance refers to the variation that exists as a result of fluctuations due inevitably from measuring something using different scales. The total variance is hence found in the scores of a test or item to assess a particular variable can be divided into common, specific and error variance:

$$\text{Total variance} = \text{Common variance} + \text{Specific variance} + \text{Error variance}$$

As factor analysis cannot distinguish specific from error variance, these variances are combined to form unique variance. As a result, the total variance of a tests comprises its common and its unique variance.

In PCA, all the variance of a score or variable is analyzed, including its unique variance. The assumption is that the test applied to assess the variable is perfectly reliable and without error.

Since PCA examines the total variance of a test, this is set at 1. The variance for a test to be explained is known as communality. The first component or axis that is extracted accounts for the largest amount of variance shared by the tests. The second factor consists of the next largest amount of variance which is not related to or explained by the first factor. In other words these two factor are unrelated or orthogonal to one another. The third factor extracts the next largest amount of

variance, and so on. There are as many factors as variables, although the degree of variance which is explained by successive factors become smaller and smaller. In other words, the first few factors are the most important ones.

Table 8.1.3: Initial Statistics

Items	Communality	Factor	Eigenvalue	Variance %	Cum. %
1	1.00000	1	4.02238	26.8	26.8
2	1.00000	2	1.52176	10.1	37.0
3	1.00000	3	1.28539	8.6	45.5
4	1.00000	4	.98310	6.6	52.1
5	1.00000	5	.88079	5.9	58.0
6	1.00000	6	.82771	5.5	63.5
7	1.00000	7	.81860	5.5	68.9
8	1.00000	8	.72362	4.8	73.8
9	1.00000	9	.70492	4.7	78.5
10	1.00000	10	.64289	4.3	82.7
11	1.00000	11	.59278	4.0	86.7
12	1.00000	12	.55885	3.7	90.4
13	1.00000	13	.50635	3.4	93.8
14	1.00000	14	.49367	3.3	97.1
15	1.00000	15	.43721	2.9	100.0

The output showing the initial factors produced by PCA (using SPSS for Window) of organisational commitment and the amount of variance accounted for the eigenvalue is as shown in Table 8.1.3. The table shows that the variance accounted by the first factor is 4.02238 or 26.8% of the total variance. The total variance explained by the 15 factors is simply the sum of their eigenvalues, which in this case is 15. The proportion of variance accounted for by any one factor is its eigenvalue divided by the sum of the eigenvalues, and then converted to percentage. For example the proportion of variance accounted to the first factor is 4.02238 out of 15 (4.02238/15) or 26.8%.

8.1.4 Number of Factors to be Considered

The objective of factor analysis is to reduce the number of variables. Since the first few which explain most of the variance would be kept, the decision now is to decide on how many of the smaller factors to keep. The Kaiser criterion selects those factors which have an eigenvalue of greater than one (Bryman and Cramer, 1990). This is produced by SPSS by default. Since the total variance

that any one variable can have has been standardized as one, what this means, in effect, is that a factor which explains less variance than a single variable is excluded. The Kaiser criterion has been recommended for situations where the number of variables is less than 30 or when the subject is greater than 250 (Bryman and Cramer, 1990).

Thus in this case three factors are derived from PCA. These are shown in Table 8.1.4. The relationship between each variable or test and a factor is expressed as a correlation or loading. The variables have been listed in terms of size of their loadings on the factor to which they are most closely related.

Table 8.1.4: Item loading on first three principal components

Items	Factor 1	Factor 2	Factor 3
10	.72203	.09888	-.07525
6	.64669	.06689	.15115
14	.64032	.30902	-.07480
2	.60965	-.03424	.28170
11	-.59290	.33843	.31682
8	.59277	.33752	-.26402
15	-.58636	.19915	.15134
5	.53003	.34190	.00911
13	.46047	-.13136	.44465
9	-.17093	.58999	.00604
3	-.35603	.50087	-.20843
4	.32953	.49574	.08383
7	-.34010	.39658	.16686
1	.38104	-.01456	.67167
12	-.48585	.07982	.50165

The proportion of variance explained by the common factors is called the communality of the variable. The communalities for the variables are shown in Table 8.1.4A, together with the percentage of variance accounted for by each of the retained factors. This table is called Final Statistics, since it displays the communalities and factor statistics after the desired numbers of factors has been extracted. When factors are estimated using the method of Principal Components, the factor statistics are the same in the table for Initial Statistics (Table 8.1.3) and Final Statistics. However, the communalities are different, since all of the variances of the variables are not explained. Hence only a subset of factors is retained.

Table 8.1.4A: Final Statistics

Items	Communality	Factor	Eigenvalue	Variance %	Cum. %
1	.59655	1	4.02238	26.8	26.8
2	.45220	2	1.52176	10.1	37.0
3	.42107	3	1.28539	8.6	45.5
4	.36137				
5	.39791				
6	.44553				
7	.30079				
8	.53500				
9	.37734				
10	.53676				
11	.56644				
12	.49408				
13	.42700				
14					
15					

8.1.5 Factor Rotation

The first factors extracted from an analysis are those which account for the maximum amount of variance. As a result of this, what they represent is difficult to interpret since items will not correlate as highly with them as they might. In order to increase the interpretability of factors, they are rotated to maximize the loadings of some of the items. These are items that can then be used to identify the meaning of the factor.

The orthogonal rotation of the three principal-component factors using the varimax method, is shown in Table 8.1.5. The variables which load most strongly on factor one are clustered together first and are listed in terms of the size of their correlations. The variables which correlate most strongly with factor two form the second group of that factor and like wise those that correlate most strongly with factor three the third group of that factor. To identify the factors, it is necessary to group the variables that have large loadings for the same factors. A convenient to decide on this is to sort the factor pattern matrix so that variables with high loadings on the same factors appear together as shown in Table 8.1.5. Small factor loadings can be omitted from the table. In Table 8.1.5 no loading less than 0.5 in absolute value are displayed in bold letters. The 0.5

cut off point is the standard default used in the *Factor Analysis* package within SPSS.

The clustering of the variables according to the respective factors as shown in Table 8.1.5 implies that the respondents' answer to items which constitute factor one to be not related to the way they answer factor two or three. In other words the response to one factor is not related with that to another factor. Thus the aspect of a strong belief in and acceptance of organisational goals and values does not relate either to the aspect of a strong desire to maintain membership in the organisation or the aspect of exerting considerable energy on behalf of the organisation. Hence the three aspects seem to be factorially distinct.

Table 8.1.5: Rotated Matrix-Item loadings on orthogonally rotated factors

Items	Factor 1	Factor 2	Factor 3
8. This organisation inspires the very best in me in the way I perform my job.	.71676	-.14138	-.03565
14. For me this is the best of all possible organisations to work for.	.68832	-.11216	.15726
10. I am glad that I chose this organisation instead of others considered before I joined this organisation	.62066	-.31500	.22875
5. I believe that my values and the organisation's values are similar.	.60516	.00159	.17803
4. I would accept almost any type of assignment in order to keep working for this organisation.	.53088	.24995	.13060
6. I am proud to tell others that I am part of this organisation.	.48878	-.21223	.40197
11. There is not much to be gained by staying in this organisation indefinitely.*	-.31476	.68273	-.03520
9. It would very little change in my present circumstances to cause me to leave this organisation.	.23266	.54213	-.17120
7. I could just as well be working for a different organisation as long as the type of work was similar.	-.05257	.54160	-.06854
15. I made the wrong decision to work for this organisation.*	-.35464	.50668	-.15464
12. I find it difficult to agree with this organisation's policies on important matters relating to its employees.*	-.43881	.50329	.21959
3. I have little loyalty for this organisation.*	.09194	.48119	-.42553
1. I am willing to put in more effort than normally expected of me in order to help this organisation to be successful.	.11138	.06417	.76159
13. I really care about the future of this organisation.	.15513	-.15541	.61545
2. I believe this organisation is a good organisation to work for.	.36676	-.21984	.51900

In deriving the rotated matrix, it is found that the three factor groups of the 15 items are clustered as shown according to each factor discussed. The following analyses are divided into the three organisational commitment factors as determined. In each of the three factors, responses are analysed according to the factor scores based on the system of given in Table 8.1.5A below. The factor scores provide a measure of 'organisational commitment' for each respondent based on their responses to variables within each factor. For example a high negative score would account for a respondent who has answered negatively in terms of organisational to most or all of the relevant variables.

Table 8.1.5A Negative and positive commitments factor score

Level		Factor Score
Negative Commitment	High	-1.00 to -2.76
	Low	-0.003 to -0.99
Positive Commitment	Low	0.01 to 0.99
	High	1.00 to 2.12

8.2 FACTOR ONE - A Strong Belief in and Acceptance of Organisational Goals and Values

The items included in Factor One are shown in Table 8.2. The grouping of the items in Factor One coincides with one of the aspects of the definition of organisational commitment by Porter and Smith (1970). This concerns the aspect of a strong belief in and acceptance of organisational goals and values.

Table 8.2: Factor One- A strong belief in and acceptance of organisational goals and values

Item	Factor 1
8. Inspiration This organisation inspires the very best in me in the way I perform my job.	.71676
14. Best organisation For me this is the best of all possible organisation to work for.	.68832
10. Right choice I am glad that I chose this organisation instead of others considered before I joined this organisation.	.62066
5. Values I believe that my values and the organisation's values are very similar.	.60516
4. Assignment I would accept almost any type of assignment in order to keep working for this organisation.	.53088

On the basis of their combined responses, the negatively committed cases frequency for Factor One, as shown in Table 8.2A amount to 366 of the 766 valid cases. This amounts to quite a high percentage of 47.8%. However, of the 366 cases who express negative organisational commitment the majority or 62.8% display low level of negative commitment. Some 400 of the respondents or 52.2% of the valid cases show positive commitment to the organisation. However, of these 261 or 65.2% display low positive commitment. At the extremes, 17.8 % of respondents display a high level of negative commitment and although almost similar percentage display high level of positive commitment, the majority of cases (491 or 64%) are clustered in the middle with low levels of commitment either negative or positive.

Table 8.2A: Factor One score - A strong belief in and acceptance of organisational goals and values.

Levels of Commitment		Factor score	Frequency	Frequency %	Valid %	Cumulative %
Negative Commitment	High	-1.00 to -2.76	136	16.6	17.8	17.8
	Low	-0.003 to - 0.99	230	28.1	30.0	47.8
Positive Commitment	Low	0.01 to 0.99	261	31.9	34.1	81.9
	High	1.00 to 2.12	139	17.0	18.1	100.0
Missing			52	6.4	-	
Total			818	100.0	100.0	

The assessment of the score for Factor One according to the four demographic variables that will be hypothesised as described in the evaluation of organisational commitment in the last chapter is discussed below.

8.2.1 Age

Overall it is noted in Table 8.2.1 that the percentage of positive commitment is higher than that of negative commitment. While the less than 30 age group and the more than 40 age group have higher percentages of positive commitment than negative commitment, for the 31-40 age group its percentage of negative commitment is higher. While the 31-40 age group has a higher overall percentage of negative commitment, the more than 40 age group has the greatest percentage

(22%) displaying high level of negative commitment. This compares with just 6% of the less than 30 age group.

Table 8.2.1: Frequency and percentage of organisational commitment for Factor One by age

Levels of Commitment	Factor Score	< 30	30 - 40	> 40	Row Total
High negative	-1.00 to -2.76	8	87	40	135
Low negative		6.0	19.4	22.2	17.7
High negative	-0.003 to - 0.99	42	142	44	228
Low negative		31.3	31.6	24.4	29.9
Overall negative commitment		50	229	84	363
		37.3	51.0	46.7	47.6
Low positive	0.01 to 0.99	56	153	52	261
High positive		41.8	34.1	28.9	34.2
High positive	1.00 to 2.12	28	67	44	139
Low positive		20.9	14.9	24.4	18.2
Overall positive commitment		84	220	96	400
		62.7	49.0	53.3	52.4
Col. Total		134	449	180	763

Missing observations: 55

With 62.7% of them in the category of positive commitment, the less than 30 age group seems to be more committed than the other two groups. The 31-40 age group percentage of positive commitment is the lowest. While the less than 30 age group has the greatest percentage displaying low levels of positive commitment, the more than 40 age group has the greatest percentage of showing high levels of positive commitment. Some 24% of the more than 40 age group appear highly positive committed. As such almost half of this group are in the extreme cases in terms of either negative or positive commitment.

Overall the table shows that the level of positive commitment is at its highest when the employees are young. It decreases when employees are between 31-40 and increases again after 40 but not to the high level as that of the less than 30 age group.

8.2.2 Tenure

Overall by tenure, the percentage of positive commitment is higher than negative commitment. However the negative percentages are higher than the positive percentages among the 6-10 years and the more than ten years of service groups. The overall pattern in Table 8.2.2 shows that commitment to the organisation decreases as tenure increases. This is particularly noticeable in the increase in the proportion displaying high levels of negative commitment from more than two years of service.

The pattern for overall positive commitment is reversed to that of negative commitment. Indicating that as years of service increase positive commitment decreases.

Table 8.2.2: Frequency and percentage of organisational commitment for Factor One by tenure

Levels of Commitment	Factor Score	< 1 Yr	1 - 2 Yrs	3 - 5 Yrs	6 - 10 Yrs	> 10 Yrs	Row Total
High negative	-1.00 to -2.76	2 4.9	2 3.3	26 16.7	46 17.7	60 24.3	136 17.8
Low negative	-0.003 to - 0.99	9 22.0	16 26.2	49 31.4	87 33.5	69 27.9	230 30.1
Overall negative commitment		11 26.8	18 29.5	75 48.1	133 51.2	129 52.2	366 47.8
Low positive	0.01 to 0.99	19 46.3	29 47.5	56 35.9	82 31.5	74 30.0	260 34.0
High positive	1.00 to 2.12	11 26.8	14 23.0	25 16.0	45 17.3	44 17.8	139 18.2
Overall positive commitment		30 73.2	32 70.5	81 51.9	127 48.8	118 47.8	399 52.2
Col. Total		41	61	156	260	247	765

Missing observations: 53

8.2.3 Gender

The strong belief in and acceptance of organisational goals and values which constitutes Factor One indicates that women generally are less committed to the organisation than men. Through the different levels for organisational commitment in the category of gender in factor one, the males consistently show

more commitment than the females. The overall percentage of females who are negatively committed is 52.3% compared to males at 42.7% (see Table 8.2.3). Also at the extremes, more females display high levels of negative commitment whilst more males display high levels of positive commitment.

Table 8.2.3: Frequency and percentage of organisational commitment for Factor One by gender

Levels of Commitment	Factor Score	Male	Female	Row Total
High negative	-1.00 to -2.76	54 14.4	80 20.6	134 17.6
Low negative	-0.003 to - 0.99	106 28.3	123 31.7	229 30.0
Overall negative commitment		160 42.7	203 52.3	363 47.6
Low positive	0.01 to 0.99	129 34.4	132 34.0	261 34.2
High positive	1.00 to 2.12	86 22.9	53 13.7	139 18.2
Overall positive commitment		215 57.3	185 47.7	400 52.4
Col. Total		375	388	763

Missing observations: 55

8.2.4 Educational Qualifications

In the category of educational qualifications the overall percentage of positive commitment of 52.4% is higher than negative commitment. A high percentage of concentration lies in low negative and low positive.

In analysing Factor One by the educational qualification variable, Table 8.2.4 shows that overall the percentage of positive commitment is highest among those with doctorate degree who also have the least percentage of staff categorised as negatively committed.

Table 8.2.4: Frequency and percentage of organisational commitment for Factor One by educational qualifications

Levels of Commitment	Factor Score	Bachelor Degree	Master/PGD/ Professional	Doctorate	Row Total
High negative	-1.00 to -2.76	22 9.6	109 22.0	4 11.4	135 17.7
Low negative	-0.003 to - 0.99	72 31.3	146 29.4	9 25.7	227 29.8
Overall negative commitment		94 40.9	255 51.4	13 37.1	362 47.6
Low positive	0.01 to 0.99	82 35.7	168 33.9	10 28.6	260 34.2
High positive	1.00 to 2.12	54 23.5	73 14.7	12 34.3	139 18.3
Overall positive commitment		136 59.1	241 48.6	22 62.9	399 52.4
Col. Total		230	496	35	761

Missing observations: 57

The pattern emerges in factor one shows M/PGD/P group percentages of negatively committed and positively committed are highest and lowest respectively throughout the different levels of factor one.

8.3 FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation

Table 8.3: Factor Two - A strong desire to maintain membership in the organisation

Item	Factor 2
11. Indefinite stay There is not much to be gained by staying with this organisation indefinitely.	.68273
9. Leaving It would take very little change in my present circumstances to cause me to leave this organisation.	.54213
7. Working elsewhere I could just as well be working for a different organisation as long as the type of work was similar.	.54160
15. Wrong decision I made the wrong decision to work for this organisation.	.50668
12. Employees' matters I find it difficult to agree with this organisation's policies on important matters relating to its employees.	.50329

The clustering of the items in Factor Two as shown, in Table 8.3, concerns the aspect of a strong desire to maintain membership in the organisation.

As indicated by Table 8.3A the negative commitment frequency for factor two amounts to 365 or 47.8% of the 763 valid cases and positive commitment amounts to 401 or 52.2%. Both the frequencies and percentages for negative and positive commitment for Factor Two are similar to factor one (see Table 8.2A). The distribution of cases according to the level of commitment in Factor Two are also quite similar to that of Factor One, indicating similarities in response to the two definitions of organisational commitment. Again the majority of cases (505) are clustered around the middle with low levels of commitment, either negative or positive. Some 16% display high levels of negative commitment in terms of their desire to maintain membership in the organisation. Almost similar percentage display high levels of positive commitment.

Table 8.3A: Factor Two score- A strong desire to maintain membership in the organisation

Levels of Commitment		Factor score	Frequency	Frequency %	Valid %	Cumulative %
Negative Commitment	High	-1.00 to -2.76	131	16.0	17.2	17.2
	Low	-0.003 to - 0.99	234	28.6	30.7	47.8
Positive Commitment	Low	0.01 to 0.99	271	33.1	35.5	83.4
	High	1.00 to 2.12	127	15.5	16.6	100.0
Missing			55	6.7	-	
Total			818	100.0	100.0	

8.3.1 Age

Overall by age the academics show to be more positively committed than negatively committed. This is testified to be the result that 52.3% who are positively committed against 47.7% who are negatively committed (Table 8.3.1).

Table 8.3.1: Frequency and percentage of organisational commitment for Factor Two by age

Levels of Commitment	Factor Score	< 30	30 - 40	> 40	Row Total
High negative	-1.00 to -2.76	22 16.5	76 16.9	33 18.5	131 17.2
Low negative	-0.003 to - 0.99	41 30.8	144 32.1	47 26.4	232 30.5
Overall negative commitment		63 47.3	220 49.0	80 44.9	363 47.7
Low positive	0.01 to 0.99	46 34.6	158 35.2	66 37.1	270 35.5
High positive	1.00 to 2.12	24 18.0	71 15.8	32 18.0	127 16.7
Overall positive commitment		70 52.7	229 51.0	98 55.1	395 52.3
Col. Total		133	449	178	760

Missing observations: 58

With 220 out of 449 or 49% within the group, the 31-40 age group has the highest percentage of staff that are negatively committed as shown in Table 8.3.1. The group with the least percentage that are negatively committed is the more than 40 age group with 80 out of 178, a percentage of 44.9%. However this group with 33 or 18.5% of its staff showing high negative commitment has the greatest percentage at this level. The range in difference in percentage between the highest and the lowest percentages of negative committed staff is 4.1 percentage points. Thus there is not much difference in the percentage between the different age groups for negative commitment.

A total of 397 or 52.2% of the 760 valid cases are positive about their commitment to the organisation. With 98 or 55.1% out of its 178 cases, the more than 41 age group has higher percentage of positive commitment than the other two age groups. The 31-40 age group with 51% has the least positive committed percentage. The less than 30 and the more than 40 age groups have both identical 18% who are highly committed. Only 4.1 percentage points separate the groups with the highest and lowest percentage positively committed to the organisation, similar to that in negative commitment.

With regard to organisational commitment being defined as a strong desire to maintain membership in the organisation, the 31-40 age group level of commitment is less compared to the other two age groups. Its percentages of negative and positive commitment is highest and lowest respectively. Overall there is little difference in commitment by age measured by this factor.

8.3.2 Tenure

The figures in Table 8.3.2 show that 365 or 47.9% of the respondents by tenure are negatively committed to the organisation from the aspect of a strong desire to maintain membership in the organisation. Negative commitment appears to increase as tenure increases, with the percentage at its highest between 6-10 years of service before dipping after ten years of service. The figures in the table also show those that have served one year in the organisation to have the least percentage of staff who are negatively committed towards the organisation. With 14 out of 30 or 46.7% of its negative committed cases in the high negative level the 1-2 years of service group has the highest percentage whose negative commitment is high.

Table 8.3.2: Frequency and percentage of organisational commitment for Factor Two by tenure

Levels of Commitment	Factor Score	< 1 Yr	1 - 2 Yrs	3 - 5 Yrs	6 - 10 Yrs	> 10 Yrs	Row Total
High negative	-1.00 to -2.76	4 9.8	14 23.0	27 17.3	48 18.5	38 15.5	131 17.2
Low negative	-0.003 to - 0.99	11 26.8	16 26.2	50 32.1	86 33.2	71 29.0	234 30.7
Overall negative commitment		15 36.6	30 49.2	77 49.4	134 51.7	109 44.5	365 47.9
Low positive	0.01 to 0.99	18 43.9	22 36.1	52 33.3	86 33.2	92 37.6	270 35.4
High positive	1.00 to 2.12	8 19.5	9 14.8	27 17.3	39 15.1	44 18.0	127 16.7
Overall positive commitment		26 63.4	31 50.8	79 50.6	125 48.3	136 55.5	397 52.1
Col. Total		41	61	156	259	245	762

Missing observations: 56

Overall the less than one year group has the highest percentage that are positively committed with 63.4% while the 6-10 years of service group the lowest. Table 8.3.2 shows that as tenure increases, the percentage of positive commitment decreases till between the 6-10 years service group. Even though the percentage increases after ten years of service, it is not as high as in the first year of service. The table also shows that the percentage of positively low commitment is higher than high positive commitment for every group.

8.3.3 Gender

Overall females tend to have a stronger desire to maintain membership in the organisation compared to males. This can be observed in Table 8.3.3 where it can be observed that females are less negative committed and more positively committed than males.

However in both negative and positive cases the percentages differ by only 2.3 percentage points. This is rather too marginal to show any difference in attitude between the gender. In the extreme cases the differences in both negative and positive cases are also marginal.

Table 8.3.3: Frequency and percentage of organisational commitment for Factor Two by gender

Levels of Commitment	Factor Score	Male	Female	Row Total
High negative	-1.00 to -2.76	63	68	131
Low negative		16.8	17.6	17.2
Overall negative commitment	-0.003 to - 0.99	120	112	232
		32.1	29.0	30.5
		183	180	363
		48.9	46.6	47.8
Low positive	0.01 to 0.99	130	140	270
High positive		34.8	36.3	35.5
Overall positive commitment	1.00 to 2.12	61	66	127
		16.3	17.1	16.7
		191	206	397
		51.1	53.4	52.2
Col. Total		374	386	760

Missing observations: 58

8.3.4 Educational Qualifications

Table 8.3.4: Frequency and percentage of organisational commitment for Factor Two by educational qualifications

Levels of Commitment	Factor Score	Bachelor Degree	Master/PGD/ Professional	Doctorate	Row Total
High negative	-1.00 to -2.76	42 18.3	85 17.6	4 11.4	131 17.3
Low negative	-0.003 to - 0.99	73 31.9	148 30.4	11 31.4	232 30.6
Overall negative commitment		115 50.2	233 47.2	15 42.9	363 47.9
Low positive	0.01 to 0.99	80 34.9	175 35.4	14 40.0	269 35.5
High positive	1.00 to 2.12	34 14.8	86 16.8	6 17.1	126 16.6
Overall positive commitment		114 49.8	261 52.8	20 57.1	395 52.1
Col. Total		229	494	35	758

Missing observations: 58

The doctorate group's percentage of negative commitment for Factor Two is the lowest as in Factor One (see Table 8.3.4), the bachelor degree group now has the highest percentage of negative commitment instead of the M/PGD/P group.

The trend shown in the Table 8.3.4, indicates the percentage of negative commitment falls as the level of educational qualification increases. The range drops from a high of 50.2 % among those with bachelor degree to 42.9% among those with doctorate. This is complemented on positive commitment, where the trend is reversed showing that the level increases with educational qualification. Thus organisational commitment indicated by strong desire to maintain membership in the organisation increases as the levels of educational qualification increases.

8.4 FACTOR THREE - The Willingness of Employees to Exert Considerable Energy on Behalf of the Organisation

The grouping of the third factor broadly coincides with the aspect of the definition of organisational commitment by Porter and Smith (1970) on items

relating to the willingness of employees to exert considerable energy on behalf of the organisation.

Table 8.4: Factor Three: The willingness to exert considerable energy on behalf of the organisation

Item	Factor 3
Effort I am willing to put in more effort than normally expected of me, in order to help this organisation to be successful.	.76159
Organisation's future I really care about the future of this organisation.	.61545
Good organisation I believe this is a good organisation to work for.	.51900

Table 8.4A: Factor Three score - The willingness to exert considerable energy on behalf of the organisation

Levels of Commitment		Factor score	Frequency	Frequency %	Valid %	Cumulative %
Negative Commitment	High	-1.00 to -2.76	78	9.5	10.5	10.5
	Low	-0.003 to - 0.99	192	23.5	25.7	36.2
Positive Commitment	Low	0.01 to 0.99	415	50.7	55.6	91.8
	High	1.00 to 2.12	61	7.5	8.2	100.0
Missing			72	8.8	-	
Total			818	100.0		

The negative commitment cases frequency for Factor Three amounts to 270 or 36.2% of the 746 valid cases as shown in Table 8.4A. For the positive commitment cases the percentage is at the satisfactory level of 63.8% to show more academics are positive in their commitment to their organisation through their willingness to exert considerable energy on behalf of the organisation. However as the Table 8.4 shows the level of high positive commitment is only 8.2% of the valid cases. Some 81% of respondents display low levels of commitment in terms of willingness to exert considerable energy on behalf of the organisation.

8.4.1 Age

Table 8.4.1: Frequency and percentage of organisational commitment for Factor Three by age

Levels of Commitment	Factor Score	< 30	30 - 40	> 40	Row Total
High negative	-1.00 to -2.76	13 9.8	49 11.2	16 9.3	78 10.5
Low negative	-0.003 to - 0.99	32 24.2	117 26.7	43 25.0	192 25.8
Overall negative commitment		45 34.1	166 37.8	59 34.3	270 36.3
Low positive	0.01 to 0.99	82 62.1	234 53.3	97 56.4	413 55.6
High positive	1.00 to 2.12	5 3.8	39 8.9	16 9.3	60 8.1
Overall positive commitment		87 65.9	273 62.2	113 65.7	473 63.7
Col. Total		132	439	172	743

Missing observations: 75

The 31-40 age group has the highest percentage of negative commitment staff at 37.8% (Table 8.4.1) However the difference in negative commitment between the three age groups is only 3.7 percentage points. The same can be said regarding positive commitment. Nevertheless the table shows that that as age increases, the percentages of high positive commitment increase with regard to willingness to exert considerable energy on behalf of the organisation.

8.4.2 Tenure

The range of percentage of negative commitment in Table 8.4.2. ranges from a low of 33.3 (between 1-2 years of service group) to a high of 43.9 (less than one year group). It is interesting to note that the less than one year group, which has the lowest percentage of negative commitment staff in factors one and two, has the highest percentage in factor three. Overall it also has the lowest percentage of positive commitment. Those serving between 1-2 years seem to be less negative and more positive than any of the other groups. However the more than ten years group distinguishes itself for having the highest percentage that show high positive commitment.

Table 8.4.2: Frequency and percentage of organisational commitment for Factor Three by tenure

Levels of Commitment	Factor Score	< 1 Yr	1 - 2 Yrs	3 - 5 Yrs	6 - 10 Yrs	> 10 Yrs	Row Total
High negative	-1.00 to -2.76	4 9.8	5 8.3	20 13.1	22 8.8	27 11.2	78 10.5
Low negative	-0.003 to - 0.99	14 34.1	15 25.0	40 26.1	68 27.2	54 22.4	191 25.6
Overall negative commitment		18 43.9	20 33.3	60 39.2	90 36.0	81 33.6	269 36.1
Low positive	0.01 to 0.99	22 53.7	39 65.0	81 52.9	137 54.8	136 56.4	415 55.7
High positive	1.00 to 2.12	1 2.4	1 1.7	12 7.8	23 9.2	24 10.0	61 8.2
Overall positive commitment		23 56.1	40 66.7	93 60.7	159 64.0	160 66.4	476 63.9
Col. Total		41	60	153	250	241	745

Missing observations: 73

8.4.3 Gender

Table 8.4.3: Frequency and percentage of organisational commitment for Factor Three by gender

Levels of Commitment	Factor Score	Male	Female	Row Total
High negative	-1.00 to -2.76	43 11.8	35 9.2	78 10.5
Low negative	-0.003 to - 0.99	83 22.7	109 28.8	192 25.8
Overall negative commitment		126 34.5	144 38.0	270 36.3
Low positive	0.01 to 0.99	218 59.7	196 51.7	414 55.6
High positive	1.00 to 2.12	21 5.8	39 10.3	60 8.1
Overall positive commitment		239 65.5	235 62.0	474 63.7
Col. Total		365	379	744

Missing observations: 74

Overall in Factor Three, the males are less negative and more positive in their willingness to exert considerable energy on behalf of the organisation compared to their female counterparts. However as can be observed in Table 8.4.4 the percentage difference between the two gender groups is only 3.5 percentage

points. Considering the level of commitment, the females' percentage of high negative is lower than the males' percentage. Also on positive commitment, despite showing an overall less positive, females have a higher percentage on high positive commitment than males.

8.4.4 Educational Qualifications

Table 8.4.4: Frequency and percentage of organisational commitment for Factor Three by educational qualifications

Levels of Commitment	Factor Score	Bachelor Degree	Master/PGD/ Professional	Doctorate	Row Total
High negative	-1.00 to -2.76	24 10.8	50 10.4	4 11.8	78 10.5
Low negative	-0.003 to - 0.99	58 26.1	123 25.4	10 29.4	191 25.8
Overall negative commitment		82 36.9	173 35.8	14 41.2	269 36.3
Low positive	0.01 to 0.99	126 56.8	266 54.8	20 58.8	412 55.6
High positive	1.00 to 2.12	14 6.3	46 9.4	0 0.0	60 8.1
Overall positive commitment		140 63.1	312 64.2	20 58.8	472 63.7
Col. Total		222	485	34	741

Missing observations: 77

Observing Table 8.4.4, it is surprising to note that the M/PGD/P group has the lowest percentage of staff that show negative commitment to the organisation and the highest percentage of positive commitment to the organisation. The M/PGD/P group response in Factor Three is different from its response in Factors One and Two. Also in the extreme cases of high negative and high positive in Factor Three, the M/PGD/P group display the least negatively committed and the highest positively committed. The indication is that when it comes to exert extra energy on behalf of the organisation, the M/PGD/P group appears to be more positively committed than that shown in Factors One (A strong belief in and acceptance of organisational goals and values) and Two (A strong desire to maintain membership in the organisation).

The doctorate group which displays the least negative and the highest positive commitment in Factors One and Two however has the highest overall percentage of negative commitment and lowest percentage of positive commitment in Factor Three. Table 8.4.7 also shows that there is none from the doctorate group who shows high levels of commitment with regard to Factor Three.

8.5 CONCLUSION

Factor Analysis has clustered the 15 items of organisational commitment questions into three aspects of the definition of organisational commitment as defined by Porter and Smith (1970). Through Factor Analysis it is found that each of the four demographic variables responded differently to each of the three factors when analysed separately. Thus how one reacts to organisational depends on what aspect one is defining it and from what group or variable.

8.5.1 Age

Overall the three factors show that organisational commitment according to age is at its highest among the youngest age group and that it dips before increases among oldest age group. The pattern that emerges from Factor Analysis indicates that generally the 31-40 age group is the least committed of the three age groups. Also with the exception of Factor Two the less than 30 age group shows higher commitment compared to the other two groups.

With Factor One, the aspect of a strong belief in and acceptance of organisational goals and values, The less than 30 age group shows highest commitment among the three age groups as its percentage of negative commitment is the lowest and its percentage of positive commitment the highest. Factor Two, which considers organisational commitment as a strong desire to maintain membership in the organisation, the more than 40 age group level of commitment is higher than the other two age groups. Its percentage of negative commitment is lowest and its percentage of positive commitment highest. In

Factor Three, the willingness to exert energy on behalf of the organisation, both the less than 30 and the more than 40 age groups gave similar responses with both having similar overall percentages of negative and positive commitments. In all three factors, the 31 - 40 age group is the least committed group as its negative commitment and positive commitment percentages were highest and lowest respectively.

8.5.2 Tenure

With regard to Factor One (A strong belief in and acceptance of organisational goals and values) and Factor Two (A strong desire to maintain membership in the organisation) there seem to be a general trend where as tenure increases commitment to the organisation decreases. However in Factor Three (The willingness to exert considerable energy on behalf of the organisation) the less than one year group seems the least committed.

In Factor One, the less than one year of service group has the lowest percentage of negative commitment and highest percentage of positive commitment, while the more than ten years of service group shows itself to be the least committed with highest percentage of negative commitment and lowest percentage of positive commitment. In Factor Two while the less than one year group is still more committed than the other groups, the 6-10 years of service group is the least committed as its percentage of negative commitment is the highest and positive commitment lowest. In Factor Three, defining organisational commitment from the aspect of willingness to exert energy on behalf of the organisation, the less than one year group is the least committed. This is because its percentages of negative commitment and positive commitment are highest and lowest respectively. The 1-2 years of service group seems to be the most committed with its percentage of negative commitment the lowest and its percentage of positive commitment the highest.

8.5.3 Gender

In Factors One (A strong belief in and acceptance of organisational goals and values) and Three (The willingness to exert considerable energy on behalf of the organisation) males are generally more committed to the organisation than females. In both these factors the percentages of negative commitment of the males are lower than the females' and the percentages of positive commitment of the males are higher than the females'. However in Factor Two, from the aspect of a strong desire to maintain membership in the organisation, females tend to be more committed to the organisation shown by their response in which they display less negative and more positive commitments.

8.5.4 Educational Qualifications

Although overall the doctorate group can be said to be more committed than the other two groups as it has the least percentages of negative commitment and highest percentage of positive commitment in the first two factors, there is however no indication to show that organisational commitment increases or decreases with educational qualifications.

In Factor One (A strong belief in and acceptance of organisational goals and values), the doctorate group is the most committed, while those in the Master/Postgraduate Diploma/Professional (M/PGD/P) group is the least committed. While the doctorate group maintains itself as the highest committed group in Factor Two (A strong desire to maintain membership in the organisation), the bachelor degree group is the least committed. In Factor Three (The willingness to exert considerable energy on behalf of the organisation) the levels of commitment of the M/PGD/P appears to be the most positive since overall it has the least percentage of negative commitment and highest percentage of positive commitment while doctorate group appears the reverse.

As the 15 items have been divided into three factors, there is now a need to test the statistical relationship between each factor, acting as dependent variable,

with the four key variables and other demographic factors plus the attitudes towards pay and attitude towards the promotion system of ITM. As the study involves several independent variables the multiple regression technique will now be used to test the presence of any statistical relationship between the factors and the independent variables. It will inform which of the independent variables contribute more to the variance of the dependent variable. This is covered in the following chapter.

Factor analysis was also performed on attitude towards pay and attitude towards promotion policy. This was necessary to condense each case so as to be able to test its importance as attitudinal variable in determining organisational commitment through the multiple regression technique, which is covered in the following chapter. In each case only one factor was extracted and therefore the solution cannot be rotated.

Attitude towards pay covers issues relating to the respondents' comparing their pay with their qualifications, effort, number of years with the organisation, others working elsewhere, pay overall and the fringe benefit package offered by the organisation. Whilst attitude towards promotion policy covers issues relating to opportunities for career advancement, whether opportunities for promotion are limited, based on ability and fair. It also covers the regularity of promotion exercise and comparison with other institutions.

REFERENCES

Bryman, A. and Cramer D. (1990) *Quantitative and Data Analysis for Social Scientists*, London: Routledge.

Gorsuch, RL (1983) *Factor Analysis*, Hillsdale, NJ: Lawrence Erlbaum.

Porter, LW and Smith, FJ (1970) *The Etiology of Organizational Commitment*, University of California, Irvine, 1970.

THE APPLICATION OF MULTIPLE REGRESSION

9.1 INTRODUCTION

In the previous chapter the application of Factor Analysis method condensed the fifteen organisational commitment questions into three factors: (a), a strong belief in and acceptance of organisational goals and values; (b), a strong desire to maintain membership in the organisation and (c), a willingness to exert considerable energy on behalf of the organisation. This coincided with the three aspects of the definition of commitment by Porter and Smith (1970) and which was later used in researches by Mowday *et al* (1982), Mowday *et al* (1979) and Porter *et al* (1976).

As discussed in the previous chapter, based on the definition of organisational commitment as a strong belief in and acceptance of organisational goals and values, it appears that the following items were grouped as Factor One; the organisation as an inspiration (item 8), the organisation as the best organisation (item 14), the right decision in choosing the organisation to work (item 10), similarity in values with the organisation (item 5), and willingness to accept any assignment in order to work for the organisation (item 4). From the aspect of a strong desire to maintain membership in the organisation, the following items were clustered as Factor Two; the feeling of not much to be gained by staying in the organisation indefinitely (item 11), leaving the organisation due to little change in circumstances (item 9), working elsewhere for similar job (item 7) the wrong decision to work for the organisation (item 5) and difficulty to agree with the organisation's policies on matters relating to employees (item 12). Defining organisation as the willingness to exert considerable energy on behalf of the organisation, the following items were clustered as Factor Three; the willingness to put in more effort to help the organisation to succeed (item 1) concern about the organisation's future (item 13) and believing that the organisation is a good

organisation to work for (item 2). Two items, proud of being part of the organisation (item 6) was found to be of lesser importance to be clustered under Factor One and loyalty to the organisation (item 6) was similarly found to be of lesser importance to be clustered under Factor Two.

9.2 MULTIPLE REGRESSION: AN OVERVIEW

With three dependent variable of organisational commitment determined through the Factor Analysis method, the fifteen (15) item questions were grouped into three factors. Each factor as a dependent variable will be analysed separately in its relationship with the independent variables through the multiple regression analysis in order to determine which variables are most important in influencing organisational commitment

While the regression equation in simple regression analysis can be represented graphically as the best fitting line in a scatter diagram, in multiple regression analysis this general concept is extended to n-dimensional space. For cases involving more than two independent variables it is not possible to portray the n-dimensional relationship by scatter diagram. However the same general concepts are applicable.

The principal objective of associated with multiple regression is to estimate the value of the dependent variable and to determine the extent of statistical error associated with the estimate. To these ends, the multiple regression equation is determined, based on the method of least squares and the standard error of estimate associated with the use of this calculation is calculated (Kazmier, 1979) .

The square of multiple r (R-square) is the amount of variance explained in the dependent variable by the predictors. Such analysis, where more than one predictor are jointly regressed against the criterion variable is known as multiple regression analysis. When the R-square value, the F statistic, and its significance level are known, the results can be interpreted.

The strength of the correlation coefficient r that involves an independent variable and a dependent variable indicates the strength of relationship between the two variables involved. It however does not explain the degree of the variance in the dependent variable when several independent variables are theorised to influence it simultaneously. For example, when the variance in a dependent variable X , (in the case of this research it is organisational commitment) is expected to be explained by several independent variables, not only are they correlated to it in varying but also they might intercorrelate among themselves.

Multiple correlation analysis is the extension of simple correlation analysis which involves the measurement of the relationship between two or more independent variables taken as a group and the dependent variable. It must be noted that in both multiple regression and multiple correlation, there is only one dependent variable. The term “multiple” describes the independent variables.

For example, the variable ‘attitude towards pay’ is likely to be related to ‘age’ and that ‘tenure’ is also likely to be related to ‘attitude towards pay’. These three independent variables might influence the dependent variable ‘organizational commitment’. When these variables are jointly regressed against the dependent variable in an effort to explain the variance, the individual correlations get collapsed into what is called a multiple r or multiple correlation.

The coefficient of multiple determination indicates the proportion of variance in the dependent variable that is statistically accounted for, or explained by the independent variables included in the analysis. Whilst the arithmetic sign for a simple correlation coefficient indicates the relationship between the two variables, the coefficient of multiple correlation is always reported as an absolute value, without an arithmetic sign. The reason that the coefficient of multiple correlation never has an arithmetic sign is because, for example involving two independent variables, it is possible that one of the variables has positive relationship with the dependent variable, while the other independent variable

has a negative relationship. Thus because of these differences, the overall relationship cannot be described as being simply positive or negative.

The F Test is commonly used when three or more samples are to be compared. It answers the question: 'Are there one or more significant differences anywhere among these samples?' (Rownthree, 1981). If the answer is no, it will be futile to examine further the data.

The strength of multiple regression lies primarily in its use as a means of establishing the relative importance of independent variables to the dependent variable. However it cannot be concluded that just because the regression coefficient of an independent variable, say age, is larger than that for income that means age is more important as an influence to organisational commitment than income. This is because age and income derive from different units of measurement that cannot be directly compared.

In order to effect a comparison it is necessary to standardize the units of measurement involved. This is done by multiplying each regression coefficient by the product of dividing the standard deviation of the relevant independent variable by the standard deviation of the dependent variable. The result is known as a standardized regression coefficient or beta weight. It can therefore be compared to establish which of two or more independent variables is the more important factor in relation to the dependent variable.

The implications of non-interval independent variables on a dependent variable are of interest to the researcher. The inclusion of such independent variables in multiple- regression analysis is possible through the creation of dummy variables. While the coding of 1 and 2 is acceptable when the non-interval independent variables have only two categories like gender (1 for male and 2 for female) and race (1 for Malay and 2 for non Malay), the proceeding for nominal or ordinal variables comprising more than two categories entails the use of $k-1$ dummy variables. Thus for example in this research, in order to include the variable

'tenure' in multiple regression analysis, four categories (i.e. 5-1) were created. Subsequently tenure is categorised as;

TEN1 is less than one year (coded as 1) or not less than one year (coded as 0)

TEN2 is between one to two years (coded as 2) or not between one to two years (coded as 0)

TEN3 is between three to five years (coded as 1) or not between three to five years (coded as 0)

TEN4 between six to ten years (coded as 1) or not between six to ten years (coded as 0)

Through this method, all five categories were represented by the four dummy variables. There is no need for a fifth dummy variable (one based on more than 10 years) because all of the information regarding 'tenure' is encapsulated in the four other dummy variables.

The assignment of codes - 1 and 0 - is entirely arbitrary and is meant to denote whether the characteristic in question is present or absent. The resulting unstandardised and standardised regression coefficients can be interpreted in the same manner as if they were based on interval variables. Dummy variables were also created for EDU (educational qualifications) and AGE (*for age*)

9.3 ASSUMPTIONS ASSOCIATED WITH MULTIPLE REGRESSION ANALYSIS

The principal assumptions associated in multiple regression analysis are detailed below.

a) The independent variables and the dependent variable have a linear relationship.

- b) The dependent variable is a continuous random variable, while the independent variables are set at various values and are not random.
- c) The variances of the conditional distributions of the dependent variable given various combinations of values of the independent variables are all equal.
- d) Successive observed values of the random variables are uncorrelated.
- e) The conditional distributions of the dependent variable, given various combinations of values of the independent variables are all normal distributions.

9.4 AN ANALYSIS THROUGH THE STEPWISE METHOD

There are various methods of multiple regression. The stepwise method is adopted here because a particular advantage associated with the stepwise method in multiple regression and multiple correlation analysis is that a stopping rule can be specified so that not all independent variables, but rather, a limited best combination of independent variables, is included in the final regression equation (Kazmier 1979). This contribution can be demonstrated by testing the significance of each net regression coefficient in the final multiple regression equation.

A separate regression analysis was undertaken for each of the three commitment factors that act as dependent variables against the independent variables of age, tenure, gender, educational qualifications, attitude towards the promotion system and attitude towards pay. Variables income, job status, race, marital status and professional membership were also included to test their importance.

As explained in the last paragraph of the previous chapter, Factor Analysis was performed on attitude towards pay and attitude towards promotion policy. This was necessary to condense each set of attitude questions so as to be able to test its importance as attitudinal variable in determining organisational commitment

through the multiple regression technique. In each case only one factor was extracted.

9.5 FACTOR ONE - A Strong Belief in and Acceptance of Organisational Goals and Values

Table 9.5: Factor One: A strong belief in and acceptance of organisational goals and values

Dependent Variable: Factor 1					
Variable Entered on Step Number 4					
S7	ANNUAL GROSS FIXED INCOME + FIXED ALLOWANCE				
Multiple R	.47420				
R Square	.22486				
Adjusted R Square	.22052				
Standard Error	.88014				
Analysis of Variance					
	DF	Sum of Squares	Mean Square		
Regression	4	160.45064	40.11266		
Residual	714	553.09163	.77464		
F = 51.78245	Significance F = .0000				
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig. T
Attitude Towards Pay	.243033	.036383	.242290	6.680	.0000
Attitude Towards Promotion Policy	.319478	.034530	.322726	9.252	.0000
EDU1	.248105	.078773	.113717	3.150	.0017
S7 Income	-.099382	.036004	-.104020	-2.760	.0059
(Constant)	.155875	.099696		1.564	.1184
Variables not in the Equation					
Variable	Beta In	Partial	Min Toler	T	Sig. T
AGE1	.057038	.056834	.680931	1.520	.1289
AGE2	-.022721	-.025063	.749640	-.669	.5034
EDU2	-.078244	-.036500	.152154	-.975	.3298
TEN1	.003370	.003661	.732954	.098	.9221
TEN2	.064883	.069906	.728748	1.871	.0617
TEN3	-.014734	-.015545	.706220	-.415	.6782
TEN4	.020916	.023626	.764227	.631	.5282
S6 Status	.001254	.001012	.493874	.027	.9785
S38 Gender	-.054818	-.059215	.735404	-10584	.1137
S40 Race	-.065116	-.072806	.743689	-1.949	.0517
S41 Marital	-.029885	-.032975	.749089	-.881	.3786
S44 Professional membership	.012864	.013825	.720278	.369	.7121

Through the application of the stepwise method, variable S7 (ANNUAL GROSS FIXED INCOME + FIXED ALLOWANCE) as the fourth and final step in addition to attitude towards promotion policy, attitude towards pay and EDU1 (bachelor degree as highest educational qualification) to be added to the analysis on Factor One. This resulted in the multiple correlation coefficient to be .47420 (see Table 9.5).

The analysis of the variance indicates that the value of the test statistic for the regression effect is $F = 51.78245$. The critical value of F at $\alpha = 0.05$, for $df_1 = 4$ and $df_2 = 714$ is 2.39 by reference to the table of values of F exceeded with probabilities of 5%. Therefore the relationships between the independent variables, S7, EDU1, attitude towards pay and attitude towards promotion policy and the dependent variable Factor One: A Strong Belief in and Acceptance of Organisational Goals and Values are significant at the 5% level of significance.

All the four independent variables are statistically significant in explaining their relationship with the dependent variable Factor One: A Strong Belief in and Acceptance of Organisational Goals and Values. This can be testified by observing their significant levels under column Sig. T in Table 9.5.

Observing the variables in the equation and the levels of significance in Sig. T column, in response to organizational commitment based on Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values, the following hypotheses can be tested.

9.5.1 Age

H.9.5.1O

The older a member of staff is, the greater will be his/her level of commitment to the organisation.

H.9.5.1A

Age has no significant relationship with the staff level of commitment to the institution.

Previous analysis of age in Factor One (see 8.2.1) shows that the less than 30 years age group is the least negatively committed and the most positively committed. The reverse is true for the 31-40 age group. However from the results of the multiple regression analysis, it is obvious that age does not appear to be a critical factor in explaining the variance of Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values. Also as observed in the Sig. T column in Table 9.5 none of the age variable is within the 5% level of significance to show the presence of a statistical relationship with Factor One. Therefore the null hypothesis is rejected and the alternate hypothesis is accepted.

9.5.2 Tenure

H.9.5.2O

A positive significant relationship exists between organisational commitment and tenure.

H.9.5.2A

There is no significant relationship between organizational commitment and tenure.

In analysing tenure with Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values (see 8.2.2), it can be observed that negative commitment increases as tenure increases and that positive commitment decreases as tenure increases. However the multiple regression analysis done show none of the tenure variables is within the 5% significant confidence of the Sig. T to support that the level of commitment to an organisation is dependent on tenure. Also none of the tenure variables is in the equation featured in Table 9.5 to show that tenure contributes to the variance of Factor One. Therefore the null hypothesis is rejected and the alternate hypothesis is accepted.

9.5.3 Gender

H.9.5.3O

Female staff are more committed than their male counterparts.

H.9.5.3A

The level of organisational commitment is not influenced by gender.

Earlier analysis suggested that females are less committed to the organisation than males in terms of a strong belief in and acceptance of organisational goals and values (see 8.2.3). However the Sig. T in Table 9.5 shows that the gender variable (S38) is not within the 5% confidence level to indicate a statistical relationship with Factor One. Also gender is not considered as important in explaining the variance in organizational commitment based on A Strong Belief in and Acceptance of Organizational Goals and Values. Therefore the null hypothesis that the level of organisational commitment is dependent on gender in that female staff are more committed than their male counterparts is thus not accepted. Instead the alternate hypothesis that the level of commitment is not dependent on gender is accepted.

9.5.4 Educational Qualifications

H.9.5.4O

Staff with higher qualifications are less committed.

H.9.5.4A

The level of organisational commitment is not dependent on the level of academic qualification the staff have.

Having created dummy variables on educational qualifications, it is found that the weight of observation obtained by the group with bachelor degree as the highest qualification EDU1, indicates the group contributes towards explaining the variance in organizational commitment based on A Strong Belief in and Acceptance of Organizational Goals and Values. Its Sig. T level at .0017 indicates that there is a statistical relationship between EDU1 and Factor One. This suggests that in terms of a strong belief in and acceptance of organizational goals and values, those with Bachelor degree as highest educational qualification have greater commitment to the organisation than those that have higher academic qualifications or professional qualifications. Therefore the hypothesis is substantiated and the alternate rejected. It is possible that in the use of dummy variables, those with higher qualifications include the Masters/Post Graduate Diploma and Professional qualifications with low levels of organisational commitment (see 8.2.4) which drags the overall non-bachelor degree qualification

down. As can be seen in the analysis in Factor One (see 8.2.4) the doctorate group is the least negatively and the most positively committed.

9.5.5 Attitude Towards Pay

H.9.5.5O

A positive significant relationship exists between organisational commitment and attitude towards pay.

H.9.5.5A

There is no significant relationship between organizational commitment and attitude towards pay.

Attitude towards pay covers issues relating to the respondents' comparing their pay with their qualifications, effort, number of years with the organisation, others working elsewhere, pay overall and the fringe benefit package offered by the organisation.

The second highest beta weight of observation obtained by attitude towards pay, indicates the extent of its importance rather than income itself in explaining the variance in organizational commitment based on Factor One: A Strong Belief in and Acceptance of Organisational Goals and Values. Thus regardless of the income received, the more favourable attitude the academics have towards their pay their level of commitment to the organisation will be higher. The significance level at .0000 as indicated in Sig. T shows the presence of a statistical relationship between attitude towards pay and Factor One. Therefore the hypothesis is substantiated and the null hypothesis is accepted and the alternate rejected.

9.5.6 Attitude Towards Promotion Policy

H.9.5.6O

A positive significant relationship exists between organisational commitment and attitude towards promotion policy.

H.9.5.6A

There is no significant relationship between organizational commitment and attitude towards promotion policy.

Attitude towards promotion policy covers issues relating to opportunities for career advancement, whether opportunities for promotion are limited, based on ability and fair. It also covers the regularity of promotion exercise and comparison with other institutions.

The highest beta weight of observation obtained by attitude towards promotion policy as shown in Table 9.5, indicates that attitude towards the promotion policy of the organisation is the most important in explaining the variance in organisational commitment based on Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values. The positive beta weight shows that the more favourable attitude the academics have towards the promotion policy the more positive will their level of commitment be. Its significance level at .0000 indicates statistical relationship between attitude towards promotion policy and Factor One. Therefore the hypothesis is substantiated and the null hypothesis is accepted and the alternate rejected.

9.5.7 Findings

The multiple regression analysis through the stepwise method resulted in the regressing of four independent variables as shown in Table 9.5 above. The four independent variables significantly explain 22% of the variance in Factor One of organisational commitment (A Strong Belief in and Acceptance of Organisational Goals and Values).

Among the four independent variables, attitude towards promotion policy is most important in describing the variance in the dependent variable of Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values. Observing the column Beta, it can be noted that at .32, attitude towards promotion policy has the highest weight. The positive beta weight suggests that

the academics belief in and acceptance of organizational goals will be enhanced if their confidence in the organisation's promotion policy grows.

The attitude towards pay has the second highest weight at .24. Likewise (as with attitude towards promotion policy), the positive beta weight suggests that the academics' commitment to the organisation will be enhanced if their attitude towards their pay improves. Attitude towards pay is influential as income itself is not a guarantee that it will satisfy a person. Thus understanding that there is a ceiling to be observed in the pay policy and the organisation is doing its utmost may help to improve a person attitude towards his pay and hence increase commitment to the organisation based on A Strong Belief in and Acceptance of Organisational Goals and Values.

On the variable of educational qualification, with EDU1's (Bachelor degree) inclusion in the equation as a major contribution towards the variance, shows that those with only bachelor degree as the highest qualification display higher commitment to the organisation than either those with M/PGD/P (those with master/postgraduate diploma or professional qualifications) or those with doctorate. This may be due to the reason that those with bachelor degree are probably new to the organisation. As such they are full of ideals in their attitude towards A Strong Belief in and Acceptance of Organisational Goals and Values. Being new to the organisation, they are also eager to be confirmed in their work place which will make them eligible for perks such as vehicle loan and scholarship for further studies with full pay. Those with M/PGD/P or doctorate degree may constitute the bulk of the workforce that have been in the organisation long. Therefore they probably have enjoyed or are enjoying the perks or fringe benefit eligible to them in accordance with the length of period they have been in the organisation. To them the benefits enjoyed are more of a right.

Surprisingly the negative beta weight for S7 (ANNUAL GROSS FIXED INCOME + FIXED ALLOWANCE) indicates that the commitment to Factor 1:

A Strong Belief in and Acceptance of Organizational Goals and Values is less stronger as pay increases. This may be due to similar reason as that explained with regard to those with bachelor degree as the highest qualification possessed. The likelihood of those in the lower pay category to be of those new to the organisation is very high. Thus they have as much to look forward to work in the organisation as those with bachelor degree.

Overall the level of organisational commitment based on Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values is more significantly explained by the attitudinal variables of attitude towards the promotion system and attitude towards pay rather than by the demographic variables. This can be testified by the two attitudinal variables having much greater better weight than either of S7 (annual gross fixed income) or EDU1(educational qualification-bachelor degree).

9.6 FACTOR ONE-Multiple Regression Without Attitude Towards Pay and Attitude Towards Promotion Policy

Using the same technique as applied with the inclusion of attitude towards pay and attitude towards promotion policy, the final multiple regression equation excluding these two independent variables is as displayed in Table 9.6. The exclusion of attitude towards pay and attitude towards promotion policy is done to gain better understanding of the relative importance of the contribution of the demographic variables towards a strong belief in and acceptance of organizational goals and values.

With the exclusion of attitude towards pay and attitude towards promotion policy the variables in the equation that are important in explaining the variance in organisational commitment based on a strong belief in and acceptance of organizational goals and values differ from that which include them.

Table 9.6: Factor One: A strong belief in and acceptance of organisational goals and values without attitude towards pay and attitude towards promotion policy

Attitude towards pay and attitude towards promotion policy					
Dependent Variable: Factor 1					
Variable Entered on Step Number 6					
S6		PRESENT JOB STATUS			
Multiple R	.27909				
R Square	.07789				
Adjusted R Square	.07043				
Standard Error	.96620				
Analysis of Variance					
	DF	Sum of Squares	Mean Square		
Regression	6	58.43291	9.73882		
Residual	741	691.74780	.93353		
F=10.43222	Significance F = .0000				
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig. T
EDU2	-.334323	.078106	-.158541	-4.280	.0000
TEN1	.437640	.158845	.099468	2.755	.0060
TEN2	.418260	.136320	.112577	3.068	.0022
S6 Job Status	.189910	.084008	.084585	2.261	.0241
S38 Gender	-.217504	.072349	-.108562	-3.006	.0027
S40 Race	-.311038	.107193	-.102952	-2.902	.0038
constant)	.613283	.203194		3.018	.0026
Variables not in the Equation					
Variable	Beta In	Partial	Min Toler	T	Sig. T
AGE1	.043869	.036821	.649599	1.002	.3165
AGE2	.004287	.004088	.819755	.111	.9115
EDU1	.093246	.039423	.164821	1.073	.2835
TEN3	.020548	.019378	.801446	.527	.5982
TEN4	.070257	.068721	.858157	1.874	.0613
S7 Income	-.026280	-.018732	.468494	-.510	.6104
S41 Marital Status	-.040057	-.038998	.873988	-1.062	.2887
S44 Professional Membership	.057194	.055975	.849515	1.525	.1277

The analysis of the variance indicates that the value of the test statistic for the regression effect is $F = 10.43222$. The critical value of F at $\alpha = 0.05$, for $df_1 = 6$ and $df_2 = 741$ is 2.12 by reference to the table of values of F exceeded with probabilities of 5 percent. Therefore the relationship between the independent variables, EDU2 (Master/Postgraduate and Professional qualifications), TEN1 (Tenure less than one year), TEN2 (Tenure between 1-2 years), S6 (Job Status), S38 (Gender), S40 (Race), and the dependent variable of Factor One: A Strong

1

Belief in and Acceptance of Organisational Goals and Values is significant at the 5% level of significance.

The multiple regression analysis through the step wise method with the exclusion of attitude towards pay and attitude towards promotion policy resulted in the regressing of six independent variables as shown in Table 9.6 above. The six independent demographic variables significantly explain almost 8% of the variance in Factor One of organisational commitment (A Strong Belief in and Acceptance of Organizational Goals and Values). The beta values of all six independent variables are significant.

9.6.1 Findings

The exclusion of attitude towards pay and attitude towards promotion policy surprisingly omitted EDU1 (those with Bachelor degree as highest qualification) and S7 (annual gross fixed income) as important factors that contributes towards the variance of Factor One. As can be noted in Table 9.5, these two were the only demographic variables included when attitude towards pay and attitude towards promotion policy are included. This suggests that those with bachelor degree and those in the lower income group, who are most likely to be early in their service to the organisation, offer more favourable attitudes towards pay and promotion policy. Thus when these attitude variables are omitted their significant contribution to the variance is less.

Among the six independent variables, EDU2 (Master/Postgraduate and Professional qualifications), is the most important in describing the variance in the dependent variable of Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values. Observing at column Beta, it can be noted that at almost -.16, EDU2 has the highest weight. The negative beta weight shows those in the M/PGD/P group have lower organisational commitment compared to other educational qualification groups.

1

For those serving the organisation for less than one year (TEN1) or between one to two years (TEN2), the positive beta weight shows they have higher commitment to the organisation compared to other tenure groups.

The results of the analysis also shows gender is an important factor in explaining the level of commitment of the academics. The negative beta weight with a significant level of the Sig. T test of less than .01, shows that unless the female academics feel that something is done towards them to allay fear of unfair treatment based on gender, it will be difficult for them to enhance their commitment to the organisation in relation to a strong belief in and acceptance of organizational goals and values.

With significant level of less than .01 there is a statistical relationship between the independent variable of race (S40) and the dependent variable of Factor One: A Strong Belief in and Acceptance of Organisational Goals and Values when attitude towards pay and attitude towards promotion policy are excluded. The negative beta weight indicates the attitude towards a strong belief in and acceptance of organisational goals and values is greater among the Malay academics than among the non-Malay academics. This may not mean that the non-Malays are not committed to the organisation. Ensuring the academics as a whole that the Institute practises meritocracy will enhance the non-Malays' belief in and acceptance of Organisational goals and values.

The exclusion of both attitude towards pay and attitude towards promotion policy means the inclusion of S6 (Job Status) as an important variable in the equation towards dependent variable. The significant T test at .02 indicates the inclusion of job status with a positive beta weight to happen by chance is small. The positive beta weight demonstrates that a strong belief in and acceptance of organisational goals and values is dependent on job status with the higher status having higher commitment.

The exclusion of the attitudinal variables of pay and promotion suggests that by themselves demographic factors do explain the level of organisational commitment based on a strong belief in and acceptance of organisational goals and values although the degree of variance explained by these variables at less than .08 is small.

9.7 FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation

In applying the stepwise method, the final results of regressing the independent variables for Factor Two-A Strong Desire to Maintain Membership in the Organisation are as shown Table 9.7.

The figures in Table 9.7 show that only the independent variables of attitude towards pay and attitude towards promotion policy are included in the equation as important in explaining the variance in the dependent variable of organisational commitment based on FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation. Both the independent variables are statistically significant in explaining their relationship with the dependent variable. This can be testified by observing their significant levels under column Sig. T in the table.

Table 9.7: Factor Two- A strong desire to maintain membership in the organisation

Dependent Variable: Factor 2- A Strong Desire to Maintain Membership in the Organisation					
Variable Entered on Step Number 2					
ATTITUDE TOWARDS PAY		ATTITUDE TOWARDS PAY			
Multiple R		.26719			
R Square		.07139			
Adjusted R Square		.06880			
Standard Error		.97378			
Analysis of Variance					
	DF	Sum of Squares	Mean Square		
Regression	2	52.19769	26.09885		
Residual	716	678.94027	.94824		
F = 27.52344		Significance F = .0000			
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig. T
Attitude Towards Pay	.117817	.038598	.116036	3.052	.0024
Attitude Towards Promotion Policy	.206808	.038092	.206382	5.429	.0000
(Constant)	-.010650	.036318		-.293	.7694
Variables not in the Equation					
Variable	Beta In	Partial	Min Toler	T	Sig. T
AGE1	-.008897	-.009176	.888693	-.245	.8062
AGE2	-4.502E-04	-.000462	.881497	-.012	.9901
EDU1	-.063722	-.066086	.896822	-1.771	.0770
EDU2	.062916	.065020	.894272	1.742	.0819
TEN1	.019299	.019798	.880443	.529	.5966
TEN2	-.034694	-.035970	.896015	-.962	.3362
TEN3	.011143	.011324	.861532	.303	.7621
TEN4	-.032528	-.033596	.889650	-.899	.3690
S6 Job Status	.027388	.026813	.825981	.717	.4735
S7 Income	.053533	.053193	.841481	1.424	.1548
S38 Gender	.042003	.042341	.851185	1.133	.2575
S40 Race	.043453	.045006	.895153	1.205	.2287
S41 Marital Status	.022668	.023501	.896759	.629	.5298
S44 Professional Membership	.008580	.008901	.896948	.238	.8119

Observing the Sig. T column, in response to organizational commitment based on **FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation**, the following can be concluded.

9.7.1 Age

H.9.7.1O

The older a staff is, the greater will be his/her level of commitment to the organisation.

H.9.7.1A

Age has no significant relationship with the staff level of commitment to the institution.

From the results of the multiple regression analysis, age is apparently again not a critical factor in explaining the level of commitment an academic has towards his/her organisation in the context of Factor Two: A strong desire to maintain membership in the organisation. Therefore the null hypothesis is rejected and the alternate hypothesis is accepted.

9.7.2 Tenure

H.9.7.2O

A positive significant relationship exists between organizational commitment and tenure.

H.9.7.2A

There is no significant relationship between organizational commitment and tenure.

In the earlier analysis of Factor Two (see 8.3.2) there seemed to be a pattern in tenure whereby negative commitment and positive commitment increased and decreases respectively as tenure increase from less than one year of service till 6-10 years of service. However from the results of the multiple regression analysis, in relation to the dependent variable of organisational commitment based on FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation tenure is not a critical factor in deciding the level of commitment an academic has towards his/her organisation. Therefore the null hypothesis is rejected and the alternate hypothesis is accepted.

9.7.3 Gender

H.9.7.3O

Female staff are more committed than their male counterparts.

H.9.7.3A

The level of organisational commitment is not influenced by gender.

The analysis of Factor Two on gender (see 8.3.3) did not indicate any difference in the organisational commitment of the academics except that the negative commitment of males was only 2.3 percentage points lower than females. As the gender of the academic is not in the equations determining the variance in FACTOR TWO of organisational commitment, it is therefore not a critical factor in deciding the academic's level to establish a strong desire to maintain membership in the organisation. Therefore the null hypothesis is rejected and the alternate hypothesis is accepted.

9.7.4 Educational Qualifications

H.9.7.4O

Staff with higher qualifications are less committed.

H.9.7.4A

The level of organisational commitment is not dependent on the level of academic qualification the staff have.

In the previous analysis of educational qualifications in Factor Two (see 8.3.4) there was indication that the percentage of negative commitment fell as the level of education increased and the percentage of positive commitment increased as the level of education increased. However despite creating dummy variables on educational qualifications, it is found that none of the weight of observation obtained by any of the group contributes towards explaining that the level to establish a strong desire to maintain membership in the organisation is dependent on educational qualifications. Therefore the null hypothesis is not substantiated and is rejected.

9.7.5 Attitude Towards Pay

H.9.7.5O

A positive significant relationship exists between organisational commitment and attitude towards pay.

H.9.7.5A

There is no significant relationship between organizational commitment and attitude towards pay.

As with Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values, the weight of observation obtained by attitude towards pay, indicates the extent of the importance of attitude towards pay rather than income itself in explaining the variance in organizational commitment based on a strong desire to maintain membership in the organisation. The positive beta weight shows that regardless of the income received, a favourable attitude towards pay helps to enhance organisational commitment based on a desire to maintain membership in the organisation. The significance level indicates the presence of a statistical relationship between attitude towards pay and Factor Two: A Strong Desire to Maintain Membership in the Organisation. Therefore the hypothesis is substantiated and the null hypothesis is accepted and the alternate rejected.

9.7.6 Attitude Towards Promotion Policy

H.9.7.6O

A positive significant relationship exists between organisational commitment and attitude towards promotion policy.

H.9.7.6A

There is no significant relationship between organizational commitment and attitude towards promotion policy.

The beta weight in Table 9.7 lists the attitude towards promotion policy as slightly more important in explaining the variance in relation to the dependent variable than the attitude towards pay. Its significance level indicates the presence of a statistical relationship between attitude towards the promotion policy and Factor Two: A Strong Desire to Maintain Membership in the Organisation to have occurred by chance is nil. The positive beta weight shows that the enhancement of organisational commitment is dependent on staff perceiving the existence of opportunity to advance. Thus the null hypothesis is accepted and the alternate rejected.

9.7.7 Findings

The multiple regression analysis through the stepwise method on **FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation** resulted in

the regressing of two independent variables as shown in Table 9.7. The two independent variables significantly explain about seven percent of the variance in FACTOR TWO. The beta values of both the independent variables of attitude towards promotion policy and attitude towards pay are significant as observed in the Sig. T column.

Of the two independent variables, attitude towards the promotion policy is slightly more important in describing the variance in the dependent variable of FACTOR TWO - A Strong Desire to Maintain Membership in the Organisation. Observing the column Beta, it can be noted that at almost .21, attitude towards the promotion policy has the higher weight. The positive beta weight suggests that the academics strength in the desire to maintain membership in the organisation will be enhanced if their attitude towards the organisation's promotion policy improves. Hence whatever is done by the organisation to convince the staff that impartiality and merit are observed and executed in the implementation of the promotion policy the level of organisational commitment will improve.

The results of the analysis also shows that attitude towards pay is a critical factor in explaining the level of organisational commitment of the academics based on A Strong Desire to Maintain Membership in the Organisation. The positive beta weight with a significant level of the T test of less than .002 shows that, like attitude towards the promotion policy, improvement in the academics' attitude towards their pay will also enhance organisational commitment.

Thus with attitude towards promotion policy and attitude towards pay having significant levels in their relationships with the dependent variable of Factor Two it is clear that one's attitudes on the promotion system and the pay system rather than any of the demographic factors are critical factors in explaining a strong desire to maintain membership in the organisation. As can be observed in Table 9.7 none of the demographic variables are significant in explaining the variance of Factor Two. Hence assuring that the promotion system is fair and justifying

the pay system will help to strengthen the desire of the staff to maintain membership in the organisation.

9.8 FACTOR THREE - A Willingness to Exert Considerable Energy on Behalf of the Organisation

Table 9.8: Factor 3-A willingness to exert considerable energy on behalf of the organisation

Dependent Variable: Factor 3- A Willingness to Exert Considerable Energy on Behalf of the Organisation.					
Variable Entered on Step Number 1					
ATTITUDE TOWARDS PROMOTION POLICY		ATTITUDE TOWARDS PROMOTION POLICY			
Multiple R		.08060			
R Square		.00650			
Adjusted R Square		.00511			
Standard Error		1.00688			
Analysis of Variance					
		DF	Sum of Squares	Mean Square	
Regression		1	4.75331	4.75331	
Residual		717	726.90276	1.01381	
F = 4.68856		Significance F = .0307			
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig. T
Attitude Towards Promotion Policy	-.080797	.037314	-.080602	-2.165	.0307
(Constant)	-.009844	.037552		-.262	.7933
Variables not in the Equation					
Variable	Beta In	Partial	Min Toler	T	Sig. T
AGE1	.018376	.018414	.997539	.493	.6223
AGE2	.006548	.006497	.978133	.174	.8620
EDU1	-.021183	-.021247	.999543	-.569	.5698
EDU2	.051102	.051149	.995324	1.370	.1710
TEN1	.004588	.004551	.977434	.122	.9031
TEN2	.011628	.011665	.999845	.312	.7550
TEN3	-.007480	-.007501	.999151	-.201	.8410
TEN4	.021332	.021332	.993543	.571	.5682
S6 Job Status	.024751	.024420	.967085	.654	.5136
S7 Income	.011592	.011501	.977884	.308	.7584
S38 Gender	.008359	.008146	.943625	.218	.8275
S40 Race	-.045798	-.045865	.996448	-1.229	.2196
S41 Marital Status	-5.618E-05	-.000056	.99864	-.002	.9988
S44 Professional Membership	-.054410	-.054585	.999879	-1.463	.1440
Attitude Towards Pay	-.018172	-.017271	.897494	-.462	.6441

The figures in Table 9.8 show that only the independent variable of attitude towards the promotion policy is included in the equation as important in explaining the variance in the dependent variable of organisational commitment based on FACTOR THREE - A Willingness to Exert Considerable Energy on Behalf of the Organisation.

The independent variable of towards the promotion policy is statistically significant if set at the five (5) percent level of significance but not at the one (1) percent level of significance in explaining its relationship with the dependent variable. This can be testified by observing its significant level under column Sig. T in the table.

Observing the Sig. T column, in response to organizational commitment based on FACTOR THREE - A Willingness to Exert Considerable Energy on Behalf of the Organisation, all the hypotheses on the demographic factors and attitude towards pay cannot be substantiated. The only hypothesis that can be substantiated is on attitude towards the promotion system.

H.9.8.O

A positive significant relationship exists between organisational commitment and attitude towards promotion policy.

H.9.8.A

There is no significant relationship between organizational commitment and attitude towards promotion policy.

Table 9.8 shows that attitude towards the promotion policy is the only independent variable that is important in explaining the variance in relation to FACTOR THREE - A Willingness to Exert Considerable Energy on Behalf of the Organisation. This hypothesis can only be substantiated if the significance level is set at $<.05$ as the level at $.03$ of Sig. T is too high for the $<.01$ to be accepted. At $<.05$ the negative beta weight surprisingly seems to indicate that if staff attitude towards the promotion policy of the organisation becomes more favourable, their

level of commitment, based on their willingness to exert considerable energy on behalf of the organisation, may not increase. Thus this means the rejection of the alternate hypothesis and the acceptance of the null hypothesis.

9.8.1 Findings

The attitude towards the dependent variable of **FACTOR THREE - A Willingness to Exert Considerable Energy on Behalf of the Organisation**, seems to be solely significant with attitude towards the promotion system. Hence attitude towards pay and the demographic factors are not significant in their contribution towards the variance of the dependent variable. However the result shows that an increase in favourable attitude towards the promotion policy may not increase the level of willingness of the staff to exert considerable energy on behalf of the organisation.

In all the three factors, the attitude towards the promotion policy surpasses the other independent variables in its importance in deciding the level of organisational commitment. This can be observed in its presence in explaining the variance in all three factors of the definition of organisational commitment. Attitude towards pay and attitude towards promotion policy are especially important in explaining the variance in **Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values**. In **Factor Two: A Strong Desire to Maintain Membership in the Organisation**, and **Factor Three: A Willingness to Exert Considerable Energy on Behalf of the Organisation** very little of the variance is explained. Therefore it is important that attitudes towards pay and promotion policy be evaluated as dependent variables. This is done in Chapter Ten.

REFERENCES

Kazmier, JK (1979) *Basic Statistics For Business and Economics*, McGraw Hill, New York.

Mowday, RT; Porter, LW and Steers, RM (1982), "*Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*", Academic Press, New York.

Mowday, RT, Steers, RM and Porter, LW (1979), "The Measurement of Organizational Commitment" *Journal of Vocational Behavior*, 14, pp 224-247.

Porter, LW, Crampton WJ and Smith FJ (1976), "Organizational Commitment and Managerial Turnover: A Longitudinal Study" *Organizational Behavior and Human Performance*, 15, pp, 87-98.

Porter LW and Smith FJ (1970), *The Etiology of Organizational Commitment*. Unpublished paper. University of California, Irvine.

Rowntree D, (1991), *Statistics Without Tears*, Penguin Books, London.

Chapter 10

ATTITUDES TOWARDS PAY AND PROMOTION POLICY

10.1 INTRODUCTION

In all three factors the independent variable of attitude towards of pay and/or promotion proved to be the most important variable in deciding the variance of the dependent commitment variables. The application of multiple regression suggested that the attitudes towards pay and promotion to be more important in deciding the level of organisational commitment than any of the demographic variable. It is therefore thought important that attitude towards pay structure and attitude towards the promotion practised in the Institute be analysed individually as dependent variable to observe their impact on the demographic variables.

10.2 ATTITUDE TOWARDS PAY

Through the stepwise method of regression analysis, seven (7) independent variables, EDU2 (Educational qualification with Master/Postgraduate Diploma and Professional Qualification), S6 (Job status), S7 (Annual gross fixed income), S40 (Race) S44 (Membership of professional body), TEN1(Tenure-less than one year of service) and TEN4 (Tenure between six to ten years of service) are included in the regression equation. This resulted in the multiple correlation coefficient to be .40618 (see Table 10.2).

All the seven independent variables are statistically significant in relationship with the dependent variable attitude towards pay. This can be testified by observing their significant levels under column Sig. T in Table 10.2. All six explains about 16 percent ($R^2 = .16498$) of the variance towards the dependent variable.

Table 10.2: Attitude towards pay

Dependent Variable: FACTPAY-ATTITUDE TOWARDS PAY					
Variable Removed on Step Number 9					
TEN3		Tenure 3-5 years of service			
Multiple R		.39680			
R Square		.15745			
Adjusted R Square		.15082			
Standard Error		.91711			
Analysis of Variance					
		DF	Sum of Squares	Mean Square	
Regression		7	125.66198	17.95171	
Residual		762	636.02009	.83467	
F = 21.50750		Significance F = .0000			
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig T
EDU2	-.309005	.072204	-.147868	-4.280	.0000
S6 Job Status	.603188	.104265	.270898	5.785	.0000
S7 Income	.186430	.045220	.194462	4.123	.0000
S40 Race	-.189886	.100611	-.063351	-1.887	.0495
S44 Professional Membership	.280418	.071628	.137066	3.915	.0001
TEN1	.478554	.154414	.106780	3.099	.0020
TEN4	.217422	.071920	.103670	3.023	.0026
(Constant)	-1.333405	.216599		-6.156	.0000
Variables not in the Equation					
Variable	Beta In	Partial	Min Toler	T	Sig T
AGE1	.009928	.009244	.455853	.255	.7988
AGE2	.001264	.001235	.485704	.034	.9728
EDU1	.113577	.049289	.157263	1.361	.1738
S38 Gender	-.007915	-.008356	.483755	-.231	.8177
S41 Marital Status	.002906	.003061	.483694	.084	.9327
TEN2	.045483	.045463	.471520	1.255	.2097
TEN3	-.046527	-.040843	.463299	-.729	.4664
TEN4	.057658	.055996	.479443	1.128	.2598

10.2.1 Findings on Attitude Towards Pay Through Multiple Regression

From the results of the multiple regression analysis, it is apparent that age is not a critical factor in explaining an academic's attitude towards pay. None of the age variables created through dummy variables are included in the equation that contributes towards the variance of attitude towards pay. The analysis also

shows that gender (S38) is not considered statistically significant in explaining the variance in attitude towards pay.

The beta weight slightly favours the independent variable of TEN1 (Tenure-less than one year of service) than TEN4 (Tenure-between six to ten years of service) in significantly explaining the variance of the dependent variable of attitude towards pay. The inclusion of both TEN1 and TEN4 in the equation implies both these groups have more favourable attitude towards pay than the other tenure groups.

The analysis also shows of the dummy variables on educational qualifications only EDU2 (Educational qualification with Master/Postgraduate Diploma and Professional Qualification), is considered as important in explaining the variance in attitude towards pay. The negative beta weight shows it to have a less favourable attitude towards pay than those with bachelor degree or doctorate. This can perhaps be attributed to the bulk or 65% (see Table 10.2.1) of the respondents from this group being not in the senior job status group and therefore do not enjoy the pay that *accompanies status*. They may also feel that they are performing similar job with those having doctorate qualification and therefore should be paid equal.

Table 10.2.1: Distribution of job status by educational qualifications

	Lecturer	Senior/Principal Lecturer	Row Total
Bachelor	230	12	242
Master/Postgraduate Diploma/Professional	344	184	528
Phd	13	28	41
Total	587	224	811

Missing observation: 7. NB: Those grouped as others are included in lecturer group.

Among the seven independent variables shown in Table 10.2, job status (S6) has the highest beta indicating it is the most important in explaining the variance in attitude towards pay. The positive beta weight suggests the higher the status of the academics the more favourable will be their attitude towards pay. This is understandable as the higher the status the higher the pay is. Added to that the higher the status one enjoys, the more perks one has. These include higher

housing allowance and higher vehicle loan available to them. These lessen the financial burden one has.

The positive beta weight of S7-Annual gross fixed income suggests not surprisingly that the higher the income the more favourable is the attitude of the academic towards their pay.

Membership of professional body (S44) is included as a variable in the equation that explains the variance in attitude towards pay. The positive beta weight shows that the attitude towards pay is more favourable among those who are not members of professional body than those who are. Being a member allows one to be more exposed to the higher pay enjoyed by other fellow members working at different organisations especially those who are professionals such as lawyers, accountants and engineers. Another point to stress here is that membership of certain professional bodies is not based on professional qualifications but rather more on interest. Since being a member of a professional body is one of the criteria needed for promotion and evaluation many feel it is to their advantage to join. However they are likely to be passive members whose only contribution is the subscription paid annually

The negative beta weight of race (S6) indicates that the non-Malays attitude towards pay is less favourable than the Malays. However the independent variable of race has the least beta weight indicating it is the least important among the seven variables in explaining the variance in attitude towards pay.

10.3 ATTITUDE TOWARDS PROMOTION POLICY

Through the stepwise method of regression analysis, five (5) independent variables, AGE1 (Age-less than 30 years group), EDU2 (Educational qualification with Master/Postgraduate Diploma and Professional Qualifications), S6 (Job status), S38 (Gender) and TEN1 (Tenure-less than one

year of service) are included in the regression equation. This resulted in the multiple correlation coefficient to be .35328 (see Table 10.3).

All the five independent variables are statistically significant in explaining their relationship with the dependent variable, attitude towards the organisation's promotion system. This can be testified by observing their significant levels under column Sig T in Table 10.3. The five variables explain slightly more than 12% of the variance of the dependent variable of attitude towards promotion.

Table 10.3 Attitude towards promotion policy

Dependent Variable: FACTPRO - ATTITUDE TOWARDS PROMOTION POLICY					
Variable Entered on Step Number 6					
EDU2		Master/Postgraduate Diploma/Professional			
Multiple R		.35328			
R Square		.12481			
Adjusted R Square		.11912			
Standard Error		.94229			
Analysis of Variance					
	DF	Sum of Squares		Mean Square	
Regression	5	97.49787		19.49957	
Residual	770	68369820		.88792	
F = 21.96097		Significance F = .0000			
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig T
AGE1	.281533	.099631	.106986	2.826	.0048
EDU2	-.154843	.075636	-.073380	-2.047	.0410
S6 Job Status	.419487	.080626	.187648	5.203	.0000
S38 Gender	-.465841	.069993	-.232125	-6.656	.0000
TEN1	.703816	.156139	.158716	4.4508	.0000
(Constant)	.195061	.163869		1.190	.2343
Variables not in the Equation					
Variable	Beta In	Partial	Min Toler	T	Sig T
AGE2	.004109	.003225	.482535	.089	.9288
EDU1	-.061963	-.028429	.184232	-.789	.4305
S7 Income	.090979	.066159	.462807	1.839	.0663
S40 Race	-.049622	-.052650	.788228	-1.462	.1441
S41 Marital Status	-.017224	-.016863	.732847	-.4681	.6401
S44 Professional Membership	.037601	.037987	.787156	1.054	.2921
TEN2	.027051	.025239	.651789	.700	.4841
TEN3	.046249	.046012	.776315	1.277	.2019
TEN4	.003607	.003662	.760047	.102	.9191

10.3.1 Findings on Attitude Towards Promotion Policy Through Multiple Regression

S38 (Gender) contributes more towards explaining the variance in attitude towards the promotion system than any of the other independent variables. The negative beta weight suggests that the attitude towards the promotion system is less favorable among females than males. This may be due to them being surpassed by males in the senior/principal lecturer group despite forming the majority among the lecturer group.

Table 10.3.1: Distribution of job status by gender

Job Status	Male	Female	Row Total
Lecturer	257	332	589
Senior/Principal Lecturer	143	82	225
Total	400	414	814

Missing observation: 4. NB: Those grouped as others are included in lecturer group.

As can be observed in Table 10.3.1, overall there are more females than males. In the lecturer group the percentage of females is 56% and the percentage of males is 44 %. However in the senior position 20% females are Senior/Principal Lecturer, compared with 36% males. It is thus not surprising that in attitude towards the promotion policy, the females are less favourable towards it than their male counterparts.

The beta weight of Job status (S6) is the second highest in explaining the variable in attitude towards the promotion policy. The positive beta weight suggests that as status increases attitude towards the promotion policy will be more positive.

TEN1 (Tenure-less than one year of service) is the only tenure group that contribute towards the variance of the dependent variable of attitude towards the promotion policy. The positive beta weight of TEN1 suggests that those in their first year of service have a more favourable attitude towards the promotion system than the other tenure groups. Being new, those in this category may not have involved in any promotion exercise and therefore are willing to give the

benefit of doubt to the organisation. Also as being new there is a likelihood that they are ideal in their attitude towards the organisation as a whole which includes attitude towards the promotion policy.

AGE1(Age-less than 30 years group) is the only age group contributes towards the variance of the dependent variable of attitude towards the promotion policy, with a positive beta weight suggesting those below the age of thirty have a more favourable attitude towards the promotion system than the age groups. The attribution here may be similar as that of TEN1.

As for EDU2 (Educational qualification with Master/Postgraduate Diploma and Professional Qualifications), the negative beta weight that this group has the least favourable attitude towards the promotion system than the other educational groups. It shows that that unless the promotion policy changes for the better the EDU2 group will not improve in its attitude towards the policy. The attribution for the less favourable attitude shown by this group may be similar as that shown in its attitude towards pay in that the bulk of the respondents from this group being not in the senior job status group and therefore are not happy at their failure to be promoted or being overlooked for promotion. They may also feel that they are performing a similar job to those in senior positions and therefore deserve promotion.

10.3.2 Response Towards the Three Factors of Organisational Commitment Based on Attitude Towards Promotion Policy

With the response to Factor One-A Strong Belief in and Acceptance of Organisational Goals and Values, 226 of the 371 or 61% that agree that the organisation promotion policy is unfair are negatively committed. Out of this 99 are highly negatively committed. 145 that agree that the organisation promotion policy is unfair are positively committed. Of the 271 that are uncertain regarding the organisation promotion policy, about 37% are negatively committed. Of 120 that disagree that the organisation promotion policy is unfair, 37 or almost 31% are negatively committed and 83 or about 69% are positively committed. With

the Pearson chi-square at .000 the statistical relations show that those that agree the organisation policy is unfair tend to be less committed than those that disagree and that this to happen by chance is nil. As shown in Table 10.3.2A, those that disagree that the promotion policy is unfair tend to be less negatively committed and more positively committed than those that are uncertain or agree.

Table 10.3.2A: Frequency and percentage of organisational commitment for Factor One by response to organisation's promotion policy is unfair

Levels of Commitment	Factor Score	Agree	Uncertain	Disagree	Row Total
High negative	-1.00 to -2.76	99 26.7	25 9.2	11 9.1	135 17.7
Low negative	-0.003 to - 0.99	127 34.2	76 28.0	26 21.7	229 30.1
Overall negative commitment		226 60.9	111 37.2	37 30.8	364 47.8
Low positive	0.01 to 0.99	103 27.8	111 41.0	45 37.5	259 34.0
High positive	1.00 to 2.12	42 11.3	59 21.8	38 31.7	139 18.2
Overall positive commitment		145 39.1	170 63	83 69.2	398 52.2
Col. Total		371	271	120	762

Missing observations: 66

As to regard to Factor Two-A Strong Desire to Maintain Membership in the Organisation-those that agree that the promotion policy is unfair tend to be more negatively committed and less positively committed as shown in Table 10.3.2B.

Table 10.3.2B: Frequency and percentage of organisational commitment for Factor Two by response to organisation's promotion policy is unfair

Levels of Commitment	Factor Score	Agree	Uncertain	Disagree	Row Total
High negative	-1.00 to -2.76	92 25.1	29 10.7	10 8.3	131 17.3
Low negative	-0.003 to - 0.99	128 34.9	82 30.9	24 19.8	234 30.8
Overall negative commitment		220 60.0	111 41.0	34 28.1	365 48.1
Low positive	0.01 to 0.99	111 30.2	109 40.2	48 39.7	268 35.3
High positive	1.00 to 2.12	36 9.8	51 18.8	39 32.2	126 16.6
Overall positive commitment		147 40.0	160 59.0	87 71.9	394 51.9
Col. Total		367	271	121	759

Missing observations: 56

The Pearson chi-square at .000 indicates that the chance of this response to happen by chance is nil. Thus indicating a high probability of the presence of statistical relationship between attitude towards the promotion policy being unfair and a strong desire to maintain membership in the Organisation. This shows that those who agree that the promotion policy is unfair have proved to be more committed than those who do not or are uncertain but feel they have not been justly rewarded.

As to regard to Factor Three-The willingness of Employees to Exert Considerable Energy on Behalf of the Organisation, it is noted that those who agree that the promotion policy is unfair seems to be more committed than those who are uncertain or disagree. This can be testified by the figures shown in Table 10.3.2C where those who disagree are less negatively committed and more positively committed than those who are uncertain or disagree.

Table 10.3.2C: Frequency and percentage of organisational commitment for Factor Three by response to organisation's promotion policy is unfair

Levels of Commitment	Factor Score	Agree	Uncertain	Disagree	Row Total
High negative	-1.00 to -2.76	36 10.0	33 12.5	9 7.7	78 10.5
Low negative	-0.003 to - 0.99	85 23.6	60 22.6	45 38.5	190 25.6
Overall negative commitment		121 33.6	93 35.1	54 45.2	268 36.1
Low positive	0.01 to 0.99	195 54.2	158 59.6	60 51.3	413 55.7
High positive	1.00 to 2.12	44 12.2	14 5.3	3 2.6	61 8.2
Overall positive commitment		239 66.4	172 64.9	63 53.8	474 63.9
Col. Total		360	265	117	742

Missing observations: 76

The Pearson chi-square at .000 indicates that the presence of a statistical relationship and that the chances of the response to happen by chance is virtually nil. The response to Factor Three shows that those who are willing exert considerable energy on behalf of the organisation expect impartiality in the promotion system and despite of their effort still feel that the promotion policy is

unfair. It also shows that they are willing to exert considerable energy on behalf of the organisation to indicate that they have a point to prove that an element of unfairness exists in the organisation's promotion policy which affects them. None the less the indication is those who think the organisation's promotion policy is unfair need not be less committed than those who think it is not unfair.

10.4 OVERALL FINDINGS ON ATTITUDES TOWARDS PAY AND PROMOTION POLICY

From the overall findings from the regression analyses attitudes towards pay and promotion system are far more influential than any demographic variables in determining organisational commitment. Attitudes towards pay and promotion, as dependent variables, are found to be influenced mainly by the independent variables of age, tenure, job status, educational qualifications, gross fixed income, gender and race.

As in attitude towards commitment to the organisation, the application of multiple regression indicate that only selected few demographic variables are important in explaining to the variance of the dependent variables of attitude. Both the variance of the dependent variables of attitudes towards pay and promotion policy were respectively explained by almost 16% and almost 13% by the independent variables of demographic factors. This shows that the variance of attitudes towards pay and promotion policy have not been fully explained in this study. Therefore it is suggested that further study be done in order to know which factors explain more the variance of these two dependent variables.

Chapter 11

CONCLUSION AND RECOMMENDATIONS

11.1 INTRODUCTION

The main purpose of this research was to explore the organisational commitment of the academics towards the organisation they worked for.

A cross-section survey using a questionnaire was administered to the academics of the MARA Institute of Technology. Of the 2000 questionnaires distributed, 818 were returned, a response rate of almost 41 %. The Statistical Package for the Social Science (SPSS-For Window) was used to analyse the quantitative questions. Analysis of the data was undertaken to obtain frequencies and cross tabulations. This enabled a preliminary analysis of the relationship between organisational commitment and the independent variables. The chi-square test was used to test the statistical significance of the observed relationship.

Factor Analysis (FA) was later applied to the 15 organisational commitment questions. Through this analysis, the 15 questions were regrouped into three factors. The stepwise method of the multiple regression was then used to measure the relationship between each of the three factors and the independent variables in order to establish which independent variables were the strongest in influencing the level of organisational commitment shown by the academics at ITM.

Despite a time lag of 25 years since it was first used, the organisational commitment questionnaire by Porter and Smith (1970) was found to be still applicable. It was also found to be suitable for a Malaysian institute of higher learning.

11.2 THE REWARDS SYSTEM - ATTITUDES TOWARDS PAY AND PROMOTION POLICY

The findings of the research show that attitudes towards pay and the promotion policy, rather than individuals' demography, account for a large proportion of the variance in the three factors of organisational commitment. This is similar to the findings by Mottaz (1988) who found that although demographic factors such as sex, education, marital status, job tenure and family income are correlated with commitment, they explained only a small proportion of the variance in organisational commitment compared with that explained by work rewards and work values. Johnson and Johnson (1991), in a review of other previous studies found similar consistent patterns suggesting that workers' perceptions of equity were a primary antecedent to their level of organisational commitment. They conclude that perceptions of equitable play an important role in defining attitudes and behaviours concerning employment because individuals attempt to equate their ratios of outcomes to inputs. In a study undertaken by Oliver (1990) in a UK employee owned company, demographic variables too were found to have little effect on levels of commitment while both organisational rewards and work values showed significant relationships to commitment.

While high commitment and perceived equity have been found to be correlated by Curry *et al* (1986), and Hrebiniak and Alutto (1972) the adverse effect has also been proved as shown in work done by Allutto *et al* (1973). For example, failure by an organisation to recognise a worker's contribution would result in a negative correlation with commitment. Hence the support for equity as a factor in explaining organisation levels are conclusive.

Since employees' perception on rewards done by others have been similar in this study, it is proposed that a more thorough research is to be done to study the causal relationship between intrinsic and extrinsic features and commitment. This has been emphasised by Lydka (1991) who found that most studies done thus far have indicated initial disappointment with intrinsic job features at the

early stages of commitment though this may change over a period of time. In stressing the importance of rewards, Hafer and Moerer (1992) commented that programmes that would reduce turnover should revolve around giving employees both extrinsic (economic) and intrinsic (psychological) reasons to stay.

11.3 INDIVIDUAL DEMOGRAPHIC VARIABLES

Only the demographic variables of income and educational qualifications account for the variance in the dependent variable of Factor One: A Strong Belief in and Acceptance of Organisational Goals and Values. Just one aspect of organisational commitment. With Factor Two: A Strong Desire to Maintain Membership in the Organisation as the dependent variable none of the demographic variables were considered as significant. Demographic variables were also not to be significant to account for the variance in the dependent variable: A Willingness to Exert Considerable Energy on Behalf of the Organisation.

It is surprising to note the negative beta weight of S7 (ANNUAL GROSS FIXED INCOME + FIXED ALLOWANCE) demonstrates that the belief in and acceptance of organisational goals and values becomes less stronger as pay increases. While this contradicts the conclusion of Alvi and Ahmed (1987) who found that workers expressed greater commitment to organisations that take better care of their financial needs, the findings of this research can be justified.

It can be noted in Table 9.5 in Chapter 9 (see 9.5) that those with bachelor degree (EDU1) as the highest qualification possessed display higher commitment than those with either master/post graduate diploma/professional (M/PGD/P) or doctorate. Meyer and Allen (1988) too found those with first degrees to be more committed than those with postgraduate degrees. It can also be noted that EDU1 is included as a variable that significantly adds to the variance of Factor One.

Those with less income and first degree as the highest qualification possessed are likely new to the organisation. As such they are idealistic in their attitude towards the organisation. As they are less likely to have experienced the promotion exercise the bitter feeling of failure in promotion is unknown to them. Over and above this they look forward to being confirmed in their position which can take between one to three years and the benefits that accompany it such as vehicle loan to help in the purchasing of cars and scholarship with full pay to pursue post graduate studies abroad. Thus they have much to look forward to working in the organisation. It is therefore not unusual under these circumstances in justifying that those with less pay have stronger belief in and acceptance of organisational goals and values.

However this cannot be applied universally to any organisation. To say that those with lower income *per se* have higher commitment than those earning higher income can be misleading. Much has to depend on the benefits to be gained by staying as explained above.

11.4 WITHOUT ATTITUDES TOWARDS PAY AND PROMOTION POLICY

A regression analysis excluding attitudes towards pay and promotion policy was undertaken to gain a better understanding of the relative importance of the contribution of the demographic variables towards Factor One: A Strong Belief in and Acceptance of Organizational Goals and Values. Similar analysis was not done on Factor Two and Factor Three as in both these factors the contribution to the variance of the dependent factors by the independent factors constitute only seven percent and less than one percent respectively. Also in both these factors none of the demographic variables were included in the equation that determined the variance of dependent variables.

The exclusion of the attitudinal variables of pay and promotion policy suggests the secondary importance of the demographic factors in explaining the level of

organisational commitment based on A Strong Belief in and Acceptance of Organisational Goals and Values. The equation now includes the independent variables of S6 (Job status), S38 (Gender), S40 (Race) TEN1 (those with less than one year of service), TEN2 (those with service between 1-2 years), and EDU2 (those with master degree/post graduate diploma/professional qualifications). These six demographic variables statistically are significant in explaining their relationship with the dependent variable of organisational commitment based on a strong belief in and acceptance of organisational goals and values.

Among the six independent variables, EDU2 (Master/Postgraduate diploma and Professional qualifications) is the most important in describing the variance in the dependent variable of Factor 1: A Strong Belief in and Acceptance of Organizational Goals and Values. Its negative beta weight shows that those in the M/PGD/P group have lower organisational commitment compared to the other two educational groups.

For those serving the organisation for less than 1 year (TEN1) or between 1-2 years (TEN2), their level of commitment is higher than those in other period of service. Being new to the organisation they are probably full of idealism about their future. They look forward to being confirmed and thereby eligible for scholarship to further their studies, most probably abroad, with full pay leave without their seniority being jeopardised. At the same time there is also the eligibility of vehicle loans to help in the purchase of cars at interest rate far below than that offered by financial institution. Since at the time of writing, there is no promotion for those lecturers in the first two years but there is the annual salary increment, those serving less than two years have not gone through the promotion exercise and experienced any difficulty associated with it. Also as promotion, (still applicable at the time of doing this research), is not due till at least five years of service, most of those in the less than two years are not worried since it (the promotion) is not due in the near future.

The exclusion of attitudes towards pay and promotion policy allows the inclusion of gender in the equation. The negative beta weight for gender with a significant level of less than .01 of the T test shows males to be more committed than females. A significant level of less than .01 is also present for race (S40) showing the presence of a statistical relationship with Factor One excluding attitudes towards pay and promotion policy. Its negative beta weight indicates the attitude towards a strong belief in and acceptance of organisational goals and values is more positive among the Malays than among the non Malays does not happen by chance. With a significant T test of .02, the inclusion of S6 (Job Status) demonstrates that a strong belief in and acceptance of organisational goals and values is dependent on job status with commitment increasing with status.

11.5 CONCLUSION

It is important to note here, as mentioned in the introduction of Chapter Five that the research was undertaken and the data were gathered in 1995 when Malaysia was experiencing a high economic growth rate of 8% of Gross Domestic Product for the previous eight years. The economic situation of a country or region has an effect on the outcome of research of this nature because when business conditions are good, monetary rewards have a sizeable effect on turnover (Stoikov and Raimon, 1968) and that labour mobility increases in prosperous times and declines in less prosperous times (Armknrecht and Early, 1972).

The conclusion that can be derived from this research is that attitudes towards pay and the promotion policy are more important than demographic factors in explaining the organisational commitment of the academics towards their organisation. This can be observed in the analysis of the Factor One, Factor Two and Factor Three.

As mentioned in Chapter One (see 1.5), the processes which lead to labour turnover can be either 'pull' or 'push' in nature (Bowey, 1974). 'Pull'

processes attract the employee from the organization, and 'push' processes help him on his way out. The findings in this research from the response on attitude towards the promotion policy is there is a lack of procedural justice (which is explained in section 11.6) in the organisation's promotion policy. Thus there is likely a negative consequence on the organisational commitment of the academics. It is therefore the 'push' factor that is responsible for the low level of commitment of the academics in Malaysia.

It is only when attitudes towards pay and promotion policy are excluded that the demographic factors are important in their relationship with any aspect of organisational commitment. Though the independent variables of S7 (Annual gross fixed income + fixed allowance) and EDU1 (Educational qualification with bachelor degree as highest qualification) contribute towards the variance of Factor One with the inclusion of attitudes towards pay and promotion, their beta weight are far less than that of either the attitude variables.

In all the three variables of age (see 6.18.1), tenure (see 6.18.2) and educational qualifications (see 6.18.2), it is found that overall organisational commitment is highest when employees are in early employment. Then commitment dips before rising again or maintain as in the case of tenure. Even though there is a rise in the levels of organisational commitment after the dip in the age and educational qualifications they are not as high as that shown by those early in their career.

From the view point of the variable of educational qualifications the findings are similar to that by Meyer and Allen (1988) who found that those with first degrees are more committed than those with postgraduate degrees. There are also similarities with that of Angle and Perry (1981), Hrebiniak and Alutto (1972), Morris and Sherman (1981), and Steers (1977). They however made a comparison between those with better education and those who possess less formal education. The difference in the levels of commitment can be attributed to wider alternative opportunities for those with higher education. Another attribution is given by Keenan (1980) when he found that the most highly valued

aspect of employment for newly qualified graduates centred around the work itself rather than conditions of employment such as pay or fringe benefits. However Keenan relates his findings to the study of labour turnover rather than the actual study of organisational commitment.

The findings in age and tenure are different from studies done by Angle and Perry (1981), Hrebiniak and Alutto (1972), Igarria and Siegel (1992), Luthans *et al* (1987), Meyer and Allen (1984), Morris and Sherman (1981), Sager (1991), Smith and Hoy, (1992), Glisson and Durrick (1988) and Morris and Steers (1980). In all these studies age and tenure were found to be positively correlated to organisational commitment.

The scenario found in this research which is different from the above may be brought about by the ideal expectation of those in early employment before facing the reality of working in an organisation. This includes the failure to gain promotion or recognition on work done. There is also the element of reality in which as employees get older, the chances are they are more likely to be married and have children. With the change in their marital status and having responsibility towards a family, they are likely to have a higher expectation of getting a higher pay which can be obtained through promotion or recognition of work through the increment of salary as spelt out in the New Remuneration Scheme (NRS- See section 1.3 of Chapter One).

The rise in the level of organisational commitment in later stages of career can be attributed to the employees realising that they have accumulated several benefits from working in the organisation. This has been voiced by Becker (1960) and Reichers (1986). For example an employee of ITM after having served long in the organisation has much to gain in term of pension or retirement benefit. Also after a long service in the organisation a bond of loyalty may develop. Advancing age may deny a worker the opportunities to command higher pay elsewhere. Domestically, family needs may prevent the individual from moving to another organisation far from their present residence.

The characteristics of a more committed personnel can be formed through the conclusions of this research. They have positive attitude towards their organisation's promotion policy and also positive attitude towards their pay. Despite them being likely to belong to the lower income group with a bachelor degree as the highest educational qualification and having not served more than two years with the organisation, they are nevertheless optimistic regarding their future with the organisation. It is when they realise that the optimism was too general that their commitment declines. This is testified by those with masters/post graduate diploma/professional qualification as highest qualification possessed to be negative about their commitment towards their organisation and that those with longer service have lower commitment. The academics who are more positively committed are likely to be male and of Malay origin.

11.6 RECOMMENDATIONS

The results of the study on organisational commitment found that the factors of attitudes of the academics towards their pay and their organisation's promotion policy should be of the prime concern to the management rather than the demographic variables. As such it is important that the management initiates programmes or steps that would reduce labour turnover. These involve giving employees extrinsic or economic reasons to stay as stressed by Hafer and Moerer (1992).

Assuring the academics that the promotion system practised by the organisation is impartial and that the organisation is trying its best to improve the pay scheme and conditions relative to similar jobs elsewhere is perhaps the first step to be taken in order that their commitment level increases. Failure to recognise the contribution of staff would result in the declining of their commitment towards the organisation. An organisation has to recognise that rewards constitute part of exchange when efforts are made to realise organisational objectives. When inducements which include promotion do not materialise, the attitudes of the

employees will be less favourable and can finally end in their leaving the organisation (March and Simon; 1958).

As observed in Chapter Six (see 6.4) the response towards the fairness of the promotion policy, 395 of the 818 respondents thought that it was unfair, 289 as uncertain, and 129 thought it as fair. This obviously is a reflection on the employees perception on procedural justice in the organisation and can have a negative consequence on their behaviour.

The effect of procedural justice could be traced beyond the attitudes to the behaviour of compliance. It helps through the attitudes of commitment, trust and outcome satisfaction (Kim and Mauborgne, 1993; Victor *et al*, 1993 and Magner and Johnson, 1995). In other words, when individuals perceive fairness in how decisions are made, they are likely to perceive the outcome as fair. Similarly when they perceive a fair outcome, they are likely to believe that fair procedures led to that outcome (Joy and Witt, 1992). A history of perceived fairness, therefore, can be a major asset to the management in shaping employee perceptions of fairness, positive job attitudes, and productive behaviours. Management with such history is also often seen as honest, ethical, and trustworthy and they may, moreover, be judged less harshly when it is perceived as having made an unfavourable decision (Witt and Myers, 1993).

Disputes such as on promotion must be resolved in a manner to be seen fair by the academics. Mediation techniques are recommended. This involved the management listening to the points raised by those involved, offer resources to help resolve the dispute and encourage those involved to seek inventive solutions. Management that resorts to formal authority and simply impose their own settlements are less likely to be perceived as fair, regardless of the quality of their decisions (Karambayya *et al*, 1992).

The question of how employees respond to perceptions of unfairness should be taken seriously. Certo (1997) is of the opinion that those with seniority usually

decide that they have invested too many years in the organisation either to leave or to cause a disturbance. Instead, they may respond by performing marginally until retirement. Newer employees are more likely to leave for (perceived) better opportunities elsewhere. The costs of unfair employee treatment are difficult to compute. Research has determined that employees' perceptions of unfair treatment are very strong predictors of job absence and turnover-two costly employee behaviours. Other consequences of unfair treatment include lower production quantity and quality, less initiative, diminished morale, lack of cooperation, spread of dissatisfaction to co-workers, fewer suggestions and less self-confidence. Each result has a substantial organizational cost, whether direct or indirect (Carrel *et al*, 1995).

Considering the effects on the organisation of employees responses to perceived unfairness, it is not surprising that managers often try to measure employees' perceptions of their treatment. However, measuring employee feelings is a complex and difficult process. Getting honest answers in interviews and group discussions is hardly assured. Therefore the most practical alternative is to use anonymous survey techniques. The advantage of using written questionnaires is that they make it easier to identify the dimensions of perceived unfairness. Ruiz-Quintanilla and Blancero (1996) suggest the practice of open door as it raises both distributive and procedural justice perceptions which lead to fairness perceptions and influence satisfaction levels. This has a strong effect on the intent to remain with the organisation.

In Malaysia however incentives and rewards in institutions of higher learning are rooted in the general arrangements with the Public Services Department (PSD). It is difficult therefore for institutions to decide on their own on incentives for the staff without consulting the PSD. It is inconsistent for the Government to adopt market behaviour in setting and developing courses while at the same time controlling policies on incentives to be practised by institutions of higher learning. Institutions of higher learning in Malaysia need to be separated from the civil service as there is nothing in common between them. This should help to

restore the glamour the academics lost and render the academic career rewarding and respectable (Ariff, 1992). The additional comments on attitude towards pay by the respondents in this research seems to concur with Ariff as 61% asked that they be not treated as part of Government servants and that institutions of higher learning be allowed to set their own pay scheme so as to be competitive and be able to attract more to join institutions as academics (see 6.3).

At the time of writing plans are underway to corporatise ITM and other institutions of higher learning. Whilst the Government would still control and coordinate the policy of higher education, at least the institutions are given the autonomy to set up their own pay scheme and promotion policy.

Difficult though it may be, attempts must be made by the institution to anticipate academic shortages and surpluses. While employing part-timers may not be attractive solution to staff shortages, it may be necessitated by time constraint in getting permanent staff. However part-timers bring with them particular expertise that only those outside employment base can provide. Probably in the future part-time appointments may be a common feature not due to shortage of permanent staff or lack of organisational commitment of the academics to the institutions but due to the involvement, cooperation and agreement with interested corporations in such activities as setting up of courses and several forms of sponsorship to lessen the financial burden of the institutions.

While institutions of higher learning may not be able to match the pay offer made by the private sector it does not mean that attracting those from the sector may not be possible. The preliminary analysis of the personal profile of the sample shows that of the 496 of those with working experience, 197 or almost 40% came from the private sector (see section 6.2.4). This is larger in comparison with those who were from Government agencies (29%). Thus there is indication that an institution can attract personnel from the private sector. What the

Institute lacks in remuneration form, it makes up by providing, for example, scholarship, time and facilities for research.

As academics are encouraged undertake research alongside their teaching responsibilities, the Institute could and should assist in the negotiation of fees to be paid to those academics who are involved in projects involving other organisations. The present trend in Malaysia seems to be that these organisation set the fees to be paid and an institution accepts in good faith (Ariff, 1992). A favourable fee would encourage more participation in research and consequently enhance the good name of the Institute.

Perhaps the idea of privatisation of institutions of higher learning in Malaysia could in some way help. This entails that the Institute is free from depending on the Government and has to secure its own funds to finance its activities and payment of staff. Imposing higher fees on the students, providing consultation to other organisations, renting space for advertisements, and allowing buildings or properties to be owned, named after and maintained by other corporations have been suggested. Although the Institute would be free to set up its own pay scheme and promotion policy, there is no guarantee that organisational commitment of the staff would be enhanced. There is potential to further research to be undertaken on the consequence of privatisation in Malaysia towards organisational commitment.

Although sending students abroad to complete their studies entails high financial costs, and students are exposed to unwanted elements, nevertheless it is necessary in view of the shortage of academic faced by local institutions. However certain advantages should not be overlooked. Work done by Singh (1987) found that Malaysians who studied abroad tend to be more broad minded and receptive to criticism and are more independent in their job than those who studied locally. These are the qualities sought after by potential employers.

Since the attitude variables seem to be more important than demographic variables in determining the variance organisational commitment, the Institute should not neglect systematic staff development for academics. This will enable the Institute to prepare the academics to meet new challenges. Career counseling may be necessary not only for the new recruits but also for those already well established in the Institute to help them meet the collective responsibility of teaching and researching.

As those in their early years of service are more committed, the management should ensure that they sustain their attitude. The onus is on the management or administration to convince this group that their future is bright. Ensuring that promotion is based on merit will enhance their belief of the practice of impartiality in the organisation.

It is disturbing to note that females, who constitute almost 51% of the sample and 52 % (see 6.2.7) of the actual total academic force in the Institute, are less committed than males. As explained in 10.3.1 this may be due to them being surpassed by males in promotion to the senior/principal lecturer group despite forming the majority among the lecturer group. Thus it is not surprising that females' attitude towards the promotion policy of the organisation is less favourable than males'. The management should hence assess the situation and assure to the academics that promotion is based on merit and that gender is irrelevant.

The exclusion of attitudes towards pay and promotion (see 9.6 and 9.6.1) indicates that race is an important variable that contributes towards the variance of the dependent variable of organisational commitment from the aspect of a strong belief in and acceptance of organisational goals and values. The negative beta weight shows that non Malays are less committed than the Malays. It is difficult to attribute this to the actual feeling of the non-Malays or the fact that the overwhelming majority of the sample 86% (706/818) are Malays. Looking at Table 11.6.1, the percentage of the non Malays who are in the senior group is 35

% (37/105) while the that of the Malays is 26% (187/706). Thus in term of ratio of race according to job status ITM appears to be non discriminate in promotion.

Table 11.6.1: Distribution of job status by race

Job Status	Malay	Non Malay	Row Total
Lecturer	519	68	587
Senior/Principal Lecturer	187	37	224
Total	706	105	811

Missing observation: 7. NB: Those grouped as others are included in lecturer group.

Race (S40) is not a significant factor contributing towards the variance of attitude towards promotion policy (see 10.3 and 10.3.1). The explanation then perhaps lies in majority (57%) of the non-Malay academics are females, as shown in Table 11.6.1A, whilst for the Malays the gender distribution is almost equal. As indicated in this study females tend be less committed than males. Hence with majority of non-Malays being female, this may have a bearing on their levels of organisational commitment.

Table 11.6.1A: Distribution of race by gender

	Malay	Non Malay	Row Total
Male	352	45	397
Female	353	60	413
Total	705	105	810

Missing observation: 8.

Nevertheless as in gender, it is important that the management assess the situation to ensure that rewards in whatever form and fairness are observed regardless of ethnic origin.

The research has been successful in explaining some variance involving the three factors of organisational commitment. However further research is needed to discover other variables that are important in explaining organisational commitment that have been overlooked or have not been considered in this study. Further research in attitude might be necessary to explain more of the variance in organisational commitment. Since attitudes towards pay and the

promotion policy have been proved to be more important than demographic variables in determining the variance of organisational commitment in this research, it is recommended that further study on attitudes such as that towards leadership, management or administration of the institution and the attitude towards the facilities provided be done in order to determine which explains more of the variance of organisational commitment.

As ITM has undergone several changes since the commencement of this research was first undertaken, it is also suggested that similar research be carried on the Institute. This could shade some light as to whether change in status of an organisation, change in name of rank or job status of the personnel do affect organisational commitment.

REFERENCES

- Alutto, JA, Hrebiniak, LG and Alonso, R (1973), "On Operationalising the Concept of Commitment", *Social Forces*, 51, pp. 448-454.
- Alvi, SA and Ahmed, SW (1987), "Assessing Organisational Commitment in a Developing Country: Pakistan, a Case Study", *Human Relations*, 40 (5), pp. 267-280.
- Angle, HL and Perry, J (1981), "An Empirical Assessment of Organisational Commitment and Organisational Effectiveness" *Administrative Science Quarterly*, 26, pp. 1-14.
- Ariff, Professor Mohamed, "Academics Deserve Better Treatment", New Straits Times (Kuala Lumpur) 7 March 1992, p. 12 col. 3.
- Armknetcht, PA, & Early, JF (1972), "Quits in Manufacturing: A study of Their Causes", *Monthly Labour Review*, 95, 31-37.
- Becker, TE (1960), "Foci and Bases of Commitment: Are They Distinctions Worth Making?", *Academy of Management Journal*, 35 (1), pp. 232-244.
- Bowey, A (1974), *A Guide to Manpower Planning*, London: Macmillan.
- Carrel, MR; Elbert, N; and Hatfield, R (1995), *Human Resource Management*, 5th ed. Englewood Cliffs, New Jersey: Prentice-Hall International, Inc. pp. 780-84.
- Certo, SC; (1997) *Modern Management*, 7th ed. New Jersey: Prentice-Hall International, Inc. pp. 442.

Curry, JP, Wakefields, DS, Price, JL, and Mueller, CW, (1986), "On the Casual Ordering of Job Satisfaction and Organizational Commitment", *Academy of Management Journal*, 29, pp. 847-858.

Glisson, C and Durrick, M (1988), "Predictors of Job Satisfaction and Organizational Commitment in Human Service Organizations", *Administrative Science Quarterly*, 33, pp. 61-81.

Hafer, J. and Moerer, T (1992) "How to Attain Long-Term TSR Employment" *Telemarketing Magazine*, 10 (11) pp. 78-81, 88-89.

Hrebiniak LG and Alutto, JA (1972), Personal and Role Related Factors in the Development of Organisational commitments", *Administrative Science Quarterly*, 18, pp. 55-73.

Igbaria, M; and Siegel, SR. (1992) "An Examination of the Antecedents of Turnover Propensity of Engineers: An Integrated Model" *Journal of Engineering and Technology Management*, 9 (2) pp. 101-126.

Joy, VL and Witt, LA (1992), "Delay of Gratification as a Moderator of the Procedural Justice-Distributive Justice Relationship" *Group and Organization Management* 17(3), pp. 297-308.

Johnson, WR and Johnson, GJ (1991) "The Effects of Equity Perceptions on Union and Company Commitment", *Journal of Collective Negotiations in the Public Sector*, 20 (3), pp. 235-244.

Karambayya, JB and Lytle, A (1992), "Effects of Formal Authority and Experience on Third-Party Roles, Outcomes and Perceptions of Fairness" *Academy of Management Journal* 35, pp. 426-38.

Keenan, A (1980), "Stress and Professional Engineer", in *White Collar and Professional Stress*, edited by Cooper CL and Marshall, J, New York, Wiley.

Kim, WC and Mauborgne RA, (1993) "Procedural Justice, Attitudes, and Subsidiary Top Management Compliance With Multinationals' Corporate Strategic Decisions", *Academy of Management Journal* 36 (3), pp. 502-527.

Luthans, F; Baack, D; and Taylor, L (1987), "Organizational Commitment: Analysis of Antecedents", *Human Relations*, 40 (4) pp. 219-235.

Lydka, ML (1991), "Organisational Commitment-A Review of Research" A working paper series, Henley The Management College.

Magner, N and Johnson, GG (1995), "Municipal Officials' Reactions to Justice in Budgetary Resource Allocation" *Public Administration Quarterly* 18(4) pp. 439-456.

March, J and Simon, H (1958), "*Organizations*", Wiley and Sons, New York

Meyer, JP and Allen, NJ (1984), "Testing the 'Side Bet Theory' of Organizational Commitment: Some Methodological Considerations", *Journal of Applied Psychology*, 69, pp. 372-378.

Meyer, JP and Allen, NJ (1988), "Links Between Work Experiences and Organizational Commitment during the First Year of Employment: a Longitudinal Analysis", *Journal of Occupational Psychology*, 61, pp. 195-209.

Morris, J and Steers, RM (1980), "Structural Influences on Organizational Commitment", *Journal of Vocational Behavior*, 17 pp. 50-57.

Morris, J and Sherman, J (1981), "Generalizability of an Organizational Commitment Model", *Academy of Management Journal*, 24, pp. 512-526.

Mottaz, CJ (1988), "Determinants of Organisational Commitment", *Human Relations*, 41(6), pp. 467-482.

Oliver, N (1990), "Work Rewards, Work Values and Organizational Commitment in an Employee-Owned Firm: Evidence From the UK", *Human Relations*, 43 (6) pp. 513-526.

Porter, LW and Smith, FJ (1970) "The Etiology of Organizational Commitment", University of California, Irvine.

Reichers, A (1986), "Conflict and Organizational Commitments", *Journal of Applied Psychology*, 71 (3), pp. 508-514.

Ruiz-Quintanilla, SA and Blancero, D (1996), "Open Door Policies: Measuring Impact Using Attitude Surveys", *Human Resource Management*, 35(3) pp. 269-291.

Sager, JK (1991), "Recruiting and Retaining Committed Salespeople", *Industrial Marketing Management*, 20 (2) pp. 99-103.

Singh, JS (1987), "The World of Work: University Education and Employment in Malaysia" Paris: International Institute for Educational Planning.

Smith, PL and Hoy, F (1992) "Job Satisfaction and Commitment of Older Workers in Small Business", *Journal of Small Business*, 30 (4), pp. 106-118.

Steers, RM (1977), "Antecedents and Outcomes of Organizational Commitment", *Administrative Science Quarterly*, 22, pp. 465-56.

Stoikov, V and Raimon, RL (1968), "Determinants of Differences in the Quit Rate Among Industries", *American Economic Review*, 1283-1298.

Victor, B; Trevino, LP and Shapiro, DL (1993) "Peer Reporting of Unethical Behavior: The Influence of Justice evaluations and Social Context Factors" *Journal of Business Ethics*, 12(4), pp. 253-263.

Witt, LA and Myers, JG (1993) "Perceived Environmental Uncertainty and Participation in Decision Making in the Prediction of Perceptions of the Fairness of Personnel Decisions," *Review of Public Personnel Administration*, May/August 1993, pp. 48-55.

APPENDIX A

ORGANISATIONAL COMMITMENT QUESTIONNAIRE

ACADEMIC CAREER QUESTIONNAIRE

The information obtained by this questionnaire will be treated in strict confidence

Please tick (✓) the appropriate answer and provide comments where necessary.

SECTION ONE: YOUR WORK

1. Please specify your Department/School: _____

2. Branch/Campus: _____

3. How long have you worked in this organisation?

1 ☐ Less than 1 year

2 ☐ 1 - 2 years

3 ☐ 3 - 5 years

4 ☐ 6 - 10 years

5 ☐ More than 10 years..

4. Have you previously worked with other organisation/s?

1 ☐ Yes

2 ☐ No

If Yes, then

5 Please specify the type of organisation you worked for before joining your present organisation (e.g. Government agency, financial institutions, educational institution)

6. What is your present job status?

1 ☐ Tutor

2 ☐ Assistant Lecturer

3 ☐ Lecturer

4 ☐ Senior Lecturer

5 ☐ Principal Lecturer

6 ☐ Other, please specify: _____

7 Please indicate your annual gross fixed income, including any fixed allowances.

1 ☐ Less than RM24000

2 ☐ RM24001-RM36000

3 ☐ RM36001-RM48000

4 ☐ RM48001-RM60000

5 ☐ RM60001 and above

Questions 8-13 represent possible feelings that individuals might have about their pay. With reference to your present pay, please indicate the degree of your feelings with regard to each statement below by ticking ONE of the five alternatives offered.

1=Very Poor, 2=Poor, 3=Satisfactory, 4=Good, 5=Very Good

- | | | 1 | 2 | 3 | 4 | 5 |
|----|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8 | With my qualifications, my pay is | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | For the number of years I have worked in this organisation, my pay is | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | With the amount of work I put in, my pay is | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11 | Compared with those in a different profession but with similar qualifications and years of service my pay is | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12 | Overall, my pay is | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13 | In addition to my pay, the fringe benefit package (e.g. leave, vehicle & housing loans, medical expenses) offered by the organisation is | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14 | Please make any additional comments with regard to your pay: | | | | | |

Questions 15-20 are a series of statements that represent individuals feelings about the promotion policy within their organisation. Please rate these statements by ticking the appropriate box.

1=Strongly Agree, 2=Agree, 3=Uncertain, 4=Disagree, 5=Strongly Disagree

- | | | 1 | 2 | 3 | 4 | 5 |
|----|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 15 | The organisation provides opportunities for career advancement | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16 | Opportunities for promotion are limited | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17 | The promotion policy is based on ability | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18 | The promotion policy is unfair | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | Promotion exercise is held regularly | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20 | The promotion policy is similar to the policy of other institutions of higher learning | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21 | Please make any additional comments with regard to your organisation's promotion policy: | | | | | |

Questions 22-36 are statements that represent individuals' feelings about the organisation they work for. Please indicate these statements by ticking the appropriate box.

1 = Strongly Agree, 2 = Agree, 3 = Uncertain, 4 = Disagree, 5 = Strongly Disagree

	1	2	3	4	5
I am willing to put in more effort than normally expected of me, in order to help this organisation be successful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 I believe this organisation is a good organisation to work for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I have little loyalty for this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 I would accept almost any type of assignment in order to keep working for this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 I believe that my values and the organisation's values are very similar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 I am proud to tell others that I am a part of this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 I could just as well be working for a different organisation as long as the type of work was similar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 This organisation inspires the very best in me in the way I perform my job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It would take very little change in my present circumstances to cause me to leave this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 I am glad that I chose this organisation instead of others considered before I joined this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 There is not much to be gained by staying with this organisation indefinitely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 I find it difficult to agree with this organisation's policies on important matters relating to its employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I really care about the future of this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 For me, this is the best of all possible organisations to work for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 I made the wrong decision to work for this organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Please make any additional comments with regard to your organisation:

SECTION TWO: PERSONAL AND FAMILY DETAILS

8 Your Gender

1 ☐ Male

2 ☐ Female

39 Your Age

1 ☐ 25 and below

2 ☐ 26-30

3 ☐ 31-35

4 ☐ 36-40

5 ☐ 41-45

6 ☐ Over 46

40 Your Race

1 ☐ Chinese

2 ☐ Indian

3 ☐ Malay

4 ☐ Other

41. Marital Status

1 ☐ Married

2 ☐ Single

3 ☐ Widow/Widower

4 ☐ Divorced

42 Educational Qualifications (Please tick all that apply.)

1 ☐ Bachelors degree

2 ☐ MBA

3 ☐ Masters degree

4 ☐ MPhil

5 ☐ Doctorate

6 ☐ Other qualification(s), please specify

43 Please give details of the area/s of studies that you specialise in:

44 Are you a member of any professional body or association?

1 ☐ Yes

2 ☐ No

If Yes, please specify:

For the remainder of this section, only answer the questions that are applicable to you.

45 Is your spouse employed?

1 ☐ Yes

2 ☐ No

If No, then please go on to question 48

Please indicate the type of organisation your spouse works for (e.g. government department/agency, financial institution, educational institution, multi-national company):

47 Please indicate the annual gross fixed income of your spouse, including any fixed allowances.

- 1 ☐ Less than RM24000
- 2 ☐ RM24001-RM36000
- 3 ☐ RM36001-RM48000
- 4 ☐ RM48001-RM60000
- 5 ☐ RM60001 and above

48 Do you have any children?

- 1 ☐ Yes
- 2 ☐ No

If Yes then

49 Please indicate how many children you have in the appropriate age category.

Age	No. of children
0-3	
4-5	
6-12	
13-17	
18-23	
24 and above	

Do your children stay with you during their school term?

- 1 ☐ Yes
- 2 ☐ No

51 How many of your children are in higher education?

- 1 ☐ None
- 2 ☐ One
- 3 ☐ Two
- 4 ☐ Three or more

52 If your children are in higher education, please indicate where the institution(s) are located? (Please tick all that apply)

- 1 ☐ Australia
- 2 ☐ New Zealand
- 3 ☐ United Kingdom
- 4 ☐ U.S.A.
- 5 ☐ Canada
- 6 ☐ Malaysia
- 7 ☐ Others, please specify:

Thank you for sparing your time to answer this questionnaire. We assure you that all survey information is strictly confidential and will be used for academic purposes only. If you wish to have a detailed report of the results of this questionnaire, then please leave your name, address and telephone number below. Thank you for your co-operation.

Name : _____
Address : _____

Telephone : _____

ADDRESS FOR CORRESPONDENCE:

Mr. A. Yacob
Coventry Business School
Coventry University
Priory Street
Coventry CV1 5FB
United Kingdom

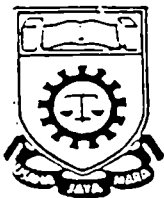
Thank you for your help

APPENDIX B

LETTER OF CONSENT FROM ITM

APPENDIX C

EXAMPLE OF FORM FOR APPLICATION FOR PROMOTION IN ITM



INSTITUT TEKNOLOGI MARA

APPLICATION FOR PROMOTION

Photograph

(Application to be made in 3 copies)

A.

1. Identity Card Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

2. Employee Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3. Name in full

):

4. Citizenship

5. Race :

6. Home Address

.....

.....

7. Tel:

8. Mailing Address

.....

.....

9. Tel:

10. Date of Birth

--	--	--	--	--	--	--	--

11.

12.

13. Marital Status:

☐

M-Married
S-Single

☐

W-Widow/Widower
D-Divorce

14. Gender:

☐

M-Male
F-Female

15. If Married:

a. Number of children

b. Name & Age as of 1 January 9

c. Name of spouse

:

d. Name and address of spouse's Employer

:

.....

.....

B. ACADEMIC QUALIFICATIONS

Details of education in school, college and/or university to be stated below.
N.B. Please enclose certified copies of Certificates, Diplomas and Degree as proof. Also please enclose Statement of Results.

16. Schools Attended

Qualification	Grade	Name of School	Date	
			From	To

17. Institutions of Higher Learning Attended

Diploma/Degree/ Master/ Doctorate/ Others	Grade or Honours	Specialisation	Name of Institutions	Date	
				From	To

Standard of Proficiency in Malay	Grade	Year
SPH/HCE (equivalent to 'O' level)		
STP/HSC (equivalent to 'A' level)		
Other Qualifications		

19. Professional Membership

.....

.....

.....

20. Publications

.....

.....

.....

21. Committee member of society in ITM

.....

C. WORK EXPERIENCE

23. Present Job Status
 Details of Service
 School/Department
 a)
 b) First date of service
 c) Salary and Salary Scale
24. Please list previous work experience chronologically

Date		Post Held	Name and Address of Employer	Salary	If teaching (subject taught)
Dari	Hingga				

25. Details of Present Job

.....

.....

.....

.....

.....

.....

D. ADDITIONAL ACTIVITIES

- 26 a) Courses/Seminars Attended

.....

.....

.....

.....

.....

.....

- b) Associateship with Higher Education Authority or other organisations
 (Please state membership rank)

.....

.....

.....

c) (For academic staff)

Subjects taught in last 2 semesters :

d) Industrial Training

E. OTHER INFORMATION

.....

.....

.....

F. REFEREES

(i) Name and address of
person who can provide
personal information

(ii) Name and address of person who
can provide information on academic
and professional qualifications

.....
.....
.....

G. . APPLICANT'S OATH . . .

I hereby certify that the informations given above are true.

Date

.....

Signature

.....

Values of F exceeded with probabilities of 5 and 1 percent

df (denominator)	df (numerator)																							
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
1	161 4,062	200 4,999	216 5,403	226 5,626	230 5,784	234 5,859	237 5,928	239 5,981	241 6,022	242 6,056	243 6,082	244 6,106	246 6,142	246 6,169	248 6,208	249 6,234	250 6,261	251 6,286	252 6,302	253 6,323	253 6,334	254 6,352	254 6,361	254 6,366
2	18.51 98.49	19.00 99.00	19.16 99.17	19.25 99.25	19.30 99.30	19.33 99.33	19.36 99.36	19.37 99.37	19.38 99.39	19.39 99.40	19.40 99.41	19.41 99.42	19.42 99.43	19.43 99.44	19.44 99.45	19.45 99.46	19.46 99.47	19.47 99.48	19.47 99.48	19.48 99.49	19.49 99.49	19.49 99.49	19.50 99.50	19.50 99.50
3	10.13 34.12	9.55 30.82	9.28 29.46	9.12 28.71	9.01 28.24	8.94 27.91	8.88 27.67	8.84 27.49	8.81 27.34	8.78 27.23	8.76 27.13	8.74 27.05	8.71 26.92	8.69 26.83	8.66 26.69	8.64 26.60	8.62 26.50	8.60 26.41	8.58 26.35	8.57 26.27	8.56 26.23	8.54 26.18	8.54 26.14	8.53 26.12
4	7.71 21.20	6.94 18.00	6.59 16.69	6.39 15.98	6.26 15.52	6.16 15.21	6.09 14.98	6.04 14.80	6.00 14.66	5.96 14.54	5.93 14.45	5.91 14.37	5.87 14.24	5.84 14.15	5.80 14.02	5.77 13.93	5.74 13.83	5.71 13.74	5.70 13.69	5.68 13.61	5.66 13.57	5.65 13.52	5.64 13.48	5.63 13.46
5	6.61 16.26	5.79 13.27	5.41 12.06	5.19 11.39	5.05 10.97	4.95 10.67	4.88 10.46	4.82 10.29	4.78 10.15	4.74 10.05	4.70 9.96	4.68 9.89	4.64 9.77	4.60 9.68	4.56 9.55	4.53 9.47	4.50 9.38	4.46 9.29	4.44 9.24	4.42 9.17	4.40 9.13	4.38 9.07	4.37 9.04	4.36 9.02
6	6.59 13.74	5.14 10.92	4.76 9.78	4.53 9.15	4.39 8.75	4.28 8.47	4.21 8.26	4.15 8.10	4.10 7.98	4.06 7.87	4.03 7.79	4.00 7.72	3.96 7.60	3.92 7.52	3.87 7.39	3.84 7.31	3.81 7.23	3.77 7.14	3.75 7.09	3.72 7.02	3.71 6.99	3.69 6.94	3.68 6.90	3.67 6.88
7	6.59 12.25	4.74 9.55	4.34 8.45	4.12 7.85	3.97 7.46	3.87 7.19	3.79 7.00	3.73 6.84	3.68 6.71	3.63 6.62	3.60 6.54	3.57 6.47	3.52 6.35	3.49 6.27	3.44 6.15	3.41 6.07	3.38 5.98	3.34 5.90	3.32 5.85	3.29 5.78	3.28 5.75	3.25 5.70	3.24 5.67	3.23 5.66
8	5.32 11.26	4.46 8.65	4.07 7.59	3.84 7.01	3.69 6.63	3.58 6.37	3.50 6.19	3.44 6.03	3.39 5.91	3.34 5.82	3.31 5.74	3.28 5.67	3.23 5.56	3.20 5.48	3.15 5.36	3.12 5.28	3.08 5.20	3.05 5.11	3.03 5.06	3.00 5.00	2.98 4.96	2.96 4.91	2.94 4.88	2.93 4.86
9	5.12 10.56	4.26 8.02	3.86 6.99	3.63 6.42	3.48 6.06	3.37 5.80	3.29 5.62	3.23 5.47	3.18 5.35	3.13 5.26	3.10 5.18	3.07 5.11	3.02 5.00	2.98 4.92	2.93 4.80	2.90 4.73	2.86 4.64	2.82 4.56	2.80 4.51	2.77 4.45	2.76 4.41	2.73 4.36	2.72 4.33	2.71 4.31
10	4.96 10.04	4.10 7.56	3.71 6.55	3.48 5.99	3.33 5.64	3.22 5.39	3.14 5.21	3.07 5.06	3.02 4.95	2.97 4.85	2.94 4.78	2.91 4.71	2.86 4.60	2.82 4.52	2.77 4.41	2.74 4.33	2.70 4.25	2.67 4.17	2.64 4.12	2.61 4.05	2.59 4.01	2.56 3.96	2.55 3.93	2.54 3.91
11	4.84 9.65	3.98 7.20	3.59 6.22	3.36 5.67	3.20 5.32	3.09 5.07	3.01 4.88	2.95 4.74	2.90 4.63	2.86 4.54	2.82 4.46	2.79 4.40	2.74 4.29	2.70 4.21	2.65 4.10	2.61 4.02	2.57 3.94	2.53 3.86	2.50 3.80	2.47 3.74	2.45 3.70	2.42 3.66	2.41 3.62	2.40 3.60
12	4.75 9.33	3.88 6.93	3.49 6.95	3.26 5.41	3.11 5.06	3.00 4.82	2.92 4.65	2.85 4.50	2.80 4.39	2.76 4.30	2.72 4.22	2.69 4.16	2.64 4.05	2.60 3.98	2.54 3.86	2.50 3.78	2.46 3.70	2.42 3.61	2.40 3.56	2.36 3.49	2.36 3.46	2.32 3.41	2.31 3.38	2.30 3.36
13	4.67 9.07	3.80 6.70	3.41 6.74	3.18 6.20	3.02 4.86	2.92 4.62	2.84 4.44	2.77 4.30	2.72 4.19	2.67 4.10	2.63 4.02	2.60 3.96	2.55 3.85	2.51 3.78	2.46 3.67	2.42 3.59	2.38 3.51	2.34 3.42	2.32 3.37	2.28 3.30	2.26 3.27	2.24 3.21	2.22 3.18	2.21 3.16
14	4.60 8.86	3.74 6.51	3.34 5.56	3.11 5.03	2.96 4.69	2.85 4.46	2.77 4.28	2.70 4.14	2.65 4.03	2.60 3.94	2.56 3.86	2.53 3.80	2.48 3.70	2.44 3.62	2.39 3.51	2.35 3.43	2.31 3.34	2.27 3.26	2.24 3.21	2.21 3.14	2.19 3.11	2.16 3.06	2.14 3.02	2.13 3.00
15	4.54 8.68	3.68 6.36	3.29 5.42	3.06 4.89	2.90 4.56	2.79 4.32	2.70 4.14	2.64 4.00	2.59 3.89	2.55 3.80	2.51 3.73	2.48 3.67	2.43 3.56	2.39 3.48	2.33 3.36	2.29 3.29	2.25 3.12	2.21 3.12	2.18 3.07	2.15 3.00	2.12 2.97	2.10 2.92	2.08 2.89	2.07 2.87
16	4.49 8.53	3.63 6.23	3.24 5.29	3.01 4.77	2.85 4.44	2.74 4.20	2.66 4.03	2.59 3.89	2.54 3.78	2.49 3.69	2.45 3.61	2.42 3.55	2.37 3.45	2.33 3.37	2.28 3.25	2.24 3.18	2.20 3.10	2.16 3.01	2.13 2.96	2.09 2.98	2.07 2.86	2.04 2.80	2.02 2.77	2.01 2.75

Values of F exceeded with probabilities of 5 and 1 percent (*Continued*)

df (denominator)	df (numerator)																							∞
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	
17	4.45	3.59	3.20	2.96	2.81	2.70	2.62	2.55	2.50	2.45	2.41	2.38	2.33	2.29	2.23	2.19	2.15	2.11	2.08	2.04	2.02	1.99	1.97	1.96
	8.40	6.11	5.18	4.67	4.34	4.10	3.93	3.79	3.68	3.59	3.52	3.45	3.35	3.27	3.16	3.08	3.00	2.92	2.86	2.79	2.76	2.70	2.67	2.65
18	4.41	3.66	3.18	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	2.29	2.25	2.19	2.15	2.11	2.07	2.04	2.00	1.98	1.95	1.93	1.92
	8.28	6.01	5.09	4.58	4.26	4.01	3.85	3.71	3.60	3.51	3.44	3.37	3.27	3.19	3.07	3.00	2.91	2.83	2.78	2.71	2.68	2.62	2.59	2.57
19	4.38	3.52	3.13	2.90	2.74	2.63	2.55	2.48	2.43	2.38	2.34	2.31	2.26	2.21	2.15	2.11	2.07	2.02	2.00	1.96	1.94	1.91	1.90	1.88
	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	3.43	3.36	3.30	3.19	3.12	3.00	2.92	2.84	2.76	2.70	2.63	2.60	2.54	2.51	2.49
20	4.35	3.49	3.10	2.87	2.71	2.60	2.52	2.45	2.40	2.35	2.31	2.28	2.23	2.18	2.12	2.08	2.04	1.99	1.96	1.92	1.90	1.87	1.85	1.84
	8.10	5.85	4.94	4.43	4.10	3.87	3.71	3.56	3.45	3.37	3.30	3.23	3.13	3.05	2.94	2.86	2.77	2.69	2.63	2.56	2.53	2.47	2.44	2.42
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.28	2.25	2.20	2.15	2.09	2.05	2.00	1.96	1.93	1.89	1.87	1.84	1.82	1.81
	8.02	5.78	4.87	4.37	4.04	3.81	3.65	3.51	3.40	3.31	3.24	3.17	3.07	2.99	2.88	2.80	2.72	2.63	2.58	2.51	2.47	2.42	2.38	2.36
22	4.30	3.44	3.05	2.82	2.66	2.55	2.47	2.40	2.35	2.30	2.26	2.23	2.18	2.13	2.07	2.03	1.98	1.93	1.91	1.87	1.84	1.81	1.80	1.78
	7.94	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.36	3.26	3.18	3.12	3.02	2.94	2.83	2.75	2.67	2.58	2.53	2.46	2.42	2.37	2.33	2.31
23	4.28	3.42	3.03	2.80	2.64	2.53	2.45	2.38	2.32	2.28	2.24	2.20	2.14	2.10	2.04	2.00	1.96	1.91	1.88	1.84	1.82	1.79	1.77	1.76
	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	3.21	3.14	3.07	2.97	2.89	2.78	2.70	2.62	2.53	2.48	2.41	2.37	2.32	2.28	2.26
24	4.26	3.40	3.01	2.78	2.62	2.51	2.43	2.36	2.30	2.26	2.22	2.18	2.13	2.09	2.02	1.98	1.94	1.89	1.86	1.82	1.80	1.76	1.74	1.73
	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.25	3.17	3.09	3.03	2.93	2.85	2.74	2.66	2.58	2.49	2.44	2.36	2.33	2.27	2.23	2.21
25	4.24	3.38	2.99	2.76	2.60	2.49	2.41	2.34	2.28	2.24	2.20	2.16	2.11	2.06	2.00	1.96	1.92	1.87	1.84	1.80	1.77	1.74	1.72	1.71
	7.77	5.57	4.68	4.18	3.86	3.63	3.46	3.32	3.21	3.13	3.05	2.99	2.89	2.81	2.70	2.62	2.54	2.45	2.40	2.32	2.29	2.23	2.19	2.17
26	4.22	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.18	2.15	2.10	2.05	1.99	1.95	1.90	1.85	1.82	1.78	1.76	1.72	1.70	1.69
	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.17	3.09	3.02	2.96	2.86	2.77	2.66	2.58	2.50	2.41	2.36	2.28	2.25	2.19	2.15	2.13
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.30	2.25	2.20	2.16	2.13	2.08	2.03	1.97	1.93	1.88	1.84	1.80	1.76	1.74	1.71	1.68	1.67
	7.68	5.49	4.60	4.11	3.79	3.56	3.39	3.26	3.14	3.06	2.98	2.93	2.83	2.74	2.63	2.55	2.47	2.38	2.33	2.25	2.21	2.16	2.12	2.10
28	4.20	3.34	2.95	2.71	2.56	2.44	2.36	2.29	2.24	2.19	2.15	2.12	2.06	2.02	1.96	1.91	1.87	1.81	1.78	1.75	1.72	1.69	1.67	1.65
	7.64	5.46	4.57	4.07	3.75	3.53	3.36	3.23	3.11	3.03	2.96	2.90	2.80	2.71	2.60	2.52	2.44	2.36	2.30	2.22	2.18	2.13	2.09	2.06
29	4.18	3.33	2.93	2.70	2.54	2.43	2.35	2.28	2.22	2.18	2.14	2.10	2.05	2.00	1.94	1.90	1.85	1.80	1.77	1.73	1.71	1.68	1.65	1.64
	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.08	3.00	2.92	2.87	2.77	2.68	2.57	2.49	2.41	2.32	2.27	2.19	2.15	2.10	2.06	2.03
30	4.17	3.32	2.92	2.69	2.53	2.42	2.34	2.27	2.21	2.16	2.12	2.09	2.04	1.99	1.93	1.89	1.84	1.79	1.76	1.72	1.69	1.66	1.64	1.62
	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.06	2.98	2.90	2.84	2.74	2.66	2.55	2.47	2.38	2.29	2.24	2.16	2.13	2.07	2.03	2.01
32	4.15	3.30	2.90	2.67	2.51	2.40	2.32	2.25	2.19	2.14	2.10	2.07	2.02	1.97	1.91	1.86	1.82	1.76	1.74	1.69	1.67	1.64	1.61	1.59
	7.50	5.34	4.46	3.97	3.66	3.42	3.25	3.12	3.01	2.94	2.86	2.80	2.70	2.62	2.51	2.42	2.34	2.25	2.20	2.12	2.08	2.02	1.98	1.96

34	4.13	3.28	2.88	2.65	2.49	2.38	2.30	2.23	2.17	2.12	2.08	2.05	2.00	1.95	1.89	1.84	1.80	1.74	1.71	1.67	1.64	1.61	1.59	1.57
	7.44	5.29	4.42	3.93	3.61	3.38	3.21	3.08	2.97	2.89	2.82	2.76	2.66	2.58	2.47	2.38	2.30	2.21	2.15	2.08	2.04	1.98	1.94	1.91
36	4.11	3.26	2.86	2.63	2.48	2.36	2.28	2.21	2.15	2.10	2.06	2.03	1.98	1.93	1.87	1.82	1.78	1.72	1.69	1.66	1.62	1.60	1.56	1.56
	7.39	5.25	4.38	3.89	3.58	3.35	3.18	3.04	2.94	2.86	2.78	2.72	2.62	2.54	2.43	2.36	2.28	2.17	2.12	2.04	2.00	1.94	1.90	1.87
38	4.10	3.26	2.85	2.62	2.46	2.35	2.26	2.19	2.14	2.09	2.05	2.02	1.96	1.92	1.85	1.80	1.76	1.71	1.67	1.63	1.60	1.57	1.54	1.53
	7.35	5.21	4.34	3.86	3.54	3.32	3.15	3.02	2.91	2.82	2.75	2.69	2.59	2.51	2.40	2.32	2.22	2.14	2.08	2.00	1.97	1.90	1.86	1.84
40	4.07	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.07	2.04	2.00	1.95	1.90	1.84	1.79	1.74	1.69	1.66	1.61	1.59	1.55	1.53	1.51
	7.31	5.18	4.31	3.83	3.51	3.29	3.12	2.99	2.88	2.80	2.73	2.66	2.56	2.49	2.37	2.29	2.20	2.11	2.05	1.97	1.94	1.88	1.84	1.81
42	4.07	3.22	2.83	2.59	2.44	2.32	2.24	2.17	2.11	2.06	2.02	1.99	1.94	1.89	1.82	1.78	1.73	1.68	1.64	1.60	1.57	1.54	1.51	1.49
	7.27	5.15	4.29	3.80	3.49	3.26	3.10	2.96	2.86	2.77	2.70	2.64	2.54	2.46	2.35	2.26	2.17	2.08	2.02	1.94	1.91	1.85	1.80	1.78
44	4.06	3.21	2.82	2.58	2.43	2.31	2.23	2.16	2.10	2.05	2.01	1.98	1.92	1.88	1.81	1.76	1.72	1.66	1.63	1.58	1.56	1.52	1.50	1.48
	7.24	5.12	4.26	3.78	3.46	3.24	3.07	2.94	2.84	2.75	2.68	2.62	2.52	2.44	2.32	2.24	2.15	2.06	2.00	1.92	1.88	1.82	1.78	1.76
46	4.05	3.20	2.81	2.57	2.42	2.30	2.22	2.14	2.09	2.04	2.00	1.97	1.91	1.87	1.80	1.75	1.71	1.65	1.62	1.57	1.54	1.51	1.48	1.46
	7.21	5.10	4.24	3.76	3.44	3.22	3.05	2.92	2.82	2.73	2.66	2.60	2.50	2.42	2.30	2.22	2.13	2.04	1.98	1.90	1.86	1.80	1.76	1.72
48	4.04	3.19	2.80	2.56	2.41	2.30	2.21	2.14	2.08	2.03	1.99	1.96	1.90	1.86	1.79	1.74	1.70	1.64	1.61	1.56	1.53	1.50	1.47	1.45
	7.19	5.08	4.22	3.74	3.42	3.20	3.04	2.90	2.80	2.71	2.64	2.58	2.48	2.40	2.28	2.20	2.11	2.02	1.96	1.88	1.84	1.78	1.73	1.70
50	4.03	3.18	2.79	2.56	2.40	2.29	2.20	2.13	2.07	2.02	1.98	1.95	1.90	1.85	1.78	1.74	1.69	1.63	1.60	1.55	1.52	1.48	1.46	1.44
	7.17	5.06	4.20	3.72	3.41	3.18	3.02	2.88	2.78	2.70	2.62	2.56	2.46	2.39	2.26	2.18	2.10	2.00	1.94	1.86	1.82	1.76	1.71	1.68
55	4.02	3.17	2.78	2.54	2.38	2.27	2.18	2.11	2.05	2.00	1.97	1.93	1.88	1.83	1.76	1.72	1.67	1.61	1.58	1.52	1.50	1.46	1.43	1.41
	7.12	5.01	4.16	3.68	3.37	3.15	2.98	2.85	2.75	2.66	2.59	2.53	2.43	2.35	2.23	2.15	2.06	1.96	1.90	1.82	1.78	1.71	1.66	1.64
60	4.00	3.15	2.76	2.52	2.37	2.25	2.17	2.10	2.04	1.99	1.95	1.92	1.86	1.81	1.75	1.70	1.65	1.59	1.56	1.50	1.48	1.44	1.41	1.39
	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72	2.63	2.56	2.50	2.40	2.32	2.20	2.12	2.03	1.93	1.87	1.79	1.74	1.68	1.63	1.60
65	3.99	3.14	2.75	2.51	2.36	2.24	2.15	2.08	2.02	1.98	1.94	1.90	1.85	1.80	1.73	1.68	1.63	1.57	1.54	1.49	1.46	1.42	1.39	1.37
	7.04	4.95	4.10	3.62	3.31	3.09	2.93	2.79	2.70	2.61	2.54	2.47	2.37	2.30	2.18	2.09	2.00	1.90	1.84	1.76	1.71	1.64	1.60	1.56
70	3.98	3.13	2.74	2.50	2.35	2.23	2.14	2.07	2.01	1.97	1.93	1.89	1.84	1.79	1.72	1.67	1.62	1.56	1.53	1.47	1.45	1.40	1.37	1.35
	7.01	4.92	4.08	3.60	3.29	3.07	2.91	2.77	2.67	2.59	2.51	2.45	2.35	2.28	2.15	2.07	1.98	1.88	1.82	1.74	1.69	1.62	1.56	1.53
80	3.96	3.11	2.72	2.48	2.33	2.21	2.12	2.05	1.99	1.95	1.91	1.88	1.82	1.77	1.70	1.65	1.60	1.54	1.51	1.45	1.42	1.38	1.35	1.32
	6.96	4.88	4.04	3.56	3.25	3.04	2.87	2.74	2.64	2.55	2.48	2.41	2.32	2.24	2.11	2.03	1.94	1.84	1.78	1.70	1.65	1.57	1.52	1.49
100	3.94	3.09	2.70	2.46	2.30	2.19	2.10	2.03	1.97	1.92	1.88	1.85	1.79	1.75	1.68	1.63	1.57	1.51	1.48	1.42	1.39	1.34	1.30	1.28
	6.90	4.82	3.98	3.51	3.20	2.99	2.82	2.69	2.60	2.51	2.43	2.36	2.26	2.19	2.06	1.98	1.89	1.79	1.73	1.64	1.60	1.51	1.46	1.43
125	3.92	3.07	2.68	2.44	2.29	2.17	2.08	2.01	1.95	1.90	1.86	1.83	1.77	1.72	1.65	1.60	1.55	1.49	1.45	1.39	1.36	1.31	1.27	1.25
	6.84	4.78	3.94	3.47	3.17	2.95	2.79	2.65	2.56	2.47	2.40	2.33	2.23	2.15	2.03	1.94	1.85	1.75	1.68	1.59	1.54	1.46	1.40	1.37
150	3.91	3.06	2.67	2.43	2.27	2.16	2.07	2.00	1.94	1.89	1.85	1.82	1.76	1.71	1.64	1.59	1.54	1.47	1.44	1.37	1.34	1.29	1.25	1.22
	6.81	4.75	3.91	3.44	3.14	2.92	2.76	2.62	2.53	2.44	2.37	2.30	2.20	2.12	2.00	1.91	1.83	1.72	1.66	1.56	1.51	1.43	1.37	1.33
200	3.89	3.04	2.65	2.41	2.26	2.14	2.05	1.98	1.92	1.87	1.83	1.80	1.74	1.69	1.62	1.57	1.52	1.45	1.42	1.35	1.32	1.26	1.22	1.19
	6.76	4.71	3.88	3.41	3.11	2.90	2.73	2.60	2.50	2.41	2.34	2.28	2.17	2.09	1.97	1.88	1.79	1.69	1.62	1.53	1.48	1.39	1.33	1.28

Values of F exceeded with probabilities of 5 and 1 percent (*Continued*)

df (denominator)	df (numerator)																							
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
400	3.88	3.02	2.62	2.39	2.23	2.12	2.03	1.96	1.90	1.85	1.91	1.78	1.72	1.67	1.60	1.54	1.49	1.42	1.38	1.32	1.28	1.22	1.16	1.13
	6.70	4.66	3.83	3.36	3.06	2.85	2.69	2.55	2.46	2.37	2.29	2.23	2.12	2.04	1.92	1.84	1.74	1.64	1.57	1.47	1.42	1.32	1.24	1.19
1,000	3.85	3.00	2.61	2.38	2.22	2.10	2.02	1.95	1.89	1.84	1.80	1.76	1.70	1.65	1.58	1.53	1.47	1.41	1.36	1.30	1.26	1.19	1.13	1.08
	6.66	4.62	3.80	3.34	3.04	2.82	2.66	2.53	2.43	2.34	2.26	2.20	2.09	2.01	1.89	1.81	1.71	1.61	1.54	1.44	1.38	1.28	1.19	1.11
∞	3.84	2.99	2.60	2.37	2.21	2.09	2.01	1.94	1.88	1.83	1.79	1.75	1.69	1.64	1.57	1.52	1.46	1.40	1.35	1.28	1.24	1.17	1.11	1.00
	6.64	4.60	3.78	3.32	3.02	2.80	2.64	2.51	2.41	2.32	2.24	2.18	2.07	1.99	1.87	1.79	1.69	1.59	1.52	1.41	1.36	1.25	1.15	1.00

(Source: Reprinted by permission from George W. Snedecor and William G. Cochran, *Statistical Methods*, 6th ed., 1967. © 1967, Iowa State University Press, Ames, Iowa.)