Article

Financial Literacy and Behaviour among Universiti Malaysia Terengganu's Students during the Covid-19 Pandemic

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Abstract: The COVID-19 pandemic has affected almost all sectors including the higher education sector. Some students have lost their jobs and income due to the implementation of the Movement Control Order (MCO) by the government. This situation has led to the limitation of various activities such as economic, social, and educational sectors to operate, further leading to financial problems among students. The main objective of this study is to identify the extent of students' literacy level, students' financial problems and the factors that influence their financial behaviours in fulfilling their needs and wants as a student. These factors will be explored in terms of attitude, influence, fulfilling basic needs and wants and online purchases. The level of literacy will be examined through the value of the score obtained from the questionnaires. The respondents consisted of 100 students from various courses and faculties at UMT. The finding shows that the level of financial literacy for UMT students is at a low level. For statistical items, the study used quantitative analysis including two sample t-test, ANOVA test, correlation test and multiple regression analysis. These finding also shows that there is a significant relationship between basic needs (r=0.285, sig=0.004) and wants (r=0.535, sig=0.000) with financial behaviours. These findings also indicate that there is a significant influence of the basic needs (β=0.397, p-value = 0.01) on the student's financial problems. Therefore, students need to be given financial knowledge to improve their level of financial literacy and given the incentives to ease their financial problems in students to survive themselves.

Keywords: financial literacy; financial behaviour; COVID-19 pandemic.

1. Introduction

Various agencies have been affected because of Covid-19 (Coronavirus disease 2019). Covid-19 is a disease caused by a 'novel coronavirus' known as acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which is spread through the air (Yu & Yang, 2020). The virus was detected in Wuhan, China in December 2019 and has affected almost 215 countries (Heymann & Shindo, 2020). On January 30, 2020, World Health Organization (WHO) declared Covid-19 a world health emergency. On March 11, 2020, the WHO also declared Covid-19 a global pandemic. This is the first time since the declaration in 2009 of H1N1 influenza as a pandemic. For example, Indonesia was affected by Covid-19 because the Indonesians were not prepared for the economic downturn. These issues occur because of finance literacy

rate was low (Yuesti et al., 2020). the low level of literacy is due to the individual that have no ability to evaluate and make effective decisions about personal finance (Chinen & Endo, 2012) Financial literacy is the process by which financial consumer or investors gain a better understanding of financial products, concepts, and risks, as well as well as the skills and confidence to become more aware of financial risks and opportunities, make informed decisions, know where to seek help, and take other effective actions to improve their financial well-being, through information, instruction, and objective advice (Baumann & Hall, 2012).

In 2018, data shows that the level of financial literacy in Asian countries such as Indonesia, Philippines, China, Japan, and Malaysia is only around 20 percent to 50 percent compared to European countries such as Denmark which recorded the highest number of 71 percent. A person that has a low level of financial literacy tends to have problems in managing the finances such as managing debt (Lusardi & Tufano, 2015) Financial literacy has an important role in financial behaviour. Financial behaviour has a positive relationship with financial literacy (Mandell & Klein, 2009). Financial behaviour is human behaviour that is related to financial management. Financial behaviour includes form cash, credit, and savings (Xiao, n.d.).. Financial behaviour covers four broad areas namely savings, spending, borrowing, and investment. Every individual has different behaviour that is influenced by many factors. For an instant, family advice, knowledge in financial, advertising, economic status, future expectations, and income level (Gajendra Naidu, 2018)

In addition, the pandemic of Covid-19 also affected various sectors such as the education sector. Due to concerns over the escalation of the Covid-19 epidemic many universities around the world have postponed or cancelled all campus events such as workshops, conferences, sports, and other activities. As a result, most universities have changed various courses and programs from face-to-face to online learning methods (Gewin, 2020). Therefore, in Malaysia, the government enforced the Movement Control Order (MCO) on 18 March 2020 as an action to curb this pandemic from spreading and leading to deaths on a large scale. As a result, government, and private premises (except the country's important service sector), public and private Institutes of Higher Education (IPT) were closed during MCO on 18 March 2020. In addition, movements were also strictly controlled to curb the epidemic from spreading. Therefore, all Malaysians have faced new norms since the outbreak of Covid-19.

The global landscape has changed in terms of economy and lifestyle for society. Covid-19 also affected students in various aspects including financial problems (Hasnah, 2020). Financial behaviour will be seen from the perspective of consumer behaviour theory influenced by attitude, subject norm, and perceived behaviour control (Ajzen, 1991). Financial literacy is very important to ensure well-being in life. Individuals who have a financial crisis tend to face the stresses of life. This is because many students do not know how to manage finances properly. If they have money, the student will spend the money arbitrarily due to their low literacy level (Ibrahim et al., 2009).

Especially during the pandemic, did they have savings during an emergency? the level of financial literacy of students majoring in economics is at a low level. Although studying economics, the students do not have high financial literacy. However, MCO has been enforced from 18 March 2020 to 31 December 2020 and must have an impact on financial behaviour among IPTA students, especially students studying at UMT. This is because students do not have their income. Most of the financial resources for students are through the National Higher Education Fund Corporation (PTPTN) and other scholarships such as Majlis Amanah Rakyat (MARA), Public Service Department (JPA) and zakat under the state religious department (Yunos, 2005). Some students do part-time work to earn extra money. This is because students who have problems in finance will find an alternative which is to do part-time work. Among the jobs done by students are working in fast food restaurants, supermarkets, and gas stations and taking wages to teach extra classes. This part-time job provides an opportunity for students to earn extra money and alleviate their financial problems (Amsyar Hasif & Suhaila, 2019).

Therefore, during the MCO, most students have lost their part-time jobs (Zhai & Du, 2020). and loss of extra financial resources thus, lead to financial problems. Furthermore, in MCO, face-to-face learning has shifted to online learning. however, not all students have the equipment to study online such as laptops and internet electronic devices in their homes. This is because students' family income is different and may be beyond their ability to provide for those needs. Therefore, students must incur costs and must spend a lot to buy additional internet data. If previously, internet facilities and virtual learning equipment were provided in every University school, but after online learning, students must provide the equipment themselves.

2. Materials and Methods

This study chose to use the type of cross-sectional survey by using a questionnaire. This method is used to obtain an accurate explanation of the characteristics found in the responses in the studied population. A survey research strategy is more appropriate when a study wants to get a lot of information obtained about a population and the survey is an important method that is often used in research (Sabitha, 2006). In this study, financial behaviour is a dependent variable. So, financial behaviour will be seen through an independent variable – financial literacy, financial problems, and financial behaviour.
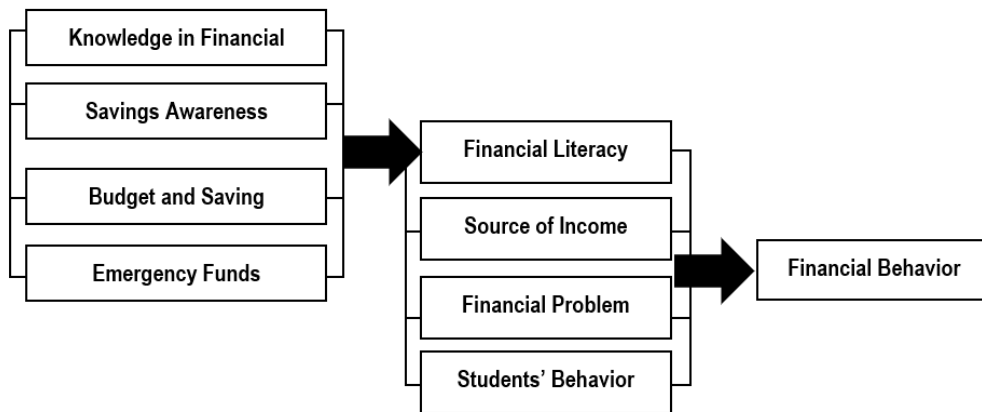
Figure 1. Theoretical Framework

In this study, the analysis of the study is to use a multiple regression model to test the variables. The multiple regression model is referenced as below:

GK = β0 + β1X1i + β2X2i + β3X3i + β4X4i + εi

β0	= Intercept/ Constant
β1, β2, β3, β4, β5	= Regression Coefficient
εi	= Standard Error
Dependent Variable	= Financial Behavior

Independent variables	
X1i	= Financial Behavior
X2i	= Source of Income
X3i	= Financial Problems
X4i	= Behavior

The questionnaire's question is based on a survey conducted by RinggitPlus (2021). Therefore, Students need to answer the financial knowledge such as awareness on retirement planning, personal finance habits, financial literacy and the covid impact on their finances (Appendix A). The mean percentage value of the score will be calculated based on the total score accumulated based on the answers given by the UMT students. The following is a calculation method for the mean percentage of financial literacy scores.

$$\text{Mean Percentage} = \frac{\text{Respondent's Score}}{\text{Total Score}} \times 100$$

After obtaining the mean percentage value of the score, the value will be classified according to the category stated by (Chen, 1998). Table 1 shows the level of financial literacy scores.

Table 1. Mean Score Percentage Value

Mean Score Value (%)	Score Level
0-29	Very low
30-59	Low
60-79	Average
80-100	High

3. Results

3.1 Respondent Demographic

Table 2 shows the respondent's demographic profile. 37 male respondents and 63 female respondents answered this questionnaire. Most respondents are women. All respondents are students of Universiti Malaysia Terengganu

(UMT). most respondents are between 22 years old to 24 years old which is 83 people followed by 25 to 27 years old which is 10 people. While the age of 19 years to 21 years and 28 years to 30 years each represent 3 people. The rest are aged 31 to 33 years which is one. 78 percent of the respondents who answered the questionnaire were Malays followed by Chinese which is 13 percent, Indians 5 percent and others consisting of Bajau, Iban and Sabah Bumiputera which are 3 percent.

Table 2. Respondent's Demographic Profile

Demography	Category	Frequency	Percentage
Gender	Male	37	37
	Female	63	63
Age	19 – 21 years old	3	3
	22 – 24 years old	83	83
	25 – 27 years old	10	10
	28 – 30 years old	3	3
	31 – 33 years old	1	1
Race	Malay	78	78
	Chinese	13	13
	Indian	5	5
	Others	3	3
Level of Education	Diploma	12	12
	Degree	87	87
	Master	1	1
	PhD	0	0
Faculty	Faculty of Business Economics and Social Development	60	60
	Faculty of Fisheries and Food Science	10	10
	Faculty of Marine Science and Environment	10	10
	Faculty of Maritime Studies	8	8
	Faculty of Marine Engineering Technology and Informatics	7	7
	Center for Foundation and Continuing Education	1	1
	Tropical Aquaculture & Fisheries Institute	1	1
Family Income	<RM2000	31	31
	RM2001 – RM4000	24	24
	RM4001 – RM8000	28	28
	RM8001 – RM12,000	17	17
Student Financing	PTPTN	67	67
	MARA	6	6
	JPA	15	15
	Self-financing	12	12

The level of education of UMT students who answered the questionnaire was the majority of bachelor which is 87 percent followed by students with a diploma which is 12 percent and master's is only 1 percent. the majority of UMT students are from the Faculty of Business Economics and Social Development (FPEPS) which is 60 percent. Meanwhile, students from the Faculty of Fisheries & Food Science (FPSM) and the Faculty of Marine Science & Environment (FSSM) each recorded 10 percent who answered the questionnaire. For the Faculty of Maritime Studies (FPM), students who answered were 8 percent, the Faculty of Marine Engineering Technology & Informatics (FTKKI) was 7 percent, the Center for Basic and Advanced Education (PPAL) and Tropical Aquaculture & Fisheries Institution each recorded 1 percent.

The total monthly income of the respondents who answered the questionnaire. For most respondents from UMT, their income is in the range of RM0 - RM2000 which is 31 percent. While income in the range of RM4001 - RM8000 is 28 percent followed by income in the range of RM2001 - RM4000 is 24 percent and finally, the income of RM8001 - RM12,000 is 17 percent. Most of the types of student financing are from the National Higher Education Fund Corporation (PTPTN) which is 67 percent. While the second highest in the Public Service Department (JPA) scholarship is 15

percent and followed by self-funding by students which is 12 percent and finally the funding of the Majlis Amanah Rakyat (MARA) type of scholarship.

3.2 Financial Literacy

The financial literacy score for UMT students is at a low level of 37 percent with a score of less than 60 percent. Through the questionnaire, for the element of spending habits, 42 percent of UMT students answered that they could only survive for 3 to 6 months if they lost their jobs while 36 percent of students answered that they could not survive more than 1 month if they lost their jobs. This indicates that students do not make savings monthly. This is supported when as many as 52 percent make savings of less than RM500 per month while as many as 22 percent of UMT students do not make savings every month. This indicates that when a person has a high level of literacy, then they will make permanent savings. This is because they know about managing their finances.

As for the knowledge element in finance, only 19 percent of UMT students have more than 3 e-wallets. This shows there is still a lack of knowledge in digital (digital savvy). Based on a study conducted by (RinggitPlus, 2021) only 30 percent of youths (age 35 and below) use 3 and more e-wallet applications such as Touch 'n Go, Boost, Grabpay and so on. The use of e-wallets is especially important in this era of the Covid-19 pandemic. e-wallets not only do not need to carry cash, but they can also avoid body contact and do not have to waste time queuing to withdraw money at automatic teller machines (ATMs) (Boon Teck, 2020). Meanwhile, in this era of the Covid-19 pandemic, only 21 percent of students are aware of the importance of emergency funds. This is evidenced by a study conducted by the Department of Statistics Malaysia to evaluate the effect of Covid-19 found that 71 percent of self-employed individuals have savings that only last for a month.

3.2.1 ANOVA Test for Financial Literacy

Table 3. One-Way ANOVA Test for Significant Level Differences Between Literacy Levels by Age, Race, Education Level.

Demographic Factors	Variables	Sum of Squares	df	Mean Squared	F Value	Sig.
Age	Between Groups	10.136	4	2.534	2.734	0.033
	In Groups	88.054	95	0.927		
	Total	98.190	99			
Races	Between Groups	1.653	3	0.551	0.960	0.415
	In Groups	55.097	96	0.574		
	Total	56.750	99			
Education Level	Between Groups	0.878	3	0.293	1.587	0.198
	In Groups	17.712	96	0.184		
	Total	18.590	99			

Table 3 shows the result of the One-way ANOVA test. The significant value for financial literacy level by age is 0.033. Therefore, the hypothesis was accepted, and Ho was rejected where there was a significant difference between the level of financial literacy according to age because of the sig. value was <0.05. The significant value for financial literacy level by age was 0.063. Therefore, the hypothesis was rejected, and Ho was accepted where there was no significant difference between the level of financial literacy by race because of the sig. value was > 0.05. The significant value for financial literacy level by faculty was 0.105. Therefore, the hypothesis is accepted, and Ho is accepted where there is no significant difference between the level of financial literacy by faculty because of the sig. value was> 0.05

Table 4. Mean and Standard Deviation for Differences in Financial Literacy Levels by Gender

Gender	N	Mean	Standard Deviation
Male	37	2.49	0.932
Female	63	1.86	0.965
Total	100	2.09	0.996

Table 5. Two-Sample Independent T-Test for Differences in Financial Literacy Levels by Gender

Variable	Levene's Test for equality of F	t-value (equal variance assumed)	df	Sig.	Sig (2-tailed)
Gender	0.093	3.189	98	0.761	0.002

This small difference in mean value was not significant where the value of t (df = 98, p-value > 0.05) = 3.189 as shown in Table 4 and Table 5. Therefore, the alternative hypothesis failed to be supported or accepted because the t-test results of the Two Independent Samples showed no significant level of financial literacy by gender. Based on the analysis made, gender did not play a role in financial literacy, (F = 0.93, Sig. = 0.749).

3.2.2 Financial Problem

Table 6. Financial Problems Faced by Students of Universiti Malaysia Terengganu During the Covid-19 Pandemic

Item	Statement	Strongly disagree (%)	Disagree (%)	Not Sure (%)	Agree (%)	Strongly Agree (%)	Mean	Standard Deviation
1	I spent more during the Covid-19 pandemic	9 -9%	20 -20%	23 -23%	26 -26%	22 -22%	3.33	1.26
2	lost my source of income/ lost a side job during the Covid-19 pandemic	13 -13%	21 -21%	30 -30%	25 -25%	11 -11%	3	1.19
3	I am burdened when I have to spend a lot of money to get good internet access	2 -2%	14 -14%	21 -21%	31 -31%	32 -32%	3.78	1.11
4	My family's income was also affected during the Covid-19 pandemic	9 -9%	13 -13%	18 -18%	26 -26%	34 -34%	3.61	1.32
5	I find that I have to spend more money to buy basic necessities (such as food, drinks)	6 -6%	13 -13%	17 -17%	38 -38%	26 -26%	3.63	1.19

Table 6 displays most students answered strongly agree to show that, students at UMT have problems getting good internet access that is 32 percent who answered strongly agree followed by agreeing that is 31 percent. Apart from that, the income of students' families was also affected because most students answered strongly agree which is 34 percent followed by agreeing which is 26 percent. While for the statement of questions 1 and 2, most students answered agree. This shows that students found that they spent more during the Covid-19 pandemic that is as many as 26 percent who answered agreed. Next, UMT students also need to spend more money to buy necessities, which is 38 percent who answered agree followed by strongly agree which is 26 percent.

3.2.3 Factors of Financial Behavior

Table 7. Results of Pearsons Correlation

Factor of Behavior		Attitude	Influence	Meet Basic Necessities	Desire	Online Purchase
Attitude	Pearson Correlation (r)	1	0.018	-0.083	0.116	0.003
	Sig. (2 tailed)		0.856	0.41	0.252	0.979
	N	100	100	100	100	100
Influence	Pearson Correlation (r)	0.018	1	0.285**	0.535**	0.117
	Sig. (2 tailed)	0.856		0.004	0	0.246

	N	100	100	100	100	100
Meet Basic Necessities	Pearson Correlation (r)	0.083	.285**	1	0.385**	0.155
	Sig. (2 tailed)	0.41	0.004	-	0	0.124
	N	100	100	100	100	100
Desire	Pearson Correlation (r)	0.116	.535**	.385**	1	0.073
	Sig.(2 tailed)	0.252	0	0	-	0.469
	N	100	100	100	100	100
Online Purchase	Pearson Correlation (r)	0.003	0.117	0.155	0.073	1
	Sig.(2 tailed)	0.979	0.246	0.246	0.469	
	N	100	100	100	100	100

**Correlation is significant at the 0.01 level (2-tailed).

Table 7 shows the correlation test. This study found that some factors correlate with other behavioural factors. Thus, for the second factor, the influence factor, there is a significant relationship between meeting the necessities (r = 0.285, sig.= 0.004) and desire (r =0.535, sig = .000). Meanwhile, the third factor that is meeting the necessities has a significant relationship with the factor of meeting the wants (r =0. 085, sig.=0.000). Meanwhile, for other factors such as attitudes and online purchases do not have a significant value among other behavioural factors.

Table 8. Result of Hypothesis Testing

Variable	B	Coefficient std.error	Standardized coefficients	t-stat	Sig.
Constant	2.489	0.643		3.873	0.000
Behaviour	-0.150	0.083	-0.161	-1.814	0.073
Influence	0.017	0.072	0.025	0.240	0.811
Meet Basic Need	0.397	0.098	0.389	4.030	0.000**
Desire	0.161	0.087	0.202	1.850	0.067
Online Purchase	-0.091	0.116	-0.069	-0.784	0.435

Dependent Variable: Financial Problems; * Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 (2-tailed)

An independent variable of meeting basic needs, (β = .389, p <0.01) was a significant predictor factor influencing the behaviour to meet basic needs and wants of UMT students during the Covid-19 pandemic. Thus, the alternative hypothesis (Ha3) was successfully supported and accepted because the results of the Multiple Regression Analysis showed that the aspect of meeting necessities influenced the problems faced by the Students during the Covid-19 pandemic.

4. Discussion

The result of this study indicated that the students spent more during the Covid-19 pandemic that is as many as 26 percent who answered agree. Next, UMT students also need to spend more money to buy necessities, which is 38 percent who answered agree followed by strongly agree which is 26 percent. During this Covid-19 pandemic, most students are burdened because they must spend more money to get good internet access for the online learning process. This is clearly shown by a study conducted by (Hasnah, 2020) on students at Universiti Malaysia Pahang (UMP) found that many students feel burdened when they must spend more money to buy internet data to attend online classes. Furthermore, to get a good level of internet speed, the internet plan offered is not cheap and burdens the students.

Most students also had financial problems when most of the family incomes of UMT students were also affected during the Covid-19 pandemic. This is due to the Movement Control Order (MCO) enforced by the government making economic activity slower. When family income was affected, thus, parents need to prioritize necessities such as food, paying rent and emergency savings over provisions to provide equipment for online spending. Based on the results of multiple regression analysis, the aspect of meeting necessities affects the financial problems faced by UMT students. This indicates that UMT students experience financial problems in meeting necessities. Among the behaviours of students in meeting necessities are food, drink, shelter, educational needs such as reference books, stationery, transportation purposes and health items such as medicines, personal care items and so on.

According to Abdullah & Ahmad (2007), student expenditure in institutions of higher learning can be divided into the cost of education and the cost of living. The cost of living includes the cost allocated for food, shelter, clothing, and other necessities (Husni Nizad et al., 2014). Tuition costs consist of tuition fees, books, and the use of facilities at the place of study. Most students allocate 23.23 percent of their income for basic needs such as food and beverages and 8.66 percent for accommodation (Abdul Rahman et al., 2008). This is in line with the study conducted by Saruchi et al., (2015) that student spending on average is much spent on basic needs which is 28.20 percent. This shows that the financial problems faced by UMT students are due to their behaviour in terms of meeting necessities. Thus, financial problems are not influenced by student attitudes, influence, goods desires, and online purchases. The findings of the study showed that there was a significant relationship between meeting the necessities (r= 0.285, sig.=0.004) and desire (r =0.535, sig = 0.000). Whereas the factor of satisfying the necessities had a significant relationship with the factor of satisfying the desire (r =0.085, sig. = 0.000). Meanwhile, other factors such as attitudes and online purchases do not have a significant value among other behavioural factors. The findings also show that there is an influence on the problems faced by students by meeting the necessities (β=0.389, sig. <0.01) because the significant value is less than 0.01.

5. Conclusions

The low level of financial literacy is due to a lack of financial education. This is so because, financial education has a positive relationship with the level of financial literacy of an individual (Wagner, 2015). Therefore, students should improve their knowledge of finance such as participating in programs conducted by the Credit Counseling and Management Agency (AKPK). AKPK is an agency developed by Bank Negara Malaysia (BNM) that provides financial education to adult consumers. Among the education modules provided by AKPK are higher education, employment, family, and retirement. The findings of the study also found that there is a significant influence between necessities and financial problems faced by students. Various financial problems faced by students, especially during this Covid-19 pandemic. Therefore, every student should be aware of the assistance provided by the government such as e-Belia, laptop assistance and free internet for the B40 group and Compassionate Fund Scheme Assistance (SDEP). Apart from that, IPT students can also get zakat according to their respective states such as the Federal Territory Islam Religious Council (MAWIP), Selangor Children's Zakat Education Contribution Assistance, and Johor Student Hope Incentive (IHS) application assistance and so on. Therefore, the burden on students in meeting necessities can be reduced with the assistance and incentives provided by the government.

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