

# Knowledge As A Tool For Overcoming Adversity: Comparative Analysis of Financial Literacy Between Universiti Utara Malaysia and Universiti Malaysia Kelantan)

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**Abstract:** *The study investigates the financial literacy levels among Malaysian university students, students studying at the Universiti Utara Malaysia (UUM) and Universiti Malaysia Kelantan (UMK) were used to form a good case study. The study used Descriptive analysis and adopted multi stage sampling; from cluster to simple random sample (SRS), used primary data by administering well structured and extensive financial literacy survey (questionnaire) and 908 were distributed and a total of 489 respondents returned completed questionnaires, 422 from UUM and 67 from UMK which gave a response rate of 54 percent. The result showed that on average 63.5 percent of the respondents answered the questions correctly, which is relatively good compared to the study by [3] in Australia (53 percent). The results showed that UMK students has the highest percentage of correct responses, the average score for UUM and UKM is statistically significantly different, the result revealed that UMK students scored better than UUM students which indicated that UMK students have a better understanding in the areas of risk & return and interest rate over UUM. The results revealed that both UUM and UMK students generally have positive behavior towards financial literacy which showed that both students are well informed when making financial decision. Findings of this study could be carefully considered by policy makers and other interest groups in Malaysia. The university students are the catalyst of the nation; it is crucial to investigate the level of financial literacy among these students and there is need for more effort in developing university curricula to improve the financial knowledge and skills of the university student particularly UUM students. However, this research could be used in future research as a pilot study.*

**Keywords:** Financial literacy, investment, risk and return, financial skill and interest rate, financial knowledge

## 1. INTRODUCTION

To survive in present modern society and cope with the diversity and the complexity of financial products and services, it's imperative to acquire the skills, henceforth, financial literacy becoming more and more significant [17]. Strong endeavour of the world economies to improve the financial well-being of their citizens has contributed to the rising importance of financial literacy for it equips the individuals to take quality financial decisions to enhance their financial well-being. Orienting households with the benefits of proficient management of savings products can positively influence their household welfare [12]. Therefore, the study presents the empirical findings on the level financial literacy among University students and a comparative analysis of students of Universiti Utara Malaysia and students from University Malaysia Kelantan.

Financial literacy describes financial understanding comprising general knowledge of financial, investment, savings, and insurance [5]. [7]. Defined financial literacy as knowledge in finance that is needed for a basic understanding of personal financial arrangements. While [17]. States that financial literacy is a person's ability to understand and address the financial problems. [9]. Measuring financial literacy includes the introduction of financial literacy and knowledge of financial instruments and their use in business and personal life.

Several researches were conducted among Malaysian universities students, and [13]. Concluded that that financial education in family, work experience, and learning in higher education has a significant influence on the financial literacy of students. Studies have shown that individuals with higher education levels or those students with business as major generally have higher level of financial literacy. Other shows that students who never discussed finances with parents in their childhood have a very little financial knowledge [6]. Previous studies also identified segments of the population that have poor financial literacy; however there are some limitations which suggest for further areas of research

## 2. LITERATURE REVIEW

Financial literacy has many varieties of definitions. Some among many are delineated by [16], as a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well being'. The paper further proposed that basic financial literacy contained three elements: financial knowledge; financial behaviour and financial attitude. Financial knowledge is a particular type of capital acquired in life through learning, the ability to manage income, expenditure and savings in a safe way [14]. Again, financial knowledge is essential to determine whether the individual is financially literate, involving questions related to

concepts such as simple and compound interest, risk and return and inflation [2].

The study of [18]. Which surveys 377 Universiti Utara Malaysia students to examine their personal financial literacy; the relationship between the literacy and students' opinions and decisions. Results show that participants answer about 29.6% of questions correctly. Almost all sections of the survey beginning form personal knowledge, savings and borrowing, insurance and investment receive a very low average on correct answers (those under the 60% category). The insurance section receives the lowest mean correct response of only 20.4%. It is concluded that the overall UUM students have a very low level of knowledge about personal finance. The low level of knowledge will limit their ability to make informed decisions

The research by [13]. Shows that level of personal financial literacy of students at Padjadjaran University comes within the low category, and therefore needs to be improved, especially for the areas of: investment, credit, and insurance. Level of education, faculty, personal income, knowledge from parents, parent's income, and ownership of insurance factors have significant impact on personal financial literacy for Padjadjaran University students

As Summarized by [17]. And classified various definitions for financial literacy into five categories: (1) knowledge of financial concepts ability to communicate financial concepts (3) aptitude in managing personal finances (4) skill in making appropriate financial decisions, and (5) confidence in planning effectively for future financial needs. The finding of [6] revealed that saving management, investment skills, parent's characteristics and debt management have a significant correlation with financial literacy. In addition, this study also identified men aged between 18 to 25 years old as well as earn monthly income less than RM1500 are weak in terms of financial literacy.

Meanwhile the findings from [1]. On their study at several colleges and universities in Malaysia have found that education, financial socialization agents and money attitude have a direct influence to financial literacy. There is a positive relationship between all of the variables with financial literacy and this proved that all of the independent variables are the determinants of financial literacy. Meanwhile according to [20]. Students are more knowledgeable in basic level of finance than other advanced level of financial knowledge. Their studies were on three demographic variables (gender, income and age) and their finding showed gender has not been accepted while income and age are accepted as the factors affecting financial literacy among students. According to [20]. Tested the financial knowledge or the financial education and found that it is influenced by the stream of education, level of education and type of college or university that the students went to. The last variable they studied is the personality characteristics

involving the financial attitude and financial behaviour where only the financial attitude is accepted by the test.

The study of [10]. Found out there were significant relationship in financial attitude, knowledge and also the influence from the family towards financial literacy. The result in their study showed financial attitude is the most significant variables, followed by family influence and knowledge. The results presented that the model is accepted and all of the variables play important role in determining the level of financial literacy.

Based on the findings of [9]. Identified four main components of financial knowledge after reviewing 71 studies: basic money concepts, saving or investment, borrowing and protection concepts. [15]. Included the knowledge or understanding of five basic concepts to constitute financial knowledge dimension – simple interest, compound interest, time value of money, impact of inflation on price levels and impact of inflation on investment returns. [4] evaluated financial knowledge of the Americans covering the concepts – interest rate calculation, inflation and working of risk diversification [8] A financially literate person will possess the basic knowledge of some key financial concepts [13].

However, those studies fails to investigate individual marks obtained nor has any attempt being made to make comparisons between students from different Institution, hence the research will focuses on gathering more detailed information on both University Utara Malaysia and University Malaysia Kelantan for comparison. In addition the survey will enable a comparison between students own perception of their knowledge and their actual demonstrated level of their knowledge.

This study investigates two main research questions. Firstly, what is the extent of the financial literacy among Malaysian students? Secondly, comparison of financial knowledge between UUM and UMK students in Malaysia. Thirdly, comparison between students own perception of their knowledge and their actual demonstrated level of their knowledge. Based on the stated purpose of the study and on the research questions, the hypotheses of this study can be formulated as follows:

H1: The level of financial literacy of Malaysian University students is low.

H2: There is a difference level of financial literacy between UUM and UMK students in Malaysia, based on their Knowledge on Risk and Return.

H3 There is a difference level of financial literacy between UUM and UMK students in Malaysia, based on their Knowledge on investment.

H4: There is a difference level of financial literacy between UUM and UMK students in Malaysia, based on their Knowledge on Inflation

H5: There is a difference level of financial literacy between UUM and UMK students in Malaysia, based on their skills on calculating Interest rate.

H6: There is a difference level of financial literacy between UUM and UMK students in Malaysia, based on their knowledge on savings

H7: There is a difference level of financial literacy between UUM and UMK students in Malaysia, based on their skills on Basic Arithmetic's.

H8: There is statistically evidence that the associated mean score of UUM and UMK are significantly different.

H9: There is a difference level of financial literacy between UUM and UMK students, based on their financial attitude.

H10: There is a difference level of financial literacy between UUM and UMK students, based on their financial behaviour

**3. METHODOLOGY**

Sample population; the study adopted a multi stage sampling; from cluster to simple random sample (SRS) were we obtained a total sample of 489 students who participated in the survey 422 from UUM and 67 from UMK. The study used primary data by administering well structured and extensive financial literacy survey (questionnaire) and collect details regarding study characteristics, Demographic characteristics, perception as well as testing knowledge and skills across a range of specific areas of financial literacy and finally do comparative analysis with the survey findings through the employing various research designs and techniques. Descriptive statistics such as frequencies, percentages and means were used to discuss the overall results of the survey.

The responses from each respondent were then compiled to compute the mean percentage of correct scores for each question, section, and the entire survey. The mean percentage of correct scores was ranked and grouped into two groups based on the magnitude of the score, from a high to a low score. The first category represents a relatively high financial literacy rate, and the second category represents a relatively low level of financial literacy

We employed an independent sample t-test to examine the mean differences between the scores for the financial literacy indicators between UUM and UMK. The tests were utilized to examine the H2 – H8

**4 RESULTSAND DISCUSSIONS**

**4.1 Financial Knowledge**

There were 10 testing questions designed to test students' financial knowledge in 10 areas: Addition, Subtraction, Division, Multiplication Average, Interest, risk and return, inflation and investment, a total of 481 respondents from both

UUM and UMK only 8 respondents did not answer the questions.

“Fig. 1.

**Table 1:** Survey questions within the financial competence literacy category percentages of correct responses

Area of knowledge	Correct responses	
	N	Percentage
Addition	345	70.6
Subtraction	382	78.1
Division	321	65.6
Multiplication	379	77.5
Savings	115	23.5
Averages	231	47.2
Interest	297	60.7
Risk and Return	379	77.5
Inflation	362	74.0
Investment	295	60.3
Total percent		63.5

The results showed that 63.5% of the total respondents responded correctly, this indicates that students have a good level of financial literacy. In particular, students were competent at performing arithmetic calculations and also showed a high level of understanding of certain concepts such as Risk and Return. The result is fairly good compared to what other studies found in other countries, such as study of [3] in Australia (53 percent).

Therefore hypothesis H1 was rejected: The financial literacy of university students in Malaysia is low, and concluded that Malaysian students have a good level of financial knowledge

**Table 2:** Comparison of correct responses between UUM students and UMK students

Area of financial literacy	Percentages of correct responses		Levene's Test for Equality of Variance	
	UUM	UMK	F	Sig.
Risk and return	86.9%	93.1%	8.199	.004
Investment	80.4%	75.5%	2.197	.139
Inflation	84.3%	81.3%	1.121	.290
Interest rate	89.5%	100.0%	29.211	.000
Averages	75.6%	75.0%	0.29	.865
Savings	42.1%	23.9%	45.644	.000
Addition	81.2%	90.2%	14.256	.000
Subtraction	92.6%	100.0%	22.358	.000
Division	89.5%	98.3%	22.881	.000
Multiplication	95.0%	93.2%	1.264	.264

Table 2 compares the results across particular areas of financial knowledge between the UUM and UMK. The

results showed that UMK students has the highest percentage of correct responses in the areas of risk & return and interest rate, which indicated that UMK students have a better understanding in the areas of risk & return and interest rate over UUM. Based on these results concluded that there is significant different level of financial knowledge between UUM and UMK in the areas of risk & return and interest rate, therefore Hypothesis H2 and H5 accepted.

UUM students showed a better understanding in the areas of investment, inflation and averages with the highest percentages of correct responses over UMK students, which indicated that UUM students have a better knowledge in the areas of investment, inflation and averages over UMK students. Based on the result, it shows that there is no significance different level of financial knowledge between UUM and UMK in the areas of investment, inflation and averages Therefore Hypothesis H3 and H4 rejected

UUM students showed a better understanding in the areas of savings having the highest percentage of correct responses over UMK students, which indicated that UUM students have a better knowledge in the area of savings over UMK students. Based on this result we concluded that there is significance different level of financial knowledge between UUM and UMK in the areas of savings. Therefore Hypothesis H6 is accepted.

The results showed that UMK students has the high percentages of correct responses in the areas basic arithmetic, which indicated that UMK students have a better understanding in the areas of basic arithmetic over UMK. Based on these results we concluded that there is significant different level of financial knowledge between UUM and UMK in the area of basic arithmetic. Therefore we accepted Hypothesis H7; however there is no significance level of financial knowledge between UUM and UMK in the area of multiplication.

4.2 Comparison of financial knowledge scores between UUM students UMK students

The high level represent the percentage of students that score  $\geq 7$ , while the medium level represent the percentages of students score between 5 and 6.99 while the low level represent the percentage of students score below 5

Level of financial knowledge	UUM	UMK
High%	57.0%	66.2%
Medium%	24.1%	27.6%
Low%	18.9%	6.2%
Total	100.0%	100.0%

The dichotomous variable representing high, medium or low literacy was used as the dependent variables and the total financial score (totalFK) as the independent variable and this similar methodology used by [5]. The results showed that 66.2% of the UMK students score 7 and above out of maximum score of 10 while 57.05 of UUM students score 7 and above out of maximum score of 10. The results revealed that UMK have the high percentage in the high category grade. We therefore concluded that UMK students have better understanding of financial knowledge over UUM students.

To determine whether there is statistically evidence of the associated score means of UUM and UMK are significantly different, we compared mean scores of the two universities (as determined by [3]).

Financial knowledge	University	N	Mean
	UUM	412	6.4053
	UMK	65	6.9692

Mean score for UMK is higher compared to UUM. To determine whether there is statistical evidence that the associated score means are significantly different. We run the Independent Samples t Test and compare the means of the two independent groups (UUM & UMK) the result showed:  $p = .003$  is less than our chosen significance level  $\alpha = 0.05$ , therefore we concluded that the mean score for UUM and UMK is statistically significantly different.

Based on the results, we can state the following: Since  $p = .003$  is less than our chosen significance level  $\alpha = 0.05$ , we can conclude that:

The result revealed that UMK students scored better than UUM students

The mean score for UUM and UMK is statistically significantly different.

Therefore Hypothesis H8 was accepted.

4.3 Financial behaviour and financial attitude

**Table 5:** Response to Survey questions on financial behaviour and financial attitude

statement/ Question asked	UUM			UMK		
	Agree %	Dis Agree%	Neutral%	Agree %	Dis Agree%	Neutral %
I tend to live for today and let tomorrow take care of itself	34.4	34.2	31.4%	27.3	50	22.7
I find it more satisfying to spend money than to save it for the long term	29.6	37.2	33.2%	16.4	53.7	29.9
Before I buy something I carefully consider whether I can afford it	77	6.9	16.1%	85.1	1.5	13.4
I keep a close personal watch on my financial affairs	73.5	4	22.5%	71.7	6	22.4

**Students’ attitudes toward financial concept**

Comparison between UUM and UMK students’ attitude toward financial concepts

Some alarming results were revealed. For instance 34.4% of UUM students agreed that they tend to live for today and let tomorrow take care of itself and 34.1% disagree. Although the reason was unknown, it could be that they did not have the skills to enable them to plan and budget for expenses and this could have serious implications resulting in high level financial stress related illness.

In contrast, only 27.2% of UMK students agreed and 50% disagreed that they tend to live for today and let tomorrow take care of itself, this showed that UMK students possess little financial skills towards planning and budgeting

Second question on financial attitude showed that 53.7% of UMK and 37.2% of UUM students disagreed that they find it more satisfying to spend money than to save it for the long term. This portrait that 53.7% of UMK students have long plan for their future expenditure and this could reduce students’ financial crisis. The results revealed that generally UMK students have more positive attitudes towards organised budgeting system and planning for future. Therefore Hypothesis H9 also accepted

**Students’ behaviour towards financial concepts**

Question one on students behaviour towards financial concept showed that 85.1% of UMK and 77% of UUM students agreed on before buying something they carefully consider whether is affordable.

Second question students behaviour towards financial concept showed that 73.5% of UUM and 71.7% of UMK students agreed that they keep a close personal watch on their financial affairs, this demonstrated they are financially well-organised and proved to have financial discipline. Above results revealed that both UUM and UMK students generally have positive behaviour towards financial literacy. This

showed that both students are well informed when making financial decision, Hypothesis H10 were accepted

**5. DISCUSSIONS**

Ten hypotheses were tested and Based on these results, its concluded that there is significant different level of financial knowledge between UUM and UMK in the areas of risk & return and interest rate; therefore Hypothesis H2 and H5 were accepted; there is significance different level of financial knowledge between UUM and UMK in the areas of savings and basic arithmetic Hypothesis H6 and H7 accepted; the mean score for UUM and UMK is statistically significantly different therefore Hypothesis H8 accepted; UMK students have more positive attitudes towards organised budgeting system and planning for future, Hypothesis H9 were accepted. Only Hypothesis H3, H4 and 10, the result shows there is no significance different level of financial knowledge between UUM and UMK in the areas of investment, inflation and averages and generally both UUM and UMK students have positive behaviour towards financial literacy which showed that both students are well informed when making financial decision. Therefore Hypothesis H10 was rejected.

**6. CONCLUSION**

This research provides insight into the financial literacy levels of Malaysian university students by examining financial knowledge among students studying at UUM and UMK. It also fills in some of the gaps in the current literature by the administration of a financial literacy survey to both UUM and UMK and the survey results were compared.

The result showed that 63.5% of the total respondents responded correctly while only 12.88% responded incorrectly, this indicates that students have a good level of financial literacy. In particular, students showed a high level of understanding of certain concepts such as Risk and Return in which 77.5% of student’s answered correctly. However there are certain areas where students lack understanding or knowledge, students were asked to calculate the proportion of

weekly income saving the question were poorly answered 76.5% of students fails the question, Question on calculating averages over 50% of the student failed.

The results revealed that UMK students have a better understanding in the areas of risk & return and interest rate over UUM, while UUM students have a better knowledge in the areas of investment, inflation and averages over UMK students. The mean score for UUM and UMK is statistically significantly different. The results revealed that both UUM and UMK students generally have positive behaviour towards financial literacy which showed that both students are well informed when making financial decision; findings also revealed that generally UMK students have more positive attitudes towards organised budgeting system and planning for future.

## 7. IMPLICATIONS/RECOMMENDATIONS

Findings of this study could be carefully considered by policy makers and other interest groups in Malaysia. The university students are the catalyst of the nation; it is crucial to investigate the level of financial literacy among these students and there is need for more effort in developing university curricula to improve the financial knowledge and skills of the university student particularly UUM students.

In future research, the researcher can enlarge the sample size of the research in order to reduce the potential of bias and increase accuracy. Besides that, the researcher can enhance the design of the questionnaires. More specific questions should be set to serve as a better indicator for examining the financial literacy level of university students. However, this research could be used in future research as a pilot study

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