

*Full Length Research Paper*

# Bank credit card and the selection criteria: An exploratory study

Ravichandran Subramaniam<sup>1</sup> and Maran Marimuthu<sup>2\*</sup>

<sup>1</sup>American Degree Transfer Program, Sunway University College, No 5, Jalan University, Bandar Sunway, 46150 Petaling Jaya, Selangor DE, Malaysia.

<sup>2</sup>Faculty of Accountancy and Management, Tunku Abdul Rahman University, Bandar Sungai Long Campus, 43000 Kajang, Selangor DE, Malaysia.

Accepted 16 September, 2019

**This paper investigates the selection criteria of bank credit cards that contribute towards credit card selection among Malaysian credit card holders. There is a total of 17 providers' of bank credit cards both from local and foreign banks. The selection of bank credit cards is empirically examined using five series of selection criteria and demographic factors. It is evident that the main crystallised factor in bank selection is the convenience and assurance to cardholder's factor which is also consistent with prior results. The results found no significant difference on the demographic groups although respondents show concern on the availability of more ATMs and internet to provide more flexible and quality services. The results also show significant difference on the perception towards cash advance, credit limit, annual fee and annual payment rate among different ages and annual income groups. Further, it is evident that the perception towards special discounts, credit card road show, reward's program and gender reputation differ among marital status, age and annual income of the respondents.**

**Key words:** Bank credit card, selection criteria, demographic factors, satisfaction level.

## INTRODUCTION

In Malaysia, there are a total of 17 issuers of Bank credit cards which include both local and foreign banks. Credit cards have become more and more important as a source of income for the banks and there has been a high growth in number of credit cards circulation. The most common and popular type of products that is offered by the banks are credit cards. The three common credit cards that are issued by banks are namely Classic, Gold and Platinum. These cards are issued based on individual income level and other criteria set by the credit card issuer. Credit limit is usually set based on the assessment of the information provided in application forms.

Bank Negara Malaysia (BNM) (BNM, 2008) statistics show that credit cards transaction in 2006 was 208.8 million and increased to 237.6 million in 2007.

According to BNM assistant governor, Nor Shamsiah Mohd Yunus, credit card transactions has increase by an average rate of 22.2% from year 2000 to 2006 (The Edge Daily On-Line, 2007). The circulation of credit cards in Malaysia has reach 8.8 million by the year 2006, 9.9 million at the end of 2007 and 10.2 million at the end of April 2008 (BNM, 2008).

Hence, by successfully targeting the right group of customers, banks are able to promote their credit cards more efficiently and generate a good potential income. Demographic changes and cultures changes have also boosted the growth of credit cards. Cultural changes in society, such as from a 'save first, spend later' approach to one of 'borrow now and repay later', has certainly change the spending behaviour of consumers. Today young borrower have trust upon them a "buy now, pay later" philosophy (O'Keeffe, 2005). Further, credit card market has also become more competitive than before. Each credit card issuer has introduced their own credit card product with added incentives to attract their own

\*Corresponding author. E-mail: [Maran@mail.utar.edu.my](mailto:Maran@mail.utar.edu.my).

customers. Citibank is one of them that had introduced more than ten types of credit cards in Malaysia. For example, Citibank introduced Giant-Citibank credit card that has a 2% rebate on any purchase at Giant Malaysia with a special card member price and Shell Citibank credit card allow their customers to enjoy up to 5% rebate on Shell fuel. In order to compete with some of the international bank, local bank such as Public Bank has also introduced new type of credit cards. For example, Public Bank Executive MasterCard rewards a double value point for any retail purchase that is redeemed with a free gift. Public Bank ING, credit MasterCard PayPass card enjoys automatic travel insurance if it is charge with a full travel arrangement. However, there are constant product improvements and innovations garnered to satisfy the needs of the customers, it is becoming even more competitive and banks are striving to archive their own niche in the market. Therefore, it is very important for a bank to acquire creditable information on their customers and their selection factors.

Satisfied customers are more likely to repurchase and become loyal customer. If a product meets or exceeds its customer's expectation, the customer is said to be satisfied at different degrees of satisfaction. Any goods or services that are below customer's expectation will result in a discontented customer (Lehman and Winer, 2005). Therefore, it is crucial and significant for the banks to target on the most important selection criteria to increase their customer's satisfaction and reduce the cost. Since the issue of bank selection criteria received the most considerable attention, it is imperative to identify different selection criteria that have an impact on credit card holder's satisfaction. Based on these criteria, the banks can formulate an appropriate strategy which can satisfy their customer needs (Gerrard and Cunningham, 2000).

### **Objectives of the study**

This paper makes an attempt to deal with two important objectives; firstly, to determine the key demographic factors that have significant impacts on the credit card selection criteria. Secondly, to investigate the relationship between each of the credit card selection criteria with credit card holders' satisfaction level.

### **LITERATURE REVIEW**

Based on prior studies, the focus was more on overall products and services offered by the banks. However, in this study, the area has been narrowed to a specific product that is, credit card. Further, prior studies were more on developed countries and only a few in the Malaysian context. The usage of bank selection criteria is based on several relevant factors selected from past studies and hence this study is used to further investigate

on the satisfaction level and outcome from various demographic groups.

The two parts in the theoretical framework are independent and dependent variables. The independent variable is demographic factor which consist of gender, marital status, age, education level, and annual income and the dependent variable is the selection criteria which consist of convenience and protection, flexibility, economic, promotion, reputation. Hence, this study evaluates whether demographic factor has in implication on the selection criteria.

### **Customer credit card selection criteria**

Lydia and Ramin (2006) use factor analysis to examine credit card selection criteria among Singaporeans and found that convenience of use and protections is the main driver in their selection. Meidan and Davos (1994) focused on Greek cardholders' selection criteria of credit and charge cards and reveal that the most important factor is the offering of convenience to cardholders. Another study by Blankson et al. (2007) investigated bank choice and selection criteria in a range of cultural and country economic scenarios and concluded that the most crystallized factor in bank selection is convenience. In the USA, Boyd and White (1994) took a survey of households to evaluate the relative importance attached to selection criteria used to choose a financial institution, evidence that much less importance to criteria is attached to modern facility. Further study conducted in Saudi Arabia by Alhassan and Yakubu (2007) aim to examine the extent and nature of credit card ownership and usage in the country and how these are impacted by consumer demographics and attitudes toward debt reveal that the international acceptability and usage convenience are the most positively evaluated credit card attributes.

With respect to flexibility, Lydia and Ramin (2006) found that flexibility is the main driver in selection for Singapore. Meidan and Davos (1994) posited that the most important factor is the acceptance by a large number of different types of establishment. Another study by Mohammed (2001) found that the availability of ATM in several locations have the highest means in determining bank selection for young customers however Friday banking is the least important item in the study. Further, Yee (1997) revealed that inactive cardholders are significantly less satisfied with large credit limit than active cardholder and that inactive cardholder rated long interest free repayment period as highly important criteria. Likewise, Cicic et al. (2004) and Arbore and Busacca (2009) note that availability of the 24 h ATM and modern banking as very vital. With regards to economic factors conducted by Lydia and Ramin (2006) in Singapore the study show that economics is the main driver in selection for Singapore. Further, Meidan and Davos (1994) show that cardholders are concerned with the economy

aspects of credit card usage and hence joining or annual fee might influence their final decision. Similarly, Mohammed (2001) in Bahrain, posited that provision of credit cards with no annual fees is the most important determinant item in young customers' bank selection process. According to Ali et al. (1994), Alhassan and Yakubu (2007) the result revealed that credit limit is the least differentiating factor. In support of this, Yee (1997) a study in Hong Kong examined the demographic and attitudinal differences between inactive and active bank credit cardholders and found that low annual free of credit cards are highly important for both inactive and active cardholders.

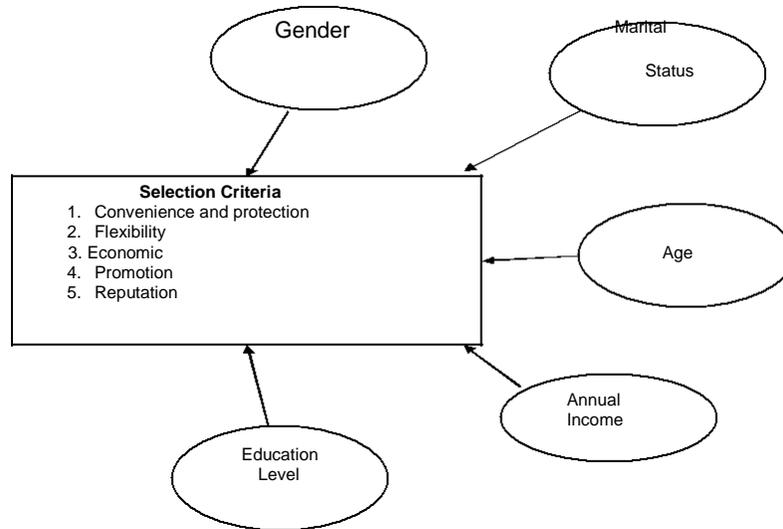
With regard to promotion, Mosad (1996) posited that advertising appears to be less important in the selection of a bank. Likewise, Edris and Almahmeed (1997) revealed that effective advertising is lowly ranked as a determining factor of bank selection in Kuwait. Another study, Gerrard and Cunningham (2001) investigate using a sample of Singapore undergraduates and found that non people influential factor (which involves the offering of free gift) is not highly ranked by undergraduates. Thwaites and Vere (1995) found that collegiate's stress the need for branch and ATM facilities close to the campus, thereby favoring those banks with an extensive campus network. Further, Lewis and Bingham (1991) argued that group's-for-free gifts and cash incentives will be alienated by any reduction or removal of the incentives package. In addition, Gerrard and Cunningham (2000) reveal that the "non-people influential factor" (part of which involves the offering of free gifts) is not highly ranked by undergraduates.

In respect to reputation, Lydia and Ramin (2006) argued that the reputation of card was the least important in determining credit card selection in Singapore. Likewise, Meidan and Davos (1994); Mosad (1996); Boyd and White (1994) who focused on the selection criteria of credit and charge cards found that credit card usage is also perceived as assigning status to the users. Further, a study on consumer selection criteria for banks in Poland, Kennington et al. (1996) indicate that reputation management will be key for banks if they are to overcome Polish consumers concerns. Other similar studies conducted are such as Edris and Almahmeed (1997), Mohammed (2001), Anderson et al. (1976) concluded that reputation is ranked high as a determinant of a bank selection criteria. In contrast, Cicic and Agic (2004) show that the determinants of the bank selection related to the reputation is not highly rank as a determination of a bank selection criteria.

With regards to Demographic, Boyd and White (1994) show that on the importance related to gender, the males appear to be more interested in having their needs met quickly and conveniently, while females are apparently more interested in longer- term aspects relating to organizing their finances and becoming more financially secure. Lydia and Ramin (2006) reveal that the gender

variation demonstrated in the study was such that, while females viewed the promotion factor as more important than males, the males put more weight on economic factors and flexibility. Another study, Kara et al.(1994) found that there is a significant difference in selection of credit card between males and females and that deferred payment type is considered more important for males than for females. In contrast, Mohammed (2001) posited that new generation of customers tend to put more emphasis on the factors which gave them quick and convenient access to the bank services, that is, 'Location of the main branch', 'convenient branch location and several branches' scored low for both male and female alike. However, Lydia and Ramin (2006) argued that the older group valued the convenience and protection factors more than the younger groups, but considered promotion as less important factor than their younger counterparts. Further, Boyd and White (1994) indicate that those with children in the 13 - 19 age group opt for low interest loans, but to a lesser extent than those with younger children but attach greater importance to location in the city. However older households with adult children are searching more for convenience and greater returns on their savings. On the another aspect of occupation, the study reveal that white-collar households show greater importance for reputation, modern facilities and location in city while blue collar households place greater emphasis on availability of current accounts and drive-in service. In support, Kennington et al. (1996) posited that ranking of criteria varies with income level and that wealthier customers are not concerned with price but want reputation, service and convenience. However in terms of the lower income brackets, price is clearly the main concern. Another study Munro (1997) reveal that lower division students are much more likely to use their credit cards as a convenience, while upper division students, and particularly graduate students, employ a revolving debt payment style more frequently.

On the area of satisfaction, Mosad (1996) posited that the word of mouth from a disappointed and unsatisfied customer may cause the bank's image to deteriorate. Likewise, Gerrard and Cunningham (2000) posited that even hotels are very demanding in terms of the selection criteria which they consider when choosing a bank. Further, Dunkelberg et al. (1984) show high levels of satisfaction in relation to convenience of location and easy access to a loan officer, while lower levels of satisfaction were seen in relation to banks being a reliable source of credit and banks being institutions which offer a wide range of services. On Islamic banking, Ridzwan et al. (2008) found that Islamic credit card holders' satisfaction factors are shopping, bulk purchases and understand concept and the three main factors that contribute to the satisfaction of the Islamic credit card holders positively and significantly are more towards shopping and bulk purchases respectively, while the third factor, understand concept contributes negatively to the



**Figure 1.** Gender (male, female), Marital Status (single, married), Age, Annual Income and educational Level hold more than two categories.

satisfaction of the Islamic credit card holders. This vacuum in the literature is somewhat surprising as by measuring relative satisfaction in relation to bank selection criteria, this would give a bank the first opportunity to gauge how relatively well or otherwise it is performing.

## RESEARCH DESIGN

This study solely dealt with the primary data that were collected based on the survey method (questionnaires). In relation to this, there were a total of 400 self-administered questionnaires collected in the survey. It was carried out using the mall intercept technique involving the credit card holders. Charge cards issued by companies such as Amex and Diners club and Islamic banking were excluded and Klang Valley (capital city) was chosen to suit our requirements.

### Sample size, measurement scale and sampling technique

The sample size is determined by the below mentioned formula (Air University, 1996). The number of credit cards in circulation in Malaysia is estimated to be 10.2 million as at April 2008 (BNM, 2008) and using the sample size formula with an assumption of 95% confidence level and precision level of 5%, the sample size was derived as follows.

$$n = \frac{10.2 \text{ million} \times 1.96^2 \times 0.25}{[0.05^2 \times (10.2 \text{ million} - 1)] + [1.96^2 \times 0.25]} = 384.15$$

Where  $n$  = sample size required,  $N$  = total population size (known or estimated),  $D$  = precision level (usually 0.05 or 0.10),  $Z$  = number of standard deviation corresponding to the desired confidence level. Part A of the questionnaire consisted of the respondents' profile (gender, marital status, race, age, education level, annual income and employment category). Part B captured the general information of the respondents' credit cards. As for Part C, the respondents were investigated on the five selection criteria (convenience and

protection, flexibility, economics, promotion, reputation) using the likert scaling, range from 1 - 5 (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly agree). A pilot test of 30 respondents was also conducted to justify our work in terms of validity and reliability.

## Research procedures

A reliability test was first performed to verify on the applicability of the measures used to measure each of the concepts. A lenient cut-off of Cronbach alpha of 0.60 is quite common in exploratory research, however, generally it should be at least .70 or higher to retain an item in an "adequate" scale and researchers may require .80 for a "good scale" (Garson, 2009). Then, continuing with a descriptive analysis and it was to include normality tests. As the tests failed on the normality distribution, the researchers considered a non-parametric testing in their argument using empirical data. This is crucial especially when dealing with inferential studies. The non-parametric testing included mainly the Mann-Whitney Test and Kruskal-Wallis Test. As indicated earlier, this study is aimed to detect the effect of the demographic factors on each of the selection criteria. The theoretical model in this study is presented in Figure 1.

## RESULTS

### Descriptive analysis

Table 1 describes the characteristics of the respondents and their perceptions toward the selection criteria of bank credit cards in Malaysia. On the response to marital status, the majority of the respondents are single that is, 257 out of a total of 400 (64.2%) and corresponding 143 (35.8%) is married. On gender, majority of the respondents are male that is, 251 (62.8%) with a corresponding number of 149 (37.2%) as female. With

**Table 1.** Respondents' profile.

<b>Characteristics</b>	<b>Frequency</b>	<b>Percent (%)</b>	<b>Cumulative percent (%)</b>
<b>Marital status</b>			
Married	143	35.8	35.8
Single	257	64.2	100.0
<b>Gender</b>			
Male	251	62.8	62.8
Female	149	37.2	100.0
<b>Age</b>			
25 and below	54	13.5	13.5
26-35	90	22.5	36.0
36-45	142	35.5	71.5
46-55	93	23.2	94.8
56 and above	21	5.2	100.0
<b>Race</b>			
Malay	181	45.2	45.2
Indian	34	8.5	53.8
Chinese	185	46.2	100.0
<b>Education level</b>			
Primary and lower	10	2.5	2.5
Secondary	99	24.8	27.2
Diploma	128	32.0	59.2
Bachelor degree	129	32.2	91.5
Master Degree	28	7.0	98.5
Others	6	1.5	100.0
<b>Annual income</b>			
RM18000-29999	82	20.5	20.5
RM30000-39999	65	16.2	36.8
RM40000-49999	88	22.0	58.8
RM50000-59999	86	21.5	80.2
RM60000-69999	26	6.5	86.8
Rm70000 and above	53	13.2	100.0
<b>Employment</b>			
Sales and service	45	11.2	11.2
Clerical and other white collar	78	19.5	30.8
Professional, manager or executive	184	46.0	76.8
Production, transport or other blue collar	5	1.2	78.0
Army/police/security	2	0.5	78.5
Self employed and businessman	82	20.5	99.0
Others	4	1.0	100.0

regards to the age of the respondents, 142 respondents are between the age of 36 and 45 years old, 93 respondents grouped among 46 - 55 years old, 90

respondents between the age group of 26- 35 followed by 21 respondents within the age group of 56 and above. In respect to ethnicity, majority of the respondents are

**Table 2.** General Information obtained from respondents toward their credit cards.

<b>Characteristics</b>	<b>Frequency</b>	<b>Percent (%)</b>	<b>Cumulative percent (%)</b>
<b>Number of credit cards owned</b>			
One	159	39.8	39.8
Two	134	33.5	73.2
Three	66	16.5	89.8
Four	22	5.5	95.2
Five and above	19	4.8	100.0
<b>Typical monthly credit card payments</b>			
Entire balance	255	63.8	63.8
Between minimum and entire balance	99	24.8	88.5
Minimum balance	46	11.5	100.0
<b>Types of credit card owned</b>			
Platinum	33	8.2	8.2
Gold	104	26.0	34.2
Classic	263	65.8	100.0

**Table 3.** Response rate on the background of a bank.

<b>Response</b>	<b>Frequency</b>	<b>Percent (%)</b>	<b>Cumulative percent (%)</b>
Yes	305	76.2	76.2
No	95	23.8	100.0
Total	400	100.0	

Chinese that is, 185 (46.2%) followed by 181(45.2%) Malays and 34 (8.5%) Indians.

However, the ethnicity portion has been removed from the independent variable to avoid biasness in the result due to the large unequal size of respondents. Further with regard to the education level, the majority is derived from the Degree 128 (32%) and Diploma 28 (7%) respectively. In response to personal income, majority of the respondents hail from the professional staff, manager or executive level. Due to the significant disparity on the employment category and to avoid any biasness on the overall sample this variable has been removed from the analysis.

#### **General information obtained from respondents toward their credit cards**

Table 2 shows the number of credit cards owned. Majority of the respondents 159 (39.8%) hold one credit card followed by 134 (33.5%) hold two credit cards, subsequently 66 (16.5%) hold 3 credit cards and only 19 (4.8%) respondents hold five and above. Further, with respect to the typical monthly credit card payments, majority of the respondents pay the entire outstanding balance within the stipulated period that is, 255 (63.8%) of the respondents followed by 99 (24.8%) respondents

who make minimum payment or the entire sum and interesting only 46 (11.5%) respondents make do with the minimum payment only. Table 2 also reflects on the type of credit cards owned by the respondents. All in there are 33 (8.2%) respondents who hold platinum card, 104 (26%) gold card followed by 263 (65.8%) classic card. Hence, the majority of the respondents generally own classic card.

Table 3 depicts on whether the background of a bank plays an important role on the selection of credit cards. The results reflect that the majority of the respondent's agree that the background of a bank is a vital point prior to the selection of a credit card that is, a total of 305 (76.2%) supports it with only a corresponding of 95 (23.8%) who do say otherwise. Table 4 lays out the banks that offer credit cards and it depicts that the majority of the respondent's hold Citibank cards that is, 91 (22.8%) followed by Maybank as the main issuer of credit card manage to garner 78 (19.5%) and subsequently Public Bank 53 (13.2%).

#### **Measures of central tendencies on important of selection criteria**

Table 5 shows the mean and rank of the five factors that determine the criteria which influence the selection of

**Table 4.** Issuers of credit cards.

<b>Banks</b>	<b>Frequency</b>	<b>Percent (%)</b>	<b>Cumulative percent (%)</b>
Ambank	8	2.0	2.0
Public Bank	53	13.2	15.2
Citibank	91	22.8	38.0
EON Bank	3	0.8	38.8
Standard Chartered	7	1.8	40.5
Maybank	78	19.5	60.0
RHB Bank	14	3.5	63.5
HSBC	49	12.2	75.8
Hong Leong Bank	25	6.2	82.0
CIMB Bank	32	8.0	90.0
UOB Bank	19	4.8	94.8
Alliance Bank	9	2.2	97.0
OCBC Bank	12	3.0	100.0
Total	400	100.0	

**Table 5.** Descriptive statistics; measures of central tendencies.

<b>Characteristics</b>	<b>N</b>	<b>Mean</b>	<b>Rank</b>
Convenience and protection	400	4.1138	1
Flexibility	400	3.7744	2
Reputation	400	3.7287	3
Promotion	400	3.6208	4
Economics	400	3.3637	5

Note: each characteristic in Table 5 registered a Cronbach's alpha of above 0.8.

bank credit card decision of consumers that is, convenience and protection, flexibility, reputation, promotion and economic. Based on the survey data, it is deduce that convenience and protection has the highest mean among the five factors that is, at a mean of 4.1134, followed by flexibility factor which obtain a mean of 3.7744 and the least mean value is economics at a mean value of 3.3637.

### **Normality test**

Table 6 reflects whether each variable is normally distributed. Since N is less than 2,000, the Shapiro-Wilk statistic is used (Park, 2006). On the independent variable that includes marital status, gender, age, education level, annual personal income, and employment category, the Shapiro-Wilk show the same result where p-value is 0.000 (less than 0.05). Therefore, the null hypotheses are rejected and that to be concluded that all the independent variables are not normally distributed. Moreover, for the dependent variables that includes convenience and protection, flexibility, economics, promotion and reputation, the Shapiro-Wilk show the same result where p-value is 0.000 (less than

0.05). Again, the null hypotheses are rejected and conclude that all the dependent variables are not normally distributed. Hence as the data collected through questionnaire is not normally distributed, further analysis in the form of inferential analysis using the non parametric test is used.

### **Inferential analysis**

#### **Mann-Whitney test**

Table 7 shows the analysis for all 5 criteria by gender and marital status respectively. On the subject of gender, the Z value for convenience and protection is -1.708 with a significant level of  $p = 0.088$ . The probability value (p) is not less than or equal to 0.05, so the result is not significant. Therefore, we cannot reject null hypothesis at  $\alpha = 0.05$ . Hence, there is no statistical significant difference in the convenience and protection criteria between males and females. Subsequently, the other criteria such as flexibility, economic and reputation also have no statistical significant difference between the males and females. On the contrary, there is significant difference in the reputation between males and females.

**Table 6.** Test of normality.

Characteristics	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Convenience and protection	0.109	400	0.000	0.821	400	0.000
Flexibility	0.108	400	0.000	0.968	400	0.000
Economics	0.104	400	0.000	0.982	400	0.000
Promotion	0.130	400	0.000	0.964	400	0.000
Reputation	0.150	400	0.000	0.947	400	0.000

**Table 7.** Mann-Whitney test.

Rank	Mann-Whitney test	Wilcoxon W	Z	Sig
<b>By Gender</b>				
Convenience and Protection	16798.000	27973.000	-1.708	0.088
Flexibility	17055.500	28230.500	-1.482	0.138
Economic	18655.000	50281.000	-0.040	0.968
Promotion	18589.000	50215.500	-0.100	0.920
Reputation	16438.500	27613.500	-2.062	0.039
<b>By marital status</b>				
Convenience and Protection	17245.000	50398.000	-1.024	0.306
Flexibility	17771.000	50924.000	-0.550	0.582
Economic	17053.000	27349.500	-1.203	0.229
Promotion	14842.000	47995.000	-3.238	0.001
Reputation	17144.500	27440.500	-1.132	0.258

Further, in the inspection of the mean ranks for the groups, the male group has the highest selection on the reputation criteria compared to the female. On the subject of marital status the Z value is -1.024 with a significant level of  $p = 0.306$ . The probability value ( $p$ ) is not less than or equal to 0.05, so the result is not significant. Therefore, we cannot reject null hypothesis at  $= 0.05$ . There is no statistical significant difference in the convenience and protection between single and married. Subsequently, the other criteria such as flexibility, economic and reputation have also no statistical significant difference between the single and married. On the contrary, there is significant difference in the promotion as selection criteria between singles and married. Further, in the inspection of the mean ranks for the groups, it is found that the married group had the highest overall ranking in promotion criteria then the singles and it is also statistically significant.

### **Kruskal-Wallis test**

Table 8 shows the analysis for all 5 criteria by age group, education level and annual personal income respectively. On the difference between selection criteria and age, the Chi Square value is 1.260 at a degree of freedom 4 with

a significant level of  $p = 0.868$ . The probability value ( $p$ ) is not less than or equal to 0.05, hence the result is not significant. Hence, we cannot reject null hypothesis at  $= 0.05$  and conclude that there is no statistical significant difference in the convenience and protection across the five different age groups. Similar result is also obtained for reputation and flexibility criteria. However, in contrast, the difference between the selection criteria of economic and promotion with age show a significant difference across the five different age groups. On the inspection of the mean ranks for the groups, it is evident that the 26 - 35 age groups had the highest selection on economic and promotion variables. Further in reference to convenience and protection selection criteria and education level (Table 8) the results of the Chi Square value is 7.703 at degree of freedom 4 with a significant level of  $p = 0.173$ . The probability value ( $p$ ) is not less than or equal to 0.05 and hence the result is not significant.

Therefore, we cannot reject null hypothesis at  $= 0.05$  conclude that there is no statistical significant difference in the convenience and protection across the six different education levels. However, the results are also similar for the other selection criteria. On the difference between the selection criteria of convenience and protection with annual personal income, the Chi Square value is 8.220 at

**Table 8.** Kruskal –Wallis' test.

Rank	Chi-square	Df	Sig
<b>Different age groups</b>			
Convenience and Protection	1.260	4	0.868
Flexibility	3.481	4	0.481
Economic	11.145	4	0.025
Promotion	13.811	4	0.008
Reputation	7.787	4	0.100
<b>Different education level</b>			
Convenience and Protection	7.703	5	0.173
Flexibility	1.480	5	0.915
Economic	6.948	5	0.225
Promotion	8.547	5	0.129
Reputation	6.493	5	0.261
<b>Different annual personal income</b>			
Convenience and Protection	8.220	5	0.145
Flexibility	25.944	5	0.000
Economic	13.943	5	0.016
Promotion	13.253	5	0.021
Reputation	9.177	5	0.102

**Table 9.** Correlation matrix between satisfaction level and selection criteria.

Variables	Coefficient ( r )	Sig
Convenience and Protection	0.452**	0.000
Flexibility	0.444**	0.000
Economic	0.456**	0.000
Promotion	0.301**	0.000
Reputation	0.506**	0.000

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

degree of freedom 5 with a significant p value = 0.145. The probability value (p) is not less than or equal to 0.05 and as such the result is not significant. Hence, we cannot reject null hypothesis at = 0.05 and conclude that there is no statistical significant difference in the convenience and protection criteria across the six different annual personal incomes. Similar result is also obtained for the reputation criteria. One the contrary and interestingly, there has been a significant difference in the flexibility, economic and promotion criteria across the six different annual personal income. It is also evident that the results of the mean ranks for all these 3 groups suggest that the income range of RM60000 -69999 and RM70000 and above had the highest however the income range RM18000-RM29999 and RM 30000 - 39999 had the lowest selection.

### **Pearson correlation analysis**

Table 9 shows the analysis for all the 5 criteria together

with their overall satisfaction level. The significance level is measured at 0.05 on every variable in Table 9. Thus, convenience and protection is significantly and positively correlated with the level of satisfaction ( $r = 0.452$ ). Similarly, strong positive correlations are also registered involving the other four variables (flexibility, economic, promotion and reputation) with satisfaction level at 0.01.

### **LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

The main issue is with regards to language problem as generally respondents had difficulties understanding the questions written in English. There is also the element of time and the difficulty in targeting the different groups of respondents especially when it relates to the employment categories and ethnicity. Extension to the current study is possible in the following areas: use of factor analysis to analyze the grouping on all the 19 variables in order to

improve the reliability and the outcome of the analysis, extend distribution to wider areas such as Sabah and Sarawak or other states in Malaysia and to expand on the variable such as married group with number of children, age of their children and etc.

## Conclusions

This study's focus is more on the culture, perception and beliefs of the existing users of credit cards based specifically on a Malaysian scenario. The outcome of this study can be used by the bank as the selection criteria of customers and to gauge and simultaneously match with the currently established criteria set by the bank. Importantly, this study establishes the fact that the selection criteria such as convenience and protection, flexibility, economic, promotion and reputation do not influence demography. Further, there is also evidence that a consumer's annual personal income is a contributing factor in a bank's selection criteria. Moreover, the analysis also provides input that the expected selection criteria put forth and the actual satisfaction level is yet to have its desired results and hence there is a need to narrow the expectation gap.

## REFERENCES

- Alhassan GAM, Yakubu AU (2007). Credit card ownership and usage behavior in Saudi Arabia: The impact of demographics and attitudes towards debt. *J. Financial Services Market.*, 12(3), 219-234.
- Anderson WT, Cox EP, Fulchen DG (1976). Bank selection decision and market segmentation. *J. Mark.*, 40: 40-45.
- Bank Negara Malaysia. (2008). Credit Card Operations in Malaysia. Retrieved June 10, 2008, from <http://www.bnm.gov.my/files/publication/msb/2008/4/pdf/2.30.pdf>
- Bank Negara Malaysia. Retrieved June 10, 2008, from [http://www.bnm.gov.my/files/doc/2008/comp\\_tables/04\\_creditcard.pdf](http://www.bnm.gov.my/files/doc/2008/comp_tables/04_creditcard.pdf)
- Blankson C, Ming SC, Spears N (2007). Determinants of banks selection in USA, Taiwan and Ghana. *Int. J. Bank Market.*, 25(7), 469-489.
- Boyd WL, White C (1994). Customer Preferences for Financial Services: An Analysis. *Int. J. Bank Market.*, 12(1), 9-15.
- Cicic M, Brkic, N, Agic E (2004). Bank Selection Criteria Employed by Students in a Southeastern European Country: An Empirical Analysis of Potential Market Segments' Preferences. Paper presented at the conference on ANZMAC 2004, New Zealand, retrieved May 13, 2009, from <http://smib.vuw.ac.nz:8081/WWW/ANZMAC2004/CDSite/papers/Cicic1.PDF>
- Dunkelberg WC, Scott JA, Cox EL (1984). Small business and the value of bank customer relationships. *J. Bank Res.*, Winter, 248-58.
- Edris TA, Almahmeed MA (1997). Services considered important to business customers and determinants of bank selection in Kuwait: a segmentation analysis. *Int. J. Bank Market.*, 15(4), 126-133.
- Garson GD (2009). "Reliability Analysis ", from Statnotes: Topics in Multivariate Analysis. Retrieved June 10, 2009, from <http://faculty.chass.ncsu.edu/garson/pa765/statnote.htm>.
- Gerrard P, Cunningham JB (2001). Singapore's undergraduates: How they choose which bank to patronize. *Int. J. Bank Market.*, 19(3), 104-114.
- Gerrard P, Cunningham JB (2000). Gazetted hotels in Singapore: a banking study. *Int. J. Bank Market.*, 18(3), 135-147. <http://biz.thestar.com.my/news/story.asp?file=/2008/7/11/business/21796307andsec=business>
- Kara A, Kaynak E, Kucukemiroglu O (1994). Credit card development strategies for the youth market. The use of conjoint analysis. *Int. J. Bank Mark.*, 12(6): 30-36.
- Kennington S, Hill J, Rakowska A (1996). Consumer selection Criteria for banks in Poland. *Int. J. Bank Mark.*, 14(4), 12-20
- Lehman DR, Winer RS (2005). *Product Management* (4<sup>th</sup> ed). NY: McGraw- Hill.
- Lewis BR, Bingham G (1991). Service quality: an international comparison of bank customers and account customers. *The magazine of Bank Administration*, 65: 48-52.
- Lydia LG, Ramin CM. (2006). Credit Card Selection Criteria: Singapore Perspective. Economic Growth centre Working Paper Series 0610, Nanyang Technological University, School of Humanities and Social Sciences, Economic Growth centre. Retrieved March 2, 2009, from <http://www3.ntu.edu.sg/hss2/egc/wp/2006/2006-10.pdf>
- Madill JJ, Feeney L, Riding A, Haines Jr. GH (2002). Determinants of SME owners' satisfaction with their banking relationships: a Canadian study. *Int. J. Bank Market.*, 20(2), 86-98.
- Meidan A, Davos D (1994). Credit and Charge Cards Selection Criteria in Greece. *Int. J. Bank Market.*, 12(2), 36-44.
- Mohammed A (2001). Bank selection criteria employed by college students in Bahrain: an empirical analysis. *Int. J. Bank Market.*, 19(3), 115-125.
- Mosad Z (1996). Bank strategic positioning and some determinants of bank selection. *Int. J. Bank Market.*, 14(6), 12-22.
- Munro JL (1997). An examination of the credit card payment practices of college students. Unpublished master's thesis, University of Virginia Tech. Retrieved June 10, 2009 from <http://scholar.lib.vt.edu/theses/public/etd-3037151839751071/etd-title.html>
- Nuradli Ridzwan Shah, MD, Hanifah AH (2008). Factors influencing the Islamic credit cards holders satisfaction. *The Business Review*, Cambridge, 11(2).
- O'Keeffe A (2005). The age of spend, spend, Retrieved February 13, 2009, from [http://www.newstatesman.com/writers/alice\\_o'keeffe](http://www.newstatesman.com/writers/alice_o'keeffe)
- Park M (2006). Sources of information for purchasing golf clubs: Personal and non-personal preferences. *Int. J. Sports Mark.*, 7(2), 125-135.
- Ridzwan N, Shah MD, Hanifah AH (2008). Factors influencing the Islamic credit cards holders satisfaction. *The Business Review*, Cambridge, 11(2): 298-304.
- The Edge Daily On-Line (2007). Incentive for prompt credit card debt repayment. Retrieved June 10, 2009, from [http://www.ibfim.com/index.php?option=com\\_contentandtask=viewandid=529andItemid=179](http://www.ibfim.com/index.php?option=com_contentandtask=viewandid=529andItemid=179)
- The Star Online (2008, July) Retrieved June 10, 2008, from
- Thwaites D, Vere L (1995). Bank selection Criteria – a student perspective. *J. Market. Manage.*, 11, 133-149.
- Yee, RKC (1997). Demographic and attitudinal differences between active and inactive credit cardholders – the case of Hong Kong. *Int. J. Bank Mark.*, 15(4): 117-125.
- Air University (1996). *Air University Sampling and Surveying Handbook*, Air University, Maxwell Air Force Base, AL, retrieved June 13, 2009, from: [www.au.af.mil/au/awc/awcgate/edref/smpl-srv.pdf](http://www.au.af.mil/au/awc/awcgate/edref/smpl-srv.pdf)