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Exploring the factors influencing credit card spending behavior among Malaysians

Wendy Ming-Yen Teoh
Faculty of Business and Law, Multimedia University, Melaka, Malaysia
Siong-Choy Chong
Finance Accreditation Agency, Kuala Lumpur, Malaysia, and
Shi Mid Yong
Faculty of Business and Law, Multimedia University, Melaka, Malaysia

Abstract

Purpose – This paper explores factors affecting spending behavior of credit card holders in Malaysia. Specifically, variables such as demographic factors, banks' policies, and credit card holders' attitudes toward money are examined.

Design/methodology/approach – A cross-sectional survey through the use of a structured questionnaire was administered on 150 credit card holders based on the area sampling and convenience snowball sampling techniques.

Findings – The results indicate that age, income, and marital status have significant correlation with credit card holders' spending behavior. The same goes to two of the three items identified under banks' policies (benefits given and payment policies) and attitudes toward money (willingness to pay and awareness of the total debt owed). Occupation, qualifications to apply for credit card, and management of income vs expenses are not significantly related to credit card spending behavior among Malaysians.

Research limitations/implications – The study serves as a guide for researchers to extend the research work covering more variables in different economies in light of the low R^2 value. The small sample size raises the issue of generalizability, which future studies should address.

Practical implications – The results could be used as a guide by emerging market economies or even developed countries where credit card usage is a widespread phenomenon. It also provides insights to the credit card issuing banks in terms of understanding their target consumers, preferences, and the effect of their policies on credit card application and use.

Originality/value – This study sheds light on credit card spending behavior, particularly among Malaysians.

Keywords Credit card, Spending behavior, Demographic factors, Banks' policies, Attitudes towards money, Malaysia, Credit cards, Money

Paper type Research paper

Introduction

Credit cards are a popular medium of payment for consumers today. In the USA, it has been identified as the second most popular non-cash instrument (Chakravorti, 2003). The use of credit cards has already become a convenient way to expand purchasing power (Braunsberger *et al.*, 2004; Foscht *et al.*, 2010). Durkin (2000) asserts that "in modern commerce, credit cards serve as a payment device in lieu of cash or checks for millions of routine purchases as well as for many transactions that would otherwise be inconvenient or perhaps impossible" (p. 623). Chakravorti (2003) further affirms that credit cards provide benefits to customers and merchants that are not provided by other payment instruments. This explains the explosive growth in number and value

of credit card transactions over the last 20 years, although the first cards were reported to be introduced in the 1950s (Durkin and Price, 2000).

The literature suggests that research has been conducted on the use of credit cards and consumers' attitudes (Durkin, 2000), consumer behavior, and the stickiness of credit card interest rates (Calem and Mester, 1994), money attitudes, credit card use, and compulsive buying among college students (Roberts and Jones, 2001), theory of credit card networks (Chakravorti, 2003), and the effects of credit cards on willingness to pay (Prelec and Simester, 2001). However, these studies were conducted in western countries and there is a paucity of such research in emerging market economies, which includes Malaysia. Due to legal, structural, cultural, geographical, and socio-economic differences between countries, variances in practices may have an effect on credit card spending behavior.

This study considers Malaysia as its setting in view of the intriguing developments that have since taken place. Malaysia is one of the fastest growing economies among the developing countries in Asia with a gross domestic product (purchasing power parity) per capita of USD14,700 in 2010. This is reflected in terms of its socio-economic developments. For instance, higher education is increasingly being made accessible and affordable to those between the age cohorts of 18 and 25. Many job opportunities are made available due to the various transformational programs that are taking place, which include in-flow of foreign direct investments. In addition, the minimum wage bill has recently been tabled and approved by the Parliament. These developments allow the general Malaysian to have a better quality of life. Many banking and non-banking institutions have taken this advantage to market their credit cards to a wider range of Malaysians. The Central Bank of Malaysia (2009) reported that there are 24 credit card issuers in Malaysia, of which 21 are banking institutions. Accordingly, credit cards have been promoted as a convenient payment device which suits the modern lifestyles of Malaysians. This raises our first research question: do demographic factors significantly affect credit card spending behavior among Malaysians? If so, a sub-question emerges; are there differences within the sub-groups of these variables?

To some extent, banks and non-banks have changed their policies to allow more Malaysians to be issued credit cards. This includes widening the benefits provided, loosening the qualifications for applying for credit cards, and a more flexible payment policy. Many of these practices and policies were unique and their effectiveness has not been reported in the literature. As a result of these moves, the number of credit card holders has increased dramatically. This is evident from the report published in a daily newspaper that there were 10.8 million credit card holders or 38.6 percent of the Malaysian population of 28 million as of December 2009 (*The Star*, 2010), of which 1.92 million earn <RM36,000 (USD11,763) per annum (LCF, 2011). The somewhat lax requirements have made it relatively easy for Malaysians to be issued credit cards. It is therefore not surprising when the *Daily Express* (2007) reported that on an average, every Malaysian credit card holder owns an average of three credit cards. The strategies and policies adopted lead to our second research question: do bank policies significantly affect credit card spending behavior among Malaysians?

At the same time, it is interesting to explore Malaysians' attitudes toward money in terms of their awareness of total debts owed due to credit card use, their willingness to serve the credit card issuing institutions, and their management of income vs expenses. This is in view of the rampant increase in debts associated with credit card use.

The statistics show that as of June 2010, 4,417 or 8 percent of people become bankrupt (Horlic.com, 2012) because of non-payment of credit card debts with a total debt outstanding quadrupled to RM103.8 billion (about USD34 billion) as of March 2009 (*The Star*, 2009). This has led the government to establish the Credit Counseling and Debt Management Agency to provide financial education to Malaysians in order to change their attitudes by equipping them with better financial management skills. However, the effectiveness of the link between attitudes and credit card spending behavior remains to be seen. This leads to our third research question: do credit card holders' attitudes toward money significantly affect credit card spending behavior among Malaysians?

From the research perspective, this study is expected to contribute not only to enrich the available literature in terms of the factors affecting credit card spending behavior of Malaysians, but also serves to motivate similar studies to be conducted across the emerging market economies to determine whether the issues reported here are similar or different. It is possible that new insights may be generated from the use of existing variables or through the inclusion of new constructs that take into account the differences in these countries. From the practical perspective, the results serve to inform the credit card issuing banks and non-banks of the influences of these variables on the behavior of their card holders so that an understanding and appropriate strategies concerning their target consumers, preferences, credit card application, and use can be formulated and implemented.

The rest of the paper is organized as follows. The next section reviews the literature pertaining to the variables of interest. As a result, a research framework and series of testable hypotheses are developed before the methodology is described. The data collected are then analyzed and interpreted. The implications are discussed and recommendations are provided before concluding the paper.

Literature review
Credit card spending behavior
Several studies have analyzed the advantages and disadvantages of using credit cards. Generally, the choice of credit card as a payment mechanism is often accidental and driven by simpler considerations like convenience (e.g. a charge card is always in one's wallet), acceptability (e.g. certain retailers might not accept checks), accessibility (e.g. there is no convenient automated teller machine to withdraw cash), and habit (e.g. rent is typically always paid by checks) (Soman, 2001).

On the other hand, however, there are negative consequences of subscribing to such a facility. As spending-facilitating stimuli (Feinberg, 1986; McCall *et al.*, 2004), there is growing evidence that credit cards encourage spending (Prelec and Simester, 2001). Lie *et al.* (2010) discovered that people who have never used credit cards form negative associations through media portrayal, but subsequent personal experience with create cards creates positive associations with consumption of goods and extinguishes those preexisting negative associations. Also because of the budgeting effect (Heath, 1995; Heath and Soll, 1996), credit card holders will most likely forget or underestimate the price of goods and the total amount spent during their purchasing activities (Soman, 1999), which leads to the problem of overuse (Durkin, 2000). Besides, those with positive perception of credit cards who do not realize the actual cost of delaying payment on their credit cards also have the tendency to spend more (Dellande and Saporoschenko, 2004), leading to defaults, and subsequently bankruptcy (Ausubel, 1997).

Pellinen *et al.* (2010) indicate that financial skills and competence are based on financial knowledge and understanding, and are influenced by the personal attitudes in spending and saving. There are consumers who are reluctant to make most of their purchases with credit cards because of the fear that they may not be able to make full payment when their credit bills are due (Chakravorti, 2003). Whatever the perception is, it forms the basis of behavioral intention of financing expenses with credit cards (Erdem, 2008).

Demographic factors
This study considers four demographic factors such as age, income level, occupation, and marital status which are posited to influence credit card holders' spending behavior.

A number of interesting findings have been documented concerning age of credit card holders. Devlin *et al.* (2007) found that the older the respondents, the more likely they are to possess one or more credit cards. However, college students and young credit card holders, albeit possessing fewer credit cards, have been increasingly identified as contributors to credit card debts (Kara *et al.*, 1994; Norvilitis and Maria, 2002) compared to the more senior card holders. The reason for this could be explained by the perception of young credit card holders that they will not face the burden of financial obligations because they believe that they still have a long future ahead to settle the debts (Roberts and Sepulveda, 1999). Many young card holders assume that any financial problem faced is temporary and it will be easily repaid due to their young age. This perception would have shaped the young credit card holders' spending behavior compared to the more senior card holders who are likely to be financially sound, yet conservative in their spending. This may explain why out of the 8 percent of bankruptcies in Malaysia due to credit card overuse, an average of 49 percent consists of those who are below the age of 30 (*The Star*, 2009). It is therefore interesting to determine whether there is any significant correlation between age and credit card holders' spending behavior among Malaysians. The following hypothesis is thus formulated:

H1a. There is a significant relationship between age and credit card holders' spending behavior among Malaysians.

Several studies have looked at the impact of income level on credit card's possession and use. The findings are, however, not without varying conclusions. Devlin *et al.* (2007) found that households with higher incomes tend to hold more credit cards. Nevertheless, due to their high income, they are more likely to pay off their credit card debts (Balasundram and Ronald, 2006). Slocum and Matthews (1970) argue that those from the lowest category of income always think wisely before making any kind of money-related decisions.

Nonetheless, credit card issuing banks and non-banks are thinking of ways of increasing the number of their credit card holders and this involves those in the middle and lower income brackets by reducing the minimum income per annum required. For instance, in the 1990s to mid-2000s, to apply for a basic credit card requires the applicants to earn a minimum income of RM18,000 (USD5,881) per annum and RM24,000 (USD7,842) per annum for a normal card. The requirement for a normal card has since become the minimum requirement to apply for a "gold" type of credit card. Basically, anyone with a minimum income of RM24,000 (USD7,842) per annum

can apply for a credit card today (Cheu and Loke, 2010). Based on the negative consequences of such facilities' use, this has resulted in defaults and subsequently bankruptcy of the card holders who are unable to service their banks due to their low income. However true this argument is in the context of Malaysia, it remains to be tested since only 8 percent of bankrupts in Malaysia are due to credit card debts. In order to test the relations between income level and credit card spending behavior, the following hypothesis is put forward:

H1b. There is a significant relationship between income level and credit card holders' spending behavior among Malaysians.

Joo and Pauwels (2002) assert that occupation could influence a person's consumption behavior. They found in their study that managers and those in the self-employed category are most likely to be heavy users of credit cards. On the other hand, students are often being categorized as an occupation, and that it has been recognized that many students are living on the verge of financial crisis (Joo *et al.*, 2003; Manning, 2000). It is for this reason that usage of credit cards by college students has received increased visibility throughout the media (Hayhoe, 2002). With more and more Malaysians with different occupations, including students now own credit cards, it is posited that this will become a common trend in the near future. It is thus interesting to discover whether occupational types influence credit card holders' spending behavior based on the following proposition:

H1c. There is a significant relationship between occupation and credit card holders' spending behavior among Malaysians.

Research has also demonstrated that marital status and length of marriage of a card possessor affect his or her spending behavior (Kinsey, 1981; Steidle, 1994). Devlin *et al.* (2007) discovered that married respondents who participated in their research had more departmental store credit cards than those who are still single or separated/ divorced. This is not difficult to understand as married consumers are likely to have higher expenditures than non-married consumers. Godwin (1998) demonstrates that household size is positively related to the increase in household debt. This is reflected in their needs to finance a larger amount of living expenses and one way would be to borrow money from credit cards. This scenario may also be relevant in Malaysia as the Credit Counseling and Debt Management Agency reported that among all the cases they received, 77 percent involved married individuals (Lee, 2012). To confirm whether marital status affects credit card spending behavior among Malaysians, the following hypothesis ensues:

H1d. There is a significant relationship between marital status and credit card holders' spending behavior among Malaysians.

Bank's policies
In this study, bank's policies refer to the benefits issuing banks and non-banks provide to credit card holders, the payment policy they implied, and the qualifications required for credit card application.

Due to the hypercompetition in the credit card market, many banks are striving to establish their own niche in the market through constant product improvements and

innovation (Subramaniam and Marimuthu, 2010). Many issuing banks and non-banks offer benefits in the form of different incentives in order to entice consumers in general to apply for credit cards (Chakravorti, 2003). These incentives include no annual fees (which has been packaged as an annual fees waiver), cash rebate, point rewards, airline miles, installment payment plan, and/or discounts for identified purchases. From the perspective of relationship marketing, the desire to spend more on credit cards are enhanced in terms of its ability to offer substantial income stream due to the availability of credit card insurance policy (Buttle, 1996). Some of the benefits could be the coverage in case of losing the credit card, accidents while on trips, and the card holders becoming unemployed or ill. Another possible benefit could be the wide acceptance of the major card association banks which makes purchases through credit cards highly convenient. The Nielsen Global Survey of Investment Attitudes reported that two in five or 39 percent of Malaysians use credit cards as a common payment method for dining, shopping, and entertainment activities (Hamsawi, 2012). To confirm Zinman's (2009) argument as to whether consumers tend to use credit cards as a primary mode of payment due to the incentives they will be receiving, the following hypothesis is suggested:

> *H2a.* There is a significant relationship between benefits given by the issuing bank and credit card holders' spending behavior among Malaysians.

The qualification to apply for credit cards refers to the requirements needed by applicants as prescribed by the card issuing banks or non-banks. In the past, it was a required practice whereby the issuing banks or non-banks asked for copies of the applicants' identification cards, salary slips, income tax, and other documents that can prove their identities. However, these requirements have now been eliminated from the application of credit cards. For convenience purpose, many card issuing banks or non-banks only require a photocopy of the applicants' identification cards. A photocopier machine is made available at the premises for such purposes. The requirement for salary slips and income tax have been replaced by whether the applicants possess other credit cards, types of card (normal, gold, or platinum), and credit limits. Photocopies of these cards are requested together with the identification card for application purpose. Unless the applicants have bad records, the success of their application is almost guaranteed. Even the staffs of these banks and non-banks are helping the applicants to fill up application forms, thus reducing the burden of the applicants. One of the latest trends is to provide gift to applicants at the point of application, thus motivating them to submit applications. Almost all card issuing banks or non-banks waive annual fees for the first year, and some banks even launch "Free for Life" campaign as a means to attract applicants. Many card issuing banks and non-banks continue to waive annual fees for the subsequent years with the condition that certain number of transactions is made or specific amount are spent within a particular calendar year. After the annual service tax was imposed by the Malaysian government in August 2010 (RM50 (USD16) for each principal card and RM25 (USD8) for each supplementary card), many banks have introduced incentives to offset the tax for credit card holders if they made at least three transactions within the calendar year (Hunt, 2009).

All these efforts are believed to have far-fetched implications on the behavior of consumers to apply for credit cards and subsequently use them. Successful applicants are usually provided similar or higher credit limits based on the limits imposed by

other banks. The literature suggests that reaching the source of credit easily can lead people to consume more and thus borrow excessively (Ritzer, 2001). To prove this, the following hypothesis is developed:

H2b. There is a significant relationship between qualification of applying for credit card and credit card holders' spending behavior among Malaysians.

Credit card issuers have introduced a facility for credit card users since the birth of credit card. This facility provides grace period for credit card users to settle their debts, usually at the beginning of every month. Some issuers also fixed certain dates of a month as deadline, for example, 10th or 12th day of the following month. This is done in light of the receipt of the credit card statements at the end of every month. If the card holders settle their debts within the grace period, no interest will be charged. Otherwise, the late payment charge is fixed at a minimum of RM10 (USD3.27) or 1 percent of the total outstanding balance, whichever is higher. However, credit card users often use credit card to increase their short-term transactions and consumption beyond their current monetary ability. Many card issuing banks or non-banks allow a minimum amount to be paid in their quest toward transforming consumers into interest-paying consumers by giving them diverse incentives (Akin *et al.*, 2008; Chakravorti and Emmons, 2003) so that the institutions can earn above-normal profits from the higher interest rates charged on credit card debts which is higher than any other credit debts (Ausubel, 1991; Berlin and Mester, 2004). Card holders seem to receive this facility well, as only 47 percent of Malaysians are paying their credit cards expenditure in full every month (Hamsawi, 2012). The interest rates charged result in many holders ending up with debt (Balasundram and Ronald, 2006). To verify whether payment policies affect the holders' spending behavior, the following hypothesis is put forth:

H2c. There is a significant relationship between payment policies and credit card holders' spending behavior among Malaysians.

Attitude toward money

Attitude is a subjective object due to its multidimensional nature (Roberts and Jones, 2001). It affects behavior where attitude change can lead to changes in behavior (Hook and Lucier, 1995). It can thus be assumed that attitude toward credit and money will affect consumers' spending behavior. To have better understanding of one's attitude toward money, several dimensions of money was introduced. Tang (1992, 1993) developed a scale named Money Ethic Scale and concluded that there are mainly three dimensions of money. First, money represents a person's achievement in the society or the symbol of success. Second, money helps people to earn respect in a society as it is kind of symbol of identity. Third, money confers a sense of freedom or power to an individual. Tang labeled these three dimensions of money as the cognitive component of people's attitude toward money. Phau and Woo (2008), on the other hand, provide a more detailed explanation. They defined attitude toward money as an object that will impact on all areas of a person's life which include saving habit, spending, workplace performance, political ideology, charitable giving, and attitude toward environment. Yamauchi and Templer (1982) define four dimensions of people's attitude toward money which include power prestige, retention-time, distrust, and anxiety.

In this study, three dimensions of attitudes toward money, i.e. credit card holders' willingness to pay their credit card expenditures, awareness about the interest charged and total debt owned, and also their management of income and expenses are considered.

Durkin (2000) doubts consumers' understanding of cost and implications of using credit cards. While it is assumed that credit card users are aware of their credit balance, credit limit, and annual percentage rates, this is not always the case. Soman (1999) suggests that credit card users are more likely to underestimate or forget the amount spent. As such, they tend to overspend compared to those who prefer to use cash or cheque (Soman, 2001). Tokunga (1993) supports the notion where heavy credit card users are found to be less conscious toward price. This is made worst by the findings that credit card possession is related to the consumption of high-priced goods (Deshpande and Krishnan, 1980). Coupled with this is the compulsive buying behavior which is highly correlated with credit card usage (Park and Burns, 2005). Consumers have no idea about how much they have actually spent on items which they do not need and cannot afford most of the time (Hoyer and MacInnis, 2001; O'Guinn and Faber, 1989). This has led to the rising credit card debts.

Malaysians are known as big spenders, and many have continued to spend rigorously, even when prices of goods and services are generally high (Alias *et al.*, 2010). Only 47 percent of Malaysians are found to repay their credit card bills in full, and many tend to trust their own instincts rather than relying on financial advisors or planners when it comes to decision making on personal finance or wealth matters (Hamsawi, 2012). It can thus be concluded from these studies that there is poor awareness and management of income among the credit card holders which poses significant financial problems to them (Lee and Hogarth, 1999). The following three hypotheses are thus generated:

H3a. There is a significant relationship between willingness to pay and credit card holders' spending behavior among Malaysians.

H3b. There is a significant relationship between awareness of the total debt owned and credit card holders' spending behavior among Malaysians.

H3c. There is a significant relationship between management of income vs expenses and credit card holders' spending behavior among Malaysians.

As a summary, Figure 1 shows the research framework adopted in the current study. The next section discusses the methodology used, questionnaire, and the sample characteristics of the current study.

Methodology
Sampling procedures
About 200 self-reporting questionnaires were randomly distributed to credit card holders using the area sampling and convenience snowball sampling methods. Given the large number of credit card holders in Malaysia, it is more feasible to restrict the sampling frame to areas in which meaningful results can be generated. Further, it is less expensive compared to other probability sampling designs (Sekaran and Bougie, 2010) and fits this study's exploratory nature. Two states in the country, namely Selangor and Malacca were selected. Selangor has been acknowledged as one of the
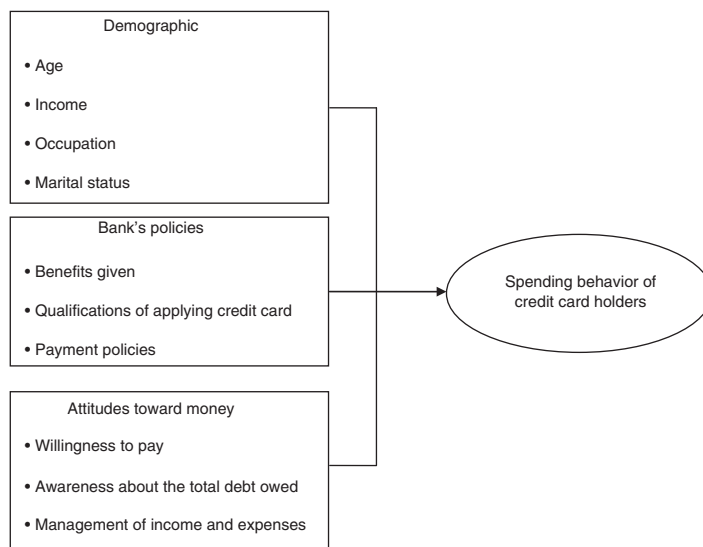
Figure 1.
Research framework
on factors affecting
spending behavior of
credit card holders

major economies of the country, while Malacca is growing rapidly economically. As a matter of fact, Malacca was declared as a developed state by the Organization for Economic Cooperation and Development in October 2010. Out of the 200 questionnaires distributed, 150 respondents agreed to participate in the survey.

Data collection and analysis procedures
A set of structured questionnaire is used for primary data collection. The constructs and number of questions are based upon the research questions and the formulated hypotheses. The questionnaire consists of four sections. Section 1 consists of four questions on the demographic profile of the respondents such as age, income, occupation, and marital status. Section 2 captures information related to credit card details. There are seven questions in this section which encompass the number of credit cards owned, years of using credit card, age of getting the first credit card, frequency of credit card usage on a monthly basis, amount spent every month by using credit card, whether the respondents pay their monthly credit card bills on time, and whether the respondents pay excess amount rather than the required amount. Section 3 contains nine questions on bank policies which were partly developed by the authors. The remaining questions were adapted from Calem and Mester (1994), Chakravorti (2003), Durkin (2000), and Feinberg's (1986) works. Section 4 has 14 questions measuring the respondents' perception on their attitudes toward money. These questions were self-developed and some were adapted from Soman (1999), Tang (1992, 1993), and Yamauchi and Templer's (1982) study. All the items in Sections 3 and 4 are scored using a five-point Likert-scale.

Prior to the dissemination of the questionnaires, it was piloted on 30 respondents. The majority of respondents reported that the questionnaire was easily understandable and required only 10-15 minutes to be completed. Only minor changes were proposed and they were incorporated in the final design of the questionnaire.

The data were coded and run using the Statistical Package for Social Sciences version 17.0. Frequency tests were conducted on items in Sections 1 and 2. Inferential

statistics such as Pearson correlation-coefficient, multiple regression analysis, one sample *t*-tests, and one-way ANOVA tests were carried out to test the hypotheses.

Demographic profiles of the respondents
Table I presents the demographic profiles of the respondents. The majority of respondents fall within the age brackets of between 21 and 40. About 79.3 percent of them earn monthly incomes of RM6,000 (USD1,960) or less, with 23.3 percent of the respondents earning below RM2,000 (USD653) a month. The majority of them are employed and single. Students only constitute 10 percent of the total respondents sampled. About 60.7 percent of respondents own more than one credit card, with 11

Demographic	Categories	n	%	Demographic	Categories	n	%
Age	21-30	67	44.67	Current profession	Student	15	10
	31-40	46	30.67		Professional	50	33.33
	41-50	12	8		Self-employed	18	12
	51-60	15	10		Manager	16	10.67
	61 and above	10	6.66		Executive	34	22.67
					Others	17	11.33
Monthly income	RM 2,000 and below	35	23.33	Marital status	Single	88	58.67
	RM 2,001-RM 4,000	46	30.67		Married	62	41.33
	RM 4,001-RM 6,000	38	25.33				
	RM 6,001-RM 8,000	18	12				
	RM 8,001-RM 10,000	2	1.33				
	Above RM 10,000	11	7.34				
Number of credit card owned	1	59	39.3	Years of using credit card	0-2	42	28
	2	48	32		2-4	22	14.7
	3	16	10.7		4-6	21	14
	4	16	10.7		Above 6	65	43.3
	Above 5	11	7.3				
Age of getting first credit card	Below 20	7	4.7	Monthly credit card usage	<5 times	72	48
	21-24	82	54.7		5-10 times	40	26.7
	25-29	27	18		>10 times	38	25.3
	Above 30	34	22.7				
Monthly spending by using credit card					RM 1-RM 399	44	29.3
					RM 400-RM 799	60	40
					RM 800-RM 1,199	17	11.3
					RM 1,200-RM 1,599	7	4.7
					RM 1,600-RM 1,999	5	3.3
					Above RM 2,000	17	11.3
Do you pay the monthly credit card bills on time?	Yes	136	90.7	Do you pay the excess amount than the required amount?	Yes	39	26
	No	3	2		No	69	46
	Sometimes	11	7.3		Sometimes	42	28

Note: USD1, RM3.15

Table I.
Frequency distribution table for respondent's background

respondents possessing five or more cards. About 43.4 percent of them have used their cards more than 6 years. The majority of them obtained their first credit cards between the age of 21 and 24, followed by those aged 30 and above. Only seven respondents state that they owned their first credit cards below the age of 20. Slightly more than half of the respondents (52 percent) indicate that they use their credit cards for more than five times a month. Most of them spent an average of between RM400 and RM799 (USD131 and USD261) per month on their credit cards. About 29.3 percent of them spent RM399 (USD130) or less per month, while only seven respondents spent above RM2,000 (USD653) per month. Almost all of the respondents pay their credit card bills on time. Many of them do not pay excess amount although 28 percent of them do so occasionally.

Table II shows the mean and standard deviation scores for all the items measuring bank's policies and attitudes toward money. Overall, attitudes toward money, particularly awareness of total debts owed and willingness to pay scored higher overall means compared to the constructs measuring bank policies. Payment policies scored the lowest overall mean, followed by benefits given by bank and qualifications to apply for credit card. However, the lowest mean comes from management of income vs expenses, a construct measuring attitudes toward money. The standard deviation scores of some items are high, implying a wide variation of responses. Internal consistency of the items was verified by computing the Cronbach's α coefficient. With the minimum alpha value of 0.645 which is above the threshold of 0.60 (Sekaran and Bougie, 2010), the questionnaire is considered to be reliable. Taken together with the face validity achieved, the data can be applied for further analysis.

Results

Table III presents the Pearson correlation-coefficient results of *H1*. The results show that demographic factors such as age, income level, and marital status are significantly correlated with credit card spending behavior. As such, *H1a*, *H1b*, and *H1d* are accepted. Occupation is found not to be significantly correlated with credit card spending behavior. Therefore, *H1c* is not accepted.

Taking a closer look, the independent sample *t*-tests and one-way ANOVA results in Table IV show that there are significant differences between all the demographic factors. The table shows that credit card holders who are 61 years old and above are spending significantly higher than other age groups. Those between the age of 41 and 50 appear to spend the least. Besides, credit card holders who earn between RM8,001 (USD2,614) and RM10,000 (USD3,267) are found to spend more than the other groups who earn lesser than the amount. Those who earn RM2,000 (USD653) and below spend the least. Married respondents are spending more on their credit cards than those who are single. Managers are found to spend more than any other occupation groups, while students spend the least although occupation is not significantly correlated to credit card spending behavior.

Table V shows the results of the multiple regression analysis between all the variables measuring bank's policies, attitudes toward money, and credit card spending behavior. With the Variation Inflation Factor (VIF) values of <10, the results suggest that the issue of multicollinearity does not exist and that the variables can be used for regression analysis (Chatterjee *et al.*, 2000; Kleinbaum *et al.*, 1988). With the R^2 value showing 32.1 percent of variances, two of the variables measuring bank policies, namely benefits given by bank and payment policies are significantly related to credit card spending behavior of Malaysians. As such, *H2a* and *H2c* are accepted.

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No.	Items	Mean	SD	Cronbach's α
Bank's policies				
1.	I apply for credit card to get free gifts	2.47	1.202	
2.	I spend using credit card to earn points and exchange for gifts	3.21	1.090	
3.	I was attracted by the cash rebate system, thus I always spend using credit card	3.12	1.17	
	Benefits given by bank	2.933	1.154	0.673
4.	I do not need to provide previous bills settlement of credit cards when I am applying another credit card	3.88	0.933	
5.	The bank offers me a credit card so I accept it	2.85	1.132	
6.	I got my credit card because the agent approached me in the shopping center and gave me a credit card	2.44	1.156	
7.	It is easy for me to apply for more credit cards from issuer once I owned a credit card	3.54	1.014	
	Qualifications to apply for credit card	3.178	1.059	0.645
8.	I only need to pay the minimum required amount monthly if I cannot afford to pay in full	3.22	1.36	
9.	I always pay only the minimum required amount as I want to keep more money on hand	2.34	1.197	
	Payment policies	2.78	1.2785	0.661
Attitudes toward money				
1.	I always pay my credit card bills monthly	4.41	0.677	
2.	I always make excess payment than the amount required	3.31	1.093	
3.	I will call the bank if I did not receive the monthly statement before the payment due date	3.66	1.064	
4.	I will make sure I did make payment of credit card bills every month	4.19	1.028	
5.	I will make sure I reserve my money to pay for the credit card bills	4.16	0.724	
	Willingness to pay	3.946	0.917	0.754
6.	I know exactly how much I spend using credit card every month	4.07	0.841	
7.	I know exactly the remaining debt that I owed from previous transactions	3.99	0.897	
8.	I will check on my bills to ensure all the transactions are made by me and the amount is correct	4.34	0.693	
9.	I can easily find out if there is any transaction stated in the statement which was not made by me	4.18	0.803	
10.	I know exactly how much I still owing after I have made the monthly payment	4.13	0.797	
	Awareness about total debt owed	4.142	0.806	0.840
11.	My income is always not enough for me to spend	3.77	0.829	
12.	I always use credit card to pay in order to preserve more cash in hand	2.88	1.152	
13.	I seldom make payment by using cash	2.47	1.034	
14.	I will use credit card to pay when I have insufficient salary to spend	2.99	1.242	
	Management of income vs expenses	3.0275	1.064	0.674

Table II.
Means, standard deviation scores, and Cronbach's α for all the variables

Demographic factors	r	Significance
Age	0.351**	0.000
Income level	0.674**	0.000
Occupation	0.076	0.353
Marital status	0.258**	0.001

Note: **Significant at the 0.01 level (two-tailed)

Table III.
Pearson correlation-coefficient results between the demographic factors and credit card spending behavior

Item	Mean	SD	t, F	Significance
Age				
21-30	2.04	1.386	$F = 13.994$	0.000
31-40	2.70	1.348		
41-50	1.58	0.996		
51-60	2.47	1.457		
61 and above	5.30	1.494		
Income level				
RM2,000 and below	1.49	0.658	$F = 34.853$	0.000
RM2,001-RM4,000	1.89	0.994		
RM4,001-RM6,000	2.89	1.539		
RM6,001-RM8,000	2.50	1.043		
RM8,001-RM10,000	6.00	0.000		
Above RM10,000	5.82	0.603		
Occupation				
Student	1.73	1.163	$F = 16.631$	0.000
Professional	2.26	1.352		
Self-employed	2.33	1.085		
Manager	5.19	1.759		
Executive	2.09	1.055		
Others	2.06	1.249		
Marital status				
Single	2.13	1.337	$t = -3.095$	0.003
Married	2.95	1.778		

Table IV.
Independent sample
t-tests and one-way
ANOVA results between
the demographic factors
and credit card
spending behavior

Variables	B	SE	β	t	Significance	Tolerance	VIF
Benefits given by bank	0.546	0.131	0.309	4.175	0.000	0.871	1.148
Qualifications to apply for credit card	−0.053	0.162	−0.025	−0.326	0.745	0.838	1.193
Payment policies	−0.525	0.105	−0.364	−5.019	0.000	0.909	1.100
Willingness to pay	−0.585	0.220	−0.245	−2.663	0.009	0.566	1.768
Awareness about total debt owed	0.488	0.237	0.195	2.062	0.041	0.536	1.866
Management of income vs expenses	0.018	0.145	0.009	0.123	0.902	0.837	1.194

Notes: $F = 11.186$ ($p = 0.000$); $R^2 = 0.321$

Table V.
Multiple regression results
between bank's policies,
attitudes toward money,
and credit card
spending behavior

Similarly, two of the variables measuring attitudes toward money, namely willingness to pay and awareness about total debt owed are significantly related to credit card spending behavior among Malaysians. As such, only *H3a* and *H3b* are accepted. Qualifications to apply for credit card and management of income vs expenses are not significantly related to credit card spending behavior among Malaysians. Therefore, *H2b* and *H3c* are not accepted. Among the independent variables, payment policies appear to be the strongest predictor. Table VI shows the summary of results of the hypotheses testing.

Discussion and implications
Although the findings of this study are based upon the analysis conducted on only 150 credit card holders, it has yielded some interesting findings. Those between the age of 61 and above may constitute only 6.7 percent of the samples, yet this group is found to

Hypotheses	Decision
H1a: There is a significant relationship between age and credit card holder's spending behavior among Malaysians	Supported
H1b: There is a significant relationship between income level and credit card holder's spending behavior among Malaysians	Supported
H1c: There is a significant relationship between occupation and credit card holder's spending behavior among Malaysians	Rejected
H1d: There is a significant relationship between marital status and credit card holder's spending behavior among Malaysians	Supported
H2a: There is a significant relationship between benefits given by bank and credit cardholder's spending behavior among Malaysians	Supported
H2b: There is a significant relationship between the qualification of applying credit card and credit card holder's spending behavior among Malaysians	Rejected
H2c: There is a significant relationship between payment policies and credit card holder's spending behavior among Malaysians	Supported
H3a: There is a significant relationship between the willingness to pay and credit cardholder's spending behavior among Malaysians	Supported
H3b: There is a significant relationship between the awareness about total debt owed and credit card holder's spending behavior among Malaysians	Supported
H3c: There is a significant relationship between the management of income vs expenses and credit card holder's spending behavior among Malaysians	Rejected

Table VI.
Summary of results of hypotheses testing

exhibit greater spending behavior than the rest of the age groups. It is therefore not surprising when Devlin *et al.* (2007) suggest that older respondents are more likely to possess one or more credit cards. Those in the age bracket of 61 and older are assumed to have achieved financial freedom and therefore have greater purchasing power. The younger respondents are found to spend less on credit cards and therefore there is a lesser likelihood that they will end up in debts. These arguments are supported by the fewer bankrupts in Malaysia due to credit card debts (*The Star*, 2010), as well as the high mean scores for the pertinent items measuring willingness to pay and awareness of the total amount owed. As such, prior findings that young adults tend to spend more using their credit card and end up in debts insofar is not yet a pervasive issue in Malaysia.

The findings also show that credit card holders with higher income are likely to spend more on their cards and pay off their debts (Devlin *et al.*, 2007; Balasundram and Ronald, 2006). The findings also imply that although it is relatively easier to obtain a credit card today, those in the lower category of income seem to exercise care in their expenditure (Slocum and Matthews, 1970). This study found support for this argument where the majority of card holders spend less than RM800 (USD261) per month on their credit cards in ten or fewer transactions. As a matter of fact, many of them agree that they pay their credit card bills monthly as reflected in the mean scores, with as many as 26 percent of them pay excess than the required amount spent. As such, lowering the minimum requirement of annual income for more Malaysians to own credit cards may not have a significant effect on credit card defaults and debts.

The findings have also confirmed the relationship between marital status and credit card spending behavior, with married respondents more likely to spend more compared to those who are single (Devlin *et al.*, 2007; Godwin, 1998; Kinsey, 1981; Steidle, 1994). This is expected since married consumers are likely to have higher expenditures than non-married consumers. In addition, this might also be the reason

why there are more married individuals seeking financial counseling from the Credit Counseling and Debt Management Agency (Lee, 2012).

Occupation, on the other hand, is not significantly correlated with credit card spending behavior. This may be attributed to the fact that occupational types may not be directly related to income, such as students who financed their expenditures through various sources except from their own. Managers are found to exhibit greater spending behavior as a means to maintain the status of their position although managers usually earn more and have more stable incomes than the rest of the occupational types. Due to the careful spending exhibited by the respondents, it is believed that those in the occupational groups surveyed, including the self-employed category do not demonstrate the tendency to spend beyond their means using credit cards.

It is interesting to note the findings on the number of credit cards owned, years of using credit cards, and age of getting the first credit card. A large number of the respondents either possess one or two cards. This is in contrast to the report by *Daily Express* (2007) where every Malaysian credit card holders owns an average of three credit cards. The inconsistency is primarily due to the service tax imposed by the Malaysian government in August 2010. As a result of this, the number of credit cards in Malaysia had declined from 9.6 million at the end of 2009 to 7.5 million in 2010, and 7.4 million at the end of June 2011 (*Sin Chew Daily*, 2011). The number of transactions made through credit cards as reported in this study might confirm this finding. In addition, the findings on the years of using credit card confirm the accessibility and availability of credit cards in Malaysia. A more interesting finding is the age of which an average Malaysian gets his or her credit card. The findings seem to suggest that young adults have accessibility to credit cards, with those aged 24 and below making up the majority. Many of these young adults are students or those who have just graduated and started working. The findings imply that students and young adults are increasingly becoming the potential market for credit card issuing banks and non-banks in Malaysia as they have been identified as the largest demographic group which has substantial discretionary income and purchasing power (Maloles and Chia, 2009).

As expected, this study found some support for the relationship between bank's policies and credit card holder's spending behavior (Chakravorti, 2003; Balasundram and Ronald, 2006; Hunt, 2009; Ritzer, 2001; Subramaniam and Marimuthu, 2010; Zinman, 2009). Specifically, benefits given by the bank and payment policies have significant influence on credit card holder's spending behavior. This is not difficult to apprehend because due to hypercompetition, almost all credit card issuing banks and non-banks offer different incentives to potential and existing credit card holders. These incentives have directly influence spending behavior as discovered by Zinman (2009). Likewise, payment policies have also been found to significantly influence credit card spending behavior. The grace period provided to the holders in making their credit card payments in full allow card holders to enjoy the interest-free scheme. It is probably due to this facility, coupled with the fact that the amount spent is rather small, card holders are able to settle their payments within the grace period. This explains why the majority of card holders pay up and some even pay access amounts as reflected in the descriptive statistics and mean scores. Very few card holders pay the minimum amount and this clarifies why the bankruptcy rate related to credit card debts is rather small.

The findings suggest that qualifications to apply for credit cards have no significant influence on credit card spending behavior. This is not difficult to understand as almost

all the respondents surveyed have no problem servicing their credit card payment. One possibility which encourages spending is the waiver of annual fees and even the "Free for Life" campaign directed at holders who have made certain transactions within the calendar year (Hunt, 2009). It is probably for this reason that many transactions are made although for smaller amounts as evident from this study.

In terms of the relationship between attitude toward money and credit card holder's spending behavior, the study only found partial support for this proposition. Specifically, willingness to pay and awareness of the total debt owed are significant determinants of credit card holder's spending behavior. Taking the cue from Phau and Woo (2008), it appears that the majority of card holders are able to exercise self-discipline when it comes to their spending habit. This argument appears to be in line with the survey findings in terms of the amount spent, number of transactions, amount of payment made, as well as the bankruptcy rate of using such a facility. One possible reason is that due to various efforts undertaken by governments, card holders today are able to exercise better financial planning and management. For instance, the government has established the Credit Management and Debt Management Agency in April 2006 to offer financial education on the responsible use of credit and basic money management skills, counseling and advice on financial management, and debt management program to Malaysians for free of charge. In addition, a number of campaigns have been initiated to promote financial wellness among Malaysians so that they are aware of the total amount owed. This explanation has indirectly explained the insignificant correlations between management of income vs expenses, and the credit card spending behavior.

Conclusion and suggestions for future research
This study has addressed all the three research questions in exploring the factor influencing credit card spending behavior among Malaysians, which is relatively under-researched. Based on the review of literature, demographic factors, bank policies, and attitude toward money were identified as possible factors influencing credit card spending behavior. The data collected randomly from 150 credit card holders in Malaysia provide support to many of the variables investigated. From the research perspective, the findings have enriched the currently available literature in this area. Managerially, the results have also offered significant contributions to the credit card issuing banks and non-banks in terms of better understanding of their customers' spending behavior.

Specifically, the demographic factors shed lights on the most appropriate target market for such a facility. While the older card holders and those with high-income levels are desired, the issuing banks and non-banks must not ignore students and the younger adults as these groups are critical markets for them. Specific bank policies must be formulated for these groups of people, particularly those who are married and with sufficient incomes so that they are able to repay the banks in full and on time. These are among the criteria which should not be compromised since the card holders are willing to pay for the services used. For older applicants such as pensioners or retirees, evaluation can be based on how good their track records are in servicing housing or other loans. Since benefits and payment policies are found to influence credit card spending behavior, the issuing banks and non-banks must continuously examine the incentives provided and payment policies enforced in order to attract applicants and ensure usage. It is probably timely to consider providing more incentives to card holders who pay excess amount and/or those who have been

subscribing to such facility for over a period of time such as waiver of the annual service tax, subscription fees and/or greater discounts on certain goods purchased.

Notwithstanding the findings, as the issuing banks and non-banks reach out to their respective credit card holders, they should not engage in practices that may tarnish their reputation such as by offering "pre-approved" cards without the knowledge of the clients. This is in view of the fact that the respondents surveyed in this study are well aware of the practices used by the institutions. A more ethical approach would still be contacting the clients and enquiring whether they are interested to subscribe to its credit facility. Since the respondents are exercising prudent spending and are fully aware of the total debts owed, the issuers can play a role in supporting the government's campaign toward promoting financial wellness among their credit card holders. By displaying such a good corporate social responsibility, this enables the institutions to build trust and confidence with the credit card holders and subsequently enables the issuers to enjoy better financial performance in the long run.

Future research should consider a bigger sample size. Ideally a larger sample size with a balanced representation from different demographic groups would allow a stronger conclusion to be drawn in terms of the relationships between the variables. A retest of the survey instrument in different countries, particularly emerging market economies may yield interesting insights as well as lend greater generalizability to the results obtained. Due to the low R^2 value, the inclusion of additional variables such as gender, years of marriage, education level, loyalty, cost of living, savings, and financial numeracy which are associated with credit card spending and debts (Huhmann and McQuitty, 2009) are warranted. This ensures that a holistic picture can be painted and more effective recommendations can be derived at.

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Corresponding author
Siong-Choy Chong can be contacted at: eddychong@faa.org.my

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