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CAUSES OF HOUSEHOLD INDEBTEDNESS : A SYSTEMATIC REVIEW

ZAIDI MOHAMMAD, BIDAYATUL AKMAL MUSTAFA KAMIL and AHMAD RIZAL BIN MAZLAN

Universiti Utara Malaysia Kuala Lumpur (UUMKL) City Campus, 41-3 Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur

Abstract

The main objective of this study is to review the literature on the causes of indebtedness based on previous studies which were done on indebtedness. Household indebtedness is characterized as the inability to cover existing financial commitments even when current and foreseeable resources are utilized, without lowering one's basic standard of living. The review of literature shows that in many studies, indebtedness is significantly influenced by financial illiteracy, physiological and behavioral factors such as attitude and personality traits as well as demographic factors such as income, education level, gender, age and ethnicity.

Keywords: Indebtedness, financial literacy, financial attitude, personality traits and behavioral finance.

1.0 Introduction

Indebtedness is defined as unmanageable debt and having financial difficulties. The common issues pertaining to indebtedness are as follows: debtors harassed by creditors, problems in managing money, receiving legal action from individuals or institutions to recover the money owed, penalty charges for late payment imposed by the banks, house under auction proceedings, and mortgage or rental instalment in arrears including (Patel et al., 2012). Although indebtedness is quite prevalent and is evidently connected to financial literacy, not much attention is given by researchers particularly in explaining the determinants of indebtedness (Bernheim & Garrett, 2003).

Continuous innovations in financial products have made it easier for households to attain more debts and consequently find it harder to repay them. In the US, as at third quarter of 2015 ,the Credit Bureau Monitor reported that only 46.1% of borrowers pay promptly, 11.6% were one to two months in arrears, 21.6% were three months in arrears and the rest were facing legal action for non-repayment (Allgood & Walstad, 2016; Overview of the National Credit Regulator, 2016). According to Diamond & Rajan (2009), during the global credit crisis in 2007 and 2008, developed nations such as the UK and the US were hit the hardest, this was principally caused by the subprime home loans which were given to non-creditworthy borrowers. Related to this, low savings rate

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and high debt level have adversely affected the financial stability and monetary policy of a country (Alsemgeest, 2015). Data from OECD indicated that majority of the OECD's countries show over 100% household debt level as at December 2020 and some countries including Switzerland, Sweden, Australia, Netherland, Ireland, Norway and Denmark, the percentage is 200% or more (OECD, 2020). As such, it can be concluded that greater number of households in these countries have high financial commitments to repay their debts and thus, reducing the amount that can be spent on living expenses.

This systematic review is to summarize studies and earlier literature of the causes which lead to indebtedness and to establish possible research gap. This paper focus on the causes of indebtedness from the view point of financial literacy, demographic factors as well as psychological and behavioral factors which are limited to financial behavior, financial attitude and personality traits. The review in this study include both qualitative and quantitative studies as well as available indebtedness data from 19XX to 2020.

According to Nizar & Abdul Karim (2016), the theory of Life-Cycle-Permanent Income theory, which was developed by Modigliani et al., (1954), is the most frequently used by researchers to explain financial literacy and indebtedness. Just like saving, borrowing is an inter-temporal redistribution decision, whereby households acquire certain amount of debt to smooth their consumption and to maximize their general life-cycle sufficiency, for example to acquire assets such as houses and vehicles. The model suggests that consumption in every stage is dependent on the expectation of life time income (Meniago et al., 2013). However, when a borrower has difficulties to repay the loan and the repayment becomes burdensome, the borrower is said to be in the state of indebtedness (Ranyard, McHugh, & McNair 2017).

2.0 Methods

Relevant finance and economic academic papers were identified through Scopus indexed article database. The Scopus indexed article database were used a control to indicate quality of the papers to be reviewed.

Since the issue of the indebtedness is not subject to any particular country and geographical limitation, only the following key words were used in the initial search of papers which were to be reviewed:

- "indebtedness" OR "debt" OR "over-indebtedness" OR "bankruptcy"
- "loan" OR "borrowings"
- "financial literacy" OR "financial knowledge"
- "financial behavior"

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Snow-bowling technique was later used to identify the relevant other papers related to the main subject of indebtedness through reviewing the references and bibliography of the particular papers, which discussed about the targeted variables and the topics. Mostly, papers and article journal by renowned researchers were included in the review. Besides that, some other academic papers from other sources were also included in the review as there are limited papers published discussed regarding some causes of indebtedness especially in the standpoint of psychological factors such as attitude and personality traits towards indebtedness.

Most of the paper reviewed were published from 1997 to 2020 and some of the older key research of the discussed topics. The abstract of the article were pre-screened by the reviewers and subsequently analyzed and evaluated the full articles for suitability.

3.0 Origin of Indebtedness

There are various reasons why people borrow money, among them are for household consumption, purchase of property, child expenses, taxes, insurance and health care expenses (Linna, 2015). According to Campbell and Hercowitz (2009) and Houle et al., (2014), several deregulation policies between 1970s and 1980s have expanded the credit supply and enabled the banks more capacity to control the interest rate, create new credit instruments and execute aggressive marketing strategy to more households. The deregulation of banking policies in the late 1990s has led to bank mergers and allowed the banks to have more capital to lend. These developments were the key factors for the creation of more collateral-backed loans. This was followed by the development of non-collateralized unsecured consumer credit such as revolving credit and overdraft facilities, where consumers usually are charged with higher interest rate as the loans were obtained without collateral.

Marron (2009) explained that in the United States, the lucrative business of lending offered by the banks has adverse effect to the American society as a whole, particularly when consumers have difficulties to pay the debt due to the increase in the interest rate since 1980s. The increase in debt burden has worsened due to stagnating wages and easy excess of credit. As a result, lower and middle class households borrowed more to maintain their standard of living. In one dimension, this is the starting point of how the implications of disreputability in credit use have turned out to be the phenomenon of personal indebtedness.

Household debt is an important element to accelerate consumers spending and for the economy to grow (Aziz, 2018). However, if household debts are obtained excessively, it can be detrimental to the country’s financial and economic stability. Various earlier studies have also indicated that excessive household debt can be a good warning sign

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for banking and financial institutions crisis (Drehmann & Tsatsaronis, 2014; Jordà, Schularick & Taylor, 2016).

Some of the studies regarding indebtedness is summarized in the following table:-

Table 1 : Various studies on indebtedness

Researchers	Topics
Bridges & Disney (2004); Disney et al. (2008); Lea, Webley, & Walker (1995)	Several UK studies found higher debt risk for renters as opposed to home owners
Disney, Bridges, & Gathergood (2008)	Over-indebtedness drivers
Arber et al. (2014)	Mental perspectives
Schicks (2014)	Various observational investigations
Canner & Luckett (1991)	An effect that is not significant in the US-based multivariate analysis
Disney et al. (2008); Drentea & Lavrakas (2000)	Ill health is related to debt problems; however cause and effect are ambiguous
Kukk (2017)	Also, ethnicity has been correlated to indebtedness

4.0 Causes of Indebtedness

In general, household over-indebtedness is caused by three main factors. The first factor is specific behavior such as overspending which is caused by poor money management. The second factor is imbalance of household income against household expenditure. The third factor is income shock such as unemployment, divorce and sudden reduction of income. Empirical evidence shows that reduction in household income is the major cause of indebtedness (Anderloni & Vandone, 2010; Angel & Heitzmann, 2015; Gathergood, 2012). Some other literature attributed the rise in the household indebtedness is due to (i) innovation in financial service and products, reduction in interest rate, easily accessible loans, and voracious lending practices; (ii) change in income distribution due to shift in socio-economy; (iii) increase in house prices and ease withdrawal of equity to fund for consumption; (iv) financial Illiteracy; and (v) extensive accessibility of products and services (Mazibaş & Tuna, 2017). The severe consequences of household over-indebtedness do not become fully evident until the repayment of mortgages becomes a difficult task for a large number of the population, and massive numbers of houses have been repossessed (Kavonius & Honkkila, 2016). In the United States, more than 640,000 repossessions of properties

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were initiated between 2008 and early 2015 (Kavonius &Honkkila, 2016). A longitudinal study by Nyhus & Webley (2001) identified the main causes of indebtedness due to sudden reduction income within short time period, favorable attitude towards debt, sudden need to spend money, shorter planning horizon and preference to use cashless transaction.

The studies by Berthoud & Kempson (1992) and Ranyard et al. (2017) found that over-indebtedness was caused by events that reduce income and other related issues (34%); inadequate income (25%); unnoticed bills (10%); and overlooked of the loan installments (8%), having children, having multiple credit commitments and irresponsible attitude towards debt were also identified as the causes of indebtedness. Besides that, around 10% of those with lowest salary scale are found to experience multiple debt issues as compared to the highest 1% of the income bracket. Ranyard et al. (2017) has also highlighted that based on an earlier survey conducted in 2011 in United Kingdom, revealed that 13% of the respondents spent over 30% of their pay on unsecured credit and 7% had more than three months installment overdue. Other causes identified were related to borrower's issues including adverse external shock, borrower's internal problems and pressure from financial institutions (Gutiérrez-Nieto, Serrano-Cinca, & de la Cuesta‐González, 2017).

Besides predisposition towards indebtedness as above, based on the above discussed literature and empirical evidences, the major cause of indebtedness is due to decrease in income. The reduction could possibly due to unemployment, separation or divorce, lesser take home pay, business failures, increase in children's and other household expenditures, sickness and departure of the family's income earners.

4.1 Financial Literacy

Financial literacy has been identified in many literature as a crucial element in protecting consumers against indebtedness. Several prominent studies found that low level of financial literacy is associated with high cost of borrowings and problematic loan decisions (Disney & Gathergood, 2013; Lusardi & De Bassa, 2015; Lusardi & Tufano, 2015). Financial literacy and decision making have become key aspects towards indebtedness and individual behavior studies (Duca & Kumar, 2011; Estelami, 2009; Lusardi, 2009; Stango et al., 2013).

Issues regarding money management and indebtedness have become important topics since the beginning of the 21st century as compelling aspect towards consumption and consumer behavior. A poor self-finance and debt planning could cause a person to spend more than his or her earning and lead to the state of over-indebtedness, and become a possible cause for bankruptcy. Based on earlier study done on financial literacy, Lusardi & Mitchell (2007) found that the saving decision is complex and require

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consumers to have substantial economic knowledge and information. It was also found that financial knowledge drives one's aptitude and subsequently influences financial decisions.

Many early literature on financial literacy have examined the relationship between financial literacy and retirement planning (Bucher-Koenen & Lusardi, 2011; Lusardi & Mitchell, 2007; van Rooij et al., 2011). Later, it was also found that financial literacy increases stock market participation and diversification through asset portfolios (Van Rooij et al., 2011). Besides that, indebtedness is also associated with low level of financial literacy. In general, those with high financial literacy level will visit several banks before choosing the bank which offers the lowest financing rate. Based on Lusardi & Tufano (2015), only about one third of the population in the US have a grasp of the basic interest compounding. The research also found that lower financial literacy leads a person to incur higher transaction costs, higher processing fees and higher interest rate for borrowings. Individuals with less financial knowledge are reported to have excessive debt loads as they are unable to properly assess their debt position (Lusardi & Tufano, 2015).

Financial literacy reflects an individual understanding of basic personal finance information, besides that it enable for individuals to make wiser decision in taking a loan to finance their personal consumption such as credit cards, personal loans and housing loans. Most common dimensions of financial literacy relates to budgeting, savings, investment and borrowings (Remund, 2010). According to Ali et al., (2013), financial literacy normally relates to six financial activities which include tax, loans and liabilities (debt), insurance, investment, retirement and estate planning. In the studies conducted by French & McKillop (2016) and Lusardi et al., (2013), numeracy and basic financial knowledge are significantly correlated with low-cost borrowing, even after controlling for socio-demographic factors such as age, income, education and other variables connected with financial vulnerability including being hit by income shock. One of the problems associated with low level of financial literacy includes credit problem (Sabri & Falahati, 2013).

Although having numeracy skill is important to make better financial decision, a study by French and McKillop (2016) show that among low income households, money management skill is found to be more important than numeracy skill. Individuals with good money management skill are able to reduce their debt levels, avoiding borrowings from high cost lenders and engaged with fewer lenders. Among others, the objective of financial literacy is to ensure that consumers can manage their money, do not get into unnecessary debt, become keen savers and avoid high risk investment. Besides that, easy availability of consumer credit, the perception that debt is seen as necessary, and irresponsible personal financial management are recognized as the main factors of indebtedness (Finlayson, 2009).

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Cohen (2007) and Giné & Karlan (2013) asserted that financial literacy is a crucial element in adopting insurance, while Tustin (2010) found that financial literacy positively influences savings behavior. In a study by Landderretche & Martinez (2013), it was found that financial literacy is able to increase private pension plans in Chile. In contrast, low level of financial literacy has been connected to negative long term consequences. For example, Hilgert and Hogarth (2003) indicated that individuals with low financial literacy are commonly less participative in various recommended financial practices. Various studies have also found that financial literacy affects debt management. Individuals who do not understand interest rate calculations are susceptible to acquire more expensive loans with less flexibility terms and conditions, thus lead them to debt management problem that can cause delinquency and loan default (Campbell, 2006; Disney & Gathergood, 2013; Duca & Kumar, 2014; Gerardi et al., 2010). The individuals with higher financial knowledge are less likely to have problems in managing their debt. On the other hand, those with lower self-reported financial knowledge are found to have problems with debts could not properly track their current debt position (Lusardi & Tufano, 2015).

Individuals with high level of financial literacy are usually involved in lower cost of borrowing (Disney & Gathergood, 2013), are mindful of their debt level (Lusardi & Tufano, 2015; Stango et al., 2008)~~,~~ and do not have much problems paying their credit card bills (Gathergood, 2012). Besides abilities to avoid high-interest loans, they tend to have lower debt-to-income levels, engaged with fewer loan providers and better managing debt repayments (Disney & Gathergood, 2011). With these traits, many of them are able to increase their net worth (French & McKillop, 2016). Gerardi et al., (2010) demonstrated that the group with higher numerical ability and financial literacy level has lower possibility of defaulting on housing loan instalment as compared to the group with lower numeracy and lower financial literacy level. Towards this, Lusardi & Tufano (2015) highlighted that some individuals who use credit cards do not have basic knowledge on debt management. For example, many individuals pay only the minimum amount every month to cover the interest payments for the credit card. As a result, their total credit card balance outstanding is rising. Failure in managing personal financial arrangement is found to prompt arrears in household bills and higher credit card obligation (Garðarsdóttir & Dittmar, 2012; Lea et al., 1995; Norvilitis et al., 2006).

Although financial literacy is used to predict financial outcome, but people will not always behave ideally. Different attributes such as behavioral biases, impulsiveness, preferences and external factors may also lead to poor financial decision making (Huston et al., 2010). Based on the existing literature, there are other factors attributed to indebtedness which might include psychological and behavioral factors such as financial attitude and personality traits as well as factors contributed by demographic factors. According to Atkinson and Messy (2012), financially literate individuals not only consistently consider affordability before making a purchase, but also positively related

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to behavior and financial attitude. In general, individuals with cognitive abilities and numerical capabilities tend to possess higher financial literacy level (Hastings et al., 2013; Christelis et al., 2010 and Grinblatt & Keloharju, 2009). It was also been confirmed that individuals who scored higher in financial literacy test have better financial conducts (Hilgert & Hogarth, 2003; Lusardi, 2012, 2015). Financial behavior and financial attitude are also important components in financial literacy (Loke, 2015). According to Montaño & Kasprzyk (2015), there are limited number of studies examined the impact of financial attitude towards financial matters and behavior. Serido et al. (2013) indicated that financial attitude is significantly correlated with financial knowledge and according to Subarna Bir (2016), financial attitude has greater impact on financial practices than financial knowledge.

4.2 Psychological and Behavioral factors

Behavioral finance is a branch of financial economics which assumes that individuals act selfishly and rationally, by taking into consideration all accessible information in the decision-making process (Dunning et al., 2012; and Sharifi & Flores, 2013). Within behavioral finance, credit consumption is broadly related to borrowing and indebtedness, and in turn, connected to cognitive biases (Bertrand & Morse, 2011), impulsivity (Gathergood, 2012), and financial literacy (Lusardi & de Bassa Scheresberg, 2015). Consumer consumption and savings behavior have long been discussed by researchers but is relatively new regarding households (Cecchetti et al., 2011; Dynan & Kohn, 2007). Different researchers have confirmed the positive relationship between financial knowledge and financial behavior (Mitchell & Lusardi, 2011) and there have been increasing number of studies conducted on financial literacy and its' impact on household behavior (Bucher-Koenen et al., 2017; Mitchell & Lusardi, 2011). Various studies have also found the relationship of financial knowledge and behavior although the causality is inconclusive. Existing literature that discuss attitude, behavior, and financial literacy include Agarwal et al. (2015) and Potrich et al. (2016). In a pilot study carried out by Atkinson and Messy (2011), in which 12 countries were selected in a pilot study for OECD to measure financial literacy, behavior and attitude. The study has found that there is a positive relationship between financial knowledge and behavior in all 12 countries.

Related to this, Brown & Woodruffe-Burton (2015) asserted that there are only few studies which examined individual indebtedness experience particularly on heuristic and how indebted individuals adapt and cope with stress. Besides that, literature discussing borrowings and financial behavior are limited compared to the literature that link financial literacy with savings and investment (Grohmann, 2018).

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Financial Attitude

According to Eagly and Chaiken (1993), attitude is the psychological inclination to prioritize financial and investment decision after considering available options and financial behavior is usually noticeable. In Montaño and Kasprzyk (2015) for example, financial attitude has been identified as an important mediating variable towards financial literacy, while mentality has been distinguished as a significant intervening variable in financial literacy. It was also found that financial attitude and better financial knowledge are able to change financial behavior. Earlier study by Livingstone & Lunt (1992) found a strong positive relationship between attitude and debt level and uncovered a significant positive relationship between attitude and debt obligation, and financial attitude is related to actual financial behaviour (Angela Boatman & Evans, 2017).

Several other literature show that financial attitude and skills are significant determinants of indebtedness (Nibud, 2012). According to Seuntjens et al. (2016), researchers have found that attitude towards finance varies among individuals. For example, financial risk is more significant for people having problem with self-control and facing more unexpected expenses and income shock (Gathergood, 2012). Students who are usually expediting gratitude tend to have issues with credit card debts (Norvilitis et al., 2006), Impulsivity relates to various and higher credit limits (Gathergood & Weber, 2014). Based on Almenberg et al. (2018), majority of the respondents who indicate discomfort with debt demonstrates that attitude is an important determination in the study of debt behavior.

Davies and Lea (1995) and Wang et al., (2011) indicated that total household debt is significantly related to individual’s attitude. Serido et al., (2013) concluded that it is important to integrate attitude, behavior and financial knowledge to understand how an individual makes a good financial decision. Further to this, Subarna Bir (2016) indicated that positive financial attitude is able to improve financial management practice. In the same study which was done among fresh university graduates, it was found that financial attitude has bigger influence on financial knowledge towards financial management practice.

The studies carried out by Cosma and Pattarin (2012) and Wang et al. (2011) support the influence of attitude on household indebtedness through different components. Meanwhile, the study by Wang et al. (2011) found that household attitudes influence debt but only from the affective and behavioral dimensions. Besides that, the study by Cosma and Pattarin (2012) also found that attitudes play an important role in determining the type of credit used by households. In the same study, it was found that households are more likely to finance daily household expenses by using credit cards or point of sale lending. Davies & Lea (1995) found that attitude towards debt is different

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for all three years of study of the undergraduate students. At the beginning of their studies students are less attracted to debt. However, with positive assumption towards future income expectations the attitude towards debt changed in the second and third year of the study, where they started to utilize the credit cards for consumptions.

According to Seuntjens et al. (2016), researchers have found that attitude towards finance varies among individuals. For example, financial risk is more significant for people having problem with self-control and facing more unexpected expenses and income shock (Gathergood, 2012); students who are usually expediting gratitude tend to have credit card debts (Norvilitis et al., 2006); impulsivity relates to various and higher credit limit (Gathergood & Weber, 2014); emotional level, personality traits (introversion), and materialism are connected with more credit card misuse (Pirog & Roberts, 2007). In a study by Xu et al., (2015) it was also found that personality traits of neuroticism and conscientiousness are related with financial distress among young adults.

A study carried out by Azman et al. (2017) measured the relationship between household's attitude and household indebtedness in Klang Valley, Malaysia has found strong relationship between attitude and determination factor of indebtedness. This study has also indicated that some demographic factors such as ethnicity, religion and social norms are the influential determinants towards indebtedness.

Personality Traits

Many studies have explored the impact of personality traits on labor and human capital (James Heckman, 2011). According to Gambetti & Giusberti (2019), there is an increasing number of studies done related to personality traits and financial decisions over the past 20 years. For instance, specific personality characteristics of impulsiveness and the ability in managing finance (Grinblatt & Keloharju, 2009; Lauriola et al., 2014). These studies are paired with socio-demographic factors and are able to predict financial risk tolerance. Since the 1980s, Five Factor personality traits or Big-Five have been widely used to measure personality classifications (Rabbani et al., 2019). To a great extent, personality is considered as a pattern of individual behavior and attitudes as opposed to a specific single characteristic. According to Goldfayn (2017), studies on Personality traits have been consistently discovering their way into economic research. However, as confirmed by Pinjisakikool (2018), personality traits have been used in various fields but the application in financial topics, particularly in the studies related to indebtedness are scarce. In the same study, the big five personality traits are the potential factors that can explain the personality traits from the behavioral perspective towards the relationship with financial literacy and level of indebtedness.

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Economics and finance studies which used the Big Five personality traits model have focused on investment related matters (Mayfield et al., 2008), financial management and overconfidence (Donnelly et al., 2012) as well as financial risk and predicting households' financial behavior (Pinjisakikool, 2018). In a recent study linking personality traits with financial risk tolerance and financial behavior by Pinjisakikool (2018), it was found that personality traits have weak relationship with financial behavior, as compared to the relationship between financial risk tolerance and financial behavior. The study also found a positive but weak relationship of extraversion and intellectual against financial behavior. The other personality traits, namely, conscientiousness, agreeableness and emotional stability, however, have negative coefficient with financial behavior. The study has discovered an important connection between specific personality traits with financial risk tolerance which consequently affect financial behavior. Besides that, emotional level, personality traits (introversion), and materialism are connected with more credit card misuse (Pirog & Roberts, 2007)

Some of the earlier studies connecting personality traits and financial matters have found that in general, extrovert individuals tend to have lower savings (E. Brandstätter & Brandstätter, 1996; Nyhus & Webley, 2001). The socializing lifestyle of extroverts incur cost and may induce them to spend rather than to save (H. Brandstätter & Güth, 2000). Similar to extraversion, neuroticism (low enthusiastic dependability) is another personality trait that is contrary with savings behavior (E. Brandstätter & Brandstätter, 1996; Nyhus & Webley, 2001). Other studies related to personality traits and finance related topics including investment, stock market decision and participation (Donnelly et al., 2012). The later literature, for example, Xu et al. (2015) found that personality traits (neuroticism and conscientiousness) are related with financial distress among young adults due to indebtedness.

Conscientiousness is characterized by patience, perseverance, discipline, careful, organized and planning. High level of conscientiousness is positively correlated to good savings behavior and is negatively correlated with indebtedness issue (Nyhus & Webley, 2001). For an organization, conscientiousness if a preferable trait since the trait is connected with progress, accomplishment and job performance (Barrick et al., 2001). This may explain why highly conscientious person attempts to stay away from risky behavior connected with HIV infection (Trobst, Herbst, Masters, & Costa, 2002), reckless driving behavior (Arthur & Graziano, 1996) and drugs use (Terracciano et al., 2008).

Openness to experience or Openness, is the personality trait related to innovation, creativity and new experience seeking (Zhao & Seibert, 2006) . Mayfield et al. (2008) have indicated that individuals with high level of openness to experience are known to have intellectual character and have better financial management. As such, they are associated with long term savings and investment. Those with less attribute to these

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characteristics tend to be more intolerant and traditional (Pinjisakikool, 2018). Those who have strong Openness to Experience mostly relate to risk taking activities, which include hazardous driving activities, risky sexual habit and drug abuse (Arthur & Graziano, 1996). Extroverts, on the other hand, are associated with socializing conduct, and the characteristic of meeting and conversing with others would enable them to learn, subsequently influence them to participate in stock market (Kaustia & Knüpfer, 2012).

Obviously studies linking Psychological and Behavioral towards issues relating to indebtedness are still limited, particularly with regards to big 5 personality traits and indebtedness. According to Loke (2015), limited studies were conducted connecting financial attitude on behavior and actual financial decisions. Related to this, OECD (2013) has recommended further research in the area of financial literacy and behavior including the dimensions of financial knowledge and behavior that mostly affect individuals, the connection between financial knowledge and explicit behavior, the relationship between financial attitude and explicit behavior, as well as the relationship between financial literacy and socio-demographic characteristics such as gender, age and education.

In light of the discussion above, the effect of financial literacy and behavioral aspects on individual indebtedness is one of the areas that need more attention and further research. Some argued that although financial literacy result in better financial behavior, the opposite could also be true as financial knowledge could be gained through family background, socio-economic status, experiences, attitudes and behaviors. Besides, Some other researches could not find the relationship between financial knowledge and behavior (Douglas Bernheim et al., 1997; Sam et al., 2012).

4.3 Socio-demographic Factors

According to Lusardi (2012), financial decision and behavior of a person is not only shaped by knowledge level and financial education but also by economic level and personal preferences. According to a research done by Hyytinen and Putkuri (2012), it was found there is no direct relationship between borrowing and financial literacy. In fact, several demographic factors such as income, age and level of asset can better explain the borrowing indicators related to standard life-cycle theory. In this regard, younger individuals tend to obtain credit facilities with the expectation of better future income. The older individuals however have the tendency to liquidate the available assets to pay off their debts.

Based on the study by Hastings et al. (2012), male respondents demonstrated a more significant level of financial literacy as compared to female respondents. Low level of financial literacy is also evident among some minority groups, elderly, women and

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individuals with lower wealth and income level. Low financial literacy level might explain the tendency of the elderly group being frequently perpetrated by financial fraudsters and scammers. Lusardi & Tufano, (2015) provided an evidence that women of various ages are less literate compared to men, even after controlling socio-economic factors such as race, gender, marital status, number of children, retirement status and race.

Over indebtedness might be viewed as an indicator of socio-economic status and it is regularly connected with low income (Drentea & Reynolds, 2012; Münster et al., 2009). In Disney et al. (2008) the probability of individuals having debt in-arrears or over-indebtedness is mainly due to the fact that the individuals have dependent children, are divorced or separated, are unemployed, sick or disabled (Montgomerie & Tepe-Belfrage, 2017). Having many young children is positively associated with debt risk (Canner & Luckett, 1991; Lea et al., 1995). Likewise, ethnicity is also correlated to indebtedness (Del Río & Young, 2005). According to D'Alessio & Iezzi (2012), there is a positive connection between over-indebtedness and poverty. Using Italian data, around 6% of the households are viewed as poor because debt service ratio classified them below the poverty line. Using the poverty indicators, over indebted households have relative wealth and level of income of roughly 45% lower than other households (Drentea & Lavrakas, 2000; Ntsalaze & Ikhide, 2017). The use of debt service ratio is also used as a measurement of level of indebtedness in credit card debt which is also associated with poor physical and self-reported health (Turunen & Hiilamo, 2014).

A few other studies suggested that age, education, family composition, status of employment are important determination for savings (Browning et al., 1996; Kukk, 2017; Tudela & Young, 2005). Generally, higher educated household may have better economic standings and likewise have better financial decision, while lower education is associated with higher debt level (Bridges & Disney, 2004; Szilagyiova, 2015; Tokunaga, 1993). Significantly, lower education level is the strongest predictor of poverty: less educated individuals are most likely to be in poverty state (Ntsalaze & Ikhide, 2017). However, as indicated by Livingstone & Lunt (1992), education is not a significant factor of indebtedness in the UK.

There are various studies which show that low socio-economics status is the main driver for household indebtedness (Anderloni & Vandone, 2010), alongside with other factors such as age (Caputo, 2012; Kempson et al., 2005) unemployment (Kempson et al., 2005), ethnicity (minority), and gender (women) (Caputo, 2012). On the other hand, most individual debt is short term (Caputo, 2012) and low income earners are riskier of severe financial exclusion due to indebtedness (Krumer-Nevo, Gorodzeisky, & Saar-Heiman, 2017). Over-indebtedness is one the main contributors towards poverty, especially for old aged individuals, lower income and among single parents with young children (Gutiérrez-Nieto et al., 2017). Ntsalaze and Ikhide (2017) demonstrates that household poverty is determined by many factors including household head's

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characteristics, age, gender, marital status, education level, economic activity, household income, government grants, size of household, housing loan tenor and settlement type (urban or rural). Majeed and Malik (2015) detailed out that households with older heads have higher possibility of being in poverty.

Other studies also indicated that younger individuals in the UK and the US are found to have higher probability of becoming indebted (Bridges & Disney, 2004; Drentea & Lavrakas, 2000; Lea, Webley, & Levine, 1993). However, based on the studies done in the US (Canner & Luckett, 1991; Tokunaga, 1993), age is not a significant factor for indebtedness. Campbell (2006) indicated that lower education level and lower income level have been associated with higher interest rate for mortgages. These groups of people are also found not taking advantages to refinance their houses to get lower interest rate (Lusardi & Tufano, 2015). According Ranyard et al. (2017), the earlier study done in 1940's in the United States found that most of the term loans were obtained by middle to upper income individuals as well as younger individuals.

According to Achtziger et al., (2015), household income is a significant determinant for compulsive buying, self-control as well as debt. Low income groups mostly experiencing debt for daily expenses and household bills as compared to formal loans obtained from financial institutions (Dearden et al., 2010). The indebtedness also relates to middle income groups as their income are mostly dependable to the adults in the households (Marron, 2012). According to Lusardi & Tufano (2015), wealthier and higher income individuals usually having the right amount of debt. It was also found that in general, women, lower income individuals and colored skinned Americans tend to misjudge their debt obligations. There are substantial literature that show the differences among male and female borrowers toward indebtedness. Some researchers have found preferable loan repayment among women, and better repayment ability can be translated into lower indebtedness (Armendáriz & Morduch, 2010; Khandker et al., 1995). Some other studies also suggested that there is a positive outcome of microfinance engaging women borrowers (Kabeer, 2001; Pitt et al., 2006). Other studies also discovered that better loan repayment among women compared to men (Armendáriz & Morduch, 2010). Women are found to behave differently in financial decision and more risk averse in financial decision (Jianakoplos et al., 1998). Women tend to avoid certain risk of indebtedness and be more careful in considering for loans. This has indirectly help them to stay away from being over indebted and prepare them better for income shocks (Schicks, 2014).

5.0 Discussions

Indebtedness is an emerging issue after the global economic crisis. However the discussions regarding indebtedness is particularly new among researchers and are limited. Innovation of loans and credit offerings have induced consumers to take risk beyond their means and they are willing to adopt higher risk in the form of debt. The risk would include risk of non-repayment of loans and risk of harassment from debt collectors. Easy availability of loans with minimum requirement during loan applications have resulted more people to obtain loans including unsecured loans such as credit cards and personal loans. These types of unsecured loans usually have higher interest rate and monthly instalment which may become a cause of indebtedness.

As such, further studies should be carried out to identify factors that lead to indebtedness, especially the perspective of physiological and behavioral factors, which in turn could prompt action plan and strategies to prevent indebtedness. This would include comprehensive studies to measure causal relationship between financial knowledge and financial literacy, behavior, attitude and personality traits towards indebtedness. It is also crucial to identify the psychological and behavioral aspects which develop the actions towards indebtedness. Consequently, financial institutions would benefit by possibly offering better credit offering models. Most of the time, the assessment for loan approval by banks and financial institutions are done based on scoring method which measure the repayment capacity and are checked against the borrower’s repayment history through credit checking. This type of credit assessment does not consider behavioral and physiological factors such as financial attitude and personality traits of the customers. It is imperative to understand physiological factors of the borrowers from organizational viewpoint, this could prompt the actions to prevent indebtedness and could possibly enhance the proposition to assist loan defaulters.

6.0 Conclusions

(Flores & Vieira, 2014). The study from Achtziger et al., (2015) proposed that future research should attempt to validate the relationship of actual level of debts against the actual buying behavior. This can be done by linking self-control scale to behavior measures. Disney & Gathergood (2011) and Flores & Vieira (2014) highlighted that future research should investigate causal factors for the increase of debt, as well as the reasons for the increase in individual’s indebtedness.

The study regarding indebtedness is important to be carried out because there are less literatures analyzing the economic fundamentals explaining the increase of household indebtedness, particularly to the developing countries(Kim, Lee, Son, & Son, 2014). Demographic factors are important variables in many studies about indebtedness and financial literacy. Selected demographic factors including income, gender, marital

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status and race are included to investigate their impact on indebtedness. For example, whether lower income groups are more exposed to indebtedness vice-versa. Other example, whether younger group of married working adults have higher level of indebtedness in comparative to income.

Low income individuals not only caused poor mental conditions, but also could result lesser social participation and avoiding in the public activities (Drentea & Lavrakas, 2000; Marmot, 2002; Ochsmann et al., 2009) . Besides, indebtedness causes money related strain, associated with not having the capacity to consume necessary healthcare products and services such as healthier food and better clinical services.

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