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The Influence of Financial Socialization, Financial Behavior, Locus of Control and Financial Stress on Young Adults' Financial Vulnerability

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Abstract

The degree of Malaysian household debt remains high, at present among the highest in Asia, raising concerns about its sustainability. Based on that existing issue and results of the several studies the question is arisen regarding what needs to be done to address the high levels of financial vulnerability experienced by the Malaysians, especially the young adults. Therefore, major objective of the current study was to examine the major determinants that affect financial vulnerability, and allow policymakers to address the above issue. A multi stage random sampling method was performed to draw a representative sample of Malaysian young adults, and 651 duly filled responses were received through the self-administered questionnaire. As stated by the multiple regression results, 53.1% of the total variance of financial vulnerability was explained by the model. Determinants of financial vulnerability examined by this study comprise financial socialization, financial behavior, locus of control, and financial stress; all of them were significantly related with the financial vulnerability and except financial stress, all other three determinants were shown negative relationships. Therefore, current study has both the theoretical and practical contributions, and offers experts with actionable insights regarding the determinants of young adults' financial vulnerability when designing policies to prevent them from moving from a state of lower to higher financial vulnerability overtime.

Keywords: Financial Socialization, Financial Behavior, Locus of Control, Financial Stress, Financial Vulnerability

Introduction

Malaysians are confronting an elevated economic risk, with decreasing monetary security leaving numerous people financially vulnerable. Especially, a rising number of young adults are struggling financially, which is negatively accompanying with well-being in numerous areas of their life (Serido & Deenanath, 2016). In terms of financial vulnerabilities, just about

33% of young adults are monetarily reliant on their guardians (FINRA IEF, 2013), and numerous live with their parents out of financial obligation (DeNavas-Walt & Proctor, 2014). Moreover, many young adults lack basic financial skills and knowledge (Babiarz & Robb, 2014). Finances are related with remarkable pressure for several young adults (American Psychological Association, 2018), and it is associated with increased physical health risks (Bemel et al., 2016), mental health risks (Eisenberg et al., 2001), and academic health risks (Kim, 2007). Hence, it is fundamental that we increase the financial well-being of young adults. This could be achieved via enhanced financial socialization (LeBaron et al., 2018). This is particularly timely given the present financial crisis because of COVID-19 associated restrictions, as previous studies suggest that the majority of the financially vulnerable young adults are frequently extremely affected by financial catastrophes (Kim et al., 2017). Furthermore, in case of a crisis, young adults attempt to diminish spending, and trying to adjust their financial plans better, which slows the economic regaining (Mian et al., 2013).

The current financial crisis due to COVID-19 pandemic plunged millions of people, especially young adults throughout the world into joblessness, savings deficit, and over-indebtedness. Anxiety regarding the higher degrees of borrowing and low degrees of savings as sources of individuals' financial vulnerability has been the focal point of conversations and research amongst many policymakers and stakeholders. The monetary crisis left many young adults across the globe over-indebted and unemployed with little or no savings, as a result making them feel financially vulnerable. In reality, as indicated by a report by the Organization for Economic Cooperation and Development (OECD, 2020), late advancements, for example, the COVID-19 crisis have driven numerous young adults to now be psychologically and financially vulnerable, and deepened the current vulnerability of, for example, low-income young adults.

Generally, financial vulnerability is accompanying with struggle in supporting financial consumption and commitments, with the threat of default (Kim, 2016). This can convert into young adults' failure to service debt and meet their fundamental day-to-day requirements without trouble. According to the data, Malaysian households aggregated debt was 88.4% of the gross domestic product (GDP) (Central Bank of Malaysia, 2016). In addition, Malaysia is existing among the top 15 nations with the most elevated household debt, together with a cluster of developed economies. Even though, the degree of debt comparative with income gives some sign of the individuals' financial circumstance, the nature of debt matters; this features the capacity of households to support their debts.

Even though, some past studies concerning young adults' financial vulnerability distinguished some drivers of financial vulnerability and hinted at potential explanations behind being or becoming financially vulnerable, possible determinants of financial vulnerability are still not explained the phenomenon completely. Further, while academics point out the significance of investigating young adults' propensity to drift toward higher vulnerability (O'Connor et al., 2019), and policymakers have observed that vulnerability is "a fluid state" which could be "temporary, sporadic or permanent" (Financial Conduct Authority, 2015, p. 7), research findings of significant determinants of young adults' financial vulnerability is still missing. Hence, the major aim of this study is to find out the important determinants that influence financial vulnerability of young adults in Malaysia, especially financial related factors; financial socialization, financial behavior, financial stress, and psychological factors, for example, locus of control. Further, unlike previous studies, current study examined these factors deeply, and measured them through the several items to represent all the aspects of the selected variables. Additionally, it was permitted authors to

study what aspects of the main determinants contribute more to identify the actual effect of their impact on financial vulnerability. Therefore, all the items of individual variables were described separately. Thus, this study addressed this gap and is the first to utilize the determinants such as, financial socialization, locus of control, and financial stress as influencing factors on financial vulnerability.

The rest of the paper is organized as follows. We first present literature review about the financial vulnerability and its determinants. Afterward, we explain the methodology that was used to conduct the survey, and then we present the results and discussion. Finally, conclusion and implications for practice were presented.

Literature Review

Financial Vulnerability

Financial vulnerability is conceptualized as “a state of powerlessness or limited ability to engage effectively in the marketplace, arising from an interaction of individual characteristics (e.g. cognitive capacity), individual states (e.g. life transitions), and external conditions (e.g. discrimination)” (Baker et al., 2005, p. 131). It alludes to “individuals’ subjective feelings (e.g., of distress, fear, worry, and concern) about being susceptible to financial hardship” (He et al., 2020, p. 86). Usually, financially vulnerable individuals experience “month-to-month fragility” (Salisbury & Zhao, 2019, p. 8), unable to meet even the basic expenditures, such as, paying groceries, rent, utilities and bills, and repaying debts (Brüggen et al., 2017).

Financial vulnerability also described as “the likelihood that an individual will experience financial hardship” (O’Connor et al., 2019, p. 425), and is driven by several other risk factors which were proved as important antecedents of financial vulnerability, for instance, low financial literacy, low income, high debt, or significant deviations in individual circumstances (Financial Conduct Authority, 2015; Poh & Sabri, 2017). Financial vulnerability has also been described and conceptualized more explicitly concerning admittance to low-cost credit, resulting in individuals borrowing at incredibly high rates, which represents a threat to both the purchaser and the financial institution that is granting credit (Akseli, 2012). The term “financial vulnerability” subsequently alludes to perceived threats to the financial situation of either the individual consumer or the household and the way in which the individual feels ready to manage the possible threat.

Financial Socialization

Financial socialization is “a process of learning and advancing values, knowledge, norms, standards, attitudes, and behaviors that promote financial viability and individual well-being” (Danes, 1994, p. 45). It is not only connected with managing money; it incorporates the advancement of principles, attitudes, values, and norms that would support or hinder the improvement of financial capability among people as well as enhance the well-being.

The adults learned the consumer knowledge and behaviors in their childhood via the interaction with socialization agents, for example, parents, other family members, peers, schools, and religion, then practice these knowledge and behaviors in their adulthood (Drever et al., 2015). Previous literature showed that several financial socialization outcomes of young adults are embedded in the financial socialization procedures came across in childhood (Gudmunson et al., 2015). Jorgensen et al (2016) researched the effect of financial socialization on financial decision making and expressed that people who had more chances to observe and interact with financial socialization agents behave well in taking financial decisions, and therefore, less financially vulnerable. Moreover, Rea et al. further confirmed these findings in 2019.

Financial Behavior

Financial behavior is “a pattern of action over time such as earning, saving, spending, and gifting” and includes “financial turning points and decision making” (Gudmunson & Danes, 2011, p. 650). It refers to human behavior’s that are related to the management of money, and accompanying with the financial behaviors, such as earning, spending, borrowing, saving, and protecting (Xiao et al., 2008). These behaviors are especially related to the personal finances (Xiao et al., 2014).

Financial behavior is also considered as one of the elements prompting high financial satisfaction and financial well-being (Coşkuner, 2016; Sabri et al., 2020a). Further, Fei et al. (2020) and Sabri et al. (2020b) detected financial behavior as one of the significant negative determinants among the Malaysian young employees. In a study by Hayes and Finney (2013) have measured the influence of financial behavior on the household financial vulnerability in measuring individual general financial position such as, an experience of financial difficulties, and projection of future financial position. Therefore, a negative association was evidenced between financial behavior and financial vulnerability.

Locus of Control

Locus of control denotes to “the tendency to perceive outcomes in life as a result of one’s own actions and thus being within one’s own control (i.e., internal locus of control), as opposed to being determined by external factors, such as chance or powerful others (i.e., external locus of control)” (Keenan & McBain, 1979, p. 280). Individuals who are having high internal locus of control regularly attempt to dominate their current circumstance, while those with high external locus of control frequently feel helpless because they perceive that outcomes in life are outside their own control (Keenan & McBain, 1979). Locus of control was first depicted as a personality trait alluding to an individual’s steady beliefs of personal efficacy (Rotter, 1966). Later, it has also been depicted as an adapting resource facilitating certain coping styles (Van den Brande et al., 2016).

Moreover, it has an effect on the behaviors as well as non-financial and financial preferences of the people (Kesavayuth et al., 2018). Locus of control is also linked to financial satisfaction (Sumarwan & Hira, 1993). Jorgensen et al (2016) claimed internal locus of control is more applicable in the studies correlated to individual financial management. In their study, Van de Venter et al (2012) revealed that the locus of control was positively related to the financial risk tolerance. If an individual has a high financial risk tolerance, their financial vulnerability is less. Hence, the locus of control has negatively influenced the financial vulnerability.

Financial Stress

Financial stress refers to “the force exerted on economic agents by uncertainty and changing expectations of loss in financial markets and institutions” (Cardarelli et al., 2011, p. 81). According to Hakkio and Keeton (2009, p. 15), several signs are accompanying with the financial stress, for example, “increased uncertainty about fundamental value of assets, decreased willingness to hold risky assets, increased uncertainty about behavior of other investors, increased asymmetry of information, and decreased willingness to hold illiquid asset”. Financial stress is measured with an index called the “Financial Stress Index” (FSI), where financial crises are declared as the extreme value of the scale.

Financial stress has been recognized as a solid indicator of both psychological and physical well-being, which is particularly pertinent to low-income households who fight with the realisms of monetary requirements consistently (Krameret al., 2019). It could be defined as “a state of arousal that negatively affects a person’s ability to adapt to different needs that

arise in their environment or from the absence of means that allow attainment of sought-after ends” (Pearlin & Bierman, 2013, p. 330). Besides, financial stress increases with anticipated monetary loss, with risk, or with uncertainty (Cardarelli et al., 2011), and cause financial vulnerability. Household’s demands include financial obligations such as paying the rent and buying food; they also include things that indirectly require money, such as caring for a car and keeping one’s house clean are often called day-to-day financial stressors (Reich & Zautra, 1983), and if an individual is unable to fulfill these demands of a family cause financial stress which direct them towards financial vulnerability (Reich & Zautra, 1983). Moreover, Huang et al.’s (2020) study was dedicated to exploring how financial stress correlates with financial vulnerability among older adults in China, Ghana, India, Russia and South Africa, and revealed that a positive relationship with financial stress and financial vulnerability. According to the above-discussed literature, the research framework constructed for the study is;

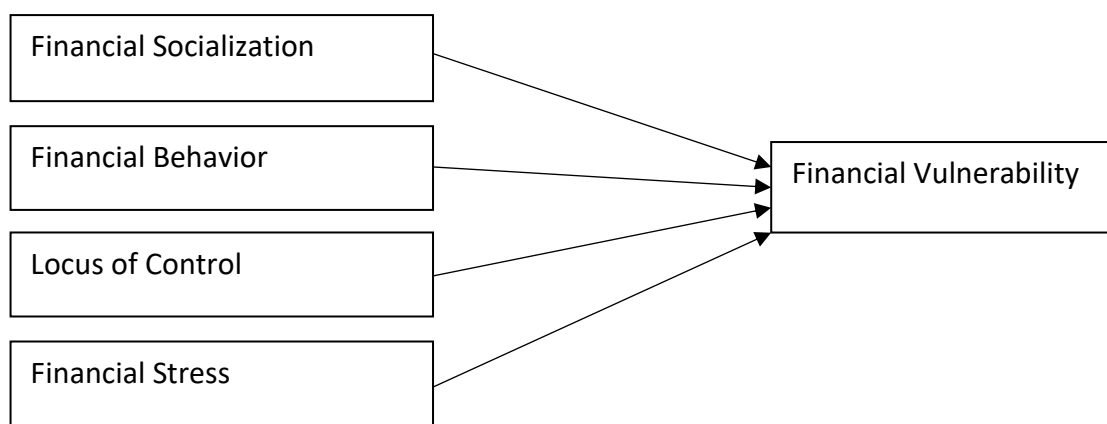


Figure 1: Research framework

Based on the available literature, and the research framework, accompanying hypotheses are;

H_{a1}: Financial socialization is linked negatively with financial vulnerability.

H_{a2}: Financial behavior is linked negatively with financial vulnerability.

H_{a3}: Locus of control is linked negatively with financial vulnerability.

H_{a4}: Financial stress is linked positively with financial vulnerability.

Research Methodology

Participants, Design, and Sampling

In the current study, a total of 750 Malaysian households who were in the age range of 18-40 were selected as respondents for the current study from five (5) zones in Malaysia (i.e. Central, Southern, Northern, Eastern, and East Malaysia) utilizing the multi-stage random sampling method, and therefore, 150 respondents were targeted from each zone mentioned above. A team of well-trained enumerators was engaged in the data collection process, and a structured questionnaire with open-ended and non-open ended items was used. After the discussion of the households, only the respondents who were ranged within the defined age category were selected for the survey. A series of pre-tests were completed to guarantee the validity, and reliability of the questionnaire, and the questionnaire items were revealed reliable and valid. Therefore, the questionnaire, which was used in pre-tests, was directly utilized to the final data collection process without any change. Because of final survey 651 duly completed questionnaires were received, and subjected to the data analysis. Descriptive

analysis and multiple linear regression statistics were performed with SPSS version 26. The demographic details of the respondents of the current study are given in the Table 1.

Table 1 : Demographics of the respondents

Variable	n	%
Gender		
Male	198	30.4
Female	453	69.6
Age		
< 20	23	3.5
20-25	400	61.4
26-30	68	10.4
31-35	78	12
36-40	82	12.6
Ethnicity		
Malay	530	81.4
Chinese	62	9.5
Indian	28	4.3
Others	31	4.8
Marriage Status		
Single	487	74.8
Married	151	23.2
Divorced	10	1.5
Widowed	3	0.5
Highest Educational Level		
No formal education	2	0.3
Secondary School	72	11.1
Tertiary Education	560	86

Out of 651 respondents, number of female respondents was doubled (69.6%) than that of male respondents (30.4%). The participated respondents were categorized in to five groups according to their age, and the lowest number of respondents was noted in the age category below 20 years (3.5%), while highest number of young adults was recorded in the age group between 20 and 25 years (61.4%). Most of the respondents were single (74.8%), and the highest number of respondents were Malay (81.4%), followed by Chinese (9.5%) and Indians (4.3%). In terms of education level, 86.0% was completed their tertiary education.

Variables Measurement

Respondent's financial socialization measurement was assessed using Manfrè (2017) and Lanz et al.'s (2019) financial socialization items. The construct was consisted of ten items with five-point Likert scale which was ranged from (1) strongly disagree to (5) strongly agree. Respondent's financial behavior measurement was assessed using Kim (2004), and Ismail et al.'s (2017) financial behavioral scales. In all, it consists of ten items with five measurement scale (1-strongly disagree to 5-strongly agree).

Locus of control measurement of the respondents was assessed using Van Daalen et al.'s (1989) perceived locus of control scale. It contains 19 questions with five point Likert measurement scale which was ranged (1) strongly disagree to (5) strongly agree. Young adults

were asked to answer if they were come across eight circumstances that pointed out their financial stress where statements were from Delafrooz and Paim (2013); Lim et al (2014). Mean score was used in order to determine financial stress of the respondents on a scale of "1" was the lowest score of finical stress (strongly disagree) and the scale "5" was the highest score of financial stress (strongly agree). Respondent's financial vulnerability measurement was assessed using Anderloni et al.'s scale (2012), which was consisted of ten items with five-point measurement scale (1-strongly disagree to 5-strongly agree).

Results and Discussion

Table 2 outlined the socio-economic profile of the respondents. Most of the respondents (53.5%) were students, and 29.8% were government and private sector employees. Only 10.4% was recorded under the category of unemployed. It is surprising to see more than fifty percent (57.6%) of the respondents did not have any income, while 5% of them had more than 7,101 RM monthly income. When considering the monthly income of the spouse, majority of them had < RM2,500, and 3.4% income was > RM7,101.

Table 2: Socio-economic characteristics of the respondents

Variable	n	%
Employment		
Unemployed	68	10.4
Civil/Goverment Servant	113	17.4
Private Sector Employee	81	12.4
Self Employed	27	4.1
Student	348	53.5
Others	14	2.2
Monthly Income		
No Income	375	57.6
< RM2,500	98	15.1
RM2,501-RM3,170	46	7.1
RM3,171-RM3,970	27	4.1
RM3,971-RM4,850	24	3.7
RM4,851-RM5,880	26	4.0
RM5,881-RM7,100	23	3.5
>RM7,101	32	5.0
Spouse Monthly Income		
No Income	9	1.4
< RM2,500	40	6.1
RM2,501-RM3,170	17	2.6
RM3,171-RM3,970	22	3.4
RM3,971-RM4,850	15	2.3
RM4,851-RM5,880	14	2.2
RM5,881-RM7,100	12	1.8
> RM7,101	22	3.4

Financial Socialization

The mean scores of the financial socialization statements are given in the Table 3. Based on the results, higher mean score shows respondent's positive financial socialization for the

particular behavior in personal finance, savings and financial attitude in managing financial management whereas lower mean score shows their less agreeableness.

Results showed that respondents have been taught since childhood by their parents about the importance of saving, and how to be a smart consumer have more positive influence on young adults managing money. Nevertheless, it also showed that the respondents were less agreed when they were enquired about their parents taught on how to use credit cards facility accordingly, how their parents discussed how to obtain a good credit assessment, and lastly on how they were discussed finances with their family. Past study revealed that students' financial behavior was governed by childhood financial knowledge, consumer experience, savings, and expenditure pattern (Sabri & MacDonald, 2010). Moreover, Mitchell et al (2006) added that education level can impact one's saving behavior too. Sadiq et al (2014) disclosed that education level, investment knowledge, income level, and investment experience influence the investor's financial behavior of risk tolerance.

Lusardi and Mitchell (2009) also revealed that higher self-confidence and financial literacy in financial knowledge increase the likelihood of retirement planning, and the importance of financial education was highlighted through this finding. Financial education will prepare people with the fundamental financial knowledge and boost the people's self-confidence in dealing with financial decisions.

Table 3: Respondents' financial socialization

Statement	Mean
1. My parents have discussed family finances with me.	3.77
2. My parents have told me about the importance of saving.	4.45
3. My parents have taught me how to be a smart consumer.	4.35
4. My parents have taught me how to use credit cards facility accordingly.	3.39
5. My parents and I have discussed how to obtain a good credit assessment.	3.59
6. My parents have discussed how to fund university / college education fees with me.	3.98
7. I make financial decisions based on what my parents have done in a similar situation.	3.79
8. In financial management, I look at my parents as my role model.	4.04
9. My parents became role models for me on how to manage financial matters.	4.05
10. My parents have a positive influence on me on managing money.	4.17

Financial Behavior

The mean scores of the financial behavior statements are given in the Table 4. Based on the results, higher mean score shows respondent's positive financial behavior for the particular behavior in personal finance whereas lower mean score shows their less agreeableness. Results showed that the respondents were more unified stating that they have long-term financial goals and strive to achieve the goals, regularly check the price of the goods carefully before buying any products, making savings to meet personal or family financial goals, and spend accordingly to their weekly or monthly budget. Nevertheless, it shows that the respondents were less agreed when they were enquired about their behavior in paying loan installment, making minimum payment for loan taken, and tracking their money spending.

Less perceived financial wellness was reported among the consumers who exhibits greater frequency of negative financial behaviors (e.g. late in paying bills) (O'Neill et al., 2005). In fact, Xiao (2009); Joo (2008); Garman and Forgue (2006); Joo and Grable (2004) and Parrotta and Johnson (1998) declared that financial behavior is the major influencing factor of one's financial status of satisfaction.

Table 4: Respondents' financial behavior

Statement	Mean
1. I spend according to my weekly or monthly budget.	4.05
2. I keep track of where my money is spent.	3.46
3. I set aside money for emergency expenses.	3.94
4. I save to meet personal / family financial goals.	4.18
5. I keep the purchase receipt.	3.55
6. I make the minimum payment for a loan taken.	3.31
7. I record my loan installment payment.	3.49
8. I am late in paying my loan installment	2.31
9. I check the price of the goods carefully before buying them.	4.33
10. I have long-term financial goals and strive to achieve them.	4.34

Locus of Control

Table 5 displays the mean scores of the statements which were used under the construct of locus of control. Based on the results, higher mean score indicates the degree of agreeableness towards the locus of control of the respondents on the particular dimension while lower mean score indicates less agreeableness. Results showed that the respondents were more agreed that whether they become rich or poor depends on their own abilities, savings and investments are the key to wealth accumulation and their life is determined by their abilities and actions.

Nonetheless, findings showed that the respondents were less agreed when they were asked about "there was nothing that a person can do to avoid poverty", "only those who inherit property or win cash prizes can become rich", and "they think their finances are mostly determined by others".

It can be concluded that the respondents feel that whenever they become rich or poor depends on their own abilities. Many times they have little influence over things that had happened to them which reflects the highest average score (mean = 4.37). Ganster and Fusilier (1989) stated that the locus of control was one of the significant determinant of well-being. Later, Spector et al (2002) added that locus of control as a universal component of well-being. Hence, an individual general beliefs in their personal control in life are essential. So, respondents believed that outside forces (externality) have influence their personal control in life which also impacted on their financial well-being.

The second highest score was about respondents feel that "savings and investments are the key to wealth accumulation" (mean = 4.32). Concurrently, the third highest score was about respondents feel about "my life is determined by my abilities and actions" (mean = 4.16). Statement that stating "there is nothing that a person can do to avoid poverty" was received the lowest average score of 2.29. This finding entailed that respondents feel they do not have control over their financial situation. This indicated that respondents' low stability

in believing in themselves (internal locus of control) would influence their financial well-being. As a result, respondents do not feel confident in their financial well-being. According to Weisz et al (1984) this is due to collectivist characteristics that are more emphasized on the secondary control.

Table 5: Respondents' locus of control

Statement	Mean
1. Savings and investments are the key to wealth accumulation.	4.32
2. Whether I become rich or poor depends on my own abilities.	4.37
3. My life is heavily controlled by unintentional things.	3.60
4. A person's is poor because they do not work hard.	3.15
5. There is nothing that a person can do to avoid poverty.	2.29
6. I think my finances are mostly determined by others.	2.45
7. If I make a plan, I make sure it will work.	4.14
8. Nothing can protect my savings from risk.	3.06
9. I got what I wanted because I was a lucky person.	2.95
10. Poverty can be eradicated by hard work compared to other things.	3.80
11. Even if I had the ability, I would not be rich without the help of individuals with power.	2.96
12. When it comes to finances, there are not many things I can do if I am poor.	3.22
13. If I become poor, it is my own fault.	3.34
14. A persons financial stability is based on luck.	3.07
15. I can determine my financial position.	3.91
16. I get what I want because I work hard.	4.07
17. My life is determined by my abilities and actions.	4.16
18. Fate will determine whether I become rich or poor.	3.01
19. Only those who inherit property or win cash prizes can become rich.	2.36

Financial Stress

Table 6 shows the analysis of financial stress that faced by the respondents based on mean scores. The statement "I worry if I am late paying the bills" indicated the highest percentage (4.16) among the responses. Second highest score was received the statement "I could not sleep because I was worried about paying the bills" (3.25). Meanwhile, the third highest score was exhibited by the depression and restless feelings with their current financial situation (3.22).

From the results, it was reported that worry in delay in paying bills, could not sleep because worried about paying the bills, and worried about current financial situation were among the most frequent situations that were experienced by the young adults for the past six months. Overdue payment can lead to interest charges and penalties. This may lead to money issues because people need to balance their finances and put them on the edge. The results also demonstrated that respondents felt worried and had less sleep because of concerned about paying their billing costs.

At this moment, with the increasing standard of living as well as the fast pace Malaysia's development make individual to easily fall sick either from the mild disease (i.e.

influenza) up to chronic disease (i.e. diabetes). Even though, health care was told to be exempted from the Goods and Service Tax (GST), but in reality not all of the health care product particularly medications in the private sectors are to be exempted. In line with that, Health Tracking Household Survey (HTHS) in 2010 (Carlson et al., 2012) divulged many respondents faced problems in paying off medical bills and some of them even have outstanding debt due to high medical bills.

Moreover, results found that respondents felt apprehensive regarding their current financial situation. With the new implementation of the Goods and Service Tax (GST) since April 1st 2015, people tend to be meticulous with their money. Not to mention that respondents have long term commitments in family development. So, Mills and Blossfeld (2005) said that it become a new challenge which requires a lot of commitments. The fluctuating price of goods, services and fuel also become worsen for them to survive (Cooley & Quadrini, 2006).

Employees who are experiencing high level of financial stress has the inclination to manage their financial issues, and spend time at their workplace by being upset on their personal finances instead of being productive. Due to the anxieties on personal finances might hinder their work as they might spend time of their paid working hour to discuss with their colleagues regarding their personal financial problems and settle their personal bills during the working hours. Under this circumstances, they were frequently reported to be inefficient and incompetent. It can be seen that financial stress not only convey negative consequences to the employees, but to their employers and their families (Employee Financial Wellness Survey, PwC, 2016).

Table 6: Respondents' financial stress

Statement	Mean
1. I worry if I am late paying the bills.	4.16
2. I could not sleep because I was worried about paying the bills.	3.25
3. I get depressed and restless with my current financial situation.	3.22
4. I can not afford (financially) to see a doctor when I am sick.	2.20
5. I cannot afford (financially) to get healthier food.	2.31
6. I have high blood pressure due to financial difficulties.	1.95
7. I am worried about medical expenses.	2.60
8. I became depressed as a result of thinking about financial matters.	2.66

Financial Vulnerability

The mean scores of the financial vulnerability statements are given in the Table 7. According to the results, higher mean score indicates the degree of agreeableness towards the financial vulnerability of the respondents on the particular situation, whilst lower mean score indicates less agreeableness. The findings showed that the respondents tend to agree that in the last six months, they were in a situation where the income that they received is not enough (3.11), they can't make savings every month (2.98), and the job they were involved in does not provide a stable income (2.82).

However, the respondents were less agreed when they were asked about the statement “I borrow money from unlicensed money lenders” (1.57), “I have an outstanding monthly loan” (1.91), and “I borrow to buy daily necessities (basic necessities)” (1.94).

According to the past studies financial vulnerability is not necessarily related to having high debt. Households might also be stated as stressed or vulnerable when they are unable to do what they want, for example, going out for a meal with family and friends, taking a vacation, or enjoying hobbies and leisure activities (Worthington, 2006). Households, especially low-income households are also considered vulnerable and fragile if they are unable to make ends meet and pay their monthly expenses or have outstanding utility bills (Bridges & Disney, 2004).

Regardless of whether the vulnerability is due to high debt or non-debt commitments, households might be vulnerable to adverse shocks due to the changing environment, for example, fluctuations in interest rates, changes in income or GDP, changes in asset prices, for instance, housing, or sudden unemployment (Kim et al., 2016). Further, vulnerable households usually experience with the deprivation (Narayan et al., 2000), which might result in low productivity levels in the workplace, financial exclusion, and absenteeism.

Table 7: Respondents’ financial vulnerability

Statement (In the last 6 months.....)	Mean
1. I can't make savings every month.	2.98
2. I do not have cash for emergencies.	2.64
3. The income I receive is not enough.	3.11
4. The job I am involved in does not provide a stable income.	2.82
5. I could not concentrate on work due to financial problems.	2.59
6. I depend on side jobs or overtime to finance the cost of living.	2.80
7. I borrow to buy daily necessities (basic necessities).	1.94
8. I borrow money from unlicensed money lenders.	1.57
9. I have an outstanding monthly loan.	1.91
10. I cant afford to spend money during the end of the month because I run out of income.	2.27

The multicollinearity for the determinants of this study is shown below in Table 8. All the determinants have a tolerance value of 0.2 and above. It implies that there is no multicollinearity among the predictors since the tolerance value is close to one. Also, all the predictors have a VIF value below five. It implies there is no existence of multicollinearity among the predictors because VIF is not a long way from one. The results displayed that the condition of proving is met and there is no correlation within the predictors. Therefore, multiple regression analysis could be performed.

Table 8: Tolerance and VIF Value

Variables	Tolerance	Variance Inflation Factor (VIF)
Financial Socialization	.791	1.264
Financial Behavior	.864	1.157
Locus of Control	.696	1.437
Financial Stress	.792	1.263

The Table 9 displays the multiple regression results of the four factors of the study, and explained 53.1% of the variance of the financial vulnerability, and the rest of the variance

would be clarified by the different other elements which were not used in the study. The beta values demonstrate the percentage of involvement of independent variables to describe the dependent variable, and the significant value may describe whether the effect of independent variables are significant or not when predicting the dependent variable. All four independent variables; financial socialization, financial behavior, locus of control, and financial stress were significant, hence, the hypotheses H_{a1} , H_{a2} , H_{a3} and H_{a4} were accepted. The variable, financial stress was the highest predictor of financial vulnerability of the Malaysian young adults (beta= 0.673).

According to the results, financial socialization, financial behavior, and locus of control were negatively predicted the financial vulnerability, and meanwhile, only financial stress was positively predicted the financial vulnerability. Furthermore, young adults with greater level of financial socialization, financial behavior, and locus of control have shown less financial vulnerability, conversely with higher financial stress level, a higher level of financial vulnerability was observed.

Moreover, positive financial socialization and financial behavior may support young adults to succeed their financial status via budgeting, and intensifying their determinations to earn better earnings, and secure their upcoming financial requirements. Based on the beta values, locus of control was become the second greatest predictor on financial vulnerability, and followed by financial behavior, and financial socialization.

Table 9: Multiple regression results of the determinants of vulnerability

Variable	b	Beta	t	Sig.
Financial Socialization	-0.063	-0.053	-1.691	0.02*
Financial Behavior	-0.085	-0.058	-1.856	0.02*
Locus of Control	-0.573	-0.203	-4.568	0.003**
Financial Stress	0.935	0.673	21.960	0.000**

$R = .731$; $R^2 = .534$; Adjusted $R^2 = .531$; $F = 184.587$; Sig. $F = .000$

* $p < .01$

** $p < .001$

Conclusion

In conclusion, a negative significant association was revealed between financial socialization, financial behavior, and locus of control towards financial vulnerability of Malaysian young adults, while a positive significant association was revealed between financial stress and financial vulnerability. The result also indicated that the financial socialization, financial behavior, locus of control, and financial stress are significant determinants of young adults' financial vulnerability and the 53.1% of the variance in financial vulnerability was explained by the regression model.

Implications, limitations and Future Research

As a practical implication, we offer policymakers and other practitioners actionable insights regarding the determinants of financial vulnerability of Malaysian young adults. Especially, these stakeholders and policy makers can get a lot of traction from concentrating on the vital characteristics of vulnerable young adults – for example, their financial socialization, financial behavior, locus of control, and financial stress– when formulating policies to prevent them from becoming or staying “trapped” in the state increased financial vulnerability.

Financial vulnerability may frequently happen intensely due to the unpredicted income shocks – for example, COVID-19 crisis – it is significant at such times that we help people feel capable to mentally overcome these financially stressful events, which needs to have sufficient financial socialization, and proper financial behavior. Therefore, governmental and non-governmental sponsored financial education, and counselling programs might be an ideal solution for the future in order to increase the Malaysian young adults' financial socialization, and financial behavior to reduce their financial vulnerability. According to the findings of Sabri and Wijekoon (2019), the promising results might be expected when designing those programs by giving special attention on young adults' gender and the ethnicity. Moreover, it is important to financially socialize the young children with the help of simple tools, for example, money kits to familiarize them on financial matters (Sabri et al., 2019) in order to reduce their financial vulnerability when they become to young adults. Moreover, the financial behavior enhancing programs, for instance, group workshops on proper financial practices or individual programs between financial counsellors, and working young adults, might help them effectively. It might be compelling in encouraging economic well-being in Malaysian young adults by reducing their financial vulnerabilities. Furthermore, decreased financial stress might assist them to be more focused on their studies to achieve higher results, and work environment to increase their productivity, thus benefiting the employers.

As usual, we have identified some limitations which are associated with our work, which offer promising avenues for future studies. Our data collection was straddled the COVID-19 pandemic period, which was identified as a period having more financial and psychological pressure. It might be ideal to study the determinants of young adults' financial vulnerability during less stressful times as well. Even though, the sample was drawn to represent the population, the size of the sample was N = 651. Future studies would be ideal to carry out with larger sample sizes. Moreover, future studies would include additional factors to reveal the mental nuances of financial vulnerability.

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