FINANCIAL LITERACY AND DEMOGRAPHIC FACTORS

Sangita A/P Jeyaram[1,] Mazlina Binti Mustapha[2]
[1,2]Department of Accounting and Finance,
Faculty of Economics and Management,
Universiti Putra Malaysia
43400 Serdang, Selangor
Malaysia
Corresponding Email : mazlina05@gmail.com

Abstract

The purpose of this study is to examine the relationship between financial literacy and demographic factors of Malaysian university students. Data was collected using primary data. Questionnaires were distributed to 300 final year students of business major programs in one of the institutes of higher learning in Malaysia. Hierarchical multiple regression, independent t-test and ANOVA were employed to analyse the data.
The results of the study indicate that those students who enrolled in Bachelor in Accountancy and Bachelor in Business Administrations appear to have higher financial literacy compared to students from other courses. The results also suggest that female students have lower level of financial literacy compared to male students, and Chinese students appear to have significantly higher level of literacy than students from other races. The results from this study contribute to the current literature relating to financial literacy particularly in Malaysian settings.

Keywords*: financial literacy, students, business major, Malaysia.*

1.0 Introduction

Everyone has to make financial decisions sometime in their lives (Jones et.al, 2003, p5). Thus, the ability to manage personal finances has become increasingly important in today's world (Chen &Volpe, 1998). Personal financing planning is the process of planning one's spending, financing and investing so as to optimise one's financial situation and specifies one's financial aims and objectives.

Due to an increasingly complex marketplace (Martin & Oliva, 2001), college students need greater knowledge about their personal finances and the economy as well as "real life" skills (e.g., balancing a check book, budgeting, reducing debt, understanding credit cards, saving, having good credit, paying interest, investing, and purchasing a car or a home). Where should they learn these financial skills? They may learn from their parents, but studies found that most parents do not have these skills (Pauley, 1996). Many students learn basic financial knowledge through trial and error, yet this knowledge may not be sufficient for them to become smart investors in today's society (Lachance & Choquette-Bernier, 2004). Nellie Mae (2002) found that approximately 83% of full-time undergraduate students own at least one credit card with an average outstanding balance of USD2,327. Kendrick (1999) claimed that such bad financial habits could stay with them far into the future.

While financial education is increasingly important to students, some prior research indicates that college graduates have inadequate knowledge about financial knowledge as they do not have sound personal financial education (Chen & Volpe 1998). Joo & Garman (1998) claimed that providing students with remedial training to improve their knowledge in personal finance is an urgent issue in colleges as well as in other areas of society. This is supported by Volpe et al. (2006) who state that without good financial knowledge, students would not be able to make good financial decisions, tend to hold wrong opinions and make incorrect decisions in choosing right investment.

Thus, this study is conducted to examine the financial literacy of business major students in one of the institutes of higher learning in Malaysia. The financial literacy of students from three business programs is compared. In addition, other factors are also examined in relation to financial literacy, such as gender and race. It is important to conduct this study as it is claimed that financial literacy can promotes self-confidence, self-control, and independence of these students (Conger, Jewsbury, Matthews, & Elder, 1999). This study also contributes to the literature relating to financial literacy of Malaysian university students.

The remainder of the paper is structured as follows. The next section gives a review of the relevant literature, after that the methodology section describes the sample and methodology used for the study. The empirical results are discussed in the results section and, finally the last section provides the conclusions of the study.

2.0 Literature review

Financial education is vital to investors as well as for students. Therefore, strengthening financial literacy must be a part of international effort to spur the economy (Gaberlavage, 2009). Gaberlavage claims that individuals will not be able to choose the right savings or investments for themselves, and may be at risk of fraud, if they are not financially literate. This is supported by Chen & Volpe (1998) who highlight the need for personal financial education among college students and they find that participants with lower level of knowledge tend to hold wrong opinions and make incorrect decisions in the areas of general knowledge, savings and borrowing and investments. If individuals do become financially educated, they will be more likely to save and to challenge financial service providers to develop products that truly respond to their needs, and this would have positive effects on both investment levels and economic growth (Gaberlavage, 2009).

Previous studies define financial literacy as the ability to read, analyse, manage and communicate about financial conditions that affect material well-being (Clercq & Venter, 2009; Vitt et al., 2000). Financial literacy also refers to a person’s ability to understand and make use of the financial concepts (Servon & Kaesner, 2008). This may also include the ability to discern financial choices, discuss money and financial issues without discomfort, plan for the future, and this may affect every day financial decisions.

Previous studies highlight benefits of having financial literacy. According to Knapp (1991), increasing financial literacy is a way to increase empowerment and improve the quality of life. Energy, thought, and time are spent pursuing money and limiting the unnecessary waste of money. Thus, when students gain more knowledge and more positive attitudes toward money, they make better decision, which save resources and improve their situation (Knapp, 1991). Financial literacy also promotes self-confidence, control, and independence (Conger, Jewsbury, Matthews, & Elder, 1999). This comes by feeling in control and knowing how to function in a complex marketplace. When investors feel they are in control of their finances, they are more likely to participate in the marketplace (Knapp, 1991). Furthermore, it is claimed that college students need more specific skills, attitudes and fundamental knowledge about financial literacy now more than ever, because of the changes in employment patterns, retrenchments and the high unemployment rate in several countries.

This is supported by Clercq (2009) who claimed that financial literate students will become more confident and knowledgeable investors in determining future investment.

Surveying financial literacy among people, many researchers found woman generally has less knowledge about finance compared to man (Chen & Volpe, 2002; Goldsmith & Goldsmith, 2006; Eckel & Grossman, 2002). Chen & Volpe (1998) find that women learn personal finance from their parents, yet women are less knowledgeable than man. Chen & Volpe claim that average women know less about personal finance than men. Women score lower than men in 22 out of 36 questions and earn a higher score in only 1 question. They conclude that women score lower because they either do not know the basic fact, terminology, or concept or personal finance or they do not perform well in mathematics related questions. Another study by Goldsmith & Goldsmith (2006) also find that men are more confident about their knowledge of investing than women and they also appear to know more about investing. Women are claimed to have low financial literacy, have less knowledge about financial management than men, are less likely to seek out financial education, and have less confidence about managing money (Goldsmith & Goldsmith, 2006; Lusardi & Mitchell, 2008). Consequently, financial education is needed to determine profitable investment.

Chen & Volpe (1998) claim that business-major students have better understanding on financial and investment matters compared to other non-business major. This is supported by Lai & Tan (2009) who claim that without having known financial knowledge such as expected return, growth and liquidity of investment students would not able to gain substantial amount of profit. Chen & Volpe claim that on average business major answered more than half of the questions correctly. They conclude that participants from different class ranks have different levels of financial knowledge. However, it is reported that, even though accounting, economic and business students have been exposed to financial and investment subjects in their curriculum yet there were multiple mix decisions among them in order to make a proper decision. Thus, this study will examine whether there is any different in the financial literacy of students from different programs.

Malaysian university students are also expected to be affected by the cultural values that they have. In Malaysia, there are different ethnic groups which live in harmony. Previous studies find that race or ethic background influence the individual financial literacy as each race has different values and way of life (Sabri et al., 2012; Chen & Volpe, 2002; Clercq & Venter, 2009). Sabri et al. (2012) reported that Malays and Chinese are among the two largest groups in Malaysia and have a significant presence in the corporate business sector. Thus, this study will also examine whether there is any different in the financial literacy of students from different race.

3.0 Methodology

Data used in this study was collected using primary source (questionnaire). The questionnaire used in this research was adapted from earlier studies, by Chen & Volpe (1998), Lai & Tan (2009), and Grable & Lytton (1998). Questionnaires were distributed to final year students who were doing Bachelor of Accountancy, Bachelor of Economics and Bachelor of Business Administration in one of the institutes of higher learning in Malaysia. About 300 questionnaires (100 to each program) were distributed to the respondents in all the three programs in February 2012. However, only 210 questionnaires were returned and usable for the study. Section A of the questionnaire solicits information relating to the financial literacy of the respondents and Section B seeks information about the respondents' socio-demographic. Hierarchical multiple regression analysis, independent t-tests and ANOVA were used to analyse the data.

4.0 Results and Discussions

Profile of Respondents

The demographic characteristics of the respondents show that out of 210 respondents, about 40% of the respondents are male and 60% are female. This statistic reflects the fact that there are more female students in the university nowadays compared to the males. More than majority of the respondents (56%) are between the age of 22-23 years old. In terms of race, the statistics show that about 44% of the respondents are Malays, 45% are Chinese, 9% are Indians and the balance is other races. The respondents are final year students from three programs (Bachelor of Accountancy, Bachelor of Economics and Bachelor of Business Administration) in one of the institutes of higher learning in Malaysia. About 70 usable questionnaires were collected from each of the programs, which give a response rate of 70%. In term of their performance, about 76% of them are high achievers and manage to achieve CGPA of 3.00 and above, while the balance has CGPA between 2.00 to 3.00.

Multicollinearity

Table 1 presents the pairwise correlation coefficient of all the variables used in the study. The results indicate that there is no multicollinearity problem, as the correlations are below the threshold value of 0.8 (Gujarati, 2003, p. 359).

Table 1: Correlation matrix

Variable	FinLit	Gender	ActgProg	BusProg	RaceChi	RaceMal
FinLit	1.00					
Gender	-.072*	1.00				
ActgProg	.259***	.138**	1.00			
BusProg	.097**	.076*	-.500***	1.00		
RaceChi	.169***	-.068*	.169***	-.115**	1.00	
RaceMal	-.112**	.211**	-.082***	.062	-.764**	1.00

Variable definition:

FitLit = Student's financial literacy; GEN = Gender (Female =1, 0 otherwise); Actg Prog = Students from Bachelor of Accountancy =1, 0 otherwise; BusProg = Students from Bachelor of Business Administration =1, 0 otherwise; RaceChi= Race is Chinese =1, 0 otherwise; RaceMal = Race is Malays=1, 0 otherwise.
Notes: *** significant at 1% level ** significant at 5% level *significant at 10% level

Hierarchical Multiple Regression Analysis

Table 2 presents the regression results of the study. Hierarchical multiple regressions are designed where three steps are involved. Gender and race are controlled in the first step. The results in Column 2 of Table 2 (Model 1) indicate that the value of the R-squared and adjusted R- Squared are 0.136 and 0.127 respectively with the F value of 16.230 ($p < 0.000$).

Table 2: Results of Hierarchical multiple regression

Variables	Model 1	Model 2	Model 3
Constant	3.287*** (69.69)	3.350*** (62.88)	3.273*** (39.10)
ActgProg	0.367*** (5.497)	0.400*** (5.937)	0.380*** (5.604)
BusProg	0.270*** (4.045)	0.297*** (4.442)	0.301*** (4.514)
Gender		-.137** (-2.422)	-.131** (-2.297)
RaceChi			0.137** (1.618)
RaceMal			0.041 (0.478)
R-squared	**0.136**	**0.159**	**0.176**
Adj R-squared	**0.127**	**0.147**	**0.155**
R squared change	**0.136**	**0.023**	**0.017**
F-Statistics	**16.230**	**13.029**	**8.688**
P-value	**0.0000**	**0.0000**	**0.0000**

Notes: *** significant at 1% level ** significant at 5% level * significant at 10% level
(See variable definition in Table 1)

After that in the second step, the gender of the respondents is included, and the results in Column 3 of Table 2 (Model 2) indicate a significant change in the R-squared value of 0.023, with the new R-squared and adjusted R- Squared of 0.159 and 0.147 respectively. These results indicate that gender affect the financial literacy of the respondents. In the last step, the race of the respondents is included, and the results in Column 4 of Table 2 (Model 3) indicate a change in the R-squared value of 0.017, with the new R-squared and adjusted R- Squared of 0.176 and 0.155 respectively. These results indicate that race of the respondents affect their financial literacy.

Results in Table 2 appear to suggest that the programs enrolled by the students significantly influence their financial literacy. ActgProg and BusProg are significant at 1% level of confidence in all the three models in Table 2. Those students who enrolled in Bachelor in Accountancy and Bachelor in Business Administrations appear to have higher financial literacy compared to students from other courses. This is supported by the results of ANOVA which are run to examine the differences of literacy level between the three groups of students. The descriptive statistics show that the accounting students have the highest mean score of 3.654, followed by business students with the mean score of 3.557 and finally Economics students with the lowest mean score of 3.2873. The mean score for Economics students is significantly different from both Accounting and Business administration students; however, the mean scores of accounting and business administration students are not significantly different.

In Model 2, gender (Gender) is added to the model, and this variable is significant at 5% level of confidence in both models shown in Table 2. These results suggest that gender is a significant factor in its relationship with students' financial literacy. Female respondents appear to have significantly lower literacy compared to male respondents. An independent t-test which is run to examine the relationship between gender and financial literacy also indicate significant relationship between male and female students. The literacy mean score for male students is higher (mean = 3.568) than the mean score for female students (mean = 3.375). This result is consistent with the earlier findings by Chen & Volpe (1998), Chen & Volpe (2002), Goldsmith & Goldsmith (2006), and Eckel & Grossman (2002) who reported that women have low financial literacy and have less knowledge about financial management compared to men.

In Model 3, race of the respondents is added into the regression equation. Students from three races are examined, namely, Chinese, Malays and others. Thus, two dummy races are added (RaceChi and RaceMal). The results show that RaceChi is significant at 5% level of confidence in the last model shown in Table 2, however, RaceMal is not significant. These results suggest that Chinese respondents have significantly higher financial literacy compared to other races. This is supported by the results of ANOVA which is run to examine the differences of literacy level between the three races. The descriptive statistics show that the Chinese students have the highest mean score of 3.578, followed by Malay students with the mean score of 3.443 and other races with the lowest mean score of 3.408. The mean score for Chinese students is significantly higher than both Malay students and those from other races. This finding is consistent with the earlier findings by Sabri et al. (2009), Clercq & Venter (2009) and Chen & Volpe (2002) who concluded that ethnic background influence personal financial literacy.

5.0 Conclusion

The main purpose of this study is to examine the factors that influence the financial literacy of business major students. The results of the study indicate that the program that they enrolled, their gender and race significantly influence the students' financial literacy. The significant influence is shown when the variables are added into the equation in the hierarchical multiple regression models.

As the samples are students, the findings from this study are particularly relevant to investment and finance education. The results from this study would provide information to the universities, curriculum developers and the related ministries in improving the present curriculum and delivery systems. In addition, this study will also contribute to the current literature relating to financial literacy particularly in Malaysia settings.

Future studies could include more respondents from other institutes of higher learning, both public and private universities. In addition, data also may be collected from non-business major respondents to investigate if there is any difference between the business-major and non-business major as claimed by the researchers conducted in other countries. This study only considers three demographic variables in relation to their relationship to financial literacy. Future study can include other variables such as age, parental guidance, academic ability and prior working experienc

6.0 References

Chen, H., & Volpe, R., (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107-128.

Chen, H., & Volpe, R.P., (2002) Gender differences in personal financial literacy among college students. *Financial Services Review*, 11(3), 289-307.

Clercq, B.D., (2009) Do our children know anyting about money? An exploratory study. *Meditari Accountancy Research. 17(1), 1-13*

Clercq, B.D., & Venter, J.M.P. (2009). Factors influencing a prospective chartered accountants' level of financial literacy: an exploratory study. *Meditari Accountancy Research. 17(*2), 47-60

Conger, R. D., Jewsbury-Conger, K., Matthews, L. S., & Elder, G. H. Jr. (1999). Pathways of economic influence on adolescent adjustment. *American Journal of Community Psychology,* 27, 519-541

Eckel, C.C. & Grossman, P. J (2002) Sex differences and statistical stereotyping in attitudes toward financial risk, *Evolution and Human Behavior, 23*, 281–295

Gaberlavage, G. (2009) Financial literacy : More important than ever, *The Journal*, Summer 2009, 40-43.

Goldsmith, R. E. & Goldsmith, E. B. (2006) The effects of investment education on gender differences in financial knowledge, *Journal of Personal Finance, 5(*2), 55-69

Grable, J. E. & Lytton, R. H. (1998). Investor risk tolerance: testing the efficacy of demographics as differentiating and classifying factors. *Financial Counseling and Planning,* 9, 61–74.

Gujarati, D.N. (2003). *Basic econometrics* (4th ed.). Singapore: McGraw Hill.

Jones, C,P., Shamsuddin, A., & Naumann, K., (2003). Investment Analysis and Management. 2nd ed., McDougall Street, Milton.

Joo, S., & Garman, E. T. (1998). Financial wellness may be the missing factor in understanding and reducing worker absenteeism. *Personal finances and worker Productivity,* 2, 172–182.

Kendrick, E. (1999). Give 'em credit: When is it right for students? *Austin Business Journal, 19*(25), 26-34.

Knapp, J. P. (1991). *The benefits of consumer education: A survey report* [Brochure]. Michigan Consumer Education Center.

Lachanche, M.J., & Choquette-Bernier (2004). College students' consumer competence: a qualitative exploration. *International Journal of Consumer Studies, 28* (5), 433-442.

Lai, M.M. & Tan, W.K. (2009) An Empirical Analysis of personal Financial Planning In an Emerging Economy. *European Journal of Economics and Administrative Sciences, 16*, 99-111.

Lusardi, A. & Mitchell, O.S., (2008) Planning and financial literacy : How do woman fare? *American Economic Review: Papers and Proceeding*, 98(2), 413-417

Martin, A., & Oliva, J. C. (2001). Teaching children about money: Applications of social learning and cognitive learning developmental theories. *Journal of Family and Consumer Sciences, 93*(2), 26-29.

Nellie Mae. (2002, April). *Credit Card Usage Analysis*. Retrieved from http://www.nelliemae.com/library/research_9.html.

Pauley, E. D. (1996). Family and consumer sciences curricula: What do students, parents, faculty, and community want? *Journal of Family and Consumer Sciences,* 11-14.

Sabri, M.F., Cook, C.C. & Gudmunson, C.G. (2012). Financial well being of Malaysian college students. *Asian Education and Development, 1(2),* 153-170.

Servon, Lisa J. & Robert Kaestner. (2008). Consumer Financial Literacy and the Impact of Online Banking on the Financial Behavior of Lower-Income Bank Customers. *Journal of Consumer Affairs*, 42, 271–305.

Vitt, L. A., Carol A., Jamie K., Deanna M. L., Jurg K. S., & Jeremy W. (2000). *Personal finance and the rush to competence: financial literacy in the U.S.* Middleburg, Institute for Socio-Financial Studies. http://www.isfs.org/rep finliteracy.pdf.

Volpe, R.P., Chen, H. & Liu, S. (2006). An analysis of the importance of personal finance topics and the level of knowledge possessed by working adults. *Financial Services Review*, 15(1), 81-98.