

Pinpointing the Determinants of Financial Literacy: Empirical Evidence of Indonesian Employees in Malaysia

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Abstract:

This paper investigates the determinants variables of financial literacy through Exploratory Factor Analysis among Indonesian employees' works in Malaysia. This study is quantitative study with 117 respondents. The data from respondents are collected through questionnaire on five-point Likert scale. Data analysis employs EFA (Exploratory Factor Analysis) which reduce the factors into expected variables. The study found that there 7 factors emerged in based on data analysis namely, financial literacy contributes with higher percentages factors 13.93%, financial planning contributes with 11.28%, financial control with 9.86%, exchange rate awareness with 9.52%, financial attitude with 9.07, financial subjective norms with 8.76, and lastly financial awareness contributes 6.93%. Meanwhile, simultaneously all variables have commutative percentages about 69.38%. Further studies are required to investigate or examine each emerged variables for example, SEM, Regression analysis, One Way ANOVA, and so on. Moreover, wider coverage of research sample and research object also suggested.

Keywords: *Financial Literacy; Indonesian Employee; EFA;*

Abstrak:

Penelitian ini mengkaji variabel determinan literasi keuangan melalui Exploratory Factor Analysis pada pekerja Indonesia yang bekerja di Malaysia. Penelitian ini merupakan penelitian kuantitatif dengan 117 responden. Data dari responden dikumpulkan melalui kuesioner pada skala Likert lima poin. Analisis data menggunakan EFA (Exploratory Factor Analysis) yang mereduksi faktor menjadi variabel yang diharapkan. Studi ini menemukan bahwa ada 7 faktor yang muncul berdasarkan analisis data yaitu, literasi keuangan berkontribusi dengan persentase faktor yang lebih tinggi dari yang lain yaitu 13,93%, perencanaan keuangan berkontribusi sebesar 11,28%, kontrol keuangan sebesar 9,86%, kesadaran nilai tukar sebesar 9,52%, sikap keuangan sebesar 9,07, norma subjektif keuangan dengan 8,76, dan terakhir kesadaran keuangan memberikan kontribusi 6,93%. Sedangkan secara simultan semua variabel memiliki persentase komutatif sebesar 69,38%. Studi lebih lanjut diperlukan untuk menyelidiki atau meneliti setiap variabel yang muncul misalnya, SEM, analisis Regresi, One Way ANOVA, dan sebagainya. Selain itu, cakupan sampel penelitian dan objek penelitian yang lebih luas juga disarankan.

Kata Kunci: *Literasi Keuangan; Pekerja Indonesia; EFA;*

INTRODUCTION

The pandemic has been shocked the entire world on 2019 which called COVID-19, shockingly it is not named based on the country it's appear such as Ebola, MERS, and so on. The virus is also affecting to South East Asia country such us Indonesia and Malaysia. At the high risk of virus influence Indonesia employee at Malaysia was mostly terminated by the company due to downsizing policy as an effort to avoid budget deficit.¹ The employees that shocked and has no preparation on his or her financial would find economic problems and resulting financial losses.²

In line with that, the chain effect of personal financial losses is the decrement of economic growth including Indonesia and Malaysia. For example, Central Bank of Indonesia reported that the rate of Indonesian economic growth on 2nd quarter was about -5.32% which is decreased from the 1st quarter which about 2.97%.³

One of the problem occurred which caused the personal financial losses as well as the decrement of the economic growth is the restriction during pandemic time in all activities which causing to deceleration of production that reducing the pace of economy.⁴ Another reason is the decline of household consumption. Household consumption reduced due to the decline of income or event loss of income due to the layoffs.⁵

The layoffs of Indonesian Employees in Malaysia is causing to their exodus at the pandemic time which also increasing the decline of economic growth of Indonesia as well as increment of Covid-19 spreading rate at that time.⁶ Moreover, the loss of their income is also increasing the rate of crime in Indonesia.⁷ Indeed, the main problem of loss income is the literacy of financial on household especially in Indonesian employee. The question is, not only their literacy of financial but what the determinants of their financial literacy are or what factors that supporting their understanding of financial awareness and financial inclusion as employee in Malaysia. Moreover, financial literacy is better to predict the happiness rather than level of income has been achieved.⁸

¹ Janice Lay Hui Nga, Wijaya Kamal Ramlan, and Shafinaz Naim, "Covid-19 Pandemic and Its Relation to the Unemployment Situation in Malaysia: A Case Study from Sabah," *Cosmopolitan Civil Societies: An Interdisciplinary Journal* 13, no. 2 (July 1, 2021), <https://doi.org/10.5130/ccs.v13.i2.7591>.

² Povilas Lastauskas, "Lockdown, Employment Adjustment, and Financial Frictions," *Small Business Economics* 58, no. 2 (February 3, 2022): 919–42, <https://doi.org/10.1007/s11187-021-00496-3>.

³ Wanti Ernawati et al., "Indonesia's Macroeconomic Development During the Covid-19 Pandemic Between Obstacles, Challenges and Opportunities in the New Normal Era," in *Proceedings of the 2nd International Conference on Law, Social Science, Economics, and Education, ICLSSEE 2022, 16 April 2022, Semarang, Indonesia* (Semarang: EAI, 2022), <https://doi.org/10.4108/eai.16-4-2022.2319713>.

⁴ Prince Asare Vitenu-Sackey and Richard Barfi, "The Impact of Covid-19 Pandemic on the Global Economy: Emphasis on Poverty Alleviation and Economic Growth," *The Economics and Finance Letters* 8, no. 1 (2021): 32–43, <https://doi.org/10.18488/journal.29.2021.81.32.43>.

⁵ Andrea Flores and George-Levi Gayle, "Disparities in COVID-19's Impact on Employment and Household Consumption," *Review* 104, no. 4 (2022), <https://doi.org/10.20955/r.104.224-65>.

⁶ Ainuddin Iskandar Lee Abdullah, "Malaysia Border Security and Pandemic COVID-19," in *COVID-19 in South, West, and Southeast Asia*, 1st ed. (London: Routledge, 2022), 182–92, <https://doi.org/10.4324/9781003291909-12>.

⁷ Rahman Syamsuddin et al., "The Effect of the Covid-19 Pandemic on the Crime of Theft," *International Journal of Criminology and Sociology* 10 (December 31, 2020): 305–12, <https://doi.org/10.6000/1929-4409.2021.10.37>.

⁸ Huiwen Xiao and Ziqiang Xin, "Financial Literacy Is Better than Income to Predict Happiness," *Journal of Neuroscience, Psychology, and Economics* 15, no. 3 (September 2022): 119–36, <https://doi.org/10.1037/npe0000161>.

Several studies have been attempted to identifying and investigating as well as examining the determinant of financial literacy. Lovanda et al, (2021) investigating the determinant of financial well-being among young workers in Jakarta and found financial literacy affects the management of individual finance and solve financial problems as well as personal ability to decide on investment, savings, and other financial risks.⁹ Anshika et al, (2021) investigating the determinants of general financial literacy, specific financial literacy and overall financial literacy among the Micro and Small Enterprises (MSEs) entrepreneurs and found the gross profit of the entrepreneur is the most influence factor of financial literacy.¹⁰

In addition, Twumasi et al, (2021) examining the determinants of rural dwellers financial literacy in Ghana and found that gender, income, age and education significantly affect financial literacy.¹¹ Moreover, the dwellers that are risk seekers and listen or watch education programs are more likely to be financially literate. Hossain & Maji, (2021) Gender, marital status, financial condition, technological aptitude and education were found to be the determinants of the financial literacy.¹²

However, there is still few research that determining the financial literacy factors through exploratory factor analysis. Therefore, this paper is aims to pinpointing the determinants of financial literacy of Indonesian employees in Malaysia. This paper presents to analyse the practice of Exploratory Factor Analysis (EFA) in a research which works to identify the relationship between factors.

RESEARCH METHOD

The data for this study is obtained from the employees in Malaysia with Indonesia citizenship through questionnaire survey method. The Indonesian employees in Malaysia are largely stayed in Kampung Sungai Chin-chin a total 166 people which consider as the population of the study. Therefore, 117 of sample size specify by Slovin based on the population of the study.¹³ The questionnaire then distributed to the 117 respondents and collected as the data of the study.

The respondents of the study are consisted of 70.9% male and 29.1% female. Majority of the respondents are married which about 55.6% followed by single status about 43.6% and widowed about 0.9%. Accordingly, about 40.2% out of 100% respondents are post-graduated while 39.3% are under-graduated or equivalent, followed by high school about 11.1% and the rest of respondent are primary school about 3.4% junior high school 5.1% and senior high school 0.9%. Based on age about 55.6% of respondents are between 26-35 years old, followed by 18-25 years old about 35% while the rest is above 36 years old about 9.4%. Based on the living period in Malaysia about 34.2% of respondent stayed in Malaysia more

⁹ Pamela Lavonda, Ignatius Roni Setyawan, and Margarita Ekadjadja, "Determinants of Financial Well-Being Among Young Workers in Jakarta During the Covid-19 Pandemic," *Jurnal Ekonomi* 26, no. 2 (June 18, 2021): 305–320, <https://doi.org/10.24912/je.v26i2.752>.

¹⁰ Anshika, Anju Singla, and Girijasankar Mallik, "Determinants of Financial Literacy: Empirical Evidence from Micro and Small Enterprises in India," *Asia Pacific Management Review* 26, no. 4 (December 2021): 248–55, <https://doi.org/10.1016/j.apmr.2021.03.001>.

¹¹ Martinson Ankrah Twumasi et al., "Financial Literacy and Its Determinants: The Case of Rural Farm Households in Ghana," *Agricultural Finance Review* 82, no. 4 (July 7, 2022): 641–56, <https://doi.org/10.1108/AFR-06-2021-0078>.

¹² Muktar Hossain and Sumit Kumar Maji, "Antecedents of Financial Literacy: Evidences from West Bengal, India," *SSRN Electronic Journal* 8 (2021): 15–36, <https://doi.org/10.2139/ssrn.3815190>.

¹³ Sugiyono, *Metodologi Penelitian Kuantitatif Kualitatif Dan R&D* (Bandung: Alfabeta, 2011).

than 3 years, 29.9% stayed between 1-2 years and 24.8% of them stayed about 2-3 years while the rest 11.1% is new comers in Malaysia. The summary of respondents is described in the table below:

Table 1
Demographic of Respondents

Content	Frequency	Percentage
Gender		
<i>Male</i>	83	70.9%
<i>Female</i>	34	29.1%
Marital Status		
<i>Married</i>	65	55.6%
<i>Single</i>	51	43.6%
<i>Widowed</i>	1	0.9%
Level of Education		
<i>Post-Graduated</i>	47	40.2%
<i>Under-Graduated</i>	46	39.3%
<i>High School</i>	13	11.1%
<i>Junior High School</i>	6	5.1%
<i>Senior High School</i>	4	0.9%
<i>Primary School</i>	1	3.4%
Age		
<i>18-25 year old</i>	41	35%
<i>26-35 years old</i>	65	55.6%
<i>Above 36 years old</i>	11	9.4%
Living Period		
<i>More than 3 years</i>	40	34.2%
<i>Between 2-3 years</i>	29	24.8%
<i>Between 1-2 years</i>	35	29.9%
<i>New comers</i>	13	11.1%

The obtained data then analysed through Exploratory Factor Analysis (EFA) to investigate or seek the favourable factor or indicator that emerged from several variables designed questions.¹⁴ In other words, EFA is employed to identify the relationship between factors in which the results is able to utilize for further analysis where the grouping variables confirmed and assess the degree of data which meet the expected structure.¹⁵

Furthermore, to construct the variables from collected data of respondents, 64 question variables were composed based on the theories. Therefore, the 64 question variables that need to pinpoint as the determinant of financial literacy of Indonesian employee in Malaysia is describes in the table below:

¹⁴ Adib Susilo, "Identifying Factors That Affect Consumer Satisfaction of Parklatz Café in Ponorogo City, East Java, Indonesia: An Application of Exploratory Factor Analysis," *Falah: Jurnal Ekonomi Syariah* 5, no. 1 (2020): 1–14, <https://doi.org/10.22219/jes.v5i1.11399>.

¹⁵ Adib Susilo, Nurdianawati Irwani Abdullah, and Nor Azizan Che Embi, "Islamic Business Ethics as Customer Retention Factors in Islamic Bank: An Exploratory Factor Analysis," *Iqtishodia: Jurnal Ekonomi Syariah* 7, no. 2 (September 17, 2022): 01–10, <https://doi.org/10.35897/iqtishodia.v7i2.845>.

Table 2
Factors of Financial Literacy Determinants

Variables	Item Factors
1	For me, understanding about the Bank is important
2	For me, understanding the Pension Fund is important
3	For me, an understanding of Financial Institutions is important
4	The way I manage my finances today will impact my future
5	Investing regularly is important to achieve future goals in the long term
6	I have a Bank Account
7	I have an ATM card
8	I once made a transfer through a bank
9	I have insurance
10	I use an ATM card to pay for insurance
11	I set aside 10% of my income for repayments
12	I set aside my income for retirement savings
13	I once exchanged money at a money changer
14	I already have an emergency fund in the form of savings, gold or something else
15	I have financial targets
16	I worry about the best way to manage my finances
17	I record and control my personal expenses
18	I execute a weekly or monthly spending plan
19	I can travel for more than one month without considering my expenses
20	I am satisfied with the way I manage my finances
21	I pay my bills without delay
22	When buying goods in instalments, I compare the available credit options
23	I always set aside at least 10% of my monthly income for future preparation
24	I save every month
25	I have savings of at least three times my monthly income that can be used in case of unforeseen circumstances
26	I compare prices when buying something
27	I look at my financial condition before big shopping
28	Before exchanging money, I looked at the exchange rate online
29	I always compare currency exchange rates between counters before exchanging money
30	I keep an eye on changes in currency exchange rates
31	Before making an exchange, I always look at the exchange rate
32	I have experience with financial institutions
33	If during this month my expenses equal my monthly income, I can pay without borrowing money or asking friends or family for help
34	I am satisfied with my current financial situation
35	My family gives an understanding of how to manage finances
36	I talk about financial products and services (Example: internet banking, Hajj savings, money exchange, etc.) with other people
37	I always ask my family before choosing a financial product
38	I always ask my family before making financial transactions

Variables	Item Factors
39	Currently, I am a member of an organization or community
40	I am currently joining a labor union
41	I often communicate with other people
42	I often read advertisements about financial products and services in the media
43	Social Media gives me information about financial products and services
44	Advice from friends or relatives influences my decision in choosing a financial product
45	The people around me influence my decisions in using financial products and services
46	The organization that I follow provides information about financial products and services (Example: internet banking, Hajj savings, money exchange, etc.)
47	My workplace taught me how to manage financial programs
48	I have received information about financial services or products via telephone/sms/e-mail and then I realized that the information was incorrect
49	My religion teaches me to choose halal financial products
50	I plan all my personal expenses
51	I can distinguish between wants and needs
52	Planning family financial management is important
53	I have understood about the Bank
54	I have understood about insurance
55	I have understood about pension funds
56	I have understood about financial institutions
57	I have understood about money exchange
58	Before deciding to buy, I have to be careful and consider whether I can afford it or not
59	I set aside my income to save
60	I can manage monthly expenses
61	For me, setting financial targets for the future is important
62	I have planned and saved or invested for my child's education to graduate
63	I have planned productive activities for my old age
64	I already know the benefits of insurance

The 64 items above then distributed as questionnaire and analysed using Exploratory Factor Analysis through SPSS 20. The Varimax rotation was applied for principal component analysis. Keiser-Meyer-Olkin (KMO) score and Bartlett's test was verified.¹⁶ The suitability of data for factor analysis is typically assessed by Kaiser-Meyer-Olkin (KMO) Measure and Bartlett's test of sphericity. The suggestion for KMO is the 0.90s consider as marvellous adequacy, in the 0.80s is meritorious, in the 0.70s is middling, in the 0.60s is mediocre, in the 0.50s is miserable and below 0.5 is unacceptable.¹⁷ Meanwhile, the Bartlett's test of sphericity should be significant with probability ≤ 0.05 . The next stage of factor analysis is selecting the number of factors, which is the most common criteria are: Kaiser rule –retain only those factors with an eigenvalue larger than 1; and Cattell criterion –a scree-plot.

¹⁶ Joseph F. Hair et al., *Multivariate Data Analysis*, 7th ed. (New York: Pearson Prentice Inc, 2010).

¹⁷ Henry F. Kaiser, "An Index of Factorial Simplicity," *Psychometrika* 39, no. 1 (1974): 31–36.

The extraction of factors is usually conducted by principal components analysis (PCA). Principal component analysis is usually used in “typical” EFA –it is one of the techniques used for calculation of factor loadings. PCA is used as the adaptation of classical Hotteling’s principle components analysis for factor analysis, and in practically is the most popular. The next step of factor analysis is the choice of rotation method. The goal of rotation is to simplify and clarify the data structure.¹⁸ On the basis of loadings values we could indicate the variables with practically importance –it should be above ± 0.5 . The analysis could be finished by interpretation of factors (using loading for all variables).

RESULT AND DISCUSSION

The result of this study indicated that there are seven variables emerged after analysis data namely, financial literacy, financial planning, financial control, exchange rate awareness, financial attitude, financial subjective norms, financial awareness. The seven emerged variables are conclusion from the data analysis that has been eliminated 31 items factors which not discuss in this analysis. The examination method of KMO that used to measure sampling adequacy suggested that the sample was factorable where about 0.796, and Bartlett’s test of sphericity scored 2596.275 with significant level of 0.000 less than 0.05, which means there are correlations between variables. Table 3 below shows KMO and Bartlett’s test.

Table 3
KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	0.796
Bartlett's Test of Sphericity	Approx. Chi-Square of df	2596.275
	Sig.	0.000

Meanwhile, the adequacy of factors needs to be measured, to matching and selecting the suitability of the factors in order to further data analysis. The measures of sampling adequacy described on the table 4:

Table 4
Measures of Sampling Adequacy

Items	MSA
X3	0.778
X4	0.750
X5	0.694
X7	0.708
X8	0.636
X11	0.728
X12	0.814
X16	0.831
X17	0.698

¹⁸ A. Malina, “The Factor Analysis in Research of the Spatial Differentiation of Poland’s Economic Structure,” *Statistics in Transition* 6, no. 7 (2004).

Items	MSA
X18	0.727
X23	0.889
X24	0.848
X25	0.730
X26	0.805
X27	0.785
X28	0.780
X29	0.775
X30	0.755
X31	0.842
X37	0.735
X38	0.639
X51	0.778
X52	0.712
X53	0.868
X54	0.856
X55	0.827
X56	0.863
X57	0.885
X58	0.827
X60	0.851
X61	0.804
X62	0.828
X63	0.874

Based on the table 4 above, it is shown that the samples are adequate enough. Means, all variables are suitable and eligible as the values are more than 0.5. Therefore, the data continued for further analysis. The result of criteria analysis, the extraction factors which explained with Eigen value, cumulative percentage, and rotate component matrix that showed the criteria analysis is described as below:

Table 5
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.121	30.669	30.669	10.121	30.669	30.669	4.597	13.931	13.931
2	3.411	10.337	41.007	3.411	10.337	41.007	3.723	11.283	25.214
3	2.622	7.946	48.953	2.622	7.946	48.953	3.256	9.867	35.081
4	2.498	7.571	56.524	2.498	7.571	56.524	3.144	9.527	44.608
5	1.796	5.442	61.966	1.796	5.442	61.966	2.995	9.076	53.684
6	1.341	4.064	66.030	1.341	4.064	66.030	2.893	8.768	62.452
7	1.109	3.359	69.389	1.109	3.359	69.389	2.289	6.937	69.389

Extraction Method: Principal Component Analysis.

Table 5 above shows that from 33 items there are 7 components with 1 initial eigenvalue which can be conclude that there are 7 variables emerged or formed based from 33 items. In the table 5 as well, the cumulative percentage is 69.389% which means the variance extracted is mediocre and acceptable. Furthermore, the component matrix that emerged the items into variables is shown in the table 6 below:

Table 5
Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
X54	.840						
X55	.821						
X53	.787						
X56	.783						
X57	.770						
X07	.592						
X24		.753					
X62		.700					
X25		.680					
X63		.673					
X23		.598					
X60		.597					
X17			.711				
X18			.695				
X26			.684				
X27			.645				
X16			.604				
X29				.822			
X30				.806			
X31				.784			
X28				.658			
X52					.814		
X58					.717		
X61					.682		
X51					.643		
X38						.728	
X37						.701	
X11						.694	
X12						.618	
X03							.647
X04							.503
X05							.785
X08							.612

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

Table 7 shows there are no cross loading factors or blank loading factors, means 7 variables has been merged from 33 items. The 7 variables are variable I consist of 1 (knowledge on insurance), 2 (pension fund awareness), 3 (knowledge about bank), 4 (knowledge about financial institution), 5 (knowledge about money exchange), 6 (ATM ownership). Variable I then named as financial literacy. Variable II consist of 7 (monthly saving plan), 8 (financial planning for education), 9 (emergency fund savings), 10 (financial planning for pension), 11 (financial planning for future), 12 (insurance benefit). Variable II then named as financial planning. Variable III consist of 13 (control on personal expenses), 14 (planning for weekly spending), 15 (price comparison on spending), 16 (financial condition control), 17 (financial control attention). Variable III then named as financial control. Variable IV consists of 18 (exchange rate currency comparison), 19 (attention on currency rate), 20 (exchange decision of money based on rate), 21 (awareness of exchange rate). Variable IV then named as exchange rate currency awareness. Variable V consists of 22 (importance of family financial planning), 23 (spending consideration), 24 (financial target setting), 25 (distinguish of needs). Variable V then named as financial attitude. Variable VI consists of 26 (family influence of financial decision), 27 (family influence on purchase), 28 (income repayment), 29 (retirement saving). Variable VI then named as financial subjective norms. Variable VII consist of 30 (awareness of financial understanding), 31 (awareness of financial management impact), 32 (awareness of investment), 33 (awareness of banking transaction). Variable VII then named as financial awareness. The final result of the extracted and emerged variables from data analysis is presented in the table below:

Table 5
Result of Factor Analysis

Variables	Measurement Items	Factor Loading
Financial Literacy	Knowledge on Insurance	0.840
	Pension Fund Awareness	0.821
	Knowledge About Bank	0.787
	Knowledge About Financial Institution	0.783
	Knowledge About Money Exchange	0.770
	ATM Ownership	0.592
Financial Planning	Monthly Saving Plan	0.753
	Financial Planning for Education	0.700
	Emergency Fund Savings	0.680
	Financial Planning for Pension	0.673
	Financial Planning for Future	0.598
	Insurance Benefit	0.597
Financial Control	Control on Personal Expenses	0.711
	Planning for Weekly Spending	0.695
	Price Comparison on Spending	0.684
	Financial Condition Control	0.645
	Financial Control Attention	0.604
Exchange Rate Currency Awareness	Exchange Rate Currency Comparison	0.822
	Attention on Currency Rate	0.806
	Exchange Decision of Money Based on Rate	0.784

Variables	Measurement Items	Factor Loading
	Awareness of Exchange Rate	0.658
Financial Attitude	Importance of Family Financial Planning	0.814
	Spending Consideration	0.717
	Financial Target Setting	0.682
	Distinguish of Needs	0.643
Financial Norms	Family Influence of Financial Decision	0.728
	Family Influence on Purchase	0.701
	Income Repayment	0.694
	Retirement Saving	0.618
Financial Awareness	Awareness of Financial Understanding	0.647
	Awareness of Financial Management Impact	0.503
	Awareness of Investment	0.785
	Awareness of Banking Transaction	0.612

Based on the table 5 above, the 7 variables have its own indicators or measurement items. Financial literacy is very important for people to be aware of how to manage their personal finances which in turn able to increase their prosperity and well-being of the society.¹⁹ Indeed, financial literacy has been proved became the needs of new generation (Gen-Y and Gen-Z) especially for Indonesian due to low level of financial literacy.²⁰ Also, it is due to lack of financial literacy both at the family and educational levels.²¹ Therefore, the knowledge about financial institution, bank, knowledge of insurance, owning saving accounts and ATM cards, knowing exchange of foreign money is part of financial literacy factors.

Furthermore, financial planning also factors that related to financial literacy which the higher the financial literacy level of a person, the higher the person's awareness of financial planning.²² Moreover, financial planning is the behaviour to prevent future uncertainty.²³ For example; planning for education costs for children; insurance for life,

¹⁹ Taofik Hidajat, *Literasi Keuangan* (Semarang: STIE Bank BPD Jateng, 2016), [https://books.google.co.id/books?id=UBq8DAAAQBAJ&lpg=PA1&ots=FvM5i0TeT7&dq=Hidajat%2CT.\(2016\).LiterasiKeuangan.STIEBankBPDJateng&lr&hl=id&pg=PR2#v=onepage&q=Hidajat,T.\(2016\).LiterasiKeuangan.STIEBankBPDJateng&f=false](https://books.google.co.id/books?id=UBq8DAAAQBAJ&lpg=PA1&ots=FvM5i0TeT7&dq=Hidajat%2CT.(2016).LiterasiKeuangan.STIEBankBPDJateng&lr&hl=id&pg=PR2#v=onepage&q=Hidajat,T.(2016).LiterasiKeuangan.STIEBankBPDJateng&f=false).

²⁰ Ade Maya Saraswati and Arif Widodo Nugroho, "Perencanaan Keuangan Dan Pengelolaan Keuangan Generasi Z Di Masa Pandemi Covid 19 Melalui Penguatan Literasi Keuangan," *Warta LPM* 24, no. 2 (March 19, 2021): 309–18, <https://doi.org/10.23917/warta.v24i2.13481>.

²¹ Jane S. Lopus, Dwi Sulistyorini Amidjono, and Paul W. Grimes, "Improving Financial Literacy of the Poor and Vulnerable in Indonesia: An Empirical Analysis," *International Review of Economics Education* 32 (September 2019): 100–168, <https://doi.org/10.1016/j.iree.2019.100168>.

²² Jamie Wagner, "Financial Education and Financial Literacy by Income and Education Groups," *Journal of Financial Counseling and Planning* 30, no. 1 (June 1, 2019): 132–41, <https://doi.org/10.1891/1052-3073.30.1.132>.

²³ Manish Talwar et al., "Has Financial Attitude Impacted the Trading Activity of Retail Investors during the COVID-19 Pandemic?," *Journal of Retailing and Consumer Services* 58 (January 2021): 102341, <https://doi.org/10.1016/j.jretconser.2020.102341>.

accident, and health; emergency funds; pension funds plan, etc. Therefore, literacy in finance is the way to understand how to arrange financial planning as a future guarantee and as an effort to avoid things that are not desirable.

In line with that, personal control is an absolute for personal finance.²⁴ A person that is not able to control his own money would be controlled by the money it-self.²⁵ As several studies showed that, the higher level of income would be in line with the purchase power that would lead to his consumption lifestyle.²⁶ Therefore, a control on expense, managing monthly spends and financial condition control should become the financial behaviour of person as the result of financial literacy.

In case of Indonesia employee in Malaysia, the awareness of exchange rate is necessary due to their needs of money exchange for some reason. The knowledge of rate exchange between currencies currently is convenient as the internet has provided all the data needs by the people. Moreover, most of the employees are android user that able to seek the best rate of exchange event in the middle of work in the short time.²⁷

Financial literacy is also related to the attitude of a person which influences of person's behaviour in his personal finance. A person which literate in finance is would consider any spending from his income.²⁸ Also, targeting their income level to achieve several goals with a plan of financing the target, definitely, funds for family also matter. Moreover, a person who literate financially would distinguish what is the want and needs for his daily life.²⁹

Therefore, the environment also matters in person to encourage him to be literate or have good behaviour in finance. A family that has a good habit in finance would cogitate in the financial decision whether it is primary needs or tertiary needs (wants).³⁰ Also, purchasing decisions would be considered by the family if they are literate in finance. Furthermore, a close relative also encourages a person to have savings accounts for retirement and leisure.³¹ Lastly, a person that has good financial literacy (understanding and knowledge) would have

²⁴ M. Rizky Dwi Prihartono and Nadia Asandimitra, "Analysis Factors Influencing Financial Management Behaviour," *International Journal of Academic Research in Business and Social Sciences* 8, no. 8 (August 31, 2018): 308–326, <https://doi.org/10.6007/IJARBS/v8-i8/4471>.

²⁵ Edwin A. Locke and Kaspar Schattke, "Intrinsic and Extrinsic Motivation: Time for Expansion and Clarification," *Motivation Science* 5, no. 4 (December 2019): 277–90, <https://doi.org/10.1037/mot0000116>.

²⁶ Conchita D'Ambrosio, Markus Jäntti, and Anthony Lepinteur, "Money and Happiness: Income, Wealth and Subjective Well-Being," *Social Indicators Research* 148, no. 1 (February 12, 2020): 47–66, <https://doi.org/10.1007/s11205-019-02186-w>.

²⁷ Milla Naeruz et al., "The Impact of Economic Growth on Technological Developments, Emoneys and Fluctuations Interest Rates and Exchange Rates in Indonesia," in *E3S Web of Conferences*, ed. Muhammadar et al., vol. 339, 2022, 05008, <https://doi.org/10.1051/e3sconf/202233905008>.

²⁸ Kamini Rai, Shikha Dua, and Miklesh Yadav, "Association of Financial Attitude, Financial Behaviour and Financial Knowledge Towards Financial Literacy: A Structural Equation Modeling Approach," *FIIB Business Review* 8, no. 1 (March 5, 2019): 51–60, <https://doi.org/10.1177/2319714519826651>.

²⁹ Yoshihiko Kadoya and Mostafa Saidur Rahim Khan, "Financial Literacy in Japan: New Evidence Using Financial Knowledge, Behavior, and Attitude," *Sustainability* 12, no. 9 (May 2, 2020): 3683, <https://doi.org/10.3390/su12093683>.

³⁰ Vera Dewi et al., "Financial Literacy among the Millennial Generation: Relationships between Knowledge, Skills, Attitude, and Behavior," *Australasian Business, Accounting & Finance Journal* 14, no. 4 (2020): 24–37, <https://doi.org/10.14453/aabfj.v14i4.3>.

³¹ Saeed Pahlevan Sharif and Navaz Naghavi, "Family Financial Socialization, Financial Information Seeking Behavior and Financial Literacy among Youth," *Asia-Pacific Journal of Business Administration* 12, no. 2 (April 10, 2020): 163–81, <https://doi.org/10.1108/APJBA-09-2019-0196>.

financial awareness.³² In other words, he would be aware of financial planning, financial institution, financial products, investments, etc. that in turn, they would be inclusive financially.

CONCLUSION

Based on the finding there are 7 variables consider as financial literacy that able to analyse in further studies namely, financial literacy contributes with higher percentages factors 13.93%, financial planning contributes with 11.28%, financial control with 9.86%, exchange rate awareness with 9.52%, financial attitude with 9.07, financial subjective norms with 8.76, and lastly financial awareness contributes 6.93%. Meanwhile, simultaneously all variables have commutative percentages about 69.38%. However, the remarkable of this study is limited on the factor analysis study which exploring and emerging or grouping variables. Therefore, further studies are required to investigate or examine each emerged variables for example, SEM, Regression analysis, One Way ANOVA, and so on. Moreover, wider coverage of research sample and research object also suggested.

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³² Joseph Kwadwo Tuffour, Awurabena Asantewa Amoako, and Ernestina Otuko Amartey, "Assessing the Effect of Financial Literacy Among Managers on the Performance of Small-Scale Enterprises," *Global Business Review* 23, no. 5 (October 19, 2022): 1200–1217, <https://doi.org/10.1177/0972150919899753>.

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