

Personal and Situational Factors on Consumer Financing Decisions, a Conceptual Model

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Abstract

Expected Utility Theory advocates that individuals make rational decisions. However it is not rare to see consumers deviate from rationality when making consumer credit decisions. Despite the financial literacy, individuals may tend to choose high cost consumer credit forms such as credit card as a mean of financing consumer goods and services which in fact suggests a deviation from economic rationality. The failure of Expected Utility Theory to explain and predict consumer credit decisions that deviate from rationality provide incentives to use an alternate theory; Prospect Theory which counts principles of perceptions and judgement that limit the rationality of choice. Accordingly this theoretical paper suggests personal factors; locus of control, social comparison and self-control and situational factors; life events and income may influence on consumer financing decisions.

Key words: *Consumer credit, Consumer Financing, Financial literacy, Prospect Theory, Rationality*

Introduction

Absence of cash in hand is no longer a problem in consuming goods and services at present. Consumers have been exposed to various consumer credit or financing options such as Credit cards, Personal loans, Salary loans, hire purchase and etc. Meanwhile, Pattarin and Cosma (2012) defined consumer credit as a monetary request made by a household from an institution and subsequent lending made by the institution considering the solvency. A Consumer who resorts to consumer credit has to select a form of credit out of several alternatives. This is referred to a consumer credit choice (Kamleitner et al., 2012).

Consumer credit choice is a financial decision that involves risk. For example the use of credit card can lead to indebtedness and foreclosures (Austin and Phillips, 2001; Yang and Lester, 2014). Expected Utility Theory (EUT) advocates that when individuals take decisions under risk, they do so rationally to maximise their utility. Accordingly when a financially literate consumer chooses one form of credit against others, one can expect a consumer to select low cost credit alternative to maximise the utility. In line with the EUT, several studies reports a negative relationship between financial literacy and credit use (Hilgert, Hogarth and Beverly, 2003; Norvilitis *et al.*, 2006; Disney and Gathergood, 2013). However it is not rare to see financially literate individuals choosing high cost credit forms indicating positive relationship (Lachance, Beaudoin and Robitaille, 2006; Wonder, Wilhelm and Fewings, 2008). This deviation from rationality may be explained by taking the perspectives advocated by Prospect Theory (PT). “Indeed, prospect theory is an attempt to articulate some of the principles of perception and judgment that limit the rationality of choice” (Tversky and Kahneman, 1986, p.273). Accordingly the

determinants of credit choice will be examined in this research with the insights gained from Prospect Theory.

Financial literacy is important in understanding different consumer credit options and their costs and benefits. Financial literacy is the “consumer understanding of financial concepts and ability to correctly interpret financial data”(Gathergood, 2012, p.591). It is intuitive that a financially literate consumer selects a low cost credit option. In contrast a person with poor financial knowledge is likely to select high-cost credit alternatives. Disney and Gathergood (2013) studied the behaviour of UK households to identify the relationship between finance literacy and consumer credit portfolios and found that consumers with poor financial literacy hold high-cost credit products compared to the consumers with higher literacy. Norvilitis *et al.* (2006) found that credit card debt is associated with lack of financial knowledge. Campbell (2006) also found that US consumers with poor knowledge were less likely to refinance their mortgages when the interest rate was falling. Lower financial knowledge is related to households with lower credit management (Hilgert, Hogarth and Beverly, 2003).

On the contrary to these research findings, several studies show that highly financial literate consumers have resorted to high-cost credit options. A positive relationship between financial knowledge and credit use has been found by Lachance, Beaudoin and Robitaille (2006). Even when consumers choose among interest-free loans, they do not prefer a long term contract which is a deviation from traditional financial rationality (Wonder, Wilhelm and Fewings, 2008). Financially literate consumer searches for information prior to his choice on the form of credit. However, 8% of consumer credit decisions in the UK are made on the spur of the moment (Berthoud and Kempson ,1992, cited in Kamleitner, Hoelzl and

Kirchler, 2012, p.14). Further Low levels of information search are commonly reported even the decision is not made impulsively (Peterson and Black, 1984, cited in Kamleitner, Hoelzl, and Kirchler ,2012,p.14). Interestingly the people who hold high-cost revolving credit and low yielding savings simultaneously are found to be financially literate (Gathergood and Weber, 2014). These findings indicate a deviation from the rationality suggested by EUT.

Daniel Bernoulli formulated EUT in 1738 and it was further developed by Von Neumann and Morgenstern in 1944 and Savage in 1954 (Tversky, 1975). According to Bernoulli (1954) individuals evaluate uncertain outcomes by multiplying probabilities in to utility generated by each outcome. It is reported that EUT has been “generally accepted as a normative model of rational choice” (Keeney and Raiffa,1976 cited in Kahneman and Tversky, 1979,p.263) . Accordingly it is rational for a consumer to resort to low cost credit form when confront with several alternatives. The empirical evidences on financially literate consumers resorting to high-cost credit options suggest that EUT is no longer adequate to explain the phenomenon. Thus it compels to use a different theory; the Prospect Theory to explain and predict the phenomenon under the study.

Kahneman and Tversky (1979) proposes Prospect theory to explain the deviation from the rationality in decision making. They found that people give less importance to the outcomes which are probable compared to sure outcomes. Thus there is a risk aversion in choices which has sure gains. However when it comes to choices which have sure losses, people are risk taking. Accordingly an alternative theory is built up considering gains and losses separately unlike the utility of final outcome as explained by EUT. Further the probabilities used in EUT are replaced by the decision weights

of the people. Biases of people affect to the decision weights. Psychological factors have an influence on choice. “Indeed, prospect theory is an attempt to articulate some of the principles of perception and judgment that limit the rationality of choice” (Tversky and Kahneman, 1986,p.273). According to the prospect theory, a consumer may deviate from the rationality when initiating the consumer credit decision. It is possible for financially literate individual to choose high cost financing options. Personal factors attributable to individuals and the situational factors may govern the consumer credit choice. Kamleitner, Hoelzl and Kirchler (2012,p.11) assert that “there is lack of knowledge about the influence of personal characteristics on credit acquisition”. Further they stressed that “Research has also yet to establish the effect of specific combinations of situational and personal factors” on consumer credit behavior. Accordingly this study investigates the determinants of consumer credit choice. Therefore the main research question to be addressed in this study is:

Do personal factors, situational factors and financial literacy of consumers influence credit choice?

In answering the above research question, the researcher takes the perspective that individuals do not behave rationally all the time as suggested by the prospect theory. A conceptual framework has been developed to account the behavioural biases of individuals.

This research contributes to the existing body of knowledge on consumer financing by examining the influence of different factors on consumer credit choice. Consumer credit choice has been explained using the

financial literacy; however the literature shows contradictory evidence. Therefore this study attempts to explain the consumer credit choice using personal factors and situational factors. Specially there is a dearth in researches on influence of personal factors on consumer credit choice (Kamleitner, Hoelzl and Kirchler, 2012). This knowledge gap is expected to fill through this study.

Practical significance of the study is twofold. Financial institutions offering different forms of credits such as banks, finance companies and etc can use relationship between different factors and credit choice to profile the consumers and offer different credit options. On the other hand individuals can use the findings of the research to identify the natural tendencies or biases toward different credit options stemming from different personal factors and situations faced by them so that they can make more informed credit choices.

The rest of the paper is structured with a literature review on consumer credit with reference to decision theories; EUT and PT, and different factors affecting the consumer credit decisions. This is followed by the conceptualisation where the researcher argues a model for consumer credit choice with the support of literature. The methodology will be discussed outlining definitions and measures of variables identified in the conceptual model. The paper concludes with a discussion on implications of the study.

Literature review

Two approaches of decisions under risk; rationally and irrationally

Consumers credit decisions involve risk such as personal indebtedness and foreclosures. How an individual takes decisions under risk is explained under expected utility theory as well as prospect theory.

Expected Utility Theory suggests an individual takes rational decisions to maximize the utility (Bernoulli, 1954). Daniel Bernoulli formulated EUT in 1738 and it was developed by Von Neumann and Morgenstern in 1944 and Savage in 1954 (Tversky, 1975). According to Bernoulli (1954) individual does not evaluate uncertain outcomes by taking the expected value derived by multiplying probabilities in to values of each outcome rather by taking the utility of the outcomes with the probabilities. Utility that an item generates should be considered than just the monetary value of it. Some researchers describes that EUT has been “generally accepted as a normative model of rational choice” (Keeney and Raiffa,1976 cited in Kahneman and Tversky, 1979,p.263). According to the expected utility theory, consumer should take his credit choice rationally. When there are different credit alternatives, a rational consumer must choose the low cost credit option in order to maximize his utility.

Kahneman and Tversky (1979) observes that when a choice involves sure gains, individuals have more tendency to select that option even though the other options have greater gains but under the probabilities. Thus individuals are risk averse when the alternatives include an alternative with a suregain. On the other hand, when the alternatives include an alternative of sure loss among others, there is a tendency of individuals to select options of greater losses but under the probability rather than the alternative which generates sure loss. This suggests that individuals are risk taking when they select options among which a sure loss is there. Prospect theory is introduced on this light by Khaneman and Tversky to explain the deviation from the rationality. Prospect theory introduces subjective weights as opposed to the probabilities used in the expected utility theory. These subjective weights can be affected with the personal

biases, heuristics of the individuals. “Indeed, prospect theory is an attempt to articulate some of the principles of perception and judgment that limit the rationality of choice” (Tversky and Kahneman, 1986,p.273)

According to the prospect theory consumer may not always select the low cost credit option to maximize his/her utility. It is possible that consumer to select high cost credit options due to subjective reasons.

Yang and Lester (2008) argued that when decisions are made people neither use their full knowledge nor the optimal computational power to maximise the expected utility in the real world. He further presented the concept of systemic irrationality based on the observation that the existence of large segments of population who incapable of making decisions rationally. Such groups include people with limited intelligence, those from lower social classes, people with psychiatric disorder, people taking medications, children and adolescents and elderly. Accordingly they argued “rationality in economic decision-making may be the exception rather than the norm”.

Consumer credit

It is observed that a broad variety of consumer credit products are offered in credit markets such as consumer loans, credit cards, hire purchase loans, point of sale lending, salary loans and etc. Pattarin and Cosma (2012) defined consumer credit as a monetary request made by a household from an institution and subsequent lending made by the institution considering the solvency. However the definition of consumer credit excludes the property according to Gurdia (2002)

Pattarin and Cosma (2012) identified a distinction between consumer credit and the consumer debt. Accordingly consumer debt arises when the debtor does not discharge his repayment obligations.

Kamleitner and Kirchler (2007) developed a conceptual model highlighting essential steps in credit use by taking a process perspective. The suggested process model outlines 3 major steps; processes before credit take up, processes at credit take up and processes after credit take up. Processes before credit take up includes several steps such as originating needs and desire for goods, decision to buy or not, if decides to buy whether to use own funds or go on credit, and etc. Processes at credit take up stems from the decision to take up credit in the previous process. Once it is decided to take credit, then it needs to decide whether to go with spontaneous sources such as credit card or other non spontaneous sources such as bank credit. At this process, information on different alternatives can be searched, alternative credit forms can be evaluated and finally a choice is made. Repayment behaviour of credit is dealt in the last stage i.e processes after credit take up.

Consumer credit choice

Business firms need to decide whether they source the required funds from the equity holders or borrow from debt holders. It is referred to as the financing decision. Similarly a consumer when initiating a purchase transaction has the choice of using his own funds or resorting to credit (Fagerstrøm and Hantula, 2013). This is referred to as inter temporal choice. Accordingly consumers who do not opt for credit may either use cash in hand today or wait till the required funds are collected through savings.

Credit users can resort to various forms of credit such as credit card, salary loans, personal loans, point of sale lending and etc (Pattarin and Cosma, 2012). It is termed as the credit choice (Kamleitner, Hoelzl and Kirchler, 2012). Credit choice is a decision made at the middle phase of the

conceptual model presented by Kamleitner and Kirchler (2007). The model outlined that credit choice is made in the processes at credit take up. Information search, evaluation of different forms of credit and finally a choice is made as to what form credit to be used in this middle phase.

Different perceptions about credit granting process, components of credit such as interest rate, loan duration, etc and behaviour of credit users are important aspects at the credit take up processes (Kamleitner and Kirchler, 2007). Dauten and Dauten (1976) found that consumers misperceive the credit-granting standards used by banks as well as finance companies. Ranyard and Craig (1995) studies how people evaluate instalment credit and found that people create mental accounts in the evaluation process. Further, it proposed consumers look at dual aspects of instalment credit at the same time; i.e. total costs of credit and recurrent effects of repayment which are termed as total accounts and recurrent budget period accounts. In an experiment of 96 adults, Ranyard *et al.* (2006) found that people use mental accounts in credit choice. Annual Percentage Rate is found to influence the choice of credit source whereas total cost information was important in selecting different repayment plans.

People may have different perceptions towards credit components such as loan duration, interest rate and etc. Lewis and Venrooij (1995) studied how individuals estimate the loan duration. It was found that for loans with longer repayment period and low levels of repayment, individuals tend to underestimate the loan duration. Further, when supplementary information such as total interest is presented, the accuracy of estimation found to be improved.

Discounting is another aspect which may have a bearing on credit decisions. Usually credit involves providing a benefit today for payments in future. Thus, it is important to look at how consumers discount the future

events in deciding the credit today. The discount rates used by consumers to evaluate credit arrangements found to be different from the actual discount rates used in financial markets (Estelami, 2001). Further, it was found that numeric presentation of the credit amount have an influence on discount rate used by consumers. Presentation of the amount as an odd number (Ex. \$ 19) resulted a lower discount rate compared to even presentation (Ex. \$ 20). Presenting the credit amount as individually divided amount than the aggregated lump-sum can have an effect on consumer's ability to evaluate the credit. Accordingly it was found that disaggregating credit amount in to smaller components result consumers using lower discount rates.

Information search on different forms of credit is supposed to taken place prior to the credit choice (Kamleitner and Kirchler, 2007). Chang and Hanna (1992) carried out a study on the information search behaviour related to consumer credit and found that consumers engage in little information search. Hilgert, Hogarth and Beverly (2003) found that less than one third of consumer compared different credit card offers when applying for a credit card. Further, it was reported that 8% of consumer credit decisions in the UK are made on the spur of the moment (Berthoud and Kempson, 1992, cited in Kamleitner, Hoelzl and Kirchler, 2012, p.14). Moreover, low levels of information search are commonly reported even the decision is not made impulsively (Peterson and Black, 1984, cited in Kamleitner, Hoelzl and Kirchler, 2012, p.14). Information search was found to be improved when the size of the loan is higher and consumers having higher education (Chang and Hanna, 1992).

Eventhough there are alternative forms of credit, consumer may be compelled to resort to one or few forms if they have issues with the accessability to the credit. Jappelli (1990) defined consumers are credit

constrained if their credit request was rejected by the financial institutions in the past. Further, Jappelli argued that there can be consumers who refrain from applying credit due to the perception that they will be rejected. These consumers were identified as discouraged borrowers. The present study attempts to identify the consumer credit choice provided that they have the accessibility to different forms. Accordingly the accessibility to the credit is taken as controlling variable in this study.

Risks aspects of consumer financing decisions

If the credit users are unable to settle the debt, they will be subject to personal indebtedness. When credit providers initiate legal actions against them, personal properties will be taken in lieu of borrowed money (foreclosure). Yang and Lester (2014) reported that foreclosures of United States in 2007 were 1% where close to 2 million households were affected. Further the misuse of some options such as credit cards may lead to high finance charges. To deter over indebtedness arising from credit cards, some governments has imposed stringent controls for example US, Bruneian and Indonesian governments have restricted use of credit for 21 years or less aged people (Awanis and Chi Cui, 2014).

None use of credit also may not avoid risks. Running out of cash in hand may lead to difficulties in facing unanticipated events, missing investment opportunities which are of speculative in nature and etc.

Yang and Lester (2014) argued that the inability of households in managing credit nationwide is due to the systemic irrationality. Further, he argued, because of some segments of the population who are unable to make rational economic decisions, the systemic irrationality arises.

Factors affecting the decision

Decision to take credit may be governed by various factors. Credit behaviour is explained using demographical, economic as well as psychological factors. For example Lea, Webley and Walker (1995) reported that economic and demographic factors such as income, house ownership, employment, gender predicted the people who faced repayment difficulties. A field experiment on consumer credit conducted by Bertrand *et al.* (2005) found that psychological factors are significant in credit take up in contrary to the rationality suggested in standard economics. In addition to personal factors (ex: psychological factors) Kamleitner and Kirchler (2007) argued different situational factors such as level of income, life events can have an impact on credit behaviour. For example people who faced adverse life events were found to have credit related problems. Credit choice being one aspect of the credit behaviour may therefore governed by broad variety of factors. The forthcoming paragraphs elaborate already established factors as well as the likely factors that the researcher argues.

Financial literacy

“Knowledge not only enables consumers to make better decisions from a given set of options but also seems to increase the favorability of the options available”(Kamleitner, Hoelzl and Kirchler, 2012,p.14). It may be important to possess sufficient financial literacy when engaging in credit market activities. According to Gathergood (2012,p.591) financial literacy is the “consumer understanding of financial concepts and ability to correctly interpret financial data”. Further core financial literacy is comprised of three concepts of interest compounding, real versus nominal returns and portfolio diversification. Disney and Gathergood (2013) assessed the financial literacy of consumer credit users on three aspects;

simple interest rate calculation, impact of compounding interest and understanding on the impact of settling only the minimum payment.

Financial literacy of the consumer has a bearing on his choice of different credit products. It is intuitive that the individuals with high financial literacy select low cost credit options. In contrast, if an individual does not possess sufficient finance literacy, it is likely that credit options selected by them are costlier than the choice made by a financial literate person. Disney and Gathergood (2013) studied the behaviour of UK households to identify the relationship between finance literacy and consumer credit portfolios and found that consumers with poor financial literacy hold high cost credit products compared to the consumers with higher literacy. Further most of consumers who lack financial knowledge are aware about their poor knowledge but do not take corrective actions to improve the financial literacy.

Norvilitis *et al.* (2006) found that credit card debt is associated with lack of financial knowledge. Campbell (2006) also found that US consumers with poor knowledge were less likely to refinance their mortgages when the interest rate was falling. Lower financial knowledge is related to households with lower credit management (Hilgert, Hogarth and Beverly, 2003).

Even though a financially literate person should select low cost credit options there are evidences to the contrary. A positive relationship between financial knowledge and credit behaviour has been found by Lachance, Beaudoin and Robitaille (2006). People who hold high cost revolving credit and low yielding savings simultaneously are found to be financially literate (Gathergood and Weber, 2014). Searching for information is one dimension of the financial knowledge. However 8% of consumer credit decisions in the UK are made on the spur of the moment

(Berthoud and Kempson ,1992, cited in Kamleitner, Hoelzl and Kirchler, 2012, p.14). Further Low levels of information search are commonly reported even the decision is not made impulsively (Peterson and Black, 1984, cited in Kamleitner, Hoelzl and Kirchler, 2012, p.14). This deviation from the rationality may be explained using the prospect theory as it suggests individuals deviate from rationality in decision making. Therefore a consumer may deviate from the rationality when initiating the consumer credit decision. Accordingly personal factors and situational factors of consumer may affect credit choice.

Kamleitner and Kirchler (2007) introduces a process model with three stages ; before credit take up, at credit take up, after credit take up. Credit choice is a decision made in the middle phase i.e at credit take up. Situational factors found to be related to decisions to use credit or not i.e before credit take up (Kamleitner, Hoelzl and Kirchler ,2012). Personal factors found to be related to the decisions before credit take up as well as after credit take up (Repayment behaviour) (Kamleitner, Hoelzl and Kirchler ,2012). For example lack of self control found to explain holding high cost credit along with low yielding savings.(Gathergood and Weber, 2014).

Further certain personality traits have predicted the persons with high credit card debt and foreclosure rates (Yang and Lester, 2014). Perry (2008) found some personal factors and situational factors are related to the individual's credit ratings. Therefore it is likely that personal factors and situational factors affect at the time of credit take up; Credit choice.

Personal factors

Personal factors that the researcher argued to affect the credit choice are the locus of control, social comparison, and self-control. The forthcoming paragraphs provide insight on these factors.

Locus of control

Rotter (1966) defined locus of control as the degree to which a person perceives events as contingent upon his or her own behaviour. Locus of control can be two-fold; internal locus of control and external locus of control. Individuals with internal locus of control perceive that their own behaviour affect events. In contrast individuals with external locus of control believe events occurred due to their fate, by chance or due to actions of others.

Tokunaga (1993) attempted to identify factors which differentiate effective credit users from unsuccessful credit users. It has found that unsuccessful credit users displayed higher external locus of control compared to effective users. Unsuccessful credit users consisted of people who had experienced serious financial problems (operationalized by delinquency in making monthly payments and/or a debt-to-income ratio of over 100%) as a direct result of their excessive use of consumer credit, primarily in the form of credit cards. Livingstone and Lunt (1992) also found that locus of control is a significant determinant of debt repayment behavior. Accordingly the people who were borrowed more found to be having a external locus of control. According to the process model introduced by Kamleitner and Kirchler (2007) the state of unsuccessful credit usage falls in to the final stage of the process model i.e after credit take up which exhibits the repayment behaviour. Credit choice is being in the middle phase of credit process, it is likely that the locus of control affects when an individual decides which form credit to undertake.

Social comparison

Katona (1975), cited in Kamleitner and Kirchler (2007,p.14) stated that “it is not true that installment buying is resorted to only when it is

unavoidable”. Accordingly there can be different reasons for the use of consumer credit. Keynes (2006) identified six motives for consumption; Enjoyment, Short sightedness, Generosity, Miscalculation, Ostentation and Extravagance. More empirical support was found for the motive of ostentation which is closely related to the temperament of social comparison (Kamleitner and Kirchler, 2007).

Social comparison theory suggests there is an internal drive within an individual to evaluate him and the evaluation is carried out by comparing opinions and abilities of his own with that of others (Festinger, 1954). Accordingly, Individuals compare their own lifestyles with that of their reference groups.

Duesenberry identified that social comparison has an influence in savings as well as borrowing (Livingstone, and Lunt, 1992,p115). Accordingly, people save money to use it later to match with their, social reference group. Similarly, people also borrow to purchase goods that are necessary to keep up with the reference group. Morgan and Christen (2003) argued that income inequality induces households to borrow more in order to maintain their social position.

People in debt were found to showcase their social worth and social relations by way of consumption for example buying presents for others (Livingstone and Lunt, 1992). However they did not agree to the fact that the keeping up with reference group was a pressure to borrow and a cause for their financial issues. Being social comparison is an important determinant in the debt level as consequence of credit behavior; it is likely that social comparison plays an important role in determining the credit choice of an individual.

Self-control

Lack of self-control is regarded as a behavioral bias in financial decision making (Gathergood and Weber, 2014). Credit users found to be buying goods on impulse and having interest to reward themselves with purchases (Livingstone and Lunt, 1992). Further the credit users were less prepared to exert self control compared to non users (Webley and Nyhus, 2001, cited in Kamleitner and Kirchler, 2007). Self-control seems to be an influential factor both before credit use and during repayment (Kamleitner and Kirchler, 2007). Further Self-control is found to be related to credit use and the risk for indebtedness (Livingstone and Lunt, 1992). Gathergood (2012) found that lack of self control is positively related to non payment of consumer credit. It is likely that the self-control has a significant role in determining the form of credit that a consumer selects.

Situational factors

Situational factors of a consumer could have an impact on credit choice. Kamleitner, Hoelzl, and Kirchler (2012) identified Life events and income as situational factors that affect consumer credit behaviour.

Life events

Individuals may expose to different life events which significantly changes their ordinary cause of life. Examples of such life events are the loss of employment, undergoing medical surgeries, etc. Perry (2008) defined life events as incidence of experienced major medical expenses, extended unemployment, or a significant reduction in income. One can expect that individual who experience such kind of life event is inclined to borrow money. Kamleitner, Hoelzl and Kirchler (2012) identified life events as a situational factor that affect towards credit use. Life events can affect the

repayment behavior negatively where the individual is less able to pay on time. On the contrary, increased feelings of coping less well with the financial situation has led to simultaneously practicing better financial management and repaying orderly (Walker, 1996). In addition, people experiencing many adverse life events displayed less risk-seeking tendencies, less sensation seeking tendencies, and more anxiety about money (Tokunaga, 1993). Furthermore persons who argued external disasters as cause for credit use repaid more than those associating credit use with internal factors (Livingstone and Lunt, 1992).

Income

Perry (2008) defined income as the income from all sources, including work, alimony, child support, rental income, investment income and any other money received. Income generally seems to be an obvious factor related to consumer credit. Consumers smooth the consumption during their lifetime by considering the life time resources as per the Life Cycle Hypothesis proposed, by Modigliani (1986). Accordingly young consumers with low levels of income at present tend to borrow and consume today to settle in future with the expected high income levels.

It is intuitive to expect that credit use is increased with lower levels of income. However, according to the literature, the relationship between income and the credit use is found to be inconclusive.

Some studies suggest a negative relationship between the credit and the income. Chien and Devaney (2001) found that households with lower levels of income were more likely to have high amounts of credit card balances. This negative relationship also confirmed in a study conducted in Italy. (Magri, 2002, cited in Crook, 2003). The argument put forward by Magri is high-income household in Italy using less debt to acquire consumer durables.

On contrary to negative relationship between income and credit, some empirical evidences suggest a positive relationship between the two. Livingstone and Lunt (1992) found that when the disposable income of a person increases, the amount they owe also increases. Further the income was found to be a significant predictor of debt. It was also found that there is no significance difference between disposable income of people in debt and people not in debt. Further some more studies find a positive relationship between Income and the demand for debt (e.g. Gropp *et al.*,1997 and Crook ,2001, cited in Crook ,2003). The positive relationship could be due to high income families demanding more housing and other goods with the greater job security compared to lower income earning families (Crook, 2003).

The income level of the consumer is likely to influence on what the credit is used for. Families with a lower level of income probably use the credit to meet day to day needs and maintain their lifestyles where as higher income people could use consumer credit to further enhance the life style (Croden, 2000 , cited in Kamleitner, Hoelzl and Kirchler, 2012; Morgan and Christen, 2003).

Conceptual model

In this study, consumer credit choice is hypothesised to be a function of financial literacy, personal factors of the consumer; locus of control, social comparison and self-control as well as the factors represent the situation of the consumer; Life events and income.

Influence of financial literacy on consumer credit

According to Gathergood (2012,p.591) financial literacy is the “consumer understanding of financial concepts and ability to correctly interpret financial data”. Financial literacy is related to the economic behaviour of individuals (Lusardi and Mitchell, 2007). Thus financial literacy matters in decisions related to consumer credit. A consumer who decides to finance the purchase through consumer credit has to select what form of credit to be used (Kamleitner, Hoelzl and Kirchler, 2012). Hilgert, Hogarth and Beverly (2003) found that the relationship between credit management knowledge and credit behaviour is statistically significant. Accordingly financial literacy of the consumer has a bearing on his choice of different form of credits.

Expected Utility Theory suggests individuals take decisions rationally to maximise the utility. Accordingly it can be argued that the individuals with high financial literacy select low cost credit options. In contrast, if an individual does not possess sufficient finance literacy, it is likely that credit options selected by them are costlier than the choice made by a financial literate person. Disney and Gathergood (2013) found that consumers with poor financial literacy hold high cost credit products compared to the consumers with higher literacy. Norvilitis *et al.* (2006) found that credit card debt is associated with lack of financial knowledge. Campbell (2006) also found that US consumers with poor knowledge were less likely to refinance their mortgages when interest rate was falling. On contrary to the Expected Utility Theory, Lachance, Beaudoin and Robitaille (2006) found a positive relationship between financial knowledge and credit behaviour. Moreover individuals have displayed irrational behavior with

respect to consumer loan choices (Wonder, Wilhelm and Fewings, 2008). Even though financial literate consumers search for information prior to credit decisions, considerable amount of credit decision are found to be taken on the spur of the moment and low levels of information search is reported (Berthoud and Kempson ,1992, cited in Kamleitner, Hoelzl and Kirchler, 2012, p.14). Furthermore, the people who hold high cost revolving credit and low yielding savings simultaneously are found to be financially literate (Gathergood and Weber, 2014). The literature is inconclusive on the influence that financial literacy has with the consumer credit decisions. Accordingly the researcher is interested to understand the impact of financial literacy on consumer credit so that the following proposition is suggested.

Proposition 1: Finance literacy influences consumer credit choice

Influence of personal factors on consumer credit

Expected utility theory suggests individuals take decisions rationally to maximize their utility. This theory is being considered as the normative model of rational choice (Tversky and Kahneman,1986). Evidences show that financially literate consumer do not behave rationally all the time (Lachance, Beaudoin and Robitaille,2006; Wonder, Wilhelm and Fewings, 2008; Berthoud and Kempson ,1992, cited in Kamleitner, Hoelzl and Kirchler, 2012, p.14; Gathergood and Weber, 2014). Deviations from the rational decision making are argued in the prospect theory(Kahneman and Tversky, 1979).

Psychological factors have an influence on choice. “Indeed, Prospect theory is an attempt to articulate some of the principles of perception and judgment that limit the rationality of choice” (Tversky and Kahneman, 1986, p.273). Locus of control is a psychological factor a person that is

related to consumer credit (Kamleitner, Hoelzl and Kirchler, 2012). Locus of control found to be associated with the credit repayment behaviour (Tokunaga, 1993; Livingstone and Lunt, 1992). Further, Perry (2008) also found that locus of control of credit users is related to the consumer credit risk ratings used by lenders. Therefore it is likely that locus of control influences what form credit that a consumer selects and Proposition 2 are suggested below.

Proposition 2: Locus of control influences consumer credit choice

Social comparison theory suggests there is an internal drive within an individual to evaluate him and the evaluation is carried out by comparing opinions and abilities of his own with that of others (Festinger, 1954). Accordingly Individuals compare their own life styles with that of their reference groups. People save as well as borrow money in order to acquire goods which are necessary to keep up with the reference group (Duesenberry, 1949, cited in Livingstone and Lunt, 1992, p. 115). Further Duesenberry identified that social comparison has an influence in savings as well as borrowing. Accordingly people save money to use it later to match with their social reference group. Similarly people also borrow to purchase goods that are necessary to keep up with the reference group. Therefore in line with the prospect theory, as well as social comparison theory, social comparison is a likely psychological factor that may govern consumer credit choice. Accordingly the researcher suggests the third proposition below.

Proposition 3: Social comparison influences consumer credit choice

Lack of self-control is considered as a behavioral bias in financial decision making (Gathergood and Weber, 2014). Prospect theory suggests behavioral biases deviates the rational decision making under risk

(Tversky and Kahneman, 1986). Lack of self control is found to be associated with credit repayment as well a risk of indebtedness (e.g., Kamleitner and Kirchler, 2007; Kamleitner, Hornung and Kirchler, 2012; Livingstone and Lunt, 1992; Gathergood,2012). Therefore it is likely that self-control influence the consumer decision on which form of credit to be used. Moreover it is intuitive to think that persons with lack of self-control are inclined to choose credit cards despite higher financial costs. As a result the fourth proposition is suggested below.

Proposition 4: Self-Control influences consumer credit choice

Moderating effect of situational factors

Adverse life events could cause consumer to resort to credit and also problems in repayment (Tokunaga, 1993). Further when consumers experienced negative life events, among actions taken to resort such as cutting back on spending, trying to increase income, getting financial support from other sources, they also include actions to advance their financial knowledge (Hayhoe, Leach and Turner, 1999; Canner and Luckett, 1991, cited in Kamleitner, Hoelzl and Kirchler, 2012,p.6). Thus it is likely that consumer who experienced negative life events and non-experienced consumers have different relationships between their financial literacy and credit choice.

It is intuitive that credit use is increased with lower levels of income (Chien and Devaney 2001; Magri,2002, cited in Crook, 2003). Further several studies find that low-income consumers tend to have a below average financial literacy (Hilgert, Hogarth and Beverly, 2003). Thus it is likely that the relationship between financial literacy and the credit choice

could vary due to the level of income that, a consumer possesses. Accordingly, the researcher identifies the fifth and sixth propositions as given below.

Proposition 5: Life events moderate the relationship between financial literacy and consumer credit choice

Proposition 6: Income moderates the relationship between financial literacy and consumer credit choice

Based on the propositions discussed in the previous paragraphs, the researcher argues consumer credit choice depends on the financial literacy and the factors attribute to a person such as locus of control, social comparison and self-control. Further, the study suggests situational factors such as life events and income of the consumer moderates the relationship between finance literacy and the credit choice. Accordingly, the conceptualisation of the study is derived as presented in figure 1.

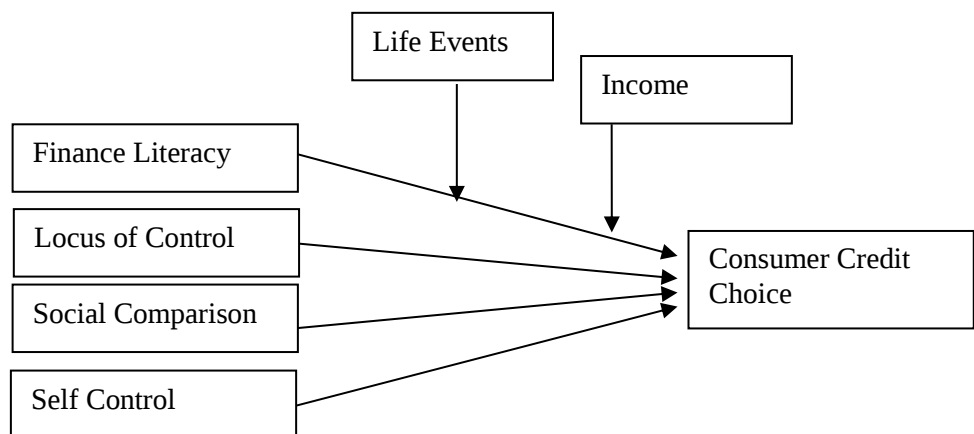


Figure 1: Theoretical framework
Source: Researcher's construction

Methodology

The previous section discussed the conceptualisation of the research problem pertaining to the study. This section briefly outlines definitions and measures of variables identified in the conceptualisation.

One can find different definitions in the literature for the variables under consideration of this study. The definitions used by the researcher for the purpose of current study are given below.

Financial knowledge or the literacy is the “knowledge of general facts about financial and economic principles and credit markets” (Perry,2008, p.17)

Locus of control is the extent to which individuals perceive that their reinforcers depend on their own actions (internal), or reinforcers are controlled by other people and outside forces (Rotter, 1966).

Social comparison theory suggested by Festinger (1954, p.117) says “there exists, in the human organism to evaluate his opinions and abilities.”

Self-control is defined as “the self’s capacity to override or change one’s inner responses, as well as to interrupt undesired behavioural tendencies and to refrain from acting on them” (Tangney, Baumeister and Boone, 2004,p.274)

Income is considered as the income from all sources, including work, alimony, child support, rental income, investment income and any other money received (Perry, 2008).

Life events refers to incidence of experienced major medical expenses, extended unemployment, or a significant reduction in income (Perry, 2008)

Consumer credit choice refers to selection from different forms of credit (Kamleitner, Hoelzl and Kirchler,2012)

The above variables are measured using different scales for the use in the survey instrument of study. Accordingly, the financial literacy is measured using 7 questions introduced by Perry (2008). Out of 7 questions 3 questions are related to the interest rate where the impact to the interest rate is assessed under different scenarios. Each question includes 3 options as 'Rate would be higher', 'No impact' and 'Rate would be lower' where only one answer is correct. The balance 4 questions measures the knowledge on credit and investment where the respondent is required to select out of two answers; 'correct' and 'incorrect'.

Rotter (1975) has developed 23 item questionnaires to measure the internal and external locus of control. However, Perry (2008) has used 7 item questionnaires to measure the locus of control, and further he asserts that it is developed based on Rotter's scale of locus of control. Five responses have been used from Almost never to Almost always scoring from 1 to 5 respectively.

The construct of social comparison is two-dimensional; ability and opinion. Gibbons and Buunk (1999) has developed an 11 item questionnaire to measure the social comparison under these two dimensions. Response to each question is measured using 5 point Lickert scale ranging from strongly disagree to strongly agree.

Brief Self-Control Scale developed by Tangney, Baumeister and Boone (2004) measures self-control. The scale consists of 13 questions on a 5 point Lickert scale ranging from 1 (Not at all like me) to 5 (Very much like me).

Perry (2008) measures life events as a binary variable scoring from 1 to 0. The score of 1 represents the consumer experiencing major medical expenses, an extended period of unemployment or a significant involuntary reduction in income during the past two years. The score of 0

represents the consumer has not experienced any of the above situations during past two years.

Income has been measured by Perry (2008) using a nine-point scale of income categories and defined the income as the total of combined annual before-tax income of the respondent and his or her spouse.

When measuring the consumer credit choice, the credit user is first identified as an individual that was either using consumer credit when interviewed or had used consumer credit during the previous 24 months (Pattarin and Cosma, 2012). Credit choice can be then identified among different forms by inquiring on the actual form credit that the consumers had used. (Pattarin and Cosma, 2012)

Research Implications

Understanding the determinants of consumer credit choice is important for managers particularly who work in financial institutions. As financial institutions offer different consumer credit alternatives it is important to understand behavioural tendencies of consumer towards different forms of financing. Profiling the consumer using behavioural factors in addition to the demographic data will bring finance institutions an added advantage in providing credit. On the other hand the findings will also be important for an individual where the better understanding of behavioural biases help minimizing the financial cost of consumer credit and enable them taking more informed and rational consumer financing decisions.

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