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Examining the Role of Financial Intelligence Quotient (FiQ) in Explaining Credit Card Usage Behavior: A Conceptual Framework

Nik Sari Syerina Nik Kamil[a], Rosidah Musa[b*], Siti Zaleha Sahak[c]

[a] *Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*
[b]*Institute of Business Excellence, Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*
[c] *Arshad Ayub Graduate Business School, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*

Abstract

Over the years of assessing individual's general intelligence via intelligence quotient (IQ) test, behavioural scientists and academicians have also explored other areas in measuring intelligence, which include emotion, social and spiritual, among others. Even though financial intelligence has also been quoted mostly in organizational context, it has not been conceptualise and operationalize by academics and explore this concept on individual level card consumption. The purpose of this study is to develop a model of financial intelligence and its measurement, deliberated in terms of its effect on behavioural intention towards credit card spending and repayment behaviour of young urban Malaysian adults. The data for this study will be gathered through questionnaires, conveniently distributed to respondents within the age of 25 to 40 years old who work and reside in urban area in Klang Valley. This paper presents a platform for future research to explore crucial issues pertaining to financial intelligence and financial behaviour particularly in the Malaysian context.

Keywords: credit card; financial intelligence quotient; consumption behavior; attitude

1. Introduction

* Corresponding author.
E-mail address: rosidahm@salam.uitm.edu.my

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The usage of credit card has gained popularity in the recent years as it slowly replaces cash as a method of payment. In Malaysia, the supply of credit card available in the market is on the rise, partly due to the financial sector liberalization in the Asian region resulting in financial service providers resorting in aggressive selling of credit card products to the consumers. As of March 2013, it is reported that the credit card billings in Malaysia is approximately 10 percent of its Gross Domestic Product (GDP) which is equivalent to approximately RM94 billion compared to 8.5 percent of GDP or RM65.4 billion in 2008 (Bank Negara Malaysia, 2012).

As a result of the increase in indiscriminate credit card spending, consumers face risks of credit card debt and credit default. Like any other countries in the world including Malaysia, credit card debt and its socioeconomics implications have received growing attention from various interested stakeholders including the mass media, regulatory bodies, financial service providers, academic community and consumer pressure groups. According to Bank Negara Malaysia's statistics as at the end of December 2012, the credit card outstanding, owed by Malaysians is totalling about RM31.6 billion, of which 437.5 million had been classified as non-performing or impaired by banking institutions. Even though the Malaysian Credit Counseling and Debt Management Agency (CCDMA) had once assured that the said credit card outstanding is not yet critical due to the fact that it accounted for only 6.1 percent of total financing provided by banking institutions (Malay Mail, 2009), the amount is in actual fact quite significant

The attitude of young adults on credit card behavior had been discussed in several literatures (Warwick & Mansfield, 2000; Penman & McNeill, 2008; Robb, 2007). According to Warwick & Mansfield (2000), young adults have difficulty in not only understanding the nature of credit agreements, but also in making mature decisions about credit in general. Therefore, young adults could be construed as a vulnerable group in regard to credit card consumption behavior (Braunsberger et al., 2004). This is supported by a startling fact reported by the local media that young Malaysian adults of thirty years old and below are the leading age group of people declared bankrupt due to credit card debt (Malay Mail, 2009).

The studies on financial literacy are relatively new and as such, literature which address a common approach on developing financial literacy policy and delivering financial education is still lacking or limited (Orton, 2007). So far, most studies that examine the linkage between financial literacy and personal financial behaviour have shown positive correlation (Bernheim et.al., 1997; Hogarth & Hilgert, 2002; Hilgert, et al., 2003; Courchane & Zorn, 2005; Lusardi & Mitchell, 2007; Lusardi, 2008). In addition, evidence suggests that people who are high in financial literacy level are more likely to follow recommended financial practices, vice versa (Hogarth & Hilgert, 2002). Moreover, it is expected that an increase in consumer understanding in the use of credit can lower down the debts (Warwick & Mansfied, 2000). It appears that there is lack of consensus on the definition of the term financial literacy and its measurement (Remund, 2010; SEDI, 2004). It is believed that the differences in the definitions and concepts are caused by the discrepancies in the underlying assumptions with regard to the nature of the problem and the context of its usage (SEDI, 2005). Hence, this posits a challenge for researchers to search and adopt a term that conceptualise the most accurate and fulsome explanation that can be agreed upon and make full sense from the perspectives of every stakeholder. In this case, a call for a broad working terminology is needed to cover a wide range of contexts of its possible usage (OFT, 2007). Besides, the researchers need to refine the established scale and develop a reliable and valid measurements to not only determine the success of financial initiatives (Remund, 2010) but also to measure the levels of financial literacy.

Undoubtedly, it is critical for researchers to address the major role of financial literacy in consumer credit card consumption behavior as low levels of financial literacy indicate limited consumers understanding or knowledge on financial services, making them vulnerable to market exploitation and severe financial crises (Devlin, 2002). The notion of 'financial intelligence quotient (FiQ)' which will be used extensively throughout this study, is a possible expansion of financial literacy concept to measure an individual's aptitude on financial knowledge, skills and confidence of making financial decision, which could result in financial well-being. Therefore, the main purpose of this paper is to develop a conceptual model of financial intelligence and its measurement, deliberated in terms of its effect on attitude and behavioral intention towards credit card spending and repayment behavior among Malaysian young adults.

2. Literature Review

Since the credit card consumption and credit default are closely related to behavioral aspect of consumers at large, the reputable Theory of Planned Behavior (TPB) would be used in order to understand credit card attitude toward indiscriminate spending and defaulting on credit card payment, particularly among young adults. In addition to the above, this paper also aims to explore other potential factors such as credit attitude and perception on credit card attributes which could have effect on attitude and behavior pertaining to credit card consumption of urban Malaysian young adults. It is expected that the findings would indicate that there are some form of relationship between financial intelligence and financial intention which could shape financial well being. This paper presents a platform for future research to explore crucial issues pertaining to financial intelligence and financial behavior particularly in the Malaysian context.

Predominantly, literature and data on consumer borrowings and personal debt are sourced from public domain of regulatory bodies, consumer pressure groups and academia, or otherwise they are neither widely available nor publicly accessible. Research into credit card behaviour especially on young adults has been fragmented in their findings (Erdem, 2008). In this regard, to the researcher's knowledge there is a lack such study on Malaysian consumers, particularly with regard to young adults. This has created a significance gap in the study concerning credit card consumption behaviour of young Malaysian adults that should be addressed with immediate effect. In this regard, the attitude of young adults on credit card behaviour had been discussed in several literatures (Warwick & Mansfield, 2000; Penman & McNeill, 2008; Robb, 2007). Warwick & Mansfield (2000) assert that young adults have difficulty in not only understanding the nature of credit agreements, but also in making mature decisions about credit in general.

Therefore, this illustrates that the young adults could be construed as a vulnerable group in regard to credit card consumption behaviour (Braunsberger et al., 2004). For this reason, the vulnerability of young adult market is open to potential exploitation and could be a target of irresponsible financial service providers via aggressive marketing of credit cards. Moreover, for this age group, majority are using credit card for an easy access to cash and merchandise; a means to support their lifestyle (Bianco & Bosco, 2002). However, the danger is that, credit card may be used irresponsibly or even lead to compulsive buying due to peer pressures and failure in self-control (Baumeister, 2002). It is a known fact that unnecessary spending may lead to inability to pay credit outstanding amount at the end of the month that could eventually result in credit default.

In order to examine attitude in the context of irresponsible or unnecessary credit card spending that eventually result in credit default, this paper will utilize the Theory of Planned Behaviour (TPB) which was first introduced by Ajzen (1991), as a basis to examine the credit card consumption behaviour. TPB argues that behavioural beliefs may lead to favourable or unfavourable attitude toward the behaviour. Normative beliefs may give an idea to the person whether significant others approve or disapprove of a behaviour, which refers to subjective norm. While control beliefs may represent the perceived difficulty of performing the behaviour based on past experience or even anticipated barriers. As we can see from Figure 1, these three variables (i.e. attitude, subjective norm and perceived behavioural control) form behavioural intention which in turn, influence behaviour.

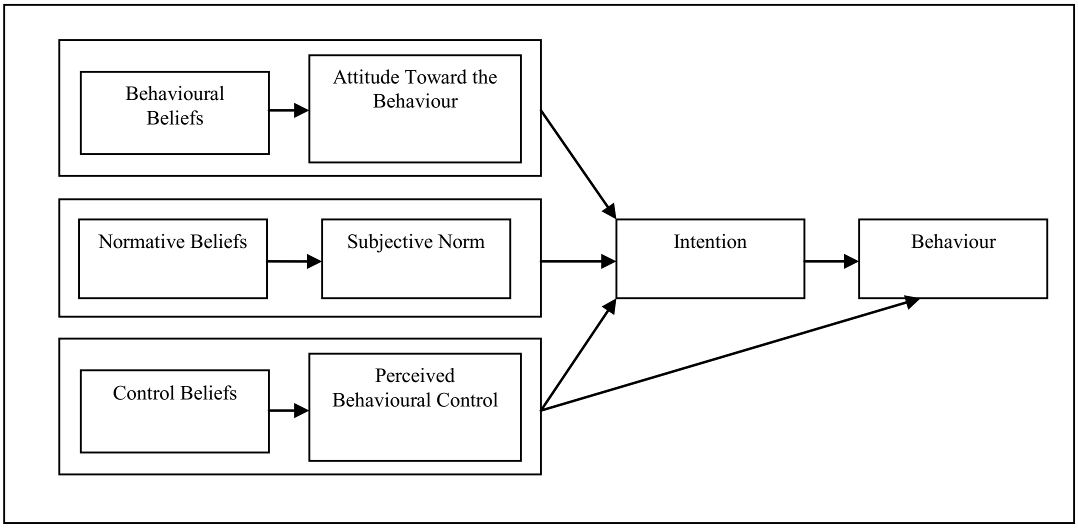

Fig. 1: Theory of Planned Behaviour Model (Azjen, 2006)

Nevertheless, perceived behavioural control may directly affect behavioural intention or may even directly affect behaviour. According to Azjen (2006), as a general rule, if there are favourable attitude and subjective norm in addition to the great perceived behavioural control, there will be strong intention to perform the said behaviour. Since this study intends to apply TPB in the credit card consumption behavior, it is used to test the factors affecting both behavioural intention and the actual behaviour of young adults on credit card spending and credit payment. In this case, this paper would like to test the young adult's conscious plans to purchase unneeded or unnecessary but desired products and also credit defaulting which this study considered as unfavourable attitudes. Therefore it is expected that the less favourable the attitude toward performing a behaviour, the lesser the perceived social approval, the more difficult the performance of the behaviour is perceived to be and the weaker the behavioural intention. However, this is not always the case for young adults who have actually spent unnecessarily on credit card and do not settle their dues.

Against the backdrop of highly complex financial environment, there is in fact a crucial need to address the issues on financial literacy as low levels of financial literacy indicate limited consumers understanding or knowledge on financial services, making them vulnerable to market exploitation and severe financial crises (Devlin, 2002). In addition, it was noted that consumers' failure to make beneficial decision on personal financial matters could have negative implications on the entire market economy. Possible negative economic implications include aggravated business cycle, unequal distribution of wealth, insufficient savings for retirement, low saving rates and capital formation, weakening value of money, inflation (Mandell & Klein, 2007), escalating consumer debt and high bankruptcy cases, among others. In ensuring a sound framework for financial stability with the increasing diversity and complexity of the financial system, various interested stakeholders including regulatory bodies, academic community and consumer pressure groups have placed a growing recognition and pronounced focus on financial literacy as important element to promote fair market conduct and financial capability of the public at large.

Financial literacy refers to financial knowledge and the capability to utilize the said knowledge to make sound personal financial decision (Hogarth & Hilgert, 2002). Financial literacy has appeared on the agenda for many governments such as the United Kingdom, United States of America, Australia and Canada. These countries have also initiated certain amount of study in the field of financial literacy. As for Malaysia, the nation is also facing similar urgency in addressing financial literacy issues and as such, several responsible bodies for instance, regulatory bodies and policymakers, government agencies, educators and consumer groups have conducted various programmes and initiatives to improve basic personal finance knowledge so as to increase the level of consumers' financial literacy. Indeed, the studies on financial literacy are relatively new and as such, literature which deals with a common approach on developing financial literacy policy and delivering financial education is still lacking and limited (Orton, 2007). So far, most studies which examine the linkage between financial literacy and personal financial behaviour have shown positive correlation (Bernheim et.al., 1997; Hogarth & Hilgert, 2002; Hilgert, et al., 2003; Courchane & Zorn, 2005; Lusardi & Mitchell, 2007; Lusardi, 2008). In addition, evidence suggests that people who are high in financial literacy level are more likely to follow recommended financial practices, vice versa (Hogarth & Hilgert, 2002). Evidently, it was unveiled that an increase in consumer understanding in the use of credit can lower down the debts (Warwick & Mansfied, 2000).

Notably, in the endeavour to measure the level of financial literacy, crucial methodological concern which has to be rectified, as previous studies have frequently failed to acknowledge:

(i) the difference between respondents knowing the correct answers to basic knowledge questions and correctly guessing the answers to those questions;
(ii) the possibility of respondents to admit not knowing the answer to financial questions posed to them (Hill & Purdue, 2008).

Therefore, it is plausible to explore the measurement of other areas such as individual's financial intelligence which will be relevant in determining consumer financial behaviour and decision outcome. Nevertheless, financial intelligence is unlike the general intelligence which is assessed via the normal intelligence quotient (IQ) test. The measurement of an individual's financial intelligence is not to test an individual's intellect aptitude but instead, to measure the skills on basic financial concepts and the application of which shapes good financial behaviour and well-being. Even though financial intelligence has also been cited mostly in organizational context, it has never been academically defined and explored on individuals. This has also created a gap in studying the role of financial intelligence and its effect on financial behaviour. Therefore, the purpose of the study is to develop a model of financial intelligence and its measurement, deliberated in terms of its effect on behavioural intention towards credit card spending and repayment behaviour of young urban Malaysian adults, using the extended model of TPB. Based on the above literature a new conceptual model using Theory of Planned Behaviour as the underpinning theory is proposed.

The TPB model has been widely applied in many different areas. The most recent applications related to the area of finance include (but not limited to) understanding on completing debt management counselling programme (Xiao & Wu, 2008), convenience use of credit card (Rutherford & DeVaney, 2009), financial education programme (Wiener et.al, 2005) and intention of card use (Erdem, 2008). It is common that whenever the TPB is applied in different perspectives, researchers would usually add other variables that may have some influence on the targeted behaviour. For instance, in the study concerning the completion of debt management counselling programme, the researcher incorporated consumer satisfaction as an additional variable into the model (Xiao & Wu, 2008). In this paper, it is important to find out the effect of financial intelligence on individual's credit card consumption behaviour in order to understand unnecessary credit card spending and credit default. It is anticipated that if a person has low level of financial intelligence, he or she should be more likely to spend unnecessarily on credit card and also does not pay credit outstanding balance on time. Hence, the arguments above lead to the following additional hypotheses:

Based on the discussion above, it is proposed that an extended conceptual model is significant by adding the variable of financial intelligence quotient (FiQ) as an antecedent to the intention that shapes behaviour in the TPB model in explaining credit card consumption behaviour. As such, in this proposed conceptual model, it is hypothesized that financial intelligence would contribute to both behavioural intention and the targeted actual behaviour as presented in Figure 2.

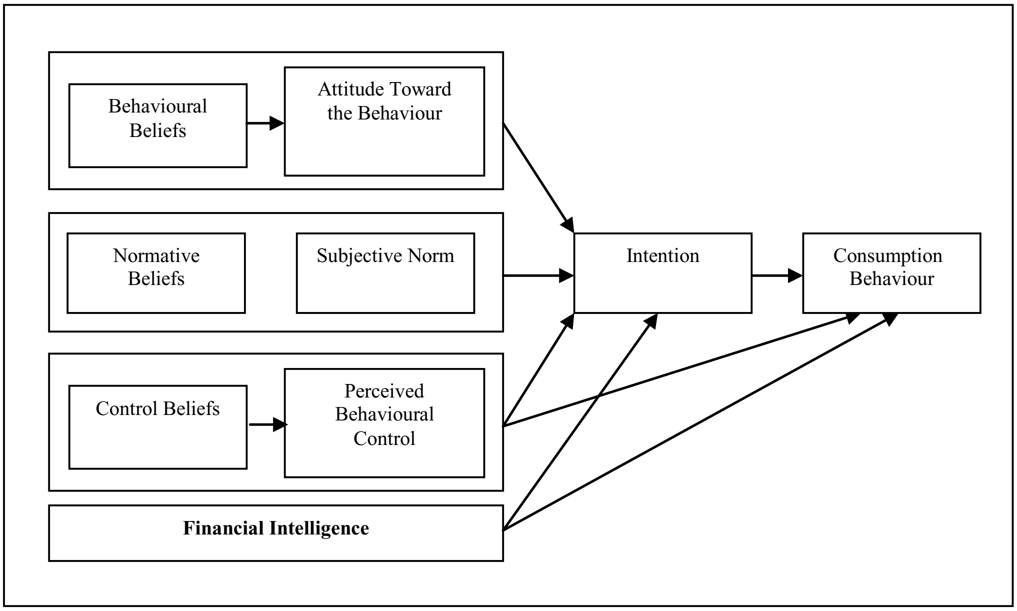

Figure 2: Proposed Extended Model of Theory of Planned Behaviour Model

This study embarks on the following objectives:

i. to develop the Financial Intelligence measurement scale to explore the dimensionality of the concept by using exploratory factor analysis (EFA) and Confirmatory Factor Analysis (CFA).
ii. to test the plausibility of a new conceptual model which integrate Financial Intelligence in the Planned Behavior Theory (TPB) in explaining attitude towards consumption of credit cards among Urban Young Adults.
iii. to recommend the relevant authorities policies and strategies towards eradicating of credit cards payment default

3. Research Design and Methodology

The research will be conducted in two phases. The first phase will basically focus on exploratory research process by using qualitative research approach. In-depth interview and focus group session will be conducted to gain rich insights of the reaserch data. Whilst phase two will use quantitative approach; in which five hundred questionnaires will be distributed to respondents who qualified various demograhics criteria. In order to test the proposed conceptual model, an empirical study will be conducted using self-administered questionnaires, which will be distributed to Urban Young Adults aged between 25 to 40 years old who reside in urban area such as Klang Valley and own credit card. The data will be analyzed to unravel the underlying factorial structure of financial intelligence quotient construct and a new scale will be developed and subsequently test the goodness of the data by employing the multivariate analysis such as exploratory factor analysis, confirmatory factor analysis and structural factor analysis. A series of a 7-point Likert scale will be used to measure the contructs as specified in the research conceptual model. A simple descriptive analysis of aggregated data such as the mean score and standard deviation of a particular will be used to provide useful marketing information such as consumption behaviour and trend of credit cards usage.

The scope of study on financial intelligence quotient (F1Q) in this paper is pretty much restricted to personal financial management such as cash-flow and budget management, credit management, savings and perhaps some basic investment practices. This is to enable individuals from all walks of life to make sound personal financial decision for financial well-being. This denotes the researcher's intention to exclude the so called intelligence in high finance areas such as investment, stock market trading as well as trading in other financial market products such as interest rate, foreign exchange, bonds, futures, commodities and so on. This is simply because the objective of this type of intelligent finance is somewhat different, as it aimed towards total return maximisation with total risk under control (Pan, et al, 2004), which would be more suitable for professional investors, traders and fund managers like the notable George Soros and Warren Buffet.

4. Conceptualization of Constructs

It is important to adopt a term that offers the most accurate and fulsome explanation that can be agreed upon by each and every stakeholder, to address the crucial issues at stake pertaining to individual's failure to adhere to fundamental rules of sound personal financial management. By establishing an agreed terminology, which can be conceptualized, a valid and reliable measurement can be developed. This could be an initial step towards a bigger effort to assist all the interested parties such as financial regulators, practitioners and financial educators in reaching out to the general population to improve financial education initiatives and achieve the essential level of financial intelligence as proposed by this paper. Therefore, before exploring further into the subject matter highlighted, it is important to first define several terms that are frequently used in this study.

i) Financial literacy and financial intelligence

In actual fact, there is no exact formal or standardised definition for the term 'financial literacy'. A concise but yet meaningful definition is provided by Hogarth & Hilgert (2002) which refers 'financial literacy' as 'understanding financial knowledge and the capability to utilize the said knowledge to make sound personal financial decision'. Nevertheless, based on a review of studies since the year 2000 by Remund (2010), the term 'financial literacy' basically covers 'the skills and ability to utilize financial knowledge and concepts in confidently making appropriate personal financial decisions and effective financial planning towards financial well-being'. Hence, the best description in explaining the 'financial literacy' concept is provided by Remund (2010), in which financial literacy basically covers five major aspects of an individual: (i) knowledge of financial concepts; (ii) ability to communicate about financial concepts; (iii) aptitude in managing personal finances; (iv) skill in making appropriate financial decisions; and (v) confidence in planning effectively for future financial needs.

This paper intends to introduce a fairly new term called 'financial intelligence' to cover a wide range of contexts of its potential usage and the development of standard measurement. So far, financial intelligence has been quoted mostly in organizational context. The term 'financial intelligence' in the organizational context refers to knowledge and skills gained from understanding of finance and accounting principles to be applied to the business world (Berman, et al, 2006). In the corporate world, financial intelligence signifies competency and best practice leading to improved organisational performance. Given that the term 'financial intelligence' has never been academically defined and explored on individuals, this paper would like to define the concept of 'financial intelligence' as 'adequate knowledge and aptitude on basic financial concepts and the application of which shapes reasonable and responsible personal financial affairs'. Following this, the 'financial intelligent quotient' or 'FiQ' is basically the "assessment of adequacy of knowledge and aptitude on basic financial concepts of an individual which would enable him/her to make reasonable and responsible personal financial choice which could affect his/her personal financial well-being'.

ii) Financial behaviour and behavioural intention

'Financial behaviour' simply refers to 'financial management practices ranging from very basic money management skills to more sophisticated financial planning activities' (Hilgert, et. al., 2003). Since we would like to focus on the financial behaviour pertaining to credit card consumption, financial behaviour in this study refers to the attitude toward unnecessary personal credit card spending and defaulting on credit card default repayment. Whereas, the term 'behavioural intention' refers to the plan of doing something before actually doing it, as it reflects the wilful, possibility of performing actions in given circumstances.

iii) Young adults

It is a challenge to define the age range for young adults as age range of young adulthood varies according to context and situations. For some, young adult age range should be only up to 30 years of age, but for some others it could perhaps be more of 40 years of age. However, according to Erik Erikson's theory on eight stages of psychosocial development, the age range of young adults is from 19 to 40 years old. Since the potential subjects of studies are active credit card users in Malaysia, the young adults in this study could possibly covers young individuals who have started earning at least RM24,000 annually for them to be eligible to use credit card products.

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