The Gender Perspective of attitudes and Beliefs on Information Technology in Malaysian Army

**Chen Boon Chuan** 

Master Degree of Management Faculty of Business and Accountancy University of Malaya, 2008

Submitted to the Graduate School of Business Faculty of Business and Accountancy University of Malaya, in Partial Fulfilment of the Requirement for the Master of Management Serial 12, 2008/2009

November 2009

#### ACKNOWLEDGEMENTS

This research effort represents a culmination of advice and great support of many people to whom I am deeply grateful. I wish to express my utmost appreciation and deepest to the following individuals:

To Mr Lee Sai Leong, the source of my wisdom, strength and inspiration. He is a sincere and extremely caring educator who has always encouraged me to be original and thorough in my investigations and research efforts. He has always sought time to bring out the best in me and taught me what it takes to be a good researcher. His constant constructive ideas and criticisms as well as invaluable advice throughout this study provided me with the right direction and motivation to successfully complete this study.

To Commandant of Malaysian Army Institute Communication and Electronic, Commanding Officer of 3 Royal Signal Regiment, 91 Royal Signal Regiment and 95 Royal Signal Regiment; who graciously allowed me to use their students and soldiers as participants in this study. They showed concern and extended their help during data collection.

Last but not least, to my family for their prayers, inspiration and support.

ii

# TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
ABSTRACTS	ii
TABLE OF CONTENTS	iv
LIST OF ABBREVIATIONS	viii
LIST OF TABLES	ix
LIST OF FIGURES	xii

### **CHAPTER 1: INTRODUCTION**

1.1	Background of Study	1
1.2	Purpose of Study	4
1.3	Malaysia Army Royal Signal Regiment (RSR)	7
	1.3.1 Overview	7
	1.3.2 Signaler	9
1.4	Research Objective	10
1.5	Concept Development	10
1.6	Research Questions	12
1.7	Significance of Study	13
	1.7.1 Contribution to Knowledge	13
	1.7.2 Contribution to Practice	14
1.8	Organization of Study	14

# **CHAPTER 2: LITERATURE REVIEW**

2.1	Concept and Variables	16
2.2	Status of Characteristics	17
2.3	Theory Perspective	17
2.4	Issues of Gender Gap	18
2.5	Experience	23
2.6	Age and Socioeconomic	26
2.7	Comfort Level	28

2.8	Definition
-----	------------

2.8.1	Information Technology	30
2.8.2	Attitude	31
	2.8.2.1 Attitude and Consistency	34
	2.8.2.2 Attitude Survey	35
2.8.3	Belief	36

## **CHAPTER 3: RESEARCH METHODOLOGY**

3.1	Metho	odological Issues and a Selecting Methodologies	37
3.2	Hypot	thesis Development	38
	3.2.1	Dependent Variable	39
	3.2.2	Independent Variable	40
	3.2.3	Hypothesis Testing	41
3.3	Selec	ting of Measure	44
	3.3.1	Rating Scale and Ranking Scale	45
	3.3.2	Reliability and Validity Issues	45
3.4	Data	Collection	47
	3.4.1	Types and Sources of Data	47
		3.4.1.1 Secondary Data	47
		3.4.1.2 Primary Data	48
	3.4.2	The Preferred Method	48
	3.4.3	Questionnaire Design	49
3.5	Samp	ling Design	51
	3.5.1	Sample Survey	51
	3.5.2	Sampling	51
	3.5.3	Sampling Technique	52
	3.5.4	Determining the Sample Size	52
	3.5.5	Sampling Process	54
3.6	Data	Analysis Techniques	55
	3.6.1	Objectives of Data Analysis	55
	3.6.2	Feel for the Data	56

	3.6.3	Testing Goodness of Data	56
	3.6.4	Hypothesis Testing	57
3.7	Concl	usion	57
CHAI	PTER 4	I: RESULT AND FINDING	
4.1	Prelim	ninary Analysis	58
	4.1.1	Data Screening	59
4.2	Demo	graphic Data	
	4.2.1	Gender	59
	4.2.2	Rank Structures	61
	4.2.3	Expertise	61
	4.2.4	Age	61
	4.2.5	Working Experience	61
	4.2.6	Education Background	62
	4.2.7	Ethnic	62
4.3	Respo	ondents IT Background	
	4.3.1	Personal Computer	62
	4.3.2	Having Attended Computer Course before Joining MAF	62
	4.3.3	Email Account	63
	4.3.4	Browse the Internet	63
	4.3.5	Computer Important Level at Work Place	64
4.4	Facto	r Analysis on the Attitude of Respondents toward IT	64
4.5	Reliat	pility Test of the Data	
	4.5.1	Group Factor 1	67
	4.5.2	Group Factor 2	68
	4.5.3	Group Factor 3	69
4.6	Hypot	hesis Testing on Gender Perspective Attitude toward IT	70
	4.6.1	H1A: There is significant difference in the perception between	70
	males	and females regarding the value of IT in making users more	
	produ	ctive.	

	4.6.2 <b>H2A:</b> There is significant difference in the attitudes between	71
	males and females signaler toward the impact of IT on people and	
	their work environments.	
	4.6.3 H3A: There is significant difference between males and	72
	females signaler comfort in using computers	
4.7	Hypothesis Testing between other Demographic Factors and	73
Attitu	ide toward IT	
	4.7.1 H4A: Other demographic factors significantly influence the	73
	perception regarding the value of IT in making users more productive.	
	4.7.2 H5A: Other demographic factors significantly influence the	76
	attitudes toward the impact of IT on people and their work	
	environments.	
	4.7.3 H6A: Other demographic factors significantly influence comfort	78
	in using computers.	
4.8	Hypothesis Testing between Respondent IT Background and	
Attitu	ide toward IT	
	4.8.1 H7A: Respondent IT backgrounds significantly influence the	81
	perception regarding the value of IT in making users more productive.	
	4.8.2 H8A: Respondent IT backgrounds significantly influence the	83
	attitudes toward the impact of IT on people and their work	
	environments.	
	4.8.3 <b>H9A</b> : Respondent IT backgrounds significantly influence	84
	comfort in using computers.	
4.9	Gender Different Belief and Attitude toward IT	86
4.10	Summary of the Finding	89
CHA	PTER 5: CONCLUSION AND RECOMMENDATION	
5.1	Research Overview	92
5.2	Summary of Research Result	93
5.3	Implication of Study	96
5.4	Limitation and Suggestions for Future Research	96
Refe	rences	98

viii

Appendix A: Figure 3.1- The Inventory Instrument	108
Appendix B: Research Questionnaire	109
Appendix C: Figure 3.3 – Outline of Section B Instrument	113
Appendix D: Figure 3.4 – Outline of Section C Item	115
Appendix E: Table 4.15 – Factor Analysis Result	116

# LIST OF ABBREVIATIONS

AO	- Administrative Officer
COC	- Command Operation Centre
C4ISR	- Command, Control, Communication, Computing,
	Intelligence, Synchronizing & Reconnaissance
ICT	- Information, Communication and Technology
IT	- Information Technology
IKED	- Malaysian Army Institute of Communication and Electronic
JTK CIS	- Telecommunication Technician in Communication
	Information System
MoA	- Memorandum of Agreement
MAF	- Malaysia Armed Forces
NITC	- National Information Council
OCIS	- Operator Information System
OUM	- Open University Malaysia
PC	- Personal Computer
RSI	- Regiment Signal Instructor
RSO	- Regiment Signal Officer
RSR	- Royal Signal Regiment
SPSS	- Statistical Package for Social Science
UTM	- University Technology Malaysia

## LIST OF TABLES

		Page
Table 4.1	Demographic Data	60
Table 4.2	Respondent IT Background	63
Table 4.3	KMO and Bartlett's Test	65
Table 4.4	Total Variance Explained for Factor Analysis	65
Table 4.5	Factor Analysis Results	116
Table 4.6	The Result of Reliability Test on the Group Factor 1	67
Table 4.7	Item- Total Statistics on Group Factor 1	67
Table 4.8	The Result of Reliability Test on the Group Factor 2	68
Table 4.9	Item- Total Statistics on Group Factor 2	68
Table 4.10	The Result of Reliability Test on the Group Factor 3	69
Table 4.11	Item- Total Statistics on Group Factor 3	69
Table 4.12	T-Test for Male and Female attitude toward the Value of IT	70
	for Making users more Productive	
Table 4.13	T-Test Male and Female attitude toward the Impact of	72
	Technology on People and their Work Environment	
Table 4.14	T-Test between Computer Comfort Level for Males and	73
	Females	
Table 4.15	ANOVA Test between Rank Structures and Attitude	74
	Toward The value of IT for Making Users More Productive	
Table 4.16	ANOVA Test between Expertise and Attitude Toward The	74
	value of IT for Making Users More Productive	
Table 4.17	ANOVA Test between Experience and Attitude Toward	75
	The value of IT for Making Users More Productive	
Table 4.18	ANOVA Test between Education Level and Attitude	75
	Toward The value of IT for Making Users More Productive	
Table 4.19	ANOVA Test between Rank Structures and Attitude	76
	Toward The Impact of Technology on People and Their	
	Work Environment	

Table 4.20	ANOVA Test between Expertise and Attitude Toward The Impact of Technology on People and Their Work	77
	Environment	
Table 4.21	ANOVA Test between Experience and Attitude Toward	77
	The Impact of Technology on People and Their Work	
	Environment	
Table 4.22	ANOVA Test between Education Level and Attitude	78
	Toward The Impact of Technology on People and Their	
	Work Environment	
Table 4.23	ANOVA Test between Computer Comfort Level among	79
	Rank Structures	
Table 4.24	ANOVA Test between Computer Comfort Level and	79
	Expertise Group	
Table 4.25	ANOVA Test between Computer Comfort Level and	80
	Experience	
Table 4.26	ANOVA Test between Computer Comfort Level and	80
	Education Level	
Table 4.27	T-Test between Personal Computer Ownership and	81
	Attitude Toward The value of IT for Making Users More	
	Productive	
Table 4.28	T-Test between Computer Course Exposure and Attitude	82
	Toward The value of IT for Making Users More Productive	
Table 4.29	T-Test between Personal Computer Ownership and	83
	Attitude Toward The Impact of Technology on People and	
	Their Work Environment	
Table 4.30	T-Test between Computer Course Exposure and Attitude	84
	Toward The Impact of Technology on People and Their	
	Work Environment	
Table 4.31	T-Test between Computer Comfort Level and Personal	85
	Computer Ownership	
Table 4.32	T-Test between Computer Comfort Level and Computer	86
	Course Exposure	

Table 4.33	Nominal Group and Results and Ranking Signalers	87
	Belief and Attitude toward IT	
Table 4.34	Compared Gender Perspectives Belief and Attitude toward IT	87

### LIST OF FIGURES

		Page
Figure 3.1	The Inventory Instrument	108
Figure 3.2	Research Framework	42
Figure 3.3	Outline of Section B Questionnaires	113
Figure 3.4	Outline of Section C Item	115