Chapter4:

Research Finding

4.1 Introduction

This chapter examines the results of the study. Descriptive statistics were explored the data to understand the nature and characteristics of the data. It helps the researchers in selecting and using the appropriate analyses or procedures in hypothesis testing.

4.2 Demographic Characteristics of Respondents

Descriptive Analysis: For part A, demographic data was collected on Gender, Age, Educational level and Occupation was in part A of questionnaire, beside these items, home country of respondent was asked as important item in this part.

From 243 respondents, 143 respondents were male and 10 respondents were female females that mean 58.8 male and 42% female. The age of respondents is in 19-66 age range. The youngest user of internet banking is 19year old, and the oldest user of it, is 66 year old.

Educational level of respondents from primary level to postgraduate level was divided. 50% respondents are in postgraduate level, and remains were divided between PMR, SPM, Diploma, professional or certified degree and others degrees. In occupational part, there are 7 Chief executive Officers (CEO), 2.9%, 37 middle management (15.2%), assistant managers or senior managers 40(16.5%)supervisor 35 (14.4%),and people who work for themselves as owner or individual 199(49%).more tables in Appendix C were shown.

With deeply look at the demographic part (part A of questionnaire), there is a items in questionnaire which asked about each respondent home countries. This part was used to design the table 2.3. The process was that, each respondent home country was defined and then, according to the part 2.6 of chapter2, each country was dedicated to its related cell in table 2.3. Summary of respondents of each cell was shown in table 4.1

table4.1

Cell number	Number of respondent	PDI	IND	UAI
1	15	Low	low	low
3	21			moderate
5	16			high
7	24		high	low
9	21			moderate
11	16			high
2	31	High	Low	Low
4	36			moderate
6	15			high
8	15		High	low
10	15			moderate
12	15			high

4.3 Measure Reliability

The reliability of findings obtained using the survey instrument was assessed.

According to Nuunally (1978), the Chronbach's alpha is an estimate of reliability based on the average correlation between items with each factor, the score of over 0.7 is considered to be good (Nunnaly, 1978). In this study the Chronbach's alpha coefficient for all the dimensions are higher than 0.7. Summary of reliability information s provided in Table 4.2

For ease of use part, there was one question that it needed to revise. Because of its negative label, after revised, was used for calculating Alpha reliability level.

Table 4.2

 reliability results

Dimensions	Chronbach alpha
Usefulness	.879
Ease of Use	.87
Subjective Norm	.965
Behavioural Control	.911
Behavioural Intention	.965

More tables about reliability test (Chronbach's alpha) were brought in Appendix D

4.4 Summary Statistic

In order to analyse data General Linear Model in SPSS software was used.

After factor analysis and be sure about the validity of each constructs, SPSS

software was used to analyse, from the Analyse menu and General Linear Model, Univariate was selected. PDI, IND and UAI were selected as fixed factors that can affect the constructs. Each of constructs was selected as dependent variable to find different level of difference on fix factors. $\mathcal{P}$ was define significant at 0.05 ($\mathcal{P}$<.05).

For each construct this process was done. Tables and results were shown in the following pages.

Table 4.3 Usefulness:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	97.781[a]	11	8.889	14.352	.000
Intercept	.051	1	.051	.082	.775
PDI	44.977	1	44.977	72.616	.000
IND	.133	1	.133	.215	.643
UAI	4.582	2	2.291	3.699	.026
PDI * IND	.591	1	.591	.954	.330
PDI * UAI	26.806	2	13.403	21.639	.000
IND * UAI	2.684	2	1.342	2.166	.117
PDI * IND * UAI	.877	2	.438	.708	.494

According to the table4.3, for Perceived Usefulness, PDI is a significant item, it was interpreted that behaviour toward usefulness will be significant different in two level of PDI (low and high).

IND is not a significant item for usefulness, any level in IND has same behaviour toward usefulness.

UAI is another significant item for usefulness; it can mean that three level of UAI (low, moderate, high) have different perception of usefulness according to their culture.

Interaction between PDI and IND, also IND and UAI is not significant in usefulness, different level of these items do not show very different attitude toward usefulness.

But interact between PDI and UAI is significant. Different level of PDI, interact with different level of UAI, will show different behaviour toward usefulness of a technology such as internet banking. There is at least one level of differentiation in this interaction.

But there is not significant interact between all three dimensions of culture.

Second construct in TAM is Perceived Ease of Use.

Table4.4Ease of Use:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	29.760[a]	11	2.705	2.982	.001
Intercept	.020	1	.020	.022	.883
PDI	2.114	1	2.114	2.330	.128
IND	.551	1	.551	.607	.437
UAI	19.085	2	9.542	10.519	.000
PDI * IND	.329	1	.329	.362	.548
PDI * UAI	4.773	2	2.387	2.631	.074
IND * UAI	2.381	2	1.190	1.312	.271
PDI * IND * UAI	.386	2	.193	.213	.808

According to the table4.4, in each dimensions, only UAI is significant for this construct, which means there is difference between 3levels of UAI ,but for PDI

and IND there is no difference behaviours toward using internet banking. Interaction level between each two dimensions shows that none of each dimension behaviour different in different level of high, moderate or high. In three level interactions PDI and IND and UAI, there is no difference between any different levels.

Next construct that must be discussed here is Subjective Norm. Results of analysis is shown in table 4.5

Table 4.5 Subjective norm

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	79.104[a]	11	7.191	10.254	.000
Intercept	1.647	1	1.647	2.349	.127
PDI	.037	1	.037	.052	.819
IND	57.362	1	57.362	81.794	.000
UAI	5.604	2	2.802	3.995	.020
PDI * IND	2.924	1	2.924	4.169	.042
PDI * UAI	3.057	2	1.528	2.179	.115
IND * UAI	7.293	2	3.646	5.199	.006
PDI * IND * UAI	.222	2	.111	.158	.854

Table 4.5 clears that, two discussed cultural dimensions in this paper have shown the significant difference, IND and UAI, but for PDI, there is no significant difference in behaving toward the internet banking.

When PDI interacts with IND, the results will be significant, at least in one interaction level of this two dimension, samples showed the different attitudes.

These different behaviours were seen in IND and UAI interaction too. While UAI itself is significant, but its interact with PDI is not significant, and it showed no dissimilar behaviour in samples with low or high PDI with Low, Moderate or High UAI. When IND and UAI dimensions are significance, their interaction with PDI (three level interactions between PDI, IND and UAI) is not significant. It can show that samples did not behave very difference when all three dimensions were interacted together.

Perceived behaviour control is another construct that was used in this paper to declare people from vary different nation toward internet banking as a technology. Table 4.6 will show analysis results of this construct.

Table 4.6: Perceived Behavioural control

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	54.209[a]	11	4.928	6.068	.000
Intercept	1.389	1	1.389	1.710	.192
PDI	8.742	1	8.742	10.764	.001
IND	2.913	1	2.913	3.587	.059
UAI	8.597	2	4.298	5.293	.006
PDI * IND	2.806	1	2.806	3.455	.064
PDI * UAI	12.053	2	6.027	7.421	.001
IND * UAI	3.312	2	1.656	2.039	.133
PDI * IND * UAI	6.495	2	3.247	3.999	.020
Error	186.791	230	.812		
Total	241.000	242			
Corrected Total	241.000	241			

Table4.6 shows that samples of this study were behaved very difference in two dimensions of culture. PDI and UAI are significant for this study, but when

PDI interacts with IND, results shows no significant difference, also interact between IND and UAI is no significant. Only dimension that shows various behaviour toward using internet banking is PDI interact with UAI.

When all three dimensions interact together, result show the significant behaviour .it can be concluded that at least in one level of each of these dimensions there is difference in behaviours.

Behaviour Intention is the next item that must be discussed. To finding the result of behaviour intention construct, table 4.7 will show the results.

Table4.7: behavioural Intention

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	35.067[a]	11	3.188	3.568	.000
Intercept	.065	1	.065	.073	.787
PDI	10.284	1	10.284	11.510	.001
IND	1.210	1	1.210	1.354	.246
UAI	5.838	2	2.919	3.267	.040
PDI * IND	.036	1	.036	.041	.840
PDI * UAI	10.958	2	5.479	6.132	.003
IND * UAI	.970	2	.485	.543	.582
PDI * IND * UAI	1.335	2	.667	.747	.475
Error	201.933	226	.894		
Total	237.000	238			
Corrected Total	237.000	237			

For this construct, PDI and UAI are significant dimensions. Significant in PDI can show the various behaviours in low and high level of PDI. Significant result for UAI shows the difference in attitude toward use of internet banking in low, moderate and high level. Beside this, for IND is not observed

significant difference in low and high level. In interact between two dimensions, only PDI and UAI shows significant difference in behaviour in their low, moderate and high level. Remain items show no significant difference, in any level. It means in three level of interacting, no difference behaviours were observed.

4.6 Testing of Hypotheses

Refer to the main hypothesis, and the expanded hypothesises, it can be calculated that:

4.6.1Ha: Usefulness construct

For usefulness construct, according to the table 4.3, PDI less than.05 so it is significant, also UAI shows a significant level ($\mathcal{P}$<.05).

In two level of interact only one item was significant (IND*UAI), two remains interact items are not significant

In three level of interact (PDI*IND*UAI), there was no significant level.

As a result, from seven items that was shown in table 4.3, three items was significant, it declare that cultural dimensions can affect the usefulness but it is still levels that were not affected by cultural dimensions. So it is necessary more caution in order to interpret this hypothesis.

4.6.2Hb: Ease of Use construct

According to the table 4.4, there is only one significant item for this construct, which is UAI, it means only in UAI levels (low, moderate and high) the difference in attitudes is significant. This hypothesis cannot be accepted, because more than half of its items are not significant. Different people, from

different nations, maybe do not show difference behaviour toward ease of use of a technology.

4.6.3 Hc: Subjective Norm construct

From subjective norm table (table 4.5), IND, UAI, PDI*IND and IND*UAI are significant for this construct, people will show difference behaviour toward subjective norm in different countries with various IND (low or high), UAI (low, moderate or high), also there is differences at least in one level of PDI*IND and IND*UAI interactions.

It can be concluded this hypothesis is accepted because in its most items differences is observed.

4.6.4 Hd: Perceived Behaviour Control construct

As a result of table 4.6, PDI is a significant dimension fir PBC, it can be meant that countries with different level of PDI (low or high). UAI is another significant dimension for PBC; different behaviours can be seen in low, moderate and high level of UAI.

PDI interact with UAI can be said as another significant item, so there is at least one difference in behaviour control for PDI*UAI.

For Perceived behaviour control, interaction between three level of interact (PDI*IND*UAI) is significant and was cleared the differences between at least one level of this interaction.

As a result, this hypothesis can be accepted because most of its items was significant.

4.6.5 He: Behaviour Intention Construct

The last item that will be discussed here is behavioural intention (BI). For this construct, PDI is one significant item that shows difference behaviour in difference level of PDI. Next significant item factor is UAI that will show differences in low, moderate and high level of UAI. For interact the factors, only PDI*UAI is significant, and will show at least one level of difference in this factor. (table4.7)

Base on above discussion, again for this hypothesis it is necessary to say that more research and care is needed. Maybe in some level differences were significant and in another levels no significant differences were seen.

4.7 Research findings

As a summary of results, for Usefulness and Behavior Intention, it is not possible to say a strong statement for accepting these hypothesizes unless more researches run . maybe in some level differences were significant, and in another level nothing was shown as differences.

For Subjective Norm and Perceived Behavior Control, hypothesizes were accepted. For these constructs, PDI, IND and UAI were effect on people behavior toward internet banking, but not in all levels, still there are items that significant difference were seen. As whole these hypothesizes were accepted.

But for ease of use, the hypothesis was rejected strongly. Because only in one factor was significant in this study, and could not support hypothesis.

With a deeply observation, according to the table 2.3(designed table), it will be concluded that:

4.7.1: Cultural Dimensions: PDI

PDI dimension has effect on Usefulness construct in TAM. It is following the previous research result (McCoy, 2005), that considered PDI as an effecting factor for usefulness in TAM. Countries which are in cells number 1, 3, 5, 7,9,11 will show difference attitudes toward Usefulness compare with countries in cells number 2, 4,6,8,10,12. As example countries such as Jamaica, Iran, Argentina, Canada, Finland and Hungry (samples of low PDI countries) will show different attitudes toward usefulness in comparison with countries with high power distance (china, Arab world, Mexico, Slovakia and Belgium).

Results for next construct (ease of use); shows that countries with low PDI will not show difference behaviors in comparison with high power distance index countries. For example Jamaica samples will not behave different from France samples, when look at a technology (internet banking) in ease of use aspect. This finding can be matched with McCoy (2005) finding in some aspects (previous study worked on relationship between SN and BI but the purpose of this study is not finding the relationship).

Subjective Norm is another construct that PDI does not have effect for this study. This finding is unique result of this study that previous researches mention to that PDI is an effective factor on subjective norm in TAM. According this paper PDI cannot have role in subjective norm; it can be meant that counties in designed table (table2.3) will not behave according to their PDI level in their society. As an example cells numbers 1, includes Jamaica,

has no difference attitudes from cell number 10, includes Italy, in SN constructs.

Another unique finding of this study is the significant differences for perceived behavior control construct when it goes under the PDI factor. Samples from cells that have different PDI will show dissimilar behaviors in PBC construct.

Significant result for Behavior Intention to use internet banking is the next exclusive finding of this paper. The result shows the moderating effect of PDI on BI. Countries with low or high PDI factor have difference attitudes to use internet banking. According to this study Iran samples will behave different from Malaysian samples.

4.7.2: Cultural Dimensions: IND

Resulting from IND effects on usefulness ease of use, perceived behavior control and behavior intention are the constructs that will be discussed in this section.

Interesting result from this study is completely according to the explanation of Hofstede theory for countries that are low or high IND. Base on Hofstede definition, countries with low dimension in IND will tend to do activities in their belongings groups and word of mouth is very important for using any facilities or services for this group, as revise, samples in countries with high level of individualism never trend to strong recommendation to their family, friends or closest persons to use or try a facilities or services(Harris,2005). In this study subjective norm is only constructing that IND can effects the behaviors of samples toward TAM

Behavior toward usefulness is not different for cells that shows low or high level in IND, also ease of use is not a significant construct too, PBC and BI also shows no difference in different level of IND(low or high). Countries in different level of individualism, countries in cells1, 2,3,4,5 and 6 with low in IND in contrast with countries in cells number 7,8,9,10,11 and 12 with high PDI, showed no differences in attitudes for usefulness, ease of use , perceived behavior control and behavior intention. In subjective norms there is strong different between countries with low and high IND, countries such as china and South Korea will show different attitude in SN in compare with countries such as Finland, Norway(high PDI).

4.7.3: Cultural Dimensions: UAI

Another cultural dimension is UAI which is defined in this paper in three levels (low, moderate and high), by referring to the analysis tables, it is clear that for all constructs this factor is significant.

Another unique result of this study are belonging to the UAI factor, it can be meant that countries that are involved in this study, will show different attitude towards three level of UAI. Cells numbers 1,2,7,8 are representative of countries with low in PDI. Cells number 3, 4, 9 and 10 are countries with moderate level of UAI and finally cell numbers 5,6,11 and 12 have high level of UAI. By referring to the literature part of this study where was explained about importance effect of UAI on using a technology, this study strongly proved this importance effects. Internet banking in some countries (countries included in cells number 4) is a symbol of uncertain services that cannot show its level of trust to its users, so UAI role is very important to use a technology.

Here UAI factors effects were proved on all TAM constructs.

4.7.4: Interaction between Cultural Dimensions:

Analyzing this paper in another level of comparison (interaction between 2 factors) was clear interesting and unique results. Interact between PDI and IND is only significant for subjective norm construct and in other constructs has no effects, while each of these factors was significant when acted alone.

As an example cell number one with low in PDI and low in IND, can create different effects on subjective norm compare with the cell number8 with high PDI and high in IND.

Another interact option is PDI and UAI, which is significant for usefulness and can create difference attitudes in at least one level of each factor. Its sample can be cell number1 and cell number3 which represent the different level for PDI and IND.

For ease of use, PDI and UAI interaction is not lead difference action toward ease of use. It can be mention that countries in cell number 2 as high in PDI and low in UAI, and cell number 3 as low in PDI and moderate in UAI, have no difference attitudes towards ease of use construct. Also for subjective norm different cells related to the PDI*UAI, do not have different approach.PBC is next construct that PDI*UAI will show difference positions. Cells number 1 compare with cell number 3, for this construct will show difference approach at least in one level.

For behavior intention to use internet banking, both PDI and UIA are significant, the interaction of PDI and UAI was created significant level too.

Again example of cell number 2 and 3 can be used to show as patterns of this different attitude.

The third level of interaction is IND and UAI. This intercalation showed interesting and important result. This level of interaction (IND*UAI) is only significant for subjective norm construct. It is acceptable because both IND and UAI have key role in this construct according to Hofstede explanation. As an example cell number 3 as moderate in UAI and low in IND, will show different attitudes in compare with the cell number7 with low in UAI and high in IND. While IND*UAI cleared very interesting result for subjective norm, but it was not significant for usefulness, ease of use, perceived behavior control and behavior intention. Referring to above example for cells number3 and 7 that showed differences in SN construct, no different approaches was expected for these two cells in remain constructs.

By going to three interaction level of cultural dimensions (PDI*IND*UAI), important result was clear. Although each construct included significant items for cultural dimensions, but only for perceived behavior control construct this interaction is significant and presents the different attitudes. As example cell number 8 with high PDI, high IND and low UAI, will show different behavior at least in one level of its cultural dimensions in compare that cell number 5 as representative of low in PDI, low in IND and high in UAI. In other constructs such as usefulness, ease of use, subjective norm and behavior intention to use internet banking , there is no significant level, so no special approaches was expected. As a result, two hypothesizes were accepted (SN and PBC),

for usefulness and behavior intention it is not easy to accept or reject these to hypothesizes .For ease of use strongly the hypothesis was rejected.

In next chapter, reasons and causes of these differences and similarities in attitudes will be discussed.