CHAPTER 4: RESEARCH RESULTS AND FINDINGS

Introduction

In this chapter, the research results and findings are presented. The findings are used to answer the research objectives and questions in the earlier chapter of this research. The data analysis part will explain the summary statistics, descriptive analysis, correlation and regression analysis. At the end of this chapter, the overall results are discussed in detail.

Descriptive Analysis

From total of 450 set of questionnaires distributed via printed hardcopy and online survey (email invitation) to respondents from various sectors including government and private; 300 valid responses were used for the analysis.

Respondents Profile

The summary of respondents profile is shown as table 16 below:

Characteristics		Frequency	Percentage (%)
Gender	Male	135	45.0
	Female	165	55.0
Age	21 - 30 years	133	44.3
	31 - 40 years	103	34.3
	41 - 50 years	56	18.7
	51 - 60 years	8	2.7
Occupation	Student	3	1.0
	Non Executive	59	19.7
	Self Employed	4	1.3
	Manager/Professionals	53	17.7
	Executive	160	53.3
	Others	21	7.0
Monthly income	RM2,000 and below	62	20.7
	RM2,001 - RM4,000	164	54.7
	RM4,001 - RM6,000	38	12.7
	RM6,001 - RM8,000	16	5.3
	RM8,001 - RM10,000	16	5.3
	RM10,001 and above	4	1.3

Table 16: Respondents profile

From the summary shown, the percentage of male and female respondents is almost the same which 55% of the respondents are female. This result is consistent with the statistic from two debit card issuers in Malaysia that shown most debit card users are female cardholders. Majority of the respondents are 40 years and below with majority of them are holding an executive post. This translates into the understanding that most young executives with monthly income within RM2, 000 and RM4, 000 whom also the group that easily attracted to new technologies is the heavy users of debit card.

Analysis of Measures

Table 17 shows the mean and standard deviation for the responses on all measurements that falls under the independent and dependent variables. The highest mean score among all measurements is in the variable of Performance Expectancy which average respondents are moderately agree that by using debit card, they do not have to carry much cash around (can avoid the possibility of cash of cash being lost or stolen).

Next highest measurement that has a mean score of 5.993 is in the variable of Transaction Value. It shows that the average respondents are using or will use debit card to purchase item(s) that they consider a medium transaction value (total purchase is between RM50 and RM150).

Several respondents are slightly disagreeing that people important to them are influencing their usage of debit card and using debit card shows that they are a high income earner.

Details results for each questionnaire are as Table 17 below:

Variables	Description of measures	Mean	Standard Deviation
Performance expectancy	I can track my cash transactions easier.	5.507	1.172
	I can manage my spending habit easier.	5.217	1.394
	I do not have to make regular cash withdrawal.	5.680	1.19
	I do not have to carry much cash around (I can avoid the possibility of cash of cash being lost or stolen).	6.013	1.157
	I do not encounter any regular system interruption/technical problem when using debit card to make payments.	4.930	1.423
	The system at retail outlets is always available for me to make payment using debit card.	4.687	1.452
	I feel secure making payments using debit card.	5.220	1.218
	I have complete trust in making payments using debit card.	5.210	1.202
	I am satisfied when making payment using debit card.	5.400	1.088
Effort expectancy	I found it easier to make payment using debit card compared to cash.	5.373	1.191
	I do not require cash from ATM before making any payments.	5.533	1.203
	I do not have to worry about/calculate the interest/financial charges when making payments using debit card.	5.163	1.487

Table 17: Mean and standard deviation of variables

Variables	Description of measures	Mean	Standard Deviation
Social influence	Using debit card shows that I am a high income earner.	3.983	1.505
	Using debit card shows that I am capable of financing a purchase with my own funds.	4.667	1.489
	Using debit card shows that I am an innovative person that willing to try new technology.	5.097	1.134
	Using debit card shows that I am a well educated person.	4.683	1.287
	It is my normal habit to use debit card for any payments.	4.227	1.381
	I have a religious reason in using debit card (I want to avoid “riba”/unnecessary financial charges in making any payments).	4.453	1.724
	People that important to me are influencing my usage of debit card.	3.627	1.546
Facilitating conditions	I have adequate knowledge in using debit card.	4.987	0.985
	Most of the retail outlets that I visit/shop at accept debit card for payment.	4.567	1.269
	The retail outlets that I visit/shop at are supportive towards making payment using debit card.	4.487	1.300

Table 17: Mean and standard deviation of variables (continued)

Variables	Description of measures	Mean	Standard Deviation
Rewards program	I am using/will use debit card to make payments because/when there is a discount given for my purchase.	4.977	1.578
	I am using/will use debit card to make payments because/when there is chance for me to win prizes.	4.783	1.649
	I am using/will use debit card to make payments because/when there is monetary incentive (cash back) given to me.	4.870	1.592
	I am using/will use debit card to make payments because/when I will enjoy benefits from the loyalty program.	4.913	1.558
	I will continue using debit card to make payments even though there is no rewards/incentive given.	4.827	1.372
Transaction value	I am using/will use debit card to purchase item(s) that I consider low transaction value (total purchase is RM50 and below)	5.310	1.139
	I am using/will use debit card to purchase item(s) that I consider medium transaction value (total purchase is between RM50 and RM150)	5.993	1.057
	I am using/will use debit card to purchase item(s) that I consider high transaction value (total purchase is above RM150)	5.743	1.328

Table 17: Mean and standard deviation of variables (continued)

Variables	Description of measures	Mean	Standard Deviation
Behavioral intention	I have the intention to continue using debit card as a means of payment.	4.977	1.578
	I predict that I will continue using debit card as a means of payment in the future.	4.783	1.649
	I am definitely will continue using debit card as a means of payment in the future.	4.870	1.592

Table 17: Mean and standard deviation of variables (continued)

Reliability and Validity

Using Cronbach's Alpha, the variables reliability is assessed. The higher value of alpha shows the greater reliability. 33 items that make up 7 variables are tested for its reliability. The result is as table 18:

Research Variables	Number of measurements (questions)	Cronbach's Alpha
Behavioral Intention	3	0.950
Reward Program	5	0.908
Performance Expectancy	9	0.893
Effort Expectancy	3	0.861
Facilitating Condition	3	0.858
Social Influence	7	0.827
Transaction Value	3	0.825

Table 18: The variables' reliability

The reliability scores are consistently high in all variables. The Cronbach's Alpha for constructs within Behavioral Intention is 0.950. Constructs within Reward

Program carries 0.908. Constructs within Performance Expectancy has 0.893 alpha coefficients and constructs within Effort Expectancy which is 0.861. The Cronbach's Alpha for all constructs within Facilitating Condition is 0.858. Meanwhile, the alpha coefficient of constructs within Social Influence and Transaction Value are 0.827 and 0.825 respectively.

Since Nunnaly (1978) stated that the Cronbach's Alpha that is more than 0.7 indicates a high reliability; all scores for the constructs used in this survey are above the 0.7 point. Hence, all the variables of this research are reliable.

Pearson's Correlation

Research Variables	Behavioral Intention	Performance Expectancy	Effort Expectancy	Social Influence	Facilitating Condition	Reward Program	Transaction Value
Behavioral Intention	1.000						
Performance Expectancy	0.329						
Effort Expectancy	0.312	0.689					
Social Influence	0.440	0.449	0.476				
Facilitating Condition	0.373	0.553	0.518	0.538			
Reward Program	0.675	0.319	0.409	0.503	0.355		
Transaction Value	0.500	0.342	0.324	0.372	0.399	0.516	1.000

Significant level; p =0.05

Table 19: The Pearson's Correlation of research variables

Using Table 19, it clearly shows that all the independent variables are having a positive linear relationship with the behavioral intention to use debit card as a means of payment which is the dependent variable.

Multiple Regression

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	675.083	6	112.514	111.639	0.000
Residual	244.847	293	0.836		p < 0.001

Table 20: The regression analysis of variance

Variables	Standardized Coefficients	T	Sig.	Collinearity Statistics	
	Beta (β)			Tolerance	VIF
Reward Program	0.325	4.184	0.000	0.602	1.661
Performance Expectancy	0.250	3.457	0.046	0.450	2.224
Effort Expectancy	0.167	1.914	0.000	0.450	2.221
Facilitating Condition	0.137	2.414	0.016	0.569	1.759
Social Influence	0.118	1.192	0.034	0.569	1.759
Transaction Value	0.013	0.944	0.046	0.677	1.477

Dependent Variable: Behavioral Intention

F=90.639, p < 0.001, R square =0.561.

Table 21: The multiple regression analysis on independent variables

In order to examine how each independent variable contributes to the behavioral intention to use debit card as a means of payment; multiple regression analysis is used. The frequently used cut-off points for determining the presence of multi collinearity is; tolerance value <0.10 or VIF value > 10, (Pallant, 2007). The

above table shows tolerance values for all determinants are greater than 0.10 and VIF values are below 10 hence; assumption of multi collinearity is not been violated. The research model reaches statistical significance (Sig. =.000) and R square value for the multiple regression model is 0.561, which means the determinants (Reward Program, Performance Expectancy, Effort Expectancy, Facilitating Condition, Social Influence and Transaction Value) explains 56.10% of the variance in consumers' behavioral intention to use debit cards as their means of payment ($F = 90.639$, $p < 0.001$).

Testing of Hypotheses

From the multiple regression analysis, the standardized coefficient (β) between Performance Expectancy (PE) and behavioral intention is 0.250 with p-value of 0.046 which is significant at α equals to 0.05. Meanwhile, the standardized coefficient (β) between Effort Expectancy (EE) and behavioral intention is 0.167 with p-value of 0.000 which is significant at α equals to 0.05. Hence, the result is supporting the first hypothesis (H_1) that compares the relationship test result between Performance Expectancy (PE) and Effort Expectancy (EE) which PE is expected to have greater extend of influence on consumers' behavioral intention to use debit card as a means of payment.

In testing the second hypothesis; the standardized coefficient (β) between Transaction Value (TV) and behavioral intention is 0.013 with p-value of 0.046 which is significant at α equals to 0.05. Meanwhile, the standardized coefficient

(β) between Social Influence (SI) and behavioral intention is 0.118 with p-value of 0.034 which is significant at α equals to 0.05. Hence, the result is clearly not supporting the second hypothesis (H_2) that compares the relationship test result between Transaction Value (TV) and Social Influence (SI) which TV is expected to have greater extend of influence on consumers' behavioral intention to use debit card as a means of payment.

From the multiple regression analysis, the standardized coefficient (β) between Rewards Program (RP) and behavioral intention is 0.325 with p-value of 0.000 which is significant at α equals to 0.05. Meanwhile, the standardized coefficient (β) between Facilitation Conditions (FC) and behavioral intention is 0.137 with p-value of 0.016 which is significant at α equals to 0.05. Hence, the result is supporting the third hypothesis (H_3) that compares the relationship test result between Rewards Program (RP) and Facilitation Conditions (FC) which RP is expected to have greater extend of influence on consumers' behavioral intention to use debit card as a means of payment. In fact, Rewards Program (RP) has the highest standardized coefficient (β) among all variables.

With p-value that is less than 0.05, the standardized coefficient (β) between Performance Expectancy (PE), Transaction Value (TV), Rewards Program (RP) and behavioral intention is 0.250, 0.013 and 0.325 respectively. Hence, the result is supporting the fourth hypothesis (H_4) which expecting Performance Expectancy (PE), Transaction Value (TV) and Rewards program (RP) would all

significantly influence consumers' behavioral intention to use debit card as a means of payment.

Three of the hypotheses are supported by the results, while balance one hypothesis is rejected. The summary of the hypotheses results in this research is presented in below's table.

No.	Hypotheses	Results
H_1	Performance Expectancy (PE) has a greater extend of influence on consumers' behavioral intention to use debit card as a means of payment compared to Effort Expectancy (EE).	Supported
H_2	Transaction Value (TV) has a greater extend of influence on consumers' behavioral intention to use debit card as a means of payment compared to Social Influence (SI).	Rejected
H_3	Rewards program (RP) has a greater extend of influence on consumers' behavioral intention to use debit card as a means of payment compared to Facilitation Conditions (FC).	Supported
H_4	Performance Expectancy (PE), Transaction Value (TV) and Rewards program (RP) would all significantly influence consumers' behavioral intention to use debit card as a means of payment.	Supported

Table 22: Summary of hypotheses results

Discussion of Research Results

From the results obtained, it shows that in order to use the debit card as a means of payment; consumer are more driven by the benefits and their perception towards the debit card usage compared to the real effort needed in using the card. It could be due to the effort required to use debit card and other payment method such as credit card, prepaid card or even cash is almost similar. Hence, the difference in terms of usage or to drive the intention of using any method of payment is more on its benefits.

Currently, the practice of debit card issuers in Malaysia is categorizing the usage of debit card based on the transaction value of consumer's purchase. Three different segments have been established for retail purchase; low transaction value which is less than RM50 ticket size, medium transaction value that is between RM50 and RM150 and high transaction value which the ticket size is more than RM150. The influence from social environment has never been taken as a high priority. From this result, the respondents have shown that they are driven by the transaction value when it comes to selecting which payment method to be used. However, the social influence or perception such as *"using debit card shows that he or she is an innovative person that willing to try new technology, using debit card shows that he or she is a well educated person"* and *"using debit card shows that he or she is capable of financing a purchase with my*

own funds" is playing more important roles in determining their behavioral intention to use debit card as a means of payment.

As expected, consumers are most driven or are looking forward to the reward offerings when choosing the payment method. Whenever there is any prize, discount or monetary incentive if they opt to use debit card, by all means they will use it as a method of payment. The facilitating conditions in terms of determining the consumers intention to use debit card are seems to be only the supporting factors. However, it does affect the consumers more than social influence factors do.

Of all the factors, the most significant element that could influence the consumers' behavioral intention to use debit card as a means of payment is reward program. It follows by performance expectancy, effort expectancy, facilitating condition, social influence and transaction value has the least effect.

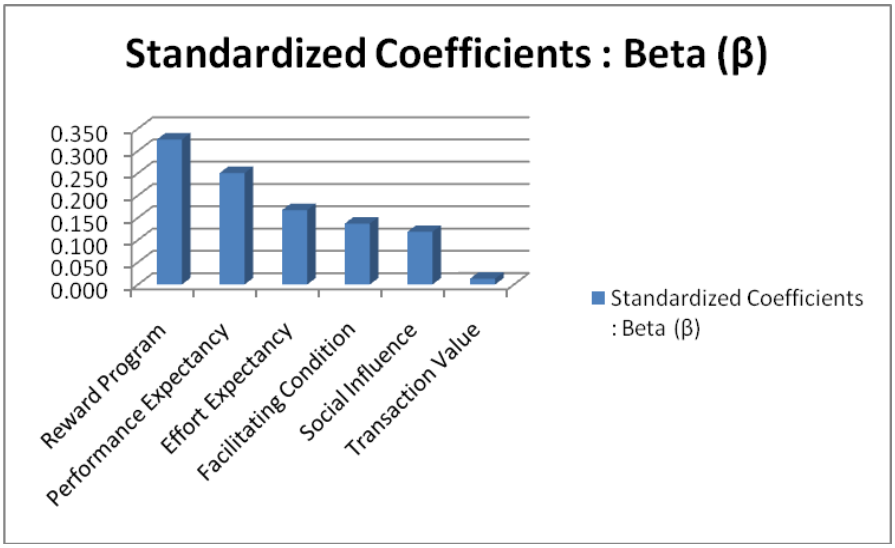

Figure 11: Standardized coefficient of independent variables