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Psychological Factors' Influence on Consumers' Propensity to Indebtedness Applying the Behavioural Economic Theory

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Abstract: The purpose of this paper is to develop a conceptual model to examine the multidimensionality of psychological factors and its impact on the propensity to indebtedness. The background of psychological factor and the theory of behavioural economic serve as a starting-point to develop the conceptual model. From the extensive literature review, four dimensions of psychological factor were identified to construct the model. The model based on the psychological factor with respect to the propensity to indebtedness provides a basis for assessing the level of debt and the role of psychological factors under which the use of various aspects of psychological factors should be the further emphasis and enhanced. This finding suggests that psychological factors are not a panacea that can be enhanced but must be imparted gradually through awareness with a clear sense of impact to the propensity to indebtedness. Given that propensity to indebtedness are often detrimental to consumers' insolvency, it is appropriate for interested parties to invest time and effort to diagnose the influence psychological factors have on the propensity to indebtedness, hence, this model will prove valuable. This conceptual model provides an insightful foundation for the analysis of multidimensionality of psychological factors on the propensity to indebtedness.

Key words: propensity to indebtedness; psychological factors; behavioral economic
JEL codes: H63

1. Introduction

The consumption mechanises of cash disinvestment in the early nineteen centuries transformed into consumption via credit attainment. This is possible, owing to an efficient financial market through improved money cycle in the economic, it activated the credit consumption concept. Although debt financing was available earlier than the nineteen century, it played an insignificant role in consumers' consumption decision-making (Calder, 2009). The significant use of credit financing to attain ones' desired goods and services, shifted consumers' consumption decision-making behaviour. And, less focus was given to the financing cost involved in the use of credit facilities. Apart from that, lack of transparency by credit provides and awareness accretion by the credit attainder resulted into unnecessary use of credit financing by consumers that eventually lead to over

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capitalization or over indebtedness. Thus, despite the higher repayment been required for a specific form of credit attainment, its popularity is prevalent because it's used to meet their desired life-style, and also due to a surplus of credit provider (Dickson, 2017). Even though, influx in money cycle among the demander and supplier of funds complements the economic theory. The influx spending creates economic growth but excessive borrowing creates debt unsustainability (Devarajan et al., 1996; Barba & Pivetti, 2008). And, according to Tee (2016) Malaysia household debt to GDP ratio is at 89.1% in 2019, and the primary debt were used to attain real asset for long-term wealth creation (i.e. real estate and financial assets). The ratio of 89.1% mentioned earlier is relatively a high value, since Malaysia carries a developing status. Comparatively, the household debt to GDP of America a developed economic was at 130% in Q4 2007, caused credit unsustainability (Shanmugan, 2014). Conformed by Yellen (2009), a massive credit crunch been experienced by financial institutions due to unserved credit owing, mainly caused by decrease in spending resulted from the increase in unemployment. Thus, the occurrence of credit crunch served as a factor towards Americans' 2008 economic recession. Thus, the lesson learned is an inability of a consumer in serving their credit facilities during an adverse life events (i.e. unemployment) could contribute to the economies unsustainability. However, consumers' inability to service their credit commitments is not limited to their adverse live events, additionally, it could cause by their inability to channel cash inflow for a more significant use (Lea et al., 1995). Thus, to serve due debt, creditors engages into debt-roll-over which ultimate toward higher interest charges. This inability to comprehend their actions is termed as an irrational consumption decision making behaviour (Katona, 1975). Hence, in this study consumers' irrational behaviour is viewed as psychological factors. Thus, comprehension into primary psychological factors to consumers' propensity to indebtedness is useful. Thus, this study could add to the existing body of knowledge form regional demission. The remainder of the paper is structures as follows: literature review on the significance of various psychological construct and the propensity to indebtedness. Next, a comprehensive conceptual framework is developed to depict the relationships among psychological factor and the propensity to indebtedness, followed by the formulation of the propositions. This paper finishes with implications from both practical and theoretical perspectives, and end with a conclusion.

2. Literature Review

2.1 Psychological Factors and Propensity to Indebtedness

Psychological is a study of mental processes, consisting memory, perception, problem-solving, creativity and thinking (Gerrig & Zimbardo, 2002). It is defined as an individuals' irrational decision making behaviour been bounded by their unconscious reflexes, skills and habits and they may also be influenced by their perception of a given situation, events and circumstance (Thaler, 2005; Schwartz, 1998). In the modern multidisciplinary research, integration between economic and psychological is termed as behavioral economics. The economic and psychology factors are effective complements, since humans' behaviour undergoes changes during an adverse economic circumstances therefore exploring a consumers' consumption decision making is useful (Frydman & Camerer, 2016; Anand & Lea, 2011). This study renders its usefulness by viewing at the influence of psychological factors (i.e., emotion, risk perception, overconfidence and myopic) towards consumers' consumption decision making (i.e., propensity to indebtedness). The propensity to indebtedness is defined as subjective measure of debt been consumed, or debt consumption decision-making (Flores & Vieira, 2014) which advocates this study. And, this study would be observing at the main factors that influence individuals' consumption behaviours leading to propensity to indebtedness. The underpinning theory used is behavioural economic theory (BET), it's a sub-field of behavioural finance. The BET combines descriptive and normative model of human's behaviour, where their tendency to violate economic rationality by underestimation and overestimation is highlighted. To elaborate, an individuals' decisions to consume in the present time are based on anticipated further income, individuals tend to overestimate their future income and underestimate their future expenditure, which would cause them financial incapacity. Since, economic rationality is violated, consumption decision is made based on both economic and non-economic factors (i.e., psychological and sociological) (Thaler, 1980, 1994, 2005; Bazerman, 2005). The non-economic factor is classified as bounded rationality or descriptive model (i.e., unconscious reflexes, skills, and habits) and humans decision-making are found significantly affected under risky and uncertain circumstances (Simon, 1997). The BET stated individuals' irrational decision affected by emotion and cognitive factors to consume under risky circumstances is based on the principles of prospect theory (Kahneman & Tversky, 1979). Risk or uncertainty is caused by a difficult financial situation (i.e., financial incapacity due to uncertainty in income and expenditure) resulting higher debt accumulation or indebtedness (Flores & Vieira, 2014). Therefore, for the purpose of this study, psychological factors (i.e., emotion, risk perception, overconfidence, myopia) effecting an individuals' consumption decisions-making or consumers' propensity to indebtedness is observed. And, subsequently before observing in depth into the empirical papers for the development of the conceptual model that was partly adopted from the empirical papers mentioned above, in the next section the empirical concepts of perceived indebtedness are observed.

2.1.1 Emotion

Schwartz (1998) defined emotion (i.e., positive or negative) has a biases cognitive affective effecting individual under a risky or in an uncertain situation (i.e., high on debt). The three main categories of emotion are background emotions (i.e., long-lasting), primary emotions or positive (i.e., apathy are expressed), and social emotions or negative (i.e., jealousy, embarrassment and pride) (Vikan et al., 2009). According to Flores & Vieira (2014) using structural equation modelling, apart from other variables also found, negative emotion results into low level debt accumulation. Thus, justifies shame, pride and nervousness disengage an individual from the attainment of higher debt. The study by Miltenberger et al. (2003), found negative emotion (i.e., sad/depressed, tense/anxious, bored, self-critical and angry) mediated trough compulsive buying behaviour would lead to high debt attainment. Next, Achtziger et al. (2015) found compulsive buying has a direct positive relationship with debt attainment. However, it contradicts with Flores & Vieira (2014), whom which has indicated, various other negative social emotions, such as, shame, pride and nervousness would reduce the propensity to indebtedness. Thus, as for the relationship between emotion and levels of debt, based on various pervious research works, it's evident that negative social emotions and negative primary emotions, would contradictorily decreases and increases the levels of debt respectively, and also, positive social emotions found to increase the levels of debt. Therefore, from this current research work the influence of social and primary emotion towards propensity to indebtedness will be analysed, apart from that, the interacting influence of psychological factors (i.e., emotion), towards the propensity to indebtedness among working adults in Malaysia would be explored. Therefore, the following proposition is presented.

P1: Greater emphasis on the emotion factor will lead to a lesser propensity to indebtedness.

2.1.2 Risk Perception

An individual's risk perception is defined as risk a consumer believes exists in the purchase of goods or services (i.e. excessive borrowing), whereby, risk is generalized as uncertainty or change of a given situation from the norm, and, perception is the judgement of an individual (Solvic, 1987). And, according to Bauer (1960) as cited in Mitchell (1999), a renowned consumer behaviourist, initialled the concept of perceived risk in the perspective of consumer financial decision making. Thus, consumers' consumption behaviour would involve risk due to the uncertainty in the result of consumption decisions, since it is possible to be pleasant or otherwise.

Emprically, Bernstein (1996), has conceptualized risk perception and decision making in a volatile environment (i.e., attainment of credit), by which it overcome an individual's uncertainty to further attain credit, or vice-versa. Apart from that, Sjoberg (2000), found a relationship between attitude and perceived risk. Thus, it further justifies that, cognitive psychology constructs as an interacting effect. Next, Keese (2010) reported the insignificance in relationship between risk perception and level of debt. However, Garling et al. (2009), states that issues of risk has an essential component on respondent's decision making and found a significant relationship between risk perception and level of debt. Lastly, Fellner & Maciejovsky (2007), analyst the influence of risk perception and individuals' investment behaviour into the trade market (i.e., binary lottery choices), where 280 respondents were observed. The study found, high risk perception leads to lower market activity (i.e. consumption) and women were found to have lower risk perception compared to men. Thus, lower risk perception leads to lower propensity to indebtedness. Past researchers offer various result, therefore, the relationship between risk perception and propensity to indebtedness is important to be observed in a Malaysian context. Therefore, the following proposition is presented.

P2: Greater emphasis on the risk perception will lead to a lesser propensity to indebtedness.

2.1.3 Overconfidence

Overconfidence is derived from the behavioural economic theory (i.e., heuristic biases). This study would focus on two heuristic biases factors (i.e., overconfidence and myopia). It is defined as individuals' resistance to request for assistances (information search, planning and calculating) and spends lesser duration in their decision-making process (Perry & Morris, 2005). This study conforms to define overconfidence as per the previous researchers (Smith & Barboza, 2013; Verma, 2017; Malmendier & Tate, 2005), which states that overconfidence is the biases human nature on their self-measure of financial knowledge versus the actual financial literacy level. Empirically, Verma, 2017, states self-assessed financial knowledge could render into irrationality (i.e., negative impact) on individual which could positively impact their financial behaviour. However, irrationality towards financial literacy level lead to higher debt or propensity to indebtedness (Smith & Barboza, 2013; Verma, 2017). Next, Graham et al. (2009) found overconfidence (i.e., knowledgeable) causes into engagement of negative trading behaviour results to negative financial decision making (i.e., investment and consumption decision-making). The study by Perry & Morris (2005) states overconfidence affects saving, spending and planning behaviour which translates to consumption decision-making or propensity to indebtedness, also supported by Fernandes et al. (2014), Huston (2010). Thus, self-comprehension of one's financial acquaintance would reduce an individuals' overconfidence, which would constitute to a greater control in their spending decisions (i.e. consumption financial decision-making), or, in other words, overconfidence of an individual results into higher debt accumulation. Having said that, similar research in the Malaysian context is inadequate, therefore, through this research work the psychological determinant (i.e., overconfidence) can be generalized, in a local perspective. Therefore, the following proposition is presented.

P3: Greater emphasis on overconfidence will lead to a lesser propensity to indebtedness.

2.1.4 Myopia

Myopic is a heuristic bias under the behaviour economic theory, and defined as individuals' excessive risk taking behaviour. Empirically, greatly been emphasis on effect of myopic behaviour on fiscal or government debt and lesser been focus on the private or public toward excessive debt accumulation (i.e., propensity to indebtedness) (Ru & Schoar, 2016; Wenzel, 2014; Gabaix & Laibson, 2006). The study by Kosfeld & Schuwer (2017), myopic behaviour causes inability in comprehending additional cost. Thus, lack of cost comprehension results into, the unawareness in absorption of additional product cost. Hence, such consumers purchase base on initial product cost, but failing to observer the subsequent cost of the product purchased, and it leads consumers into high debt accumulation. Therefore, Wenzel (2014) found firm that presented a more transparent information about the additional cost, the myopic consumer easily repeals against specific consumption due to higher add-cost. Literature also states, business competes into exploiting an imperfect consumer (i.e., myopic). The study by Spiegler (2006); Piccione and Spiegler (2012) found, business use multiple price elements, which require evaluation to infer into total price. However, in such situations consumers significantly makes decision based on single price element. The study by Ru & Schoar (2016) mentioned credit card issuers rely on back load fees, that targets myopic consumers, charging low annual payment rates but high late and over limit fees. Study of the myopic behaviour among individuals and the propensity to indebtedness is useful to be observed, since, Malaysian are found to be highly in debt mainly due to credit card loans. Therefore, the following proposition is presented.

P4: Greater emphasis on overconfidence will lead to a lesser propensity to indebtedness.

2.2 Research Framework

As for the independent variables, the present study applies a psychological factor from the behavioral economic model. This factor is widely used in many consumption decision-making studies and often investigated as one of the solid sets in replication studies. Hence, the seven influences of emotion, risk perception, overconfidence, myopia, money attitude, financial literacy, and compulsive buying are applied to represent the psychological construct in this study. As for the dependent variable, propensity to indebtedness is examined in this study.

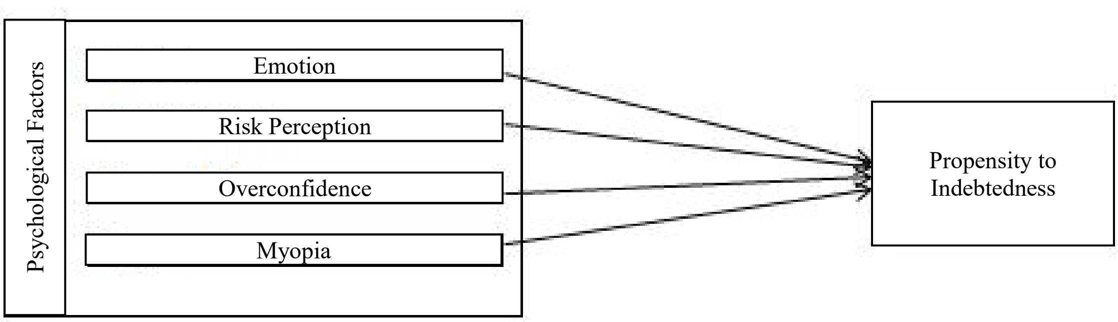

Figure 1 A Model of Effects of Psychological Factors on Propensity to Indebtedness

3. Practical and Theoretical Significance

The practical contribution of this study is the identification of main psychological factors that caused Malaysian to accumulate unreasonable amount of debt. Thus, through this identification, it would help the Malaysian credit counselling and debt management agency or "AKPK". This study aids into the identification of better suitable methods which controls unreasonable debt accumulation behaviours amid Malaysian. Furthermore, the study serves into the generalization across other regions with similar economic and cultural parameters. Next, policy makers could help be equipped with knowledge about the human behaviour that causes debt attainment. This study aims to develop a comprehensive theoretical model based on the behavioural economic theory (i.e., behavioural decision-making and prospect theory), which examines the influence of consumer decision-making which leads to consumers' propensity to indebtedness. And, empirically this study brings relevance to its research area, which is primarily issued in the context of economic psychology, consumer behaviour, social issues, and financial sustainability. As such, through this study, the factors which perhaps would be an influence to consumer propensity to indebtedness would be further identified. Apart from that, this study would also differ in the application of inconstant elements of the earlier mentioned factors. Furthermore, this study targeted geographic region is South East Asian specifically Malaysia, and owing to the scarcity of sufficient exploration of the earlier mentioned elements with the present of issues in the regional context; therefore, this study would be creating a new paradigm, which further can be expended by future researchers.

4. Conclusion and Implication of Study

In a nutshell, this study views at the relationship between four dimensions of psychological factors influence towards the propensity to indebtedness, into which past theoretical studies have yet to venture, contributing to the consumption decision-making applying behavioural economic theory literature bank. Findings gathered from the past literature confirmed that the awareness of the influence that psychological factor has on consumers' consumption decision-making would result in a better management of consumer psychological factors, which would bring improvement to their propensity to indebtedness. Many empirical studies are also present to confirm the importance of the psychological factors on consumers' consumption decision-making process. Such a conclusion brings about a deeper insight for researchers, policy makers, and consumers alike who are in search of newer insights and development in the area of consumption decision-making which could result into personal insolvency. Nevertheless, this research paper serves as an initial attempt to explore the relationship between psychological factors and the propensity to indebtedness. In order to establish the validity and practically of the model, further survey and research will need to be conducted in detail by using more advanced statistical tests, such as Structural Equation Modelling, to enhance and validate the model.

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