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Research paper



Malaysian Undergraduates Financial Literacy and Financial Education: a Study in Universiti Utara Malaysia

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Abstract

Financial literacy is becoming increasingly important not only for investors but also for individual in planning his or her day to day budget. Hence, recent development in financial education has highlighted the increasingly important to be financial healthy. Hence, the objectives of this study are (i) to investigate the level of UUM undergraduates' in financial literacy and (ii) to assess UUM undergraduates' preferable method in learning financial education. Questionnaires were distributed to 400 undergraduate in UUM, age ranging 20 to 28 years old in 2017. The finding of this study revealed that female have a better saving knowledge compare to male respondents. Furthermore, this study concluded that first year undergraduate's saving knowledge is slightly better. Meanwhile, final year undergraduates are better in spending and budgeting knowledge. Besides, business programme undergraduate showcase a good financial literacy knowledge. This study also find that preference method in learning financial knowledge are website / internet / online followed by workshop / seminar / talks / conferences and finally social network / social media. Meanwhile, preferable personal financial topic that undergraduate would like to enroll and learn are budget planning or expenses management, followed by debt management and lastly about insurance.

Keywords: *Financial education; financial knowledge; financial literacy and undergraduates.*

1. Introduction

Financial literacy is referring to a set of skills that allow people to manage their money wisely. (12) defined that financial literacy is "the ability to make an informed judgement and informed decisions regarding the use and management of money". In a world of escalating financial complexity, there is an increasing need for financial knowledge and at least, basic financial skills to be carry out (11). Financial literacy is becoming increasingly important not only for investors but also for individual in planning his or her day to day budget. Failure to dominate a basic financial knowledge will lead to various problems. Amongst the problems that arise due to a lower level of financial knowledge is increasing in bankruptcy rate. Financial education is important to provide individual with the necessary skills and habits to enable them to participate sensibly in financial markets as financial mistakes made early in life can be very costly.

A study by OECD (13) finds that the level of financial literacy is low in most countries, including developed countries. In saying so, nowadays, countries are providing a variety of financial education programmes, ranging from the internet, pamphlets, brochures, training courses and media campaigns as a result of an increase in awareness of the importance of financial education. Financial education is progressively imperative for everyone, because it leads to well informed, sensible and appropriate financial decision making. It also includes an understanding of how money affects feelings and personal well-being. Therefore, this study embarks two objectives, (i) to investigate Universiti Utara Malaysia (UUM) undergraduates' level in financial literacy and (ii) to assess UUM undergraduates' preferences in learning financial education

2. Past Studies

Youth with a lower level of financial literacy do not plan for retirement (7), borrow at high-interest rates (14), and acquire fewer assets (7). Furthermore, young people with low financial literacy are more likely to have problems with debt (8). They are also less likely to participate in the stock market (15), less likely to choose investment products with lower fees (3) and less likely to plan for retirement (6, 7). It the nut shells understanding financial literacy among the youth is critical importance in our modern society. Therefore, financial education is important to individuals and nations (2). Enlightened societies today strive to ensure social cohesion as an integral part of economic progress. Several prior studies had explored various types of financial management education i.e:(1, 4, 9). (4) finds that undergraduate in the US have strong interest in learning financial management knowledge via online resources (79.8%), followed by workshops (42.6%), and then a financial counselling center (25.7%). This is consistent with (10) research which reported that all students, as well as financially at-risk students, expressed greater interest in online financial information than seminars/workshops or counselling services. However, it is worth to note that youths' education delivery method is changing rapidly in recent times as suggested by (5) that financial education classes may not effective using traditional methods such as using book, workbook, pamphlets or booklets.

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3. Methodology

This study is an exploratory study with an extensive preliminary work to endeavor in investing the understanding level of financial literacy among UUM undergraduates and their preferences method in learning financial education. The unit of analysis used in this study is individual. This study cover UUM undergraduates consist of business and non-business students. The sample size in this study is 400 respondents' for the year of 2017. This research utilises primary data and the collection of data by using questionnaires. Data gathered through questionnaire is used in order to measure UUM graduates' financial literacy level and their preferences in learning financial education. This study utilized stratified probability sampling where the population is divided into few characteristics such as gender, college and academic year. Research techniques that employed in this study includes descriptive statistic, cross-tab independent samples t-test analysis and ANOVA.

4. Finding

4.1. Financial Literacy

4.1.1. Gender

Table 1 indicated the level of financial literacy according to gender. Financial literacy were tested using basic numeral knowledge, saving knowledge, investment and risk management knowledge, spending and budgeting knowledge and finally insurance knowledge. Overall, female respondents showcase that they are average in basic numeral and insurance knowledge with 36.4% and 35.8% respectively. Meanwhile, male respondents shows an average level in spending and budgeting knowledge with 34.7%. Meanwhile, saving and investment and risk management are still at poor level for both gender.

Table 1: Descriptive analysis and cross tabulation analysis - gender

Financial Literacy (no. of question)	Within Female (correct answer)	Mean (correct answer)	Within Male (correct answer)	Mean (correct answer)
Numeral (3)	**36.4%**	2.07	31.6%	1.96
Saving (4)	18.9%	2.54	5.1%	2.16
Investment and risk management (4)	7.0%	2.08	3.1%	1.93
Spending and budgeting (4)	30.1%	2.64	**34.7%**	2.73
Insurance (3)	**35.8%**	1.93	29.6%	1.76

Further analysis done to test significant differences between gender and financial literacy using Independent Sample T-Test analysis. Independent Sample T-Test highlighted that only saving is significant differences among gender at 1% significant level. This results highlighted that female have a better saving knowledge compare to male respondents. Yet, both gender showcase average knowledge in saving with 2.54 and 2.16 as mean value for female and male respondents respectively. Where else, other financial literacy topics shows that there is no significant differences between female and male respondents.

4.1.2. Age

Table 2 reported that, in term of basic numeral, respondents' aged 22 and 25 have a better knowledge with 45% and 43.8% respectively. Furthermore, respondents aged 26 shows a better spending and budgeting knowledge with 41.2% and respondents aged 25 are good in insurance knowledge at 43.8% Meanwhile all aged group demonstrated a poor level knowledge in saving, investment and risk management.

Table 2: Descriptive analysis and cross tabulation analysis – age

Years old	Numeral (mean)	Saving (mean)	Investment and risk management	Spending and Budgeting	Insurance
Within 20	30.0% (2.2)	20.0% (2.9)	0.0% (1.3)	10.0% (2.6)	30.0% (1.8)
Within 21	14.3% (1.86)	22.9% (2.63)	2.9% (1.8)	17.1% (1.94)	20.0% (1.49)
Within 22	**45.0% (2.05)**	5.0% (1.95)	0.0% (1.65)	20.0% (2.2)	25.0% (1.65)
Within 23	37.8% (2.04)	13.3% (2.29)	6.7% (2.11)	26.7% (2.42)	20.0% (1.64)
Within 24	32.8% (1.98)	16.0% (2.41)	**10.4% (2.2)**	33.6% (2.85)	36.0% (1.94)
Within 25	**43.8% (2.19)**	14.6% (2.55)	4.4% (2.08)	37.2% (2.88)	**43.8% (2.05)**
Within 26	29.4% (1.94)	**29.4% (2.65)**	5.9% (2.35)	**41.2% (2.71)**	35.3% (2.12)
Within 27	0.0% (1.67)	0.0% (2.0)	0.0% (1.33)	33.3% (1.67)	33.3% (1.67)
Within 28	12.5% (1.5)	0.0% (1.75)	0.0% (1.13)	12.5% (2.0)	12.5% (1.63)

Mean value for correct answer.

ANOVA results in table 3 stated that investment and risk management, spending and budgeting and insurance have a significant differences mean across respondents age group.

Table 3: ANOVA Analysis for Financial Literacy According to Age

Financial Literacy		Sum of Squares	df	Mean Square	F	Sig.
Numerical	Between Groups	7.929	8	.991	1.257	.265
	Within Groups	308.348	391	.789		
	Total	316.278	399			
Saving	Between Groups	16.218	8	2.027	1.799	.076
	Within Groups	440.680	391	1.127		
	Total	456.898	399			
Investment and Risk Management	Between Groups	24.042	8	3.005	3.123	**.002**
	Within Groups	376.235	391	.962		
	Total	400.278	399			
Spending and Budgeting	Between Groups	42.098	8	5.262	4.069	**.000**
	Within Groups	505.662	391	1.293		
	Total	547.760	399			
Insurance	Between Groups	15.177	8	1.897	1.990	**.047**
	Within Groups	372.761	391	.953		
	Total	387.938	399			

Further analysis using Tukey HSD post analysis shows that respondents age 23 to 26 performed in investment and risk management knowledge followed by respondents aged from 24 to 26 good in spending and budgeting knowledge and lastly respondents aged from 25 to 26 have a better knowledge in insurance. In general, this study concluded that respondents aged 23 to 26 demonstrated a good financial literacy compare to other older or younger respondents.

4.1.3. Academic Year

In term of academic year factor as shown in table 4, senior respondents respond at average level in basic numeral knowledge, spending and budgeting knowledge and insurance knowledge. Overall, respondents in this study reflected a poor level in saving knowledge and investment and risk management knowledge.

Table 4: Descriptive analysis and cross tabulation analysis – academic year

Academic year	Numeral	Saving	Investment and risk management	Spending and Budgeting	Insurance
Within first year	22.9% (1.94)	20.0 % (2.86)	0.0% (1.63)	14.3% (2.17)	25.7% (1.63)
Within second year	30.2% (1.81)	11.3% (2.13)	1.9% (2.0)	15.1% (2.19)	28.3% (1.87)
Within third year	**37.6% (2.02)**	8.6% (2.23)	5.4% (2.06)	28.0% (2.56)	**30.1% (1.83)**
Within final year	**37.4% (2.12)**	18.7% (2.25)	8.2% (2.1)	**39.3% (2.89)**	**38.8% (1.96)**

Mean value for correct answer.

ANOVA analysis results stated that saving knowledge and spending and budgeting knowledge have a significant differences mean across respondents' academic year.

Table 5: ANOVA Analysis

Financial Literacy		Sum of Squares	df	Mean Square	F	Sig.
Numerical	Between Groups	4.650	3	1.550	1.970	.118
	Within Groups	311.627	396	.787		
	Total	316.277	399			
Saving	Between Groups	18.132	3	6.044	5.455	**.001**
	Within Groups	438.765	396	1.108		
	Total	456.898	399			
Investment and Risk Management	Between Groups	7.123	3	2.374	2.392	.068
	Within Groups	393.154	396	.993		
	Total	400.278	399			
Spending and Budgeting	Between Groups	33.166	3	11.055	8.508	**.000**
	Within Groups	514.594	396	1.299		
	Total	547.760	399			
Insurance	Between Groups	3.813	3	1.271	1.310	.271
	Within Groups	384.124	396	.970		
	Total	387.938	399			

Further analysis on differences using Tukey HSD test shows that, first year respondents saving knowledge is slightly better compare to other academic year respondents. On the other side, final year respondents shows a high mean value at 2.89 in spending and budgeting knowledge.

4.1.4. College

As shown in table 6, respondents from College of Business (COB), College of Arts (CAS) and College of Law, Government and International Studies (CLOGIS) indicated an average level in basic numeral knowledge, but none of respondents from any college perform a good knowledge in saving and investment and risk management. Meanwhile, respondents from COB shows that they have an average level in spending and budgeting and insurance knowledge. Finally respondents from CAS shows that they have an average level in insurance knowledge.

Table 6: Descriptive analysis and cross tabulation analysis

College	Numeral	Saving	Investment and risk management	Spending and Budgeting	Insurance
Within COB	**36.4% (2.11)**	18.9% (2.59)	7.6% (2.2)	**35.2% (2.79)**	**38.6% (2.01)**
Within CAS	**32.4% (1.88)**	12.2% (2.18)	5.4% (1.77)	23.0% (2.34)	**32.4% (1.66)**
Within COLGIS	**33.9% (1.94)**	4.8% (2.16)	0.0% (1.68)	24.2% (2.48)	17.7% (1.63)

Mean value for correct answer.

Further analysis using ANOVA provided results that all financial literacy knowledge has significant differences mean across respondents' college group except basic numeral knowledge.

Table 7: ANOVA Analysis

Financial Literacy		Sum of Squares	df	Mean Square	F	Sig.
Numerical	Between Groups	4.039	2	2.020	2.568	.078
	Within Groups	312.238	397	.786		
	Total	316.277	399			
Saving	Between Groups	15.976	2	7.988	7.192	**.001**
	Within Groups	440.921	397	1.111		
	Total	456.898	399			
Investment and Risk Management	Between Groups	20.680	2	10.340	10.814	**.000**
	Within Groups	379.598	397	.956		
	Total	400.277	399			
Spending and Budgeting	Between Groups	14.180	2	7.090	5.275	**.005**
	Within Groups	533.580	397	1.344		
	Total	547.760	399			
Insurance	Between Groups	11.950	2	5.975	6.309	**.002**
	Within Groups	375.988	397	.947		
	Total	387.938	399			

Tukey HSD analysis proved that COB respondents is better in financial literacy aspects followed by CAS respondents and finally COLGIS respondents.

4.2. Preference Method in Learning Financial Knowledge

This study further up the analysis by investigating the preference method in learning financial knowledge. Preference method to learn financial knowledge via website / internet / online are highly choose by respondents in this study. Meanwhile, workshop / seminar / talks / conferences organized by universities, industry player and policy maker are the second choice and finally social network / social media are the third preference method prefer by respondents in this study. Study done by (1) show that online games help to achieve significantly higher learning outcomes. The researcher indicated that statistical results in integrating online games into coursework significantly enhanced student learning outcomes. It also results in an increase of learning performance by offering a fun and interactive way to let learners practice applicable knowledge repeatedly without noticing they are studying the material, also report that online games improve financial confidence and knowledge via game-playing.

Table 8: Preference Method in Learning Financial Knowledge

Category	METHOD	Total	Ranking
Counselling and training centres.	Counselling centres for financial management.	222	
	Training centres for financial and banking education.	211	
Peer to peer	Students initiated programs on finan-	214	

program	cial issues.		
	Students counselling to other students.	125	
Courses offered by universities, industry player and policy maker.	Finance and banking courses offered by universities.	176	
	Workshop / seminar / talks / conferences organized by universities, industry player and policy maker.	**271**	**2**
	Financial management counselling aid by industry player and policy maker.	134	
	Student financial management centres aid provided by universities.	139	
	Students' assignment / presentation / activities on financial issues at universities level.	143	
	Academic courses that specialized in personal financing offered by universities.	155	
Self-Learning programme.	**Website / internet / online**	**285**	**1**
	Mass media.	129	
	Self-study workbook.	112	
	Online games.	114	
	Mobile application.	121	
	Social network / Social media.	**230**	**3**
	Brochures / Pamphlets.	102	
	E-mail message / Blogs / Video presentation about financial issues by university.	109	

According to table 9, female respondents prefer website / internet / online as their main choice with 74.5%. Meanwhile, male respondents prefer workshop / seminar / talks / conferences in learning financial knowledge with 67.3%.

Table 9: Preference Method according Gender

Method	Female	Male
Website / internet / online	**74.5%**	61.2%
Workshop / seminar / talks / conferences organized by universities, industry player and policy maker	67.9%	**67.3%**
Social network / Social media	60.9%	46.9%

Table 10 and 11 shows that, respondents in this study prefer website / internet / online method in learning financial knowledge according to age and college factors.

Table 10: Preference Method according Age

Age	Website / internet / online	Workshop / seminar / talks / conferences organized by universities, industry player and policy maker.	Social network / Social media.
20	**70.0%**	50.0%	60.0%
21	57.1%	42.9%	37.1%
22	**70.0%**	70.0%	60.0%
23	**80.0%**	75.6%	66.7%
24	**74.4%**	72.8%	64.0%
25	**72.3%**	70.8%	59.1%
26	**76.5%**	58.8%	35.3%
27	33.3%	33.3%	0.0%
28	25.0%	50.0%	25.0%

Table 11: Preference Method according College

Method	COB	CAS	COLGIS
Website / internet / online	**71.2%**	**73.0%**	**69.4%**
Workshop / seminar / talks / conferences organized by universities, industry player and policy maker	67.8%	68.9%	66.1%
Social network / Social media	53.8%	62.2%	67.7%

Finally, table 12 provide results preference method to learn financial knowledge according to academic year. Website / internet and online under self-learning programme is the majority preferable method for learning financial knowledge. Nevertheless, final year respondents prefer workshop / seminar / talks / conferences organized by universities, industry player and policy maker in learning financial knowledge.

Table 12: Preference Method according Academic Year

Method	1st year	2nd year	3rd year	Final year
Website / internet / online	**57.1%**	**73.6%**	**78.5%**	69.9%
Workshop / seminar / talks / conferences organized by universities, industry player and policy maker	48.6%	62.3%	64.5%	73.5%
Social network / Social media	48.6%	66.0%	54.8%	58.0%

Furthermore, in this study examine preferable personal financial topic as shown in table 13. The highest topic that respondents in this study would like to learn are (i) budget planning or expenses management, followed by (ii) debt management and finally about (iii) insurance.

Table 13: Preferable Personal Financial Topic to Learn.

No.	Personal financial topic	Total	Ranking
1	Save effectively	197	
2	**Budget planning or expenses management**	**288**	**1**
3	Investment (shares, bonds, mutual fund, portfolio management and other financial securities)	182	
4	Early retirement planning.	150	
5	**Debt management (PTPTN loan, credit card debt, car loan, housing loan and personal loan).**	**279**	**2**
6	Wills / Estate planning	123	
7	Daily finance practices	183	
8	How to buy a house after graduation?	216	
9	Consumers' protection and consumers' right in finance	109	
10	**Insurance**	**235**	**3**
11	How to build emergency fund in limited budget	163	
12	Personal taxation	117	
13	Consumer loan (personal loan, car loan, credit card and housing loan)	193	
14	Banking products and services	127	

5. Conclusion and Recommendation

This study conclude that target group that need to focus in delivering financial literacy knowledge is UUM first year male undergraduates with the background of non-business programme. Therefore, this study recommend and address an appropriate financial education need to be propose to the target group so that they will have a positive impact in their money management. A good financial education can provide societies with the necessary skills and habits to enable them to participate sensibly in financial markets.

This study also highlighted that female respondent prefer to learn financial knowledge using website / internet / online but male respondent prefer workshop / seminar / talks / conferences. Hence, universities, industry player and policy maker urged to outline vast amount of financial literacy delivery methods to support and enhance youths' financial literacy knowledge such as financial education using online games, mobile apps, financial education focus to groom during wedding course, free seminar and talks handle by practitioner as CSR to society, universities collaboration in organizing financial education conference and lastly policy maker aspiration in setting up financial education research center as hub for networking, cooperation and collaboration between researcher,

academic, industry player and the government in shaping, upgrade and update a sophisticated financial education in Malaysia.
Furthermore, undergraduates in UUM are also keen to enroll and learn budget planning, debt management and insurance. This can be a good signal to start with a baby step because a good financial education can provide societies with the necessary skills and habits to enable them to participate sensibly in financial markets.

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