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FINANCIAL BEHAVIOR AMONGST UNDERGRADUATE STUDENTS WITH AND WITHOUT FINANCIAL EDUCATION: A CASE AMONG UNIVERSITY MALAYSIA SABAH UNDERGRADES

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ABSTRACT

The purpose of this research is to examine the effectiveness of selected independent variables toward individual's financial management practices amongst undergraduate students in University Malaysia Sabah. The selected independent variables are gender, ethnicity, geographical location, attending of financial education program and family's influence. Respondents were divided into two groups according to their participation of financial education course during their past semesters. The collected data were analyzed by linear regression and hierarchical regression. From the result of the study, it was concluded that family's influence has the most impact on the dependent variables in all the models.

PROBLEM STATEMENT

Scholars like Attanasio and Szekely (2001) and Laitner (2004) applied the life-cycle model into individuals' financial management, savings and financial behaviors. During the early stage of life cycle, individual will pursue for the accumulation of human capital including education, learning of skills and etc. The accumulated human capital will soon contribute to the momentum of wealth accumulation activities or household net worth accumulation. However, according to AKPK (2008) the increasing education fees, living expenses and individual's materialism desire; net wealth accumulation activities had declined sharply right after graduation. Despite the obligation to repay the educational loan (PTPTN), individuals might purchase the society comfort. This will push the youth further into debt's whirlwind. Credit card usage had circumed youth into the depth of financial crisis if they mismanaged. In certain circumstances, life becomes a debt repaying process.

During the middle stage of life cycle, individual had finally repay ther debt and a significant growing of the household income was gained. According to AKPK (2008), near retirement age, individual decided to send his/her children to pursue the higher degree of education abroad. APKP (2008) further claimed that most of the parents prefer to use their retirement fund to build up their children's human capital. At the end of the day, the children graduated and started another 'rat-race'.

According to Bank Negara Malaysia (2010), there are over RM27.1 billion outstanding bills of credit card until January 2010. From that amount, there are about RM24.7 billion that represent current outstanding while RM500 million remains unpaid. The findings show that card holders tend to be using the credit card for cash advance. Bank Negara Malaysia (2010) also claimed that, there is about 50 percent credit card holders who are under age of 30 years old that had filed bankruptcy due to the inability to pay their credit card payments. Also, National Higher Education Fund Corporation (PTPTN) of Malaysia (2010) sought that, there are more than 1.14 million borrowers of education loan since 1997 and more than RM2.61 billions had been disbursed; however, there is only RM1.22 billions or 46.7 percent had been recovered. Around 79,000 borrowers are black listed while 39,000 who never pay up were being restricted from leaving Malaysia to foreign country and also their names were published in the local newspapers.

Moreover, since most of the previous studies focus on western countries, thus, it might not be appropriate to apply in the context of Malaysia. Therefore, the research question of this study is to identify if financial education can influence financial management behavior and whether demographic variables can also justify the impact of financial education on financial management behavior.

RESEARCH OBJECTIVE

A study was conducted to determine whether financial management courses, family background, demographic similarities and geographical location can influence financial management behavior among undergraduate. The specific objectives of this study are:

a. To determine if financial management course influence financial management behavior.
b. To determine if demographic variables like gender and ethnicity can influence financial management behavior.
c. To determine if geographic location can influence financial management behavior.
d. To determine if family's influence can influence financial management behavior.
e. To determine if moderating variables like gender, ethnicity, and geographical location can influence the relationship between financial education and financial management behavior.

SCOPE OF STUDY

A cross-sectional research study was carried out to examine the relationship between individual's financial management behavior with demographic variables, family influence and financial education. The respondents of the study are undergraduate students in Universiti Malaysia Sabah (UMS). A bilingual questionnaire (English and Malay) was used as the instrument of research. There was a control group and treatment group in order to identify the effectiveness of financial education program in influencing individual's financial management behavior. Treatment group was the undergraduate students from Universiti Malaysia Sabah who have taken financial management subjects, meanwhile, the control group was opened to the students from Universiti Malaysia Sabah but haven't taken financial management subject. Pilot test was conducted before the research in order to identify the problems in the questionnaire and also aiming to increase the reliability of study. 50 questionnaires were distributed while conducting the pilot test. However, 500 questionnaires were distributed during the actual survey. Collected data were being further analyzed by the multiple regression analysis and hierarchical regression analysis.

LITERATURE REVIEW

Life-cycle model or 'overlapping generation model' and dynasty model are the most common model that economists use to describe individual personal saving behaviors, see Laitner (2004). The life-cycle model emphasized on the unevenness earning in individual life stages while the dynasty model described about the wealth which may inherent over the generation after. According to McGuigan, Moyer and Haris (2005) the life-cycle model or intertemporal consumption theory was first introduced by Ivring Fisher in The Theory of Interest. The model was related to the saving and consumption, which emphasized that individual gain highest saving during his/her middle age of life. However, in the research, the life cycle model which was developed by Milton Friedman was used as the embedded theory. According to McGuigan, Moyer and Haris (2005), the Milton Friendman's life cycle model predicts that during the schooling age and early of working life time, individual will borrow against their future earning and it might result individual's net saving falling. Furthermore, the net saving will increase sharply in the middle age and drop sharply during the retirement life. In the dynasty model, if someone is lucky enough, he/she might inherent the mighty wealth from his/her ancestor which might be an emperor of wealth. In the life cycle model, it stated that, for an individual, his/her net wealth accumulation will rise from youth to middle age and decline during retirement. However, in true life practice, individual's financial status might not always go smooth, therefore, the financial planning management becomes important.

According to AKPK (2008), the financial planning is a rationale thinking process, planning process, decision making process and knowledge about financial tools. Therefore, financial management is a combination knowledge of financial and psychological factors. It is because an individual need to know the financial products or tools in order to help them to generate revenue or leverage individual's debt. Also, it is a process of decision making which involve psychological factors. Scholars like Fisher and Montalto (2010), Tam (2008), Chang and Lyons (2008), Mandell and Klein (2007), Teichman, Bernheim, Cecconi, Novarro et al (2005), Bernheim and Garrett (1997) had examined the financial behavior through the perspective of psychological factors where they examined the motives, individual's risk tolerance, patient decision, financial decision and saving decision. Furthermore, Webly and Nyhus (2006) and Joo, Grable and Bagwell (2006) examined the individual financial management behavior through family influence.

Meanwhile, some other scholars like Bell, Gorin and Hogarth (2009), Agarwal, Amromin, Ben-David, Souphalo and Evanoff (2009), Scanlon, Buford and Dawn (2009), Dogany and Unal (2009) examined the effectiveness and sufficiency of the financial education and financial tools.

Fisher and Montalto (2010) claimed that savings goal has a significant relationship with the saving horizon especially saving for retirement, children's need and emergencies. However, for short term, it is not necessary to have a specific motive to increase the savings rate. Tam (2008) has a different point of view where he claimed that, decision makers in framing the savings tasks provide their savings estimate more concretely and specifically for shorter duration when compared to longer ones. Further more, Tam (2008) also claimed that individuals tend to set an unrealistic difficult saving target and end up with incomplete mission. However, the real reason had to be discovered whether is due to the individuals' characteristics or environment changes. This finding is in line with Mandell and Kleis's (2007), a clear and reachable goal is the key to motivate students to improve their financial literacy. Meier and Sprenger (2008) sought that patient individuals are more knowledgeable about personal finance management. Therefore, they are more likely to invest for long term goals.

Some scholars like Fisher and Montalto (2010), Cesarini, Johannesson, Lichtenstein, Sandewall and Wallace (2009), Throne and Porter (2007), Webly and Nyhus (2006), Canova, Rattazzi and Webley (2005) and Bernheim, Garrett and Maki (2001) examined individual's saving and investment behavior from the perspective of physiological factors. Individual's health condition always come in to consideration when dealing with financial management. Fisher and Montalto (2010) claimed that, poor health will negatively influence saving and this is supported by Throne and Porter (2007) where home and health related expenses will trouble people who will file for bankruptcy. Scholars concluded that poor health will lead to poor wealth because most of the health policies in most of the countries tend to be incomplete to cover their citizens' needs. Therefore, the needs of health insurance and emergency funds are increasing.

Scholars like Cesarini, Johannesson, Lichtenstein, Sandewall and Wallace (2009), Webly and Nyhus (2006) and Bernheim, Garrett and Maki (2001) examined the parents and genetic influences toward individuals' financial and savings behaviors. Interestingly, Cesarini, Johannesson, Lichtenstein, Sandewall and Wallace (2009) claimed that almost 25 percent portfolio of risk taker is due to genetic variation. In other words, parents or ancestors' genetics somehow will influence individual in making risk decision in 1 out of 4 cases. Webly and Nyhus (2006) claimed that there is a weak but clear significant relationship between parents' influences toward children's financial behavior from childhood to adult hood. The research further pointed out that, children have good relationship with family are more likely to be future oriented and have a good financial behavior. A future oriented person is define as the person who will take the distant consequences of possible behavior than immediate consequences. However, present oriented person will take immediate consequences of possible behavior. Webly and Nyhus (2006) further claimed that present oriented more likely to smoke and therefore, there is less income allocated for saving. However, Bernheim, Garrett and Maki (2001) claimed that, there is no evidence to prove the children of frugal parents will change their financial behavior after attending the mandate financial education program.

Canova, Rattazzi and Webley (2005) categorized individuals' motivation into several hierarchies. At the bottom of the hierarchy, Canova, Rattazzi and Webley (2005) sought the more concrete motivations, including saving for better house, a new car or a vacation. The desire to obtain buffer money is also another concrete motivation in saving. This finding somehow is in line with the foundation of emergency fund. The next hierarchy of saving motivation is saving for retirement, old age and illness. Saving for retirement is guaranteeing and maintaining a good standard of living after retirement; however, saving for old age and illness is assuring for the individual independence and autonomy. At the higher level of the hierarchy level, the saving motivation and goals are in line with The Maslow's theory where individuals save for self-gratification and self-esteem.

Scholars like Cesarini, Johanness, Lichtenstein, Sandewall and Wallace (2009), Meier and Sprenger (2008), Webly and Nyhus (2006), Lyons (2007), Rapp and Aubert (2007), Lusardi (2003), examined the influence of education level toward individual's saving behaviors and the net wealth accumulation. According to Lusardi (2003), household with lower education holding low financial net worth while household with at least college level education background tend to have more than twice the wealth of households with high school education. Furthermore, Lusardi (2003) found those households which precede at least high school education level tend to be holding stocks and bonds. However, Meier and Sprenger (2008) argued that the higher education level of respondents, the greater chances the corresponding person will join the voluntary financial education program. Individual with higher education will take the financial management as important skills in order to accumulate enough wealth for their retirement life.

Rapp and Aubert claimed that aggressive investor tend to have better education background. Webly and Nyhus (2006) claimed that husband who has higher education level is important for his household's bank saving. However, Webly and Nyhus (2006) also found an contrary phoneme where for those head of household with low education level tend to have higher bank saving than those head of household with middle education background. This phenomenon somehow needs to be further explored. Cesarini, Johanness, Lichtenstein, Sandewall and Wallace (2009) further found that education will influence individuals' risk portfolio in the financial decision making. For women, every additional one year of education will increase the portfolio risk for 0.07. However, for men, the increment is about 0.11 to 0.12 depending on cognitive ability is included as control or not.

Conceptual Framework

The research was developed based on the life cycle model by Milton Friedman that was used by Laitner (2004) associated with Lyons's (2007) study which examined the credit card practices and financial education needed by college students in US. The life cycle of economics was used in the research as the embedded theory. Furthermore, studies by Bell, Gorin and Hogarth (2009), Joo, Grable and Bagwell (2006), Edwards, Allen and Hayhoe (2007), Fuchs-Schundeln (2008) and Rapp and Aubert (2007) were used to develop the framework and questionnaire. Life cycle model divided people into certain birth cohort and education group. However, the research concentrates on the specific birth cohort and education group. The selected birth cohort is undergraduate students. Lyons's (2007) research framework was chosen to examine this selected target groups. In Lyons's research framework, undergraduates' financial management had been examined. Lyons (2007) suggested that there are several independent variables which would influence undergraduates' financial management. Those independent variables are demographical variables (gender and ethnicity) and attending of financial management program. Bell, Gorin and Hogarth (2009) research framework recommended that individual financial management behaviors are be influenced by demographic, understanding of financial education course. The study adopt the 7 dimension structured by Bell, Gorin and Hogarth (2009) to measure financial management behavior. The dimensions are 1, has six months emergency fund; 2, regularly save and check; 3, reading money management magazine; 4, outstanding bills; 5, budget spending; 6, track spending; 7, physically health impact. Despite demographic variables, Joo, Grable and Bagwell (2006) suggested that parents' influence is one of the significant and important factors that influence students' financial management behavior. Beside, Fuchs-Schundeln (2008) and Rapp and Aubert's (2007) independence variable, geographic locations, was contributed to the research framework and questionnaire. The dependent variable is financial management behavior. The research had conceptualized the independent variables into, 1, Demographic Variables; 2, Family's Influence, 3, Financial Education Program, 4, Geographic Location. Further analysis was carried out to confirm whether better results are possible if demographic variables such as gender, ethnicity and geographical location can influence the individual financial behavior as a moderator.

RESEARCH HYPOTHESIS

Based on the research framework (Figure 1), the model illustrated Respondent Characteristics influences on Saving Behaviors amongst undergraduate student of Universiti Malaysia Sabah (UMS). It comprises of four Independent variables and one Dependent variable. The hypotheses constructed for this research were:

H_1: Male can influence individual's financial management.

H_2: Female can influence individual's financial management.

H_3: Bumiputera can influence individual's financial management.

H_4: Non-Bumiputera can influence individuals' financial management.

According to the Lyons (2007), demographic variables such as ethnicity and gender would affect individual financial behaviors. Lyons (2007) claimed that, female, black, and/or Hispanic were more likely to face with financial crisis. However, Erskine, Kier, Leung and Sproule (2006) sought that there is no significant relationship between gender and individual's financial management.

H_5: Family's influence can influence individual's financial management.

Joe, Grable and Bagwell (2006) claimed that, parents who have financial problems are more likely to have negative influence toward students' financial behavior. Webly and Nyhus (2006) discovered that parents with long term orientation would influence their children to become long term oriented as well. The long term oriented is defined as peoples who are willing to 'pay' before they 'gain'. The more the parents discuss about the financial management, the greater the commitment of their children in managing their finance.

H_6: Participation in the Financial Education Program can influence individual's financial management.

Scholars like Lursadi (2003), Bell, Gorin and Hogarth (2009) sought that financial education would give positive influences toward participants especially those who came from low-to-middle household income family. However, Berheim and Garrett (1997) sought that there is no significant relationship between the financial education programs provided in the workplace with employees' household wealth.

H_7: The individual that originate from urban can influence individual's financial management.

H_8: The individual that originate from rural can influence individual's financial management.

According to Rapp and Aubert (2007), individuals who live in urban area are more likely to purchase Employee Stock Option Plan than those who live in rural area. There are differences of living status and living expenses between urban areas and rural areas, therefore, individual's money perceptions would be varied. However, Erskine, Kier, Leung and Sproule (2006) sought that there is no significant relationship between geographical location and individual's financial management behavior.

Based on the research framework (Figure 1), the following eight models were created where gender, ethnicity, geographical location, were treated as independent variables. The following models were being used in both treatment group and control group.

INSTRUMENTS DESIGN

A bilingual written questionnaire was used in the research. English was chosen to be the primary language in the questionnaire; however, the questionnaire consists of translated Malay version as well. The translation works were done by two independence translators whom talented in both English and Malay language. The two translated versions were combined together and the most appropriate nouns and words were chosen for the questionnaires by the third translators. These questionnaires were constructed by adapting and modifying related questionnaire on the topic. The questionnaires consist of 5 pages were divided into three sections which are A, B and C. The first page of the questionnaire is the letter of acknowledgement and the rest of the pages consist of questionnaire. Section A investigates the demographic information (gender, current CGPA, household income, ethnicity, geographical location of hometown and information about taken or not financial management subject). Section B measured the Independent Variables (Respondent Characteristics) specifically financial education program and parents' influence. Both Independent Variables were measure by Likert's Five (5) Point Scale (1 = Very Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Very Agree). Finally, Section C which consists of the Dependent variable (Saving Behavior) was measured with Likert's Five (5) Point Scale (1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Almost Always, 5 = Always) which adopted from Bell, Gorin and Hogarth's (2009) questionnaire.

In section B and section C, some reverse questions were designed in order to test the sincerity of respondents answering the questionnaires. Those reverse questions including section B, question 3B, 3D, 3F, 3H, 3J and section C, question 2A to 2O. Those questions' answers had been transformed back to the positive position during analysis.

Research Finding

500 questionnaires were distributed, however, only 413 questionnaires returned. Out of 413 returned questionnaires, 341 questionnaires were completed and valid for further research. Reverse questions were

transformed into the positive position and the mean of each variable had been calculated. Data were categorized into 2 groups the first group consist of those respondents who took financial management course during the previous semesters and the second group consisted of those respondents who never took financial management course. For each group, normality test had been done. In each group, mean of the dependent variables showed the nature of normality, linearity and homoscedasticity. In the control group, mean of family's influence was converted to the base-e logarithm value and the mean of education was converted to the absolute value in order to achieve normality, linearity and homoscedasticity. In the treatment group, mean of family's influence and education were converted to the base-10 logarithm.

However, there were 36 data evicted in order to get rid of outliers which may influence the results. First, in each group, multiple regression analysis had been done. The marginal effects of the variables with their respective t-statistic (in parentheses) are presented in Table 4.3 and Table 4.4; Chapter 4. This followed by the hierarchical regression test had been done in order to further analyze whether better results are possible if variables such as gender, ethnicity and geographical location can influence the individual behavior as a moderator. During data collection, ethnicity had been categorized into two groups which are Bumiputera and non-Bumiputera. Bumiputera and Malay were transformed under Bumiputera while Chinese, Indian and others were transformed into non-Bumiputera group. The transformation step is necessary in order to apply dummy variables on ethnicity. Dummy variables were created in order to run the above regression tests.

Descriptive Statistics

Table 1 indicates descriptive analyses of variables before evicting outliers. Regardless of individual's financial management behavior, a large portion of respondents reported were female (76.5 percent or 261 respondents). In the research, distribution of ethnicity between Bumiputera and non-Bumputera is quite equally. Bumiputera who contributed to the research reported as much as 52.2 percent or 178 respondents. In term of geographical location, respondents originated from rural area is about half of the respondents who originated from urban area. The frequencies of respondent from rural area were recorded as 121 cases or 35.5 percent from total respondents. 66.6 percent or 227 respondents were participating or attending the financial management course during the previous semester. The mean of each variable was recorded. The respondents of research are more likely to be female, came from urban area, Bumiputera and took the financial management course during the past semesters.

Table 2 indicates that the descriptive analysis of variables such as financial education, family's influence and financial behavior. For the financial education, the minimum value is 2.14 and the maximum value is 5.00. The mean of financial education is 3.8039. For the family's influence, the minimum value is 2.00 and the maximum value is 5.00. The mean of the family's influence is 3.7749. For the financial behavior, the minimum value is 1.40 and the maximum value is 3.80. The mean of the financial behavior is 2.6607. From the Table 2 it may conclude that, respondents tend to be having above average financial literacy, influenced by family in financial practices but proceeded with below average financial behavior.

RELIABILITY TEST

Table 3 show the summary of reliability test for each variable which used likert-5 scales in the questionnaires. The reliability test for each independent variable improve to the level of 0.650 after deleting 1, 3 and 6 questions accordingly to Financial Education, Family's Influence and Financial Behavior.

HYPOTHESIS TESTING

In the multiple regression analysis, the R^2 value for treatment group is 0.082 (Table 4) and it means that 8 percent changes in financial management behavior is influenced by gender, ethnicity, geographical location, family's influences and financial management education program. The estimated F statistic of 3.451 (significant < 0.05) is more than the critical value of F indicating that the data was fit to the model. However, the R^2 value for control group is 0.220 (Table 5) and it means that 22 percent changes in financial management behavior is influenced by gender, ethnicity, geographical location, family's influences and financial management education program. The estimated F statistic of 5.575 (significant < 0.05) is more than the critical value of F indicating that the data fits the model.

Hypothesis Testing Of H_1

H_1: Male can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of gender is 1.150 (significant > 0.05) if the dummy variables domain by Male. Since the p-value is greater than 0.05, thus, the hypothesis, H_1 can be rejected. Moreover, in the control group, the t-statistic of independent variable of gender is 1.424 (significant > 0.05) if the dummy variables domain by Male (Table 5). Since the p-value is greater than 0.05, thus, the hypothesis, H_1 can be rejected.

Hypothesis Testing of H_2

H_2: Female can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of gender is -1.150 (significant > 0.05) if the dummy variables domain by Female. Since the p-value is greater than 0.05, thus, the hypothesis, H_2 can be rejected. Moreover, in the control group, the t-statistic of independent variable of gender is -1.424 (significant > 0.05) if the dummy variables domain by Female (Table 5). Since the p-value is greater than 0.05, thus, the hypothesis, H_2 can be rejected.

Hypothesis Testing of H_3

H_3: Bumiputera can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of ethnicity is -0.481 (significant > 0.05) if the dummy variables domain by Bumiputera. Since the p-value is greater than 0.05, thus, the hypothesis, H_3 can be rejected. Moreover, in the control group, the t-statistic of independent variable of Ethnicity is 0.091 (significant > 0.05) if the dummy variables domain by Bumiputera (Table 5). Since the p-value is greater than 0.05, thus, the hypothesis, H_3 can be rejected.

Hypothesis Testing of H_4

H_4: Non-Bumiputera can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of ethnicity is 0.481 (significant > 0.05) if the dummy variables domain by non-Bumiputera. Since the p-value is greater than 0.05, thus, the hypothesis, H_4 can be rejected. Moreover, in the control group, the t-statistic of independent variable of Ethnicity is -0.091 (significant > 0.05) if the dummy variables domain by non-Bumiputera (Table 5). Since the p-value is greater than 0.05, thus, the hypothesis, H_4 can be rejected.

Hypothesis Testing of H_5

H_5: Family's influences can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of family's influence is 3.627 (significant < 0.05). Since the p-value is less than 0.05, thus, the hypothesis, H_5 can not be rejected. Moreover, in the control group (Table 5), the t-statistic of independent variable of family's influence is 4.305 (significant < 0.05). Since the p-value is less than 0.05, thus, the hypothesis, H_5 can not be rejected.

Hypothesis Testing of H_6

H_6: The participation in the Financial Education Program can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of financial education program is 0.516 (significant > 0.05). Since the p-value is greater than 0.05, thus, the hypothesis, H_6 can be rejected. Moreover, in the control group (Table 5), the t-statistic of independent variable of financial education program is 0.251 (significant > 0.05). Since the p-value is greater than 0.05, thus, the hypothesis, H_6 can be rejected.

Hypothesis Testing of H_7

H_7: The individual that originate from urban can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of geographical location is -1.577 (significant > 0.05) if the dummy variables domain by urban. Since the p-value is greater than 0.05, thus, the hypothesis, H_7 can be rejected in the treatment group. Moreover, in the control group, the t-statistic of independent variable of geographical location is -2.518 (significant > 0.05) if the dummy variables domain by urban (Table 5). Since the p-value is greater than 0.05, thus, the hypothesis, H_7 can not be rejected in the control group.

Hypothesis Testing of H_8

H_8: The individual that originate from rural can influence individual's financial management.

According to the result of multiple regression in treatment group (Table 4), the t-statistic of independent variable of geographical location is 1.577 (significant > 0.05) if the dummy variables domain by rural. Since the p-value is greater than 0.05, thus, the hypothesis, H_8can be rejected in the treatment group. Moreover, in the control group, the t-statistic of independent variable of geographical location is 2.518 (significant > 0.05) if the dummy variables domain by rural (Table 5). Since the p-value is greater than 0.05, thus, the hypothesis, H_8 can not be rejected in the control group.

IMPLICATION AND DISCUSSION

From the hypothesis testing, demographic variables such as gender and ethnicity are not significant predictors which may influence individual's personal financial behavior. The findings are inline with Meier and Sprenger (2008) and Ozgen and Bayuogiu (2005). Meier and Sprenger (2008) who claimed that demographic variable doesn't have significant influences toward individual's financial management behavior. The finding also supported the study by Prince (1991) who sought that gender effect wasn't a significant factor to influences individual money attitudes. However, the contradicting finding doesn't support Lyons (2007), Floro and Seguino (2002) and Cesarini, Johanness, Lichtenstein, Sandewall and Wallace (2009) findings. Since the respondents were made up by undergraduate students and they were having less financial obligation or debt than working adult, therefore, the finding doesn't support scholars like Floro and Seguino (2002) and Cesarini, Johanness, Lichtenstein, Sandewall and Wallace (2009) whom used working adult as respondents.

In order to confirm whether better results are possible if demographic variables such as gender, ethnicity and geographical location were used as moderating variables in influencing the individual financial management behavior in the research, data were further tested using hierarchical regression analysis. Result of hierarchical regression analyses were presented in the Table 6 until Table 11. Although the R^2 value was increased through the model, however, the F-statistic decreased but still remained statistically significant. As estimated, the demographic similarities are not statistically significant in influencing the independent variables like family influence and financial education towards financial management behavior. The findings further support the finding through the linear regression analysis. Erskine, Kier, Leung and Sproule (2006) further claimed that students who working as part time will save more money than non working students. In University Malaysia Sabah, students are prohibited to do part time job during their study period. Therefore, the finding by Erskine, Kier, Leuing and Sproule (2006) somehow further explain the findings.

Family's influence is the only independent variable which has significant influences toward dependence variable of individual's financial behavior. The finding is inline with the findings by scholars like Joo, Grable and Bagewell (2006) and Webly and Nyhus (2006). As suggested by Webly and Nyhus

(2006), a long term oriented parent will influence their children to become long term oriented as well. Family are the While growing up, parents should become the role model of their children in managing their financial. Norvilitis and Maclean (2010) further claimed that college student' financial problems such as credit card debt are significant related to their parents' influences. Childhood is the most important period to form up individual's behavior and attitude during their adulthood. Therefore, parents play an important role to influence children in managing their financial.

In additional, for the hierarchical regression analysis, the p-values are still significant. However, the moderator variables such as gender, ethnicity and geographical location had reduced the T-values of family's influences. Thus, the family's influence is effective predictor toward the individual's financial management behavior; however, the predictor doesn't moderate by gender, ethnicity and geographical location. Which means individual's financial management behavior would be influenced by family's influences regardless of the respondents' gender, ethnicity and also geographical location.

Furthermore, attending/participant of financial education program is not statistically significant toward individual's financial management behavior. The finding doesn't support the findings by Lursadi (2003), and Bell, Gorin and Hogarth (2009). According to Lyons (2007) claimed that, most of the college students would participant the financial education program if and only the course provide course credit. On the other hand, their intentions to register the course were not learning the financial management skills and apply it in the daily practices. Furthermore, Chong and Lyons (2007) claimed that financial education program gave the positive impact toward the financially disadvantaged consumers. However, the respondents in the research were undergraduate students and they bear less debt than those working adult. Therefore, the financial management course is not statistically significant toward dependent variable.

Lursadi (2003) claimed those households which precede higher education tend to have better financial management behavior and knowledge. This notion somehow describes the findings. Furthermore, undergraduate students don't need to pay so much debt then working adult and they can manage their financial more easily. Thus, they have less chance to become financially at risk and the financial management course doesn't significantly influence their financial behavior.

For the variables geographical location, the result discovered some interesting phenomena. The findings are insignificant in the treatment group however, it become significant in the control group. It means that without taking financial education into consideration, respondents from rural area are more likely to have better financial management behavior. The finding doesn't support scholar like Rapp and Aubert (2007) and Fuchs-Schundeln (2008). Rapp and Aubert (2007) claimed that individual who live at urban tend to be invest more in Employee Stock Purchase Plan. However, invest more in Employee Stock Purchase Plan doesn't fully reflect an individual financial behavior. Living expense in rural area tend to be lower than urban area and the perception toward money attitude would different from respondent from rural area. Thus, respondents from rural area perceived better financial behavior in daily practices. Furthermore, in the hierarchical regression analysis, geographical location become insignificant in both groups. Moreover, it reduced the T-statistic in the models.

As a conclusion, family influence is the only significant predictors toward individual's financial management behavior in both groups. Geographical location can influence individual's financial management behavior in control group. Gender, ethnicity, and financial education program isn't the significant predictors toward individual's financial management behavior. Thus, the objectives had been achieved.

Campus administrators are facing with a number of challenges in designing programs and providing resources in order to provide the financial education for undergraduate students. Therefore, the research had more or less contributed to enhance the understanding of campus administrators toward undergraduates' financial behavior. Since undergraduates have different background, needs and desire. Hence, the concept of 'one size fit for all' can't apply in the real world practices.

The intention of providing financial education program toward undergraduate students is good; however, there are some consideration should come into account. The financial education program which provided in Universiti Malaysia Sabah considered as the big group base. This might reduce the effectiveness of delivering the course study. Moreover, the intentions of undergraduates to enroll to the financial education program are vary; therefore, undergraduates might forget what they learn in the end of the day. The one to one counseling program in financial aid office is recommended. Through one to one counseling program, undergraduate who is financially at risk might get the most significant advices or solutions to resolve their problems.

Campus administrators should set up and promote the financial aid office inside the campus. The financial aid office is aiming to provide the financial counseling for the undergraduates who financially at

risk. Furthermore, the effective promoting of financial aid office also an essential in order to increase the awareness of financial aid office.

In term of consideration of resources, Universiti Malaysia Sabah is recommended to cooperate with *Agensi Kaunseling dan Pengurusan Kredit (AKPK)* to provide the financial counseling and courses for undergraduate students in Universiti Malaysia Sabah. By using the real time cases or examples, undergraduate students may have better understanding toward the financial education programs.

Financial education program not only become the 'solution' for those who are financially at risk; however, it is becoming a 'prevention' step to avoid undergraduate students from being financially at risk. Hence, the financial education seminar should be provided during the orientation week for the freshmen. These might somehow prepare them to become a better financial planner during their campus life. Furthermore, the financial aid office should consider train a group of student in order to approach the undergraduate students who are financially at risk in deeply. The trained undergraduate students somehow replenish the financial aid office's task to the unreachable depth.

The utilization of the internet facilities should become one of the methods in delivering the financial information to students. Internet considered as the fast and cost efficiency way in delivering financial information. However, campus administrators also need to be caution while choosing internet facilities as their delivering method. It might become a limitation while large portion of undergraduate students are not able accessing into the websites or internet due to certain reasons such as internet facilities are slow or limited in the campus area.

For the government agencies, it is advised to organize more seminars or activities. The activities are aiming to encourage whole family members to participant. Since the finding of research indicate that parent's influence is the only variables which can influence individual's financial management behavior significant statistically, thus, the activities might somehow enrich the financial literacy not only for parents but children as well.

LIMITATION AND RECOMMENDATION

Cross-sectional study was chosen as the method of study in this research. According to Bernheim, Garrett and Maki (2001), financial education program will only take its full effect within 10 years timeframe. The research was limited to a certain time of period therefore the effect of financial education course was limited as well. However, in the long run, the effect of financial education course might take its place to influence individual's financial management behavior.

Since some of the survey questions were about respondents' previous experience such how their parents dealting with financial issues while growing up, therefore, there might have some missed reportedanswers. Furthermore, if respondents were too optimist or pessimist toward their financial practices might influence the result as well. Therefore, respondents might report the answer that they felt 'correct' rather than 'actual'.

Undergraduate students are differing from other youth who have already started their working life. Undergraduate students have certain behaviors and attitudes which may vary from other peoples as well. Thus, the research can't be generalized to the public or other group of peoples. Moreover, credit card policy and usages in Western countries are not applying in Malaysia. Most of the college students in Western countries own their credit card. Education fees in Western countries are expensive and they have to pay on their own. Therefore, college students in Western countries pay the education fees through their credit card and they start their debt repaying life during their school life. However, in Malaysia, the education fees in government universities are subsidiary by government and students are allowed to loan with National Higher Education Fund Corporation. They only need to repay the loan half year after they received their graduation scroll. Therefore, the expected financially at risk students are less likely appear in the campus.

A longitudinal research is recommended to further investigate the relationship between selected independent variables and dependent variables. As working adult, respondents' financial practices might project a clearer picture which might improve the effectiveness of models.

FUTURE RESEARCH

Future research will look more details in psychological factor such risk aversion, motivation, goal setting and so on. Longitudinal research will be conducted in order to examine the effect of financial education course whenever the respondents enter to the working life.

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APPENDIX

FIGURE 1: Research Framework

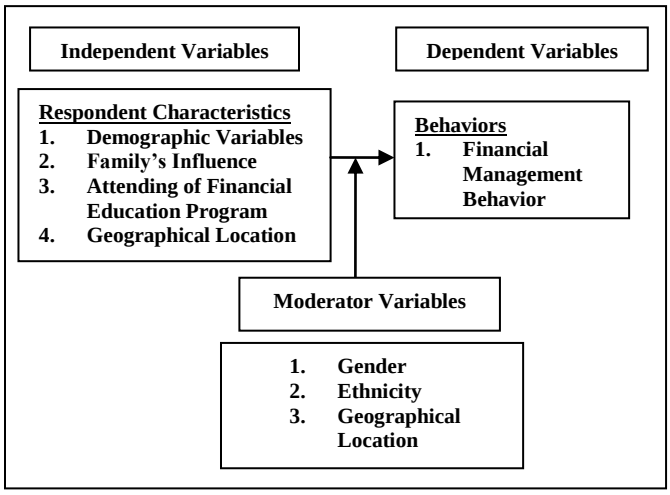

TABLE 1: Descriptive Analysis

	Category	Frequency	Percent	Value of Dummy Variables
Gender	Male	80	23.5	1
	Female	261	76.5	0
Ethnicity	Bumiputera	178	52.2	1
	Non-Bumiputera	163	47.8	0
Geographical Location	Rural	121	35.5	1
	Urban	220	64.5	0
Financial Education	Taken	227	66.6	1
	Not Taken	114	33.4	0

TABLE 2: Descriptive Analysis of Variables

	N	Min	Max	Mean
Financial Education	341.00	2.14	5.00	3.8039
Family's Influence	341.00	2.00	5.00	3.7749
Financial Behavior	341.00	1.40	3.80	2.6607

TABLE 3: Summary of Reliability Test

	Cronbach's Alpha Value		
	Before	After	Item Deleted
Financial Education	0.580	0.665	1
Family's Influence	0.529	0.657	3
Financial Behavior	0.522	0.756	6

TABLE 4: Results of Multiple Regressions for Treatment Group

Variables	Unstandardized Beta	t-value
Constant		4.058***
Family's Influence	0.578	3.627***
Financial Education	0.107	0.516
Gender	0.033	1.150
Ethnicity	-0.011	-0.481
Geographical Location	0.038	1.577
R^2	0.082	
F	3.451***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 5: Results of Multiple Regressions for Control Group

Variables	Unstandardized Beta	t-value
Constant		4.319***
Family's Influence	0.862	4.305***
Financial Education	0.017	0.251
Gender	0.106	1.424
Ethnicity	-0.006	0.091
Geographical Location	0.176	2.518***
R^2	0.220	
F	5.575***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 6: Results of Hierarchical Test for Treatment Group Equation 1

	Steps					
	1		2		3	
Variables	Unstandardized Beta	t-value	Unstandardized Beta	t-value	Unstandardized Beta	t-value
Constant		3.950***		3.963***		2.965***
LgFam	0.567	3.575***	0.566	3.572***	0.707	3.966***
LgEdu	0.169	0.830	0.157	0.771	0.216	0.979
GenderM1			0.034	1.195	0.529	1.397
GMxLgEdu					-0.330	-0.591
GmxLgFam					-0.648	-1.689*
R^2 change	0.063		0.070		0.085	
F change	6.619***		4.899***		3.594***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 7: Results of Hierarchical Test for Treatment Group Equation II

	Steps					
	1		2		3	
Variables	Unstandardized Beta	t-value	Unstandardized Beta	t-value	Unstandardized Beta	t-value
Constant		3.950***		3.777***		2.107**
LgFam	0.567	3.575***	0.573	3.583***	0.723	3.118***
LgEdu	0.169	0.830	0.175	0.857	0.253	0.856
EthnicityNB1			0.008	0.347	0.238	0.819
ENBxLgEdu					-0.163	-0.398
ENBxLgFam					-0.291	-0.906
R^2 change	0.063		0.064		0.068	
F change	6.619***		4.433***		2.835***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 8: Results of Hierarchical Test for Treatment Group Equation III

	Steps					
	1		2		3	
Variables	Unstandardized Beta	t-value	Unstandardized Beta	t-value	Unstandardized Beta	t-value
Constant		3.950***		4.077***		4.412***
LgFam	0.567	3.575***	0.570	3.603***	0.431	2.207***
LgEdu	0.169	0.830	0.133	0.550	-0.201	-0.755
GeographicalR1			0.035	1.486	-0.548	-1.879*
GR1xLgEdu					0.732	1.745*
GR1xLgFam					0.322	0.969
R^2 change	0.063		0.073		0.092	
F change	6.619***		5.176***		3.943***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 9: Results of Hierarchical Test for Control Group Equation I

	Steps					
	1		2		3	
Variables	Unstandardized Beta	t-value	Unstandardized Beta	t-value	Unstandardized Beta	t-value
Constant		4.366***		4.495***		4.063***
LnFam	0.840	4.186***	0.874	4.348***	0.821	3.188***
AbsEdu	0.038	0.574	0.009	0.136	-0.014	-0.175
GenderM1			0.109	1.438	-0.384	-0.520
GMxAbsEdu					0.086	0.560
GMxLnFam					0.143	0.343
R^2 change	0.150		0.167		0.171	
F change	9.010***		6.758***		4.083***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 10: Results of Hierarchical Test for Control Group Equation II

	Steps					
	1		2		3	
Variables	Unstandardized Beta	t-value	Unstandardized Beta	t-value	Unstandardized Beta	t-value
Constant		4.366***		4.384***		2.312**
LnFam	0.840	4.186***	0.817	3.986***	0.952	3.191***
AbsEdu	0.038	0.574	0.038	0.573	0.115	1.336
EthnicityNB1			-0.042	-0.610	1.013	1.511
ENBxAbsEdu					-0.194	-1.452
ENBxLnFam					-0.288	-0.702
R^2 change	0.150		0.153		0.175	
F change	9.010***		6.094***		4.210***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.

TABLE 11: Results of Hierarchical Test for Control Group Equation III

	Steps					
	1		2		3	
Variables	Unstandardized Beta	t-value	Unstandardized Beta	t-value	Unstandardized Beta	t-value
Constant		4.366***		4.210***		4.134***
LnFam	0.840	4.186***	0.833	4.263***	0.830	3.594***
AbsEdu	0.038	0.574	0.044	0.694	-0.039	-0.490
GeographicalR1			0.178	2.603**	-0.601	-0.918
GR1xAbsEdu					0.228	1.723*
GR1xLnFam					-0.099	-0.229
R^2 change	0.150		0.204		0.227	
F change	9.010***		8.604***		5.806***	

Note: *significant at 10%, ** significant at 5%, *** significant at 1%.