CHAPTER 4

DATA ANALYSES AND FINDINGS

This chapter presents the analysis and interpretation of data used in this study. The preliminary analysis and descriptive statistics to ensure the assumption of linearity, normality and homoscedasticity are satisfied as conducted. Factor analysis and reliability test is discussed next. Finally, the t-test and one-way ANOVA analysis will be used to determine supportability of hypothesis in this study.

4.1 Preliminary Analysis

For the actual research, a total of 700 questionnaires were distributed to respondents in Kuala Lumpur, Seremban and Malacca. However from the total distributed questionnaire, only 580 or 82.5% of the respondents returned the questionnaire for analysis. After screening through the entire sample, only 523 samples or 90.2% has been accepted and recorded into the SPSS. This is because some of the respondents did not complete the questionnaires or the answer is biased. After keying-in all the data, missing values were checked and replaced with the mean value of the series and frequency tables were used to check for error.

4.1.1 Data Screening

The first step that the researcher took in this analytic process was to explore the characteristics of the data. Incorrect data entry can be costly in terms of time and money. In checking for errors, the researcher looked for values that fall outside the range of possible values for a variable. As indicated from the results table below, there is no error found in the data set. The minimum, maximum and mean of both independent and dependent variable are within the expected range of the data input.

4.2 Demographic Data

This research is specifically targeted at Malaysian Army RSR Signaler. The demographic profiles of the respondents are gender, rank, age, expertise, experience, education and ethnicity as shown as **Table 4.1**.

4.2.1 Gender. Since the policy changes in term of enlistment of female soldier in MAF, RSR is now employing more than 15% of female in this profession. From the data gathered, there was more male signaler as compared to female signaler in this study. The data indicates 73.6% of the respondents are male respondent and 26.4% are female.

Table 4.1- Demographic Data

	Group	***Frequency***	***Percent***
Gender	Male	385	73.6
	Female	138	26.4
	Total	**523**	**100.0**
Rank Structures	PW I/PW II/SSjn/Sjn	83	15.9
	Cpl	115	22.0
	LCpl/Sig/SigW	325	62.1
	Total	**523**	**100.0**
Expertise	JTK CIS	152	29.1
	OCIS	270	51.6
	Combat Signaler	101	19.3
	Total	**523**	**100.0**
Age Group (Year)	18-26	250	47.8
	27-32	129	24.7
	33 & above	144	27.5
	Total	523	100.0
Experience	1-6	253	48.4
	7-12	125	23.9
	13 & above	145	27.7
	Total	**523**	**100.0**
Academic Level	Diploma & above	14	2.7
	STP equivalent	22	4.2
	SPM/SPVM	410	78.4
	SRP & equivalent	77	14.7
	Total	**523**	**100.0**
Ethnics Group	Malay	398	76.1
	Chinese/Indian/Other peninsular	12	2.3
	Bumiputra Sabah and Sarawak	113	21.6
	Total	**523**	**100.0**

4.2.2 Rank Structures. Rank is very important in the Malaysian Army organization. It depicts the achievement of particular soldiers in this profession. Majority of the respondent's ranks come from the rank group of LCpl/Sig (62.1%), follow by rank group of Cpl (22.0%) and rank group of WO I/WO II/SSjn/Sjn (15.9%).

4.2.3 Expertise. As mentioned early in Chapter 1, RSR signaler can be categorized into three type of expertise which is JTK CIS, OCIS and Combat Signaler. Each of the expertise has a different level of knowledge, skills, experience and responsibility. The JTK CIS and OCIS are the group of people which are more often involved in IT related job due to their task and responsibility itself. JTK CIS group made up 29.1% of the respondents follow by OCIS group 51.6% and Combat Signaler group 19.3%.

4.2.4 Age Group. The majority of respondents range between the age group of 18-25 (47.8%), followed by respondent from age group 33 & above (27.5%) and age group of 26-32 (24.7%).

4.2.5 Working Experience. The majority working experience of respondents are from the first group (between 1 to 6 years) which consists of 48.4%, second largest group is from the last category (13 years and above) which cover 27.7% of the respondent, followed by first category (between 7 to 12 years) which is about 23.9% of the respondents.

4.2.6 Education Background. The data show that 78.4% of respondent's academic levels at SPM or SPVM and 21.6% made up the other qualification levels.

4.2.7 Ethnic. The data shows that Malay group made up 76.1% of the respondent follows by Sabah/Serawak Bumiputera group 21.6% and other groups 2.3%.

4.3 Respondents IT Background

The respondents IT background shown as **Table 4.2**:

4.3.1 Personal Computer Ownership. There is little doubt personal computer is very important to every educated and professional individual today. However in the Malaysian Army, not everybody wants to have their own personal computer particularly those from lower ranks. Table 4.2 shows that 44.4% of the respondents own a personal computer (PC) and 55.6% did not own a PC.

4.3.2 Having Attended Computer Course before Joining MAF. From the Table 4.2, 25.8% of the respondents had attended computer courses before they join the MAF while 74.2% didn't have the opportunity before joining the MAF.

Table 4.2- Respondent IT Background

	Group	***Frequency***	***Percent***
Personal Computer	Yes	232	44.4
	No	291	55.6
	Total	**523**	**100.0**
Attended Computer Course	Yes	135	13.0
	No	388	37.4
	Total	**523**	**50.4**
Email Account	Yes	189	36.1
	No	334	63.9
	Total	**523**	**100.0**
Internet Usage	Very Often	21	4.0
	Often	78	14.9
	Not Very Often	197	37.7
	Some time	227	43.4
	Total	**523**	**100.0**
Computer at Workplace	Very Important	213	40.7
	Important	201	38.4
	Some how important	106	20.3
	Not Important	3	.6
	Total	**523**	**100.0**

4.3.3 Email Account. They is no policy and regulation that required every MAF personnel to register and have their own internet email account with any internet service providers, the Table 4.2 data indicates that only 36.1% of the respondents had email account and 63.9% otherwise.

4.3.4 Browse the Internet. Browsing internet amongst soldier in Malaysian Army is still very low. This is due to limited internet facilities provided at work place particularly for lower rank personnel and it's quite

expensive for them to have their own internet facilities. The respondent data displays only 18.9% of the respondent's browsed internet Very Often/Often and 56% Not Very Often/Some time.

4.3.5 Computer Importance Level at Work Place. The majority (99.4%) of the respondents agreed that computer is very important/important/some how important at their workplace. The results also highlight perceived importance of IT roles in their working environment.

4.4 Factor Analysis on the Attitude of Respondents toward IT

Factor Analysis is data reduction technique used to reduce a large number of variables to smaller set of underlying factors. It will summarize the essential information contained in the variables. This analysis is more frequently used as an exploratory technique to summarize the structure of a set of variables. Since the author's goal is to construct a reliable test, factor analysis is an additional means of determining whether items are tapping into the same construct. In **section B** of this questionnaire, there were twenty two items of questions or statements to seek how respondents feel about the information technology. The questionnaire were designed to identify the attitudes of respondents about (1) the value of technology making users more productive, (2) the impact of technology on people and their working environment, and (3) the relative of their comfort

when using computer. However, the questions given in the questionnaire are not in sequence, purposely designed to control respondent's bias. Therefore, the study has used the factor analysis to summarize the structure of the variables.

Table 4.3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.867
Bartlett's Test of Sphericity	Approx. Chi-Square	2.646E3
	df	231
	Sig.	.000

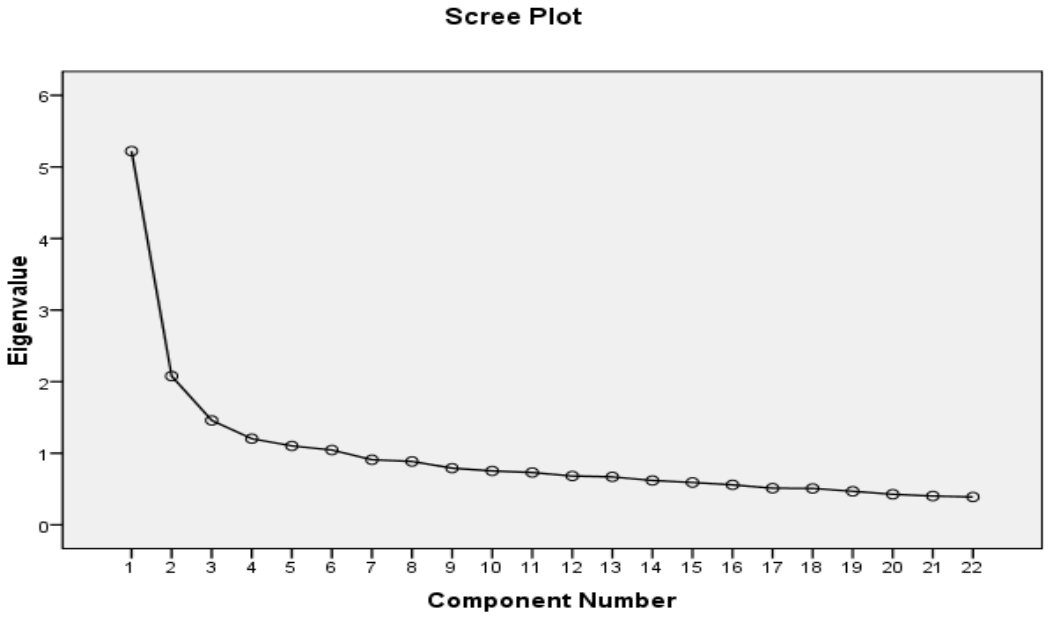
Table 4.3 display the results of Bartlett's test of Sphericity are significant and that the Kaiser-Meyer-Olkin measure of sampling adequacy is far greater than .60. **Table 4.4** displays the total variance explained for factor analysis. In reviewing the table, it is expected that four factors to be extracted as they have eigenvalues greater than 1. If three factors were extracted, then approximately **39.36%** of the variance would be explained.

Table 4. 4: Total Variance Explained for Factor Analysis

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Item	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.22	23.73	23.73	5.22	23.73	23.72	3.41	15.51	15.51
2	2.08	9.45	33.17	2.08	9.45	33.17	2.72	12.38	27.89
3	1.46	6.63	39.81	1.46	6.63	39.81	2.52	11.47	39.36
4	1.20	5.47	45.27	1.20	5.47	45.27	1.30	5.91	45.27
5	1.10	5.01	50.28						

Extraction Method: Principal Component Analysis.

The scree plot as follow graphically display the eigenvalues for each factor and suggests that three factors are prominent for the Section B set of questionnaire.



The rotated factor matrix overleaf for factor analysis results displayed at **Table 4.5** as per **Appendix E** indicates that a four-factor solution is evident in the data. Items comprising the Group Factor 1 (perception the value of technology making users more productive) scales appear to be grouping relatively well; however items of Factor 2 (the relative of their comfort when using computer), and Factor 3 (attitude toward the impact of technology on people and their working environment) is seen to have loading greater than 0.3 on different factors and therefore simple structure is not apparent. In relation to the research question, conceptually, there is some truth in the factor structure as proposed in the literature.

4.5 Reliability Test of the Data

Reliability test need to be conducted in this study to ensure there is internal consistency of the data. Even though there are several different reliability coefficients, but for this study, Cronbach's Alpha coefficient is used to determine the reliability of the data.

4.5.1 Group Factor 1 (Perception The Value Of Technology Making Users More Productive). The result of the analysis is shown in the **Table 4.6**. From the Reliabilility Statistic table, the Cronbach's Alpha coefficient for this group is 0.79 is greater than 0.7. From the item statistic, it is also found that there is no need to discard the item from the list of Group Factor 1 because the coefficient cannot be increased even if the item is deleted (See **Table 4.7**).

Table 4.6: Reliability Test on the Group Factor 1

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.79	**.79**	**8**

Table 4.7:Item-Total Statistics on Group Factor 3

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item B1	12.09	10.34	.47	.25	.77
Item B3	12.24	10.16	.52	.29	.77
Item B5	12.04	9.39	.54	.36	.76
Item B6	12.11	9.85	.55	.33	.76
Item B10	12.27	10.11	.47	.25	.78
Item B19	11.59	9.43	.52	.29	.77
Item B20	11.88	9.76	.47	.27	.78
Item B21	11.83	9.57	.49	.25	.77

4.5.2 Group Factor 2 (The Relative Comfort when Using Computer). The result of the analysis is shown in the **Table 4.8**. From the Reliabilility Statistic table, the Cronbach's Alpha coefficient for this group is 0.78 which is greater than 0.7. From the item statistic, it is also found that there is no need to discard the item from the list of Group Factor 2 because the coefficient can be increased even the item is deleted (See **Table 4.9**).

Table 4.8: Reliability Test on the Group Factor 2

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.78	**.78**	**5**

Table 4.9: Item-Total Statistics on Group Factor 2

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item B15	8.8	9.79	.47	.24	.77
Item B16	8.9	9.42	.60	.37	.73
Item B17	8.90	9.18	.62	.40	.72
Item B18	9.14	9.55	.48	.25	.77
Item B22	9.23	9.21	.64	.42	.72

4.5.3 Group Factor 3 (Attitude toward the Impact of IT on People and their Work Environment). The result of the analysis is shown in the **Table 4.10**. From the Reliabilility Statistic table, the Cronbach's Alpha coefficient for this group is 0.69 which is less than 0.7 but greater than 0.6 which acceptable for this research. From the item statistic, it is also found that there is no need to discard the item from the list of Group Factor 3 because the coefficient can be increased even the item is deleted (See **Table 4.11**).

Table 4.10: The Result of Reliability Test on the Group Factor 3

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.69	**.69**	**7**

Table 4.11: Item-Total Statistics on Group Factor 3

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item B2	16.94	14.39	.31	.11	.68
Item B4	17.48	14.20	.41	.18	.65
Item B8	17.78	12.63	.57	.34	.61
Item B9	17.10	14.79	.33	.11	.67
Item B11	17.30	13.82	.45	.22	.64
Item B14	17.20	14.56	.36	.14	.67

4.6 Hypothesis Testing on Gender Perspective Attitudes toward IT

To analyze the gender perspective research questions, t-test was calculated using the three summated scale as the dependent measure and gender of the subject as the independent measure. The following analysis presents the finding for each **$H1_A$, $H2_A$ and $H3_A$**.

4.6.1 $H1_A$: *There is significant difference in the perception between males and females regarding the value of IT in making users more productive.*

Using an alpha level of 0.1, a computed t-value of 0.40 indicates that there is no significant difference between the mean levels of males and females. **Table 4.12** presents the statistical analyses of inventory items that involved perception about the value of technology in making users more productive.

Table 4.12: T- Test for Male and Female attitude toward the value of IT for Making Users More Productive

Gender	*N*	*Mean*	*t*	*df*	*Sig. (2-tailed)*
Male	385	1.72	.40	230.48	.69
Female	138	1.70			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

Examination of the means reveals that both the males and the females had mean values less than 2.00 on this scale. Since lower value on this scale indicate a more positive perception toward the increased level of productivity afforded by IT, one may conclude that both males and females view the IT as a tool that is important in assisting them to raise productivity. However, there appears to be a gender difference on this scale, indicating that the females in this study regard the IT highly as a productivity enhancing tool.

From the research finding, it is revealed that there is no significant difference in the perception between males and females signalers regarding the value of IT in making users more productive. Therefore the study has to reject this **$H1_A$** and accept the **$H1_0$**.

4.6.2 $H2_A$: *There is significant difference in the attitudes between males and females signaler toward the impact of IT on people and their work environments.*

Neither men nor women showed high degrees of concern about the impact of computers and technology on the work environment, as indicated by mean score of 2.89 and 2.91 at **Table 4.13** for male and female, respectively, when reaching to negatively worded statements. Using an alpha level of 0.1, a computed t-value of -0.25 indicated that

there is no significant difference between the mean levels of males and females. However, there appears to be a gender difference on the scale, indicating that the level of male's disagreement is slightly higher than females, in other words, females are concerned about this issue.

Table 4.13: T-Test for Male and Female Attitude toward the Impact of Technology on People and Their Work Environment

Gender	*N*	*Mean*	t	df	Sig. (2-tailed)
Male	385	2.89	-.25	230.18	.80
Female	138	2.91			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

Since the results show that there is no significant difference in the attitudes between males and females signaler toward the impact of IT on people and their work environments. Therefore the study has to reject the **H2A** and accept **H20**.

4.6.3 H3A: *There is significant difference between males and females signaler comfort in using computers*

Table 4.14 T-test output presents analyses of inventory items that involved males' and females' comfort levels associated with technology. Using an alpha level of 0.1, computed t-values of .84 would indicate that there is no significant difference between the mean levels of males 2.27

and females 2.21. Examination of these means shows than women had a lower mean than did the men. Therefore, it can reveal that female signaler today is more comfortable with technology.

Table 4.14 T-Test for Computer Comfort Level between Male and Female

Gender	*N*	*Mean*	t	df	Sig. (2-tailed)
Male	385	2.27	.81	225.67	.42
Female	138	2.21			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

Since the result shows that there is no significant difference between males and females signaler comfort in using computers. Therefore the research has accepted **H3$_0$** and rejects **H3$_A$**.

4.7 Hypothesis testing between other Demographic Factors and Attitude toward IT

To analyze the above hypothesis, ANOVA-test was calculated using the three summated scale as the dependent measure and other demographic factors such rank structure, expertise, experienced and education level as the independent measure. The following analysis presents the finding for **H4$_A$**, **H5$_A$** and **H6$_A$**:

4.7.1 H4$_A$. *Other demographic factors significantly influence the perception regarding the value of IT in making users more productive.*

4.7.1.1 Rank Structures. The results of this ANOVA test shown in **Table 4.15** with F-ratio probability value of 0.16 indicate that the rank structures does not significantly influence *Their Perception Regarding the Value of IT in Making Users More Productive*, F(2,520)=1.83, p>0.1.

Table 4.15: ANOVA Test between Rank Structures and Attitude toward the Value of IT for Making Users More Productive

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	.71	2	.35	1.83	.16
Within Groups	100.96	520	.19		
Total	101.67	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.1.2 Expertise. The F-ratio with an F probability value at 0.73 which more than of 0.1 is not significant (See ANOVA Test output at **Table 4.16**), suggesting that the respondents expertise does not significantly influence *Their Perception Regarding the Value of IT in Making Users More Productive*, F(2,520)=.31, p>0.1.

Table 4.16: ANOVA Test between Expertise and Attitude toward the Value of IT for Making Users More Productive

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	.12	2	.06	.31	.73
Within Groups	101.54	520	.19		
Total	101.67	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.1.3 Experience. The ANOVA test result shown in Table 4.17 indicate the F-ratio with an F probability value at 0.19 more than 0.1 is not significant, suggesting that experience in service does not significantly influence *Their Perception Regarding the Value of IT in Making Users More Productive*, $F(2,520)=1.64$, $p>.05$.

Table 4.17: ANOVA Test between Experience and Attitude toward the Value of IT for Making Users More Productive

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	.64	2	.32	1.64	.19
Within Groups	101.03	520	.19		
Total	101.67	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.1.4 Education Level The F-ratio with an F probability value at 0.014 less than 0.1 is significant (See **Table 4.18**), suggesting that education level significantly influence *Their Perception Regarding the Value of IT in Making Users More Productive*, $F(3,419)=3.54$, $p<.05$.

Table 4.18: ANOVA Test between Education Level and Attitude toward the Value of IT for Making Users More Productive

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.05	3	.684	3.56	.014**
Within Groups	99.61	519	.192		
Total	101.66	522			

The results from Table 4.18 had shown that other demographic factors especially respondents education level had significantly influence the perception regarding the value of IT in making users more productive. Therefore, the research has accepted **H4A** and rejected **H40**.

4.7.2 ***H5A***: *Other demographic factors significantly influence the attitudes toward the impact of IT on people and their work environments.*

4.7.2.1 Rank Structures. The F-ratio with an F probability value at 0.09 which is less than of 0.1 is significant (See **Table 4.19**), suggesting that the rank structure significantly influence respondents *Attitude Toward The Impact of Technology on People and Their Work Environment*, $F(2,520)=2.40$, $p<0.1$.

Table 4.19: ANOVA Test between Rank Structures and Attitude toward the Impact of Technology on People and Their Work Environment

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	1.77	2	.89	2.40	.09*
Within Groups	192.48	520	.37		
Total	194.25	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.2.2 Expertise. The F-ratio with an F probability value at 0.76 which more than of 0.1 is not significant (See **Table 4.20**), suggesting that expertise of respondents does not significantly influence *Attitude Toward*

The Impact of Technology on People and Their Work Environment, F(2,520)=2.40, p>0.1.

Table 4.20: ANOVA Test between Expertise and Attitude toward the Impact of Technology on People and Their Work Environment

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	.20	2	.10	.27	.76
Within Groups	194.05	520	.37		
Total	194.25	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.2.3 Experience. The F-ratio with an F probability value at 0.30 which more than of 0.1 is not significant (See **Table 4.21**), suggesting that the respondents experience in service does not significantly influence *Attitude Toward The Impact of Technology on People and Their Work Environment*, F(2,520)=1.21, p>0.1.

Table 4.21: ANOVA Test between Experience and Attitude toward the Impact of Technology on People and Their Work Environment

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	.89	2	.45	1.21	.30
Within Groups	193.35	520	.37		
Total	194.25	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.2.4 Education Level. The F-ratio with an F probability value at 0.37 which more than of 0.1 is not significant (See **Table 4.22**), suggesting that education level does not significantly influence *Attitude Toward The Impact of Technology on People and Their Work Environment*, $F(2,520)=1.21$, $p>0.1$.

Table 4.22: ANOVA Test between Education Level and Attitude toward the Impact of Technology on People and Their Work Environment

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	1.16	3	.38	1.04	.37
Within Groups	193.09	519	.37		
Total	194.25	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

The results from **Table 4.19** had shown that other demographic factors especially rank structure are significantly influence *the attitudes toward the impact of IT on people and their work environments.* Therefore, the research has accepted **H5A** and rejected **H50**.

4.7.3 *Hypothesis 6A*: *Other demographic factors significantly influence comfort in using computers.*

4.7.3.1 Rank Structures. The F-ratio with an F probability value at 0.04 is significant (See ANOVA test output as per Table 4.23), suggesting

that rank structure significantly influence respondents' comfort level when using computer, F (2,520) =3.40, p<0.1.

Table 4.23: ANOVA Test between Computer Comfort Level among Rank Structures

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	3.38	2	1.69	3.04	.04**
Within Groups	288.47	520	.55		
Total	291.84	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.3.2 Expertise. The F-ratio with an F probability value is 0.00 less than of 0.1 is significant (See ANOVA Test output as per **Table 4.24**), suggesting that expertise factor significantly influence respondents' comfort level when using computer, F (2,520) =5.89, p<0.1.

Table 4.24: ANOVA Test between Computer Comfort Level and Expertise Group

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	6.47	2	3.23	5.89	.003***
Within Groups	285.37	520	.55		
Total	291.84	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.3.3 Working Experience. The F-ratio with an F probability value at 0.63 is more than of 0.1 is therefore not significant (See ANOVA test output as per **Table 4.25**), suggesting that working experience factor

does not significantly influence respondents' comfort level when using computer, F (2,520)= .47, p>0.1.

Table 4.25: ANOVA Test between Computer Comfort Level and Experience

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	.53	2	.26	.47	.63
Within Groups	291.32	520	.56		
Total	291.84	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.7.3.4 Education Level. The F-ratio with an F probability value at 0.12 is more than of 0.1 is not significant (See ANOVA Test output as per **Table 4.26**), suggesting that education level factor is not significant in influencing respondents' comfort level when using computer, F (3,519) = 1.93, p>0.1.

Table 4.26: ANOVA Test between Computer Comfort Level and Education Level

ANOVA					
	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups	3.22	3	1.07	1.93	.12
Within Groups	288.62	519	.56		
Total	291.84	522			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

The results from Table 4.23 and Table 4.24 had indicated that other demographic factors especially rank structure and expertise had

significantly influence respondents' comfort level when using computer. Therefore, the research has accepted **H6A** and rejected **H60**.

4.8 Hypothesis Testing on the Influence of Respondent IT Background Attitude toward IT

4.8.1 ***Hypothesis 7A (H7A)***: *Respondent IT backgrounds significantly influences the perception regarding the value of IT in making users more productive.*

4.8.1.1 Personal Computer Ownership. Using t-test with an alpha level of 0.1, a computed t-value of -3.90 indicated that there is significant difference between the mean levels of respondents' with personal computer and no personal computer (See **Table 4.27**). Respondents with personal computer produced higher means value indicated that they regarded the IT highly as a productivity enhancing tool.

Table 4.27: T-Test between Personal Computer Ownership and Attitude toward the value of IT for Making Users More Productive

Computer Ownership	*N*	*Mean*	*t*	*df*	*Sig. (2-tailed)*
Yes	232	1.63	-3.92	500.25	.000***
No	291	1.78			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.8.1.2 Computer Course Exposure. Using t-test with an alpha level of 0.1, a computed t-value of -2.95 indicated that there is significant difference between the mean levels of respondents' with computer course exposure before joining MAF and no computer exposure group (See **Table 4.28**). Respondents with personal computer experienced produced higher means value which indicated that they regarded IT highly as a productivity enhancing tool.

Table 4.28: T-Test between Computer Exposure and Attitude toward the value of IT for Making Users More Productive

Computer Exposure	*N*	*Mean*	*t*	*df*	*Sig. (2-tailed)*
Yes	135	1.62	-2.87	222.78	.004***
No	388	1.75			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

The results from **Table 4.27** and **Table 4.28** had shown that respondent personalities backgrounds such personal computer ownership and previous computer course exposure significantly influences their perception regarding the value of IT in making users more productive. Therefore, the research has accepted **H7A** and rejected **H70**.

4.8.2 *Hypothesis 8A (H8A)*: *Respondent IT backgrounds significantly influences the attitudes toward the impact of IT on people and their work environments.*

4.8.2.1 Personal Computer Ownership. Using an alpha level of 0.1, a computed t-value of -2.58 indicated that there is significant difference between the mean levels of attitudes between respondents with own personal computer and none (See **Table 4.29**). The results indicated that the level of respondents with no personal computer (2.95) disagreement is higher than with personal computer (2.82), in other words, the group with no personal computer showed less concern than about this issue.

Table 4.29: T-Test between Personal Computer Ownership and Attitude toward the Impact of Technology on People and Their Work Environment

Computer Ownership	*N*	*Mean*	*t*	*df*	*Sig. (2-tailed)*
Yes	232	2.82	-2.37	491.46	.018**
No	291	2.95			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.8.2.2 Computer Course Exposure. Using an alpha level of 0.1, a computed t-value of -2.07, Table 4.40 indicated that there is significant difference between the mean levels of between respondents with computer experience before joined MAF and no computer exposure. The

results indicated that the level of respondents with no computer course exposure (2.93) before joining the service had higher disagreement than personnel with computer exposure (2.80), in other words, the group with none computer experienced showed less concern than women about this issue.

Table 4.30: T-Test between Computer Exposure and Attitude toward the Impact of Technology on People and Their Work Environment

Computer Exposure	*N*	*Mean*	*t*	*df*	*Sig.(2-tailed)*
Yes	135	2.80	-2.05	229.43	.04**
No	388	2.93			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

The results from **Table 4.29** and **Table 4.30** had shown that respondent personalities backgrounds such personal computer ownership and previous computer course exposure significantly influences the attitudes toward the impact of IT on people and their work environments. Therefore, the research has accepted **H8A** and rejected **H80**.

4.8.3 ***Hypothesis 9A (H9A)***: *Respondent IT backgrounds significantly influence comfort in using computers.*

4.8.3.1 Personal Computer Ownership. Using t-test with an alpha level of 0.1, computed t-values of -3.87 indicated that there is significant difference between the mean levels of respondents with personal

computer at 2.11 and no personal computer 2.36 as shown at **Table 4.31**. Examination of these means shows than personnel with owns computer had a lower mean. Therefore, respondents with personal computer felt more comfortable with technology than respondents with no personal computer.

Table 4.31: T-Test between Computer Comfort Level and Personal Computer Ownership

Computer Ownership	*N*	*Mean*	*t*	*df*	*Sig. (2-tailed)*
Yes	232	2.11	-3.87	502.05	.000***
No	291	2.36			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

4.8.3.2 Computer Course Exposure. As shown at **Table 4.32**, using t-test with an alpha level of 0.1, computed t-values of -2.74 indicated that there is significant difference between the mean levels of respondents with computer course exposure before joining MAF than those with no computer course. Examination of these means shows than personnel with computer course exposure is 2.10 had a lower mean compared with no exposure 2.30. Therefore, respondents with computer course exposure felt more comfortable with technology than respondents with no computer course exposure before joined MAF.

Table 4.32: T-Test between Computer Comfort Level and Computer Course Exposure

Computer Exposure	*N*	*Mean*	*t*	*df*	*Sig. (2-tailed)*
Yes	135	2.10	-2.67	224.15	.01**
No	388	2.30			

*** Significant at 0.01 level
** Significant at 0.05 level
* Significant at 0.1 level

The results from **Table 4.31** and **Table 4.32** had shown that respondent personalities backgrounds such personal computer ownership and previous computer course exposure significantly influences comfort level when using computer. Therefore, the research has accepted **H9A** and rejected **H90**.

4.9 Gender Different Belief and Attitude toward IT

In section C of this questionnaire, there were ten items of statements to seek what characteristic or features does IT have that are important to them? The ten items statements were designed to identify the belief of respondents about IT. **Table 4.33** shows that the results of the Nominal Group Technique (NGT) for gender groups and the rankings of the characteristics and features identified as most important for each of these groups. The lists of items obtained from the groups can be considered a representation of the *salient* belief that these individuals hold toward IT. The author had used mean level for each item to determine the most important to least important of the statements. Items which obtained the lower mean are considered the most important. The differences in

the importance of these items to the different groups i.e. male versus the female signalers represent differences in their beliefs toward IT.

To identify the gender *salient* beliefs and attitude toward IT, the overall ranking of important features or characteristics of IT for males and females were rearranged as show at **Table 4.34**. As we can see from the **Table 4.34**, the entire eight positive connotation items are rank above the two negative connotations item for both males and females. This suggests that both males and females signalers have positive attitudes toward IT. Interestingly, the top three items and last two items nominal ranking for male and female are the same. However, the fourth to seven ranking items for each group are in different ranking. These differences in ranking in rankings may lead to differences between male and female signaler attitudes toward technology.

However, the earlier results we obtained from **Table 4.12, Table 4.13** and **Table 4.14** have shown that they are no significant differences in attitudes among gender toward IT. The differences attitudes toward IT exist, but it is not definitive.

Table 4.33: Nominal Group and Results and Ranking Signalers Belief and Attitude toward IT

Item	*Overall*		*Gender*			
			Male		*Female*	
	Mean	*Ranking*	*Mean*	*Ranking*	*Mean*	*Ranking*
2. IT improves work efficiency	3.30	1	3.42	1	2.95	1
3. IT improves communication	4.00	2	3.96	2	4.12	2
4. IT improves our ability to learn	4.33	3	4.24	3	4.56	3
1. IT can be use to invade our privacy	5.12	4	4.90	4	5.73	7
7. IT makes it easier to obtain learning materials eg book	5.34	5	5.42	5	5.10	4
6.IT makes us more successful	5.38	6	5.43	6	5.23	5
9. IT provide more services	5.84	7	5.94	7	5.55	6
8. IT helps us make better decision	6.06	8	6.14	8	5.83	8
10. IT affect the environment	7.01	9	7.05	9	6.88	9
5.IT course fear and anxiety to people	8.60	10	8.44	10	9.02	10

Table 4.34: Compared Gender Perspectives Belief and Attitude toward IT

Male	*Female*
1. IT improves work efficiency	1. IT improves work efficiency
2. IT improves communication	2. IT improves communication
3. IT improves our ability to learn	3. IT improves our ability to learn
4. IT can be use to invade our privacy	4. IT makes it easier to obtain learning materials eg book
5. IT makes it easier to obtain learning materials eg book	5. IT makes us more successful
6. IT makes us more successful	6. IT provide more services
7. IT provide more services	7. IT can be use to invade our privacy
8. IT helps us make better decision	8. IT helps us make better decision
9. IT affect the environment	9. IT affect the environment
10. IT course fear and anxiety to people	10. IT course fear and anxiety to people

4.10 Summary of the Finding

The overall finding of this research is gathered from the result of the hypothesis testing. The first finding in this research is about gender differences in attitude toward IT. The results of **H1A**, **H2A** and **H3A** is rejected and therefore shows that they is no significant differences in attitudes among gender about (1) the value of technology making users more productive, (2) the impact of technology on people and their working environment, and (3) the relative comfort when using computer. However, the results revealed that female signaler in this study had slightly more positive attitudes and regarded the IT highly as a productivity enhancing tool and felt more comfortable with technology compared with male signaler. In term of attitudes toward the impact of technology on people and their working environment the analysis indicated that the level of male's disagreement is higher than females, in other words, female signalers has showed more concern about this issue.

The second finding in this study is the influence of other demographic factors attitude toward IT. The results of **H4A**, **H5A** and **H6A** show that other demographic factors significantly influence the attitude of signaler toward IT. Further analysis showed that education level significantly influence respondent perception that the value of technology makes users more productive. The rank structures are significantly influence respondent's attitude toward the impact of technology on people and their work environment. The finding also reveals that

rank structures and expertise is significantly influence respondent comfort level when using computer.

The third finding in this study is about the influence of respondents IT background toward IT. The results of **H7A**, **H8A** and **H9A** has shown that respondents IT background significantly influences respondent about (1) the value of technology making users more productive, (2) the impact of technology on people and their working environment, and (3) the relative comfort level when using computer. Using the three summated scale as the dependent measure, respondents with personal computer and having exposure with computer courses before joining the MAF are more positive in attitude toward IT.

The fourth finding in this research is about personality IT background differences in attitude toward IT. From the analysis, it is revealed that personality with different IT background showed significant differences in attitude toward IT. Respondents with personal computer and having computer courses exposure before joining MAF are more positive in attitude toward IT compared to respondents with no personal computer and IT exposure. The finding also reflected that the importance of computer level at workplace significantly affect the attitude of respondents toward IT.

The final finding in this study is about gender differences in belief and attitude toward IT. Although the analysis of the empirical study does not definitively

indicate that differences in beliefs toward IT lead to different attitudes toward IT, there is some evidence that differences in beliefs toward IT do exist between male and female signalers. Of the ten items ranked by both male and female, only the top three items and the last two items are of the same ranking. Both male and female strongly believe IT can improve work efficiency, communication and their ability to plan. Although both group held predominantly positive believe toward IT, the specific belief they held is slightly different and those that were common had different levels of importance to the groups.