Chapter 4

RESEARCH RESULTS

4.1. INTRODUCTION

This chapter presents the research findings obtained using statistical analysis. It starts with the presentation of demographic profile of the respondents. Statistical analysis and discussion of the study's finding are presented. The data was also tested empirically to address the research questions.

The targeted respondents were working adults in Iran and Malaysia who are working with internet in their companies. A total of 320 respondents were collected from possible 380 questionnaires distributed (84.21%) while 300 of them (93.75%) meet the eligibility criteria and are therefore included for further analysis.

4.2. FREQUENCY DISTRIBUTION AND PROFILE OF RESPONDANTS (Questions 1, 2, 3, 4, 5, 6, 7, 8)

Table 4.1 shows the largest group in each item in the profile of respondents. The respondents are classified into four classes of age. The respondents who are between 21 years old to 30 years old has formed the biggest percentage which is 53%, while respondents who are above 50 years old has formed the smallest percentage which are 1.7%. For respondents who are between 31years old and 40 years old and 41 years old to 50 years old formed the percentage of 37.7 percent and 7.7 percent respectively. There is no respondent with age 20 years old and below.

Further, 54 percent of respondents are male while the female group formed 46 percent of the total number of respondents.

In terms of marital status, 56 percent of the respondents are single and remaining 42.3 percent and 1.7 percent are married and others respectively. The respondents can be classified into four different groups based on their educational background. The respondents who currently possess a degree formed the biggest percentage, which is 61.7 percent. A small minority of the respondents (0.3 percent) did not state the educational background in the questionnaire. In terms of nationality and races, 57 percent of respondents are Malaysian which 26.3 percent Malay, 26 percent Chinese and 4.7 percent Indian. The remaining 43 percent of respondents are Iranians. Respondents are classified into three groups based on their position in their companies. 48.8 percent worked as executives and below as they formed the largest group in 21-30 years old and working experience of 1-3 years while 20.1 percent were supervisor and 31.1 percent worked as managers.

Table 4.2.1: Profile of respondents (Largest Groups)

Demographic variable	Largest Group in Each Variable	Frequency	Percent
Age	21-30 years old	159	53%
Gender	Male	162	54%
Highest Education Level	Degree/ Professional	185	61.7%
Marital Status	Single	168	56%
Ethnic	Iranian	129	43%
	Malaysian	171	57%
Position	Executive and Below	146	48.7%
Working Experience (YEARS)	1-3 years	123	41%
Industry	Manufacturing	74	24.7%

4.3. MEASURES OF CENTRAL TENDENCIES AND DISPERSION

"In many inferential statistical techniques, the assumption of normality of data is the prerequisite condition. The normality of data presumes the representation of samples collected towards the actual population. Therefore, it measures the degree to which the distribution of samples corresponds to a normal distribution" (Tan, 2008)

The central tendency shows that how the scores on a variable tend to be on average of their distribution. Dispersion explains how the scores on a variable are dispersed across the measurement scale (Veal, 2005)

Descriptive statistics were used for data analysis. The mean, variance and standard deviation for all variables permit comprehensive examination of the data and evaluate the normality of data distribution. All descriptive results are presented in appendix.

Descriptive outputs provide information related to distribution of scores on variables using Kurtosis and Skewness methods. Kurtosis and Skewness valued in the region of 2 to -2 are deemed acceptable (Sekaran, 2002). Fidell and Tabachnick (2007) state that when sample size exceeded 200, it is reasonable that both Kurtosis and Skewness will not make a substantial difference in the analysis. Nonetheless, all items in this research questionnaire fulfilled the Kurtosis and Skewness requirement, hence the data is normal.

4.4 RELIABILITY ANALYSIS

The Cronbach's Alpha results which are tabulated in Table 4.2. show value above 0.6, suggesting acceptable internal consistency reliability for the scale used in each variable in research questionnaires, as Pallant (2007) explained that values above 0.7 are preferable.

Table 4.4.1: Cronbach's Alpha for Each Variable

Variables	**No of measurement items**	**Cronbach's Alpha**
Culture	12	.607
Perceived Quality of work life	10	.737
Behavioral Intention	4	.771
Overall TAM	23	.907

The value for reliability of scale for overall variables revealed is .837 as depicted in table 4.3. This result shows good internal consistency reliability for the scale with the samples. As a result, all variables are retained for the next analysis.

Table 4.4.2: Cronbach's Alpha for Overall Variables

Variables	**No of measurement items**	**Cronbach's Alpha**
Culture, Perceived Quality of Work Life, Technology Acceptance Model	45	.859

4.5. FACTOR ANALYSIS

Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables. Factor analysis can also be used to generate hypotheses regarding causal mechanisms or to screen variables for subsequent analysis. In this research, factor analysis done on two independent variables (Culture and Perceived Quality of Work Life) to indentify if there are underlying varibles. The Kaiser-Meyer-Olkin, shown in table 4.4 below, measures sampling adequacy and Bartlett's test of sphericity. The KMO statistic varies between 0 and 1. A value of 0 indicates that the sum of partial correlations in large relative to the sum of correlations, indicating diffusion in the pattern of correlation (hence, factor analysis is likely to be inappropriate). A value close to 1 indicates that patterns of correlations are relatively impact and so factor analysis should yield distinct and reliable factors. Kaiser (1974) recommends accepting values greater than 0.5 as acceptable (values below this should lead researcher to either collect more data or rethink which variables to include). Furthurmore, values between 0.5 and 0.7 are medicore, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson and Sofroniou, 1999). For these data the value is 0.706, which falls into the range of being good: so, researcher is confident that factor analysis is appropriate for these data.

Table 4.5.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.706
Bartlett's Test of Sphericity	Approx. Chi-Square	1.142E3
	df	231
	Sig.	.000

Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to work we need some relationships between variables and if the R-matrix were an identity matrix then all correlation coefficients would be zero. Therefore, researcher want this test to be significant. A significant test tells that the R-matrix is not an identity matrix; therefore there are some relationships between the variables we hope to include in the analysis. For these data, Bartlett's test is highly significant ($p<0.001$), and therefore factor analysis is appropriate. Communalities indicate the amount of variance in each variable that is accounted for.

Initial communalities are estimates of the variance in each variable accounted for by all components or factors. Extraction communalities are estimates of the variance in each variable accounted for by the factors (or components) in the factor solution. Small values indicate variables that do not fit well with the factor solution, and should possibly be dropped from the analysis.

Table 4.5.2: Communalities

	Initial	Extraction
I am satisfied with my current income	1.000	.400
I rate the quality of the working relationships among my peers in my work group as good	1.000	.493
I am satisfied with my ability to provide continuity of care	1.000	.514
The amount of paperwork I process is reasonable	1.000	.626
I have influence over management decisions that affect my practice in using internet in work place.	1.000	.469
I often am able to match the amount of time I have to spend with customers to the level of complexity of each customer's case	1.000	.669
I am satisfied with the opportunity to fully utilize my skills in practicing situation the internet in my work place.	1.000	.672
I am satisfied with being in my current job	1.000	.712
Given my work situation in total, I am satisfried with the overall quality of the tasks I am able to provide	1.000	.599
I am able to achieve my overall professional goals within my current situation	1.000	.631
Children in my community are obidient towards their parents and older relatives, even when they are adults	1.000	.689
Students have to stand up whenn the teacher enters the classroom	1.000	.531
If I disagree with my boss, i will speak up	1.000	.502
People have to respect the decisions of government officials	1.000	.439
I think it is important to have a life insurance	1.000	.337
Top management involve supervisors in their employee's learning process	1.000	.570
In my workplace there are many formal room rules controlling the rights and duties of employers and employees	1.000	.693
I am positive towards government institutions	1.000	.581
Learning is one-time processes, reserved for the young only, who have to learn how to do things in order to participate in society.	1.000	.441
Decisions to hire or promote are based on the applicant's skills and knowledge.	1.000	.540
It's not important for me to have an opportunity for high earning	1.000	.605
It's not important for me to have an opportunity for advancement to higher level jobs	1.000	.608

Extraction Method: Principal Component Analysis.

Table 4.5.3 lists the eigenvalues associated with each linear component (factor) before extraction, after extraction and after rotation. Before extraction, there were 22 linear components within the data set. The eignevalues associated with each factor represent the variance explained by that particular linear component. So, factor 1 explains 15.98% of total variance. The first few factors explain relatively large amounts of variance whereas subsequent factors explain only small amounts of variance. After extraction all factors with eigenvalues greater than 1, which leaves 7 factors, the eigenvalues associated with these factors are again displayed in next columns. In this section, the values for the discarded factors are ignored. In the final part of the table, Rotation Sums of Squered Loadings, the eigenvalues of the factors after rotation are displayed. Rotation has the effect of optimizing the factor structure and one consequence for these data is that the relative importance of the seven factors is equalized. Before rotation, factor 1 accounted for 15.98%, after extraction it accounts for 11.36% of variance.

Table 4.5.3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.516	15.984	15.984	3.516	15.984	15.984	2.499	11.361	11.361
2	2.100	9.546	25.530	2.100	9.546	25.530	2.040	9.271	20.632
3	1.651	7.503	33.032	1.651	7.503	33.032	1.837	8.350	28.982
4	1.467	6.667	39.699	1.467	6.667	39.699	1.551	7.051	36.032
5	1.323	6.015	45.714	1.323	6.015	45.714	1.542	7.010	43.042
6	1.225	5.567	51.281	1.225	5.567	51.281	1.469	6.675	49.718
7	1.039	4.722	56.003	1.039	4.722	56.003	1.383	6.285	56.003
8	.988	4.492	60.495						
9	.901	4.097	64.592						
10	.896	4.074	68.666						
11	.852	3.875	72.541						
12	.810	3.684	76.224						
13	.732	3.328	79.552						
14	.669	3.043	82.595						
15	.598	2.718	85.313						
16	.569	2.587	87.899						
17	.528	2.401	90.300						
18	.502	2.283	92.583						
19	.478	2.172	94.756						
20	.427	1.940	96.696						
21	.387	1.761	98.457						
22	.339	1.543	100.000						

Extraction Method: Principal Component Analysis.

Factor matrix table reports the factor loadings for each variable on the unrotated components or factors. Each number represents the correlation between the item and the unrotated factor correlations can help to formulate an interpretation of the factors or components. This is done by looking for a common thread among the variables that have large loadings for a particular factor or component. By Kaiser's criterion, researcher decide to extract 7 factors. This criterion is accurate when there are less than 30 variables and communalities after extraction are greater 0.7 or when the sample size

exceeds 250 and avarage commulinity is greater than 0.6. In this research, there are 22 variables, sample size is 300 and the avarage commulinity is 0.6 that make the decision applicable. However, it is possible to see items with large loadings on several of the unrotated factors, which can make interpretation difficult. In these cases, it can be helpful to examine a rotated solution. All tables with details are available in appendix 2.

The next step is to look at the content of the questions that load onto the same factor to try to identify common themes. The questions that load highly on factor 1 seem to all related to Work Satisfaction Issues. Therefore researcher deside to lable this factor Work Satisfaction Issues. The three questions that load highly on second factor, labled as Practice Issues and other 5 labled as power distance, Masculinity/ Feminity, Uncertainty Avoidance and Collectivism/ individualism respectively.

Table 4.5.4: Rotated Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
I am satisfied with my current income	.595	.048	-.074	.023	.062	-.024	-.180
I rate the quality of the working relationships among my peers in my work group as good	.315	.249	.255	-.194	.032	-.265	.397
I am satisfied with my ability to provide continuity of care	.583	-.043	.169	.089	.218	.117	.273
The amount of paperwork I process is reasonable	.024	.196	.047	.250	.105	.103	.707
I have influence over management decisions that affect my practice in using internet in work place.	.175	.600	-.009	.156	-.058	.130	.183
I often am able to match the amount of time I have to spend with customers to the level of complexity of each customer's case	.096	.809	.055	-.035	.034	.021	-.018
I am satisfied with the opportunity to fully utilize my skills in practicing situation the internet in my work place.	.058	.803	.033	-.039	.055	-.086	.101
I am satisfied with being in my current job	.807	.172	.037	-.166	-.008	-.005	-.042
Given my work situation in total, I am satisfried with the overall quality of the tasks I am able to provide	.592	.295	-.092	-.001	-.079	.327	.199
I am able to achieve my overall professional goals within my current situation	.742	.055	.149	.208	.047	.085	.044
Children in my community are obidient towards their parents and older relatives, even when they are adults	.114	-.157	.733	.048	.188	-.251	.115
Students have to stand up whenn the teacher enters the classroom	-.171	-.038	.580	-.145	-.102	.294	.217
If I disagree with my boss, i will speak up	.075	.321	.594	-.029	-.015	.152	-.126
People have to respect the decisions of government officials	.083	.054	.587	.118	.033	.142	-.223
I think it is important to have a life insurance	.010	.014	.006	-.139	.295	.479	-.003
Top management involve supervisors in their employee's learning process	.075	-.067	.283	.075	.376	.534	.218
In my workplace there are many formal room rules controlling the rights and duties of employers and employees	.017	.099	.055	-.044	.812	.083	-.111
I am positive towards government institutions	.133	-.054	-.002	.203	.706	.132	.054
Learning is one-time processes, reserved for the young only, who have to learn how to do things in order to participate in society.	.038	-.037	.186	.210	.150	.058	-.577
Decisions to hire or promote are based on the applicant's skills and knowledge.	.162	.063	.104	.043	-.005	.700	-.084
It's not important for me to have an opportunity for high earning	.034	.039	.022	.774	.025	.040	-.033
It's not important for me to have an opportunity for advancement to higher level jobs	.029	-.003	.003	.770	.081	-.086	.016

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

4.6. TESTING THE HYPOTHESES

For the First Hypothesis and the first part of the second hypothesis, the relationship between perceived quality of working life, culture and behavioral intension, Bivariate correlations were chosen as the analytical tool and Pearson coefficient as criteria. The correlation results are summarized in table 4.6.1 below:

Table 4.6.1: Correlation result for Perceived Quality of Work Life and Behavioral Intention

Variable Name		PQWLT	BIT
PQWLT	Pearson Correlation	1	.173**
	Sig. (2-tailed)		.003
	N	300	300
BIT	Pearson Correlation	.173**	1
	Sig. (2-tailed)	.003	
	N	300	300

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

Table 4.6.2: Correlation result for Culture and Behavioral Intention

Variable Name		BIT	CULT
BIT	Pearson Correlation	1	.183**
	Sig. (2-tailed)		.001
	N	300	300
CULT	Pearson Correlation	.183**	1
	Sig. (2-tailed)	.001	
	N	300	300

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

As the results show, since r-value for both relation is positive and less than 1 (r-value for first hypothesis is equal to 0.173 and for the second one is equal to 0.183), then both variables have positive relationship with behavioral intention which means the null hypothesis can be reject in both cases.

After considering positive relationship between culture and behavioral intension, the next step to find the effect of strength relation and differences on intention behavior is coming to t-test. The result of the test is summarized below:

Table 4.6.3: T-test result for Malaysian Culture and Iranian Culture

One-Sample Statistics				
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**
CULTMal	171	31.0994	5.59270	.42768
CulTIR	129	34.5736	5.79571	.51028

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CULTMal	72.716	170	.000	31.09942	30.2552	31.9437
CulTIR	67.754	128	.000	34.57364	33.5640	35.5833

The results show difference in means with p-value of less than 0.05 which is the cutoff point to establish significance with 95 percent confidence. As a result we can reject the null hypothesis since $p<0.05$ meaning that there is a significant difference between two cultures.

Table 4.6.4: Compare Means between four dimensions of CULTURE according to Hofstede theory, Comparison between Iranian and Malaysian Culture

Four Dimensions	Average Mean for Iranian Culture	Average Mean for Malaysian Culture
Power Distance	11.23	9.94
Uncertainty Avoidance	9.40	7.77
Masculinity / Femininity	8.29	8.05
Collectivism / Individualism	5.81	5.16

The comparison between two behavioral intentions to use internet between Iranian and Malaysian shows a small difference as a result of weak relationship we got before between culture and intention to use new technologies. The mean difference for behavioral intention to use internet between Iranian is 7.74 while the behavioral intention to use internet between Malaysian is 8.02 which shows the opposite move since the higher the mean of the culture is, the behavioral intention comes down.

As an interpretation of the result, researcher found the higher four dimensions of the culture are (namely, Power Distance, Uncertainty Avoidance, Collectivism and Masculinity) the intention to use new technologies shows less amount. These finding also supports other studies in this area which found the opposite relationship between these two variables.

Table 4.6.5: T-test result for Behavioral Intention to use new technologies between Malaysian and Iranian

One-Sample Statistics				
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**
BITIR	129	7.7364	2.89806	.25516
BITMal	171	8.0234	2.76523	.21146

One-Sample Test						
	Test Value = 0					
	t	**df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
					Lower	Upper
BITIR	30.320	128	.000	7.73643	7.2316	8.2413
BITMal	37.942	170	.000	8.02339	7.6060	8.4408

4.7. SUMMARY OF RESEARCH RESULTS

There were 300 or about 93.75 percent valid responses used in analysis in this study. A brief summary for demographic profiles of respondents is shown in table one based on descriptive analysis. All measurement items have undergone the goodness of measure testing namely, normality and reliability. The Cronbach's alphas have indicated that the data were validated and acceptably reliable for the study.

Based on information gathered in this study, result is showing a significant relationship between culture and behavioral intention to use new technologies at 0.01 level. These results support the previous studies which done in other countries. The four dimensions of the culture also have relationship with behavioral intention. This finding indicates that adapting to any change, especially in technology's area; need more attention and planning by management to avoid any resistance between employees. This result may help management to be aware of the importance of the culture as one of the most important factors in transferring new technologies and accepting to use.

Results of the study also show the significant relationship between perceived quality of work life and behavioral intention at level 0.01. This positive relationship indicates that the higher satisfaction from work life can result in easier adapting and more willingness to accept changes and new technologies. As revealed by the findings, there are significant differences in all four dimensions of the culture between Iranian and Malaysian culture. The results show Iranian culture is more collectivist and masculine while there is higher power distance and more uncertainty avoidance between Iranian.

These differences between cultures result different behavior among Iranian and Malaysian in terms of accepting and using new technologies. Although the relationship is not too strong here, the t-test shows significant differences between Iranian and Malaysian.