

# Analysis of the Effectiveness of Financial Education for Small and Medium Enterprises to Increase Financial Literacy (Preliminary Study: A Small Business Enterprise in Bandung)

Maya Malinda<sup>1\*</sup>, Asni Harianti<sup>2</sup>, Miki Tjandra<sup>3</sup>, Meryana Meryana<sup>4</sup>

Universitas Kristen Maranatha, Jl. Prof.drg. Surya Sumantri No.65 <sup>1,2,3</sup>

\*Corresponding author. Email: maya.malinda@eco.maranatha.edu<sup>1</sup>; asni.harianti@yahoo.co.id<sup>2</sup>; mikitjan@gmail.com<sup>3</sup>

## ABSTRACT

Financial education is very important to everyone including financial education on Small Business Enterprise (SBE). This preliminary study revealed that financial education can increase financial literacy significantly. Using Financial Fitness Quiz built by O'Neill, there were different results before and after the training on financial planning for business and personal purpose. Among 32 participants before training, the summary of Insurance & Estate Planning and Credit Shopping, participants gave very low score which was less than 20 points, which means that they needed a lot of help to manage their finance. About Financial Management: Saving/Investing, their score was less than 40, which was categorized in financial difficulties. On contrast, after the training there was significantly different result in form of the increase of Financial Literate.

**Keywords:** Financial Education, Small Business Enterprise (SBE), Financial Literate.

## 1. RESEARCH BACKGROUND

Financial literacy is the possession of knowledge and understanding of financial matters. The absence of financial literacy can lead to making poor financial decisions that can have adverse effects on financial health of an individual. Financial education is critical in helping people with their own budget to manage their income, to save and invest efficiently, and to avoid becoming the victims of fraud. OECD revealed that financial education is increasingly necessary for individuals not only to ensure their own financial well-being, but also to ensure the smooth functioning of financial markets and the economic as a whole [1]. The definition of Financial Literacy or Literacy is the ability to understand how money works in the world: how one manages to get or make it, how someone manages it, how he / she invests it (turns it into more) and how people contribute to help others. Giesler and Ela in [2] stated that financial literacy can be interpreted as financial knowledge, which has a goal to achieve prosperity.

The surveys in OECD countries showed that financial levels were especially low for certain groups, such as the less educated, minorities, and those at the lower-end of the income distribution. Financial education can help individual to move out from poverty. Financial education can benefit consumers of all ages and income levels, such as: it can help young generations that have just begun their lives by providing basic tools for budgeting and saving to control the expenses and debts, it can help workers to ensure enough savings for a comfortable retirement by providing information and skills to make wise investment for their

pension, and it can also help families acquire discipline to save for a home or their children's education.

Financial education can help individuals and families to continue their education. Education is the target for people to move out from poverty. The average of overall Indonesian Financial Literacy Index (FLI) was 42.51 (on a scale of 0-100). Financial literacy is correlated with the level of income and education. The lower the education or income level means the lower the level of financial literacy. Based on S&P Global FINLIT survey 2015 in worldwide, there was only 1-in-3 adults were financially literate. Not only is financial illiteracy widespread, but there were big variations among the countries and groups. The information on financial literacy was based on the questions added to the Gallup World Poll survey. More than 150,000 nationally representative and randomly selected adults in more than 140 economies were interviewed during the 2014 calendar year. Then, the literacy questions measured the four fundamental concepts for financial decision-making—basic numeracy, interest compounding, inflation, and risk diversification [3].

Moreover, the survey on country-level financial literacy (ranges from 13 percent to 71 percent) revealed that Indonesia was in the range between 25-34, meanwhile Japan was in the range between 45-54. This data explains that for young generation in Japan, they had higher financial literacy compared to those in Indonesia.

Small Business Enterprise (SBE) should be equipped with the skills and information they need to make some financial choices. Financial literacy is a life skill that's more vital than ever before. While financial decisions have confronted all generations in the past, SBE today must make increasingly important and complex choices about consumption, saving and investment. The financial literacy will impact on the

nation's future of financial health. Therefore, comprehensively-built financial capability is needed for lifelong financial health for individuals and also for business. The mutual understanding and knowledge-sharing among people will enforce the findings of the solutions to common issues in financial literacy to make significant social and business change through fostering the process of mutual learning.

In addition, Lusardi and Mitchell (2014) there have been quite a number of studies to measure Lusardi's financial literacy rates, [4] for various roles, such as students, Rita & Santoso research sample from housewives [5]. Zahroh (2014) examined the level of financial knowledge, personal financial attitudes, and personal financial behavior of management students of the economics and business faculties in semester 3 and 7th semester, showing the results of differences in behavior between students in semester 3 and 7 [6]. Rita and Santoso [5] conducted a study among 100 housewives who lived in Kelurahan Sidorejo Lor, Salatiga, and the results of the financial literacy level obtained in the planning of children's education funds was high.[5]

## 2. METHODOLOGY AND HYPOTHESES

### 2.1 Methodology

This research used two kinds of methodology. First was Financial-Fitness Quiz consisting of 20 questions proposed by O'Neill. This quiz prompts people to assess their frequency of the performance of recommended financial practices. Quiz items include the questions about emergency savings, retirement savings, financial goal-setting, financial record-keeping, budgeting, debt ratios, and comparison shopping [7].

Financial-Fitness Quiz is applied to get an idea of how well you have been managing your money so far. Respondents choose the score that best describes the frequency of their current financial management practices: 5 = always; 4 = usually; 3 = sometimes; 2 = seldom; 1 = never

When they are done, add up their scores for each of the 20 questions below. The summary at the end of the quiz tells how they are doing.

Financial Management: Saving/Investing: Insurance & Estate Planning: Credit:Shopping:

Scoring for the Financial Fitness Quiz is as follow:

0-20 points - You need lots of help, but don't despair. It is never too late to take action to improve your finances. 21-40 points -You are headed for financial difficulty. Now is the time to take action to reverse the trend. 41-60 points -

You are doing a fair job of managing your finances and have taken some steps in the right direction. 61-80 points -You are doing a good job and are above average in managing your finances. 81-100 points -You are in excellent financial shape. Keep up the good work!

The second methodology used in this preliminary study was Wilcoxon-Test to see whether there had been differences before and after the training on financial planning. The Wilcoxon test is a statistical method for testing the paired-samples of data in the same sample group [8].

### 2.2 Training Material

The training material delivered to respondents was about how to determine financial goals, make plans with SMART methods (Specific, Measurable, Attainable, Realistic, and Timeable) [9]. This is also supported by the ENVELOPE Management method [10].

### 2.3 Hypotheses

In this preliminary study, we attempted to find out whether there had been differences before and after the training on financial planning from 32 samples.

For test of differences, we used the Wilcoxon-Test.

Research Hypothesis:

H<sub>0</sub>: There is no difference in Financial Literacy before and after the training on Financial Education

H<sub>1</sub>: There is a significant difference in Financial Literacy before and after the training on Financial Education

Significance level: 5%

Data type was non-metric (ordinal), the analysis tool used was non-parametric: Wilcoxon-Test (to test the paired-data or before and after treatment in the same sample group)

## 3. RESULT AND ANALYSIS

Using the Financial-Fitness Quiz that had been distributed to 32 participants, this research revealed that before the training as shown in Table 1, 32 participants got the score 0-20 for the criteria of Insurance and Estate Planning, Credit, and Shopping, then 5 participants got the score below 20 for Financial Management, and 13 participants got the score below 20 for Saving and Investment. Participants who got the score 21-40 for Financial Management were 27 persons, and 19 persons for Saving and Investment criteria. This condition showed that most of the participants needed help to understand about financial planning. Or in other word, they needed more Financial Education.

**Table 1.** Score of Participants Before the Training

Criteria	Financial Management	Saving Investment	& Insurance Planning	& Estate Credit	Shopping
Score	Frequency	Frequency	Frequency	Frequency	Frequency
0-20	5	13	32	32	32
21-40	27	19	0	0	0
41-60	0	0	0	0	0
61-80	0	0	0	0	0
81-100	0	0	0	0	0

Source: Data obtained from Participants

Table 2 showed the score from participants after joining the training on financial planning. The result revealed that the score had increased for most of the participants. There were only 2 persons who got the score below 20 for Credit, and

only 4 persons for the criteria of Shopping. There were also 2 persons who got the score 21-40 for the criteria of Financial Management. Therefore for all criteria, more than 29 participants got the score in the range between 61-100.

**Table 2.** Score of Participants After the Training

Criteria	Financial Management	Saving Investment	& Insurance Planning	& estate Credit	Shopping
Score	Frequency	Frequency	Frequency	Frequency	Frequency
0-20	0	0	0	2	0
21-40	2	0	0	0	4
41-60	1	2	2	0	0
61-80	29	32	32	0	0
81-100	0	0	0	30	28

Source: Data obtained from Participants

When comparing the results from two conditions of test, this preliminary research showed that there was a significant difference in financial understanding and knowledge among the participants who had followed the training about financial planning for SBE and individuals. The training on Financial Planning is part of the Financial Education. Researchers have temporary conclusions that Financial Education can increase Financial Literacy for SBE. Therefore, to make sure the result, the Wilcoxon-Test had been conducted to this data. The results of Wilcoxon-Test are as follows:

### 3.1 Normality Test

**Table 3.** One-Sample Kolmogorov-Smirnov Test

	Before	After
N	32	32
Normal Parameters <sup>a,b</sup>		
Mean	3.4563	4.8409
Std. Deviation	.85040	.36873
Most Extreme Differences		
Absolute	.163	.479
Positive	.089	.333
Negative	-.163	-.479
Kolmogorov-Smirnov Z	.921	2.712
Asymp. Sig. (2-tailed)	.364	.000

a. Data distribution is Normal

b. Calculated from raw data

Source: Data Analysis using SPSS Software

For Normality Test, we used the One-Sample Kolmogorov-Smirnov Test.

The hypothesis tested:

H<sub>0</sub>: Residual data is normally distributed

H<sub>1</sub>: Residual data is not normally distributed

Criteria:

Asymp sig > 0.05 □ H<sub>0</sub> is accepted

Asymp sig ≤ 0.05 □ H<sub>0</sub> is rejected

(Ghozali, 2016) [11]

Based on the result of Normality Test using the One-Sample Kolmogorov-Smirnov Test in Table 3, it can be known that the 32 data had the sig-value of 0.000 (which was under 0.05). Based on the criteria for normality, such data was not normally distributed. Because of such condition, we used the hypothesis testing tool included in the non-parametric statistics classification, which is the Wilcoxon-Test.

### 3.2 Descriptive Statistics

**Table 4.** Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	32	3.4563	.85040	1.20	4.60
After	32	4.8409	.36873	3.55	5.00

Source: Data Analysis using SPSS Software

Based on Table 4. about the descriptive statistics from 32 samples, it can be seen about the mean (average), std. deviation (standard deviation), minimum and maximum values for each variable, before and after the training. The highest score of the assessment is 5 and the lowest score is 1. Description: 5 = always; 4 = usually; 3 = sometimes; 2 = rare; 1 = never implementing your current financial management practices.

The average score of financial literacy before the training was 3.45, which means that it is in the middle between 'sometimes' and 'normal'. After the training, the score was 4.84, which was a result between 'usually' and 'always' due to the implementation of financial management practices. Before the training, the standard deviation was very high which showed a high distribution of sample data. On contrary, after the training it showed a low data distribution which was only 0.36 due to the implementation of financial management practices.

### 3.3 The Results of Hypothesis Test (Wilcoxon-Test)

**Table 5.** Test Statistics<sup>a</sup>

	Before - After
Z	-4.846 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon-Signed Rank Test

b. Based on negative ranks

Source: Data Analysis using SPSS Software

Based on the Wilcoxon-Test result in Table 5, it is known that the Asymp. Sig (2-tailed) is 0.000, thus the value is below the significance level (which is 5%). Therefore, it can be concluded that there was a significant difference before and after the training on financial planning.

## 4. CONCLUSIONS

In this preliminary study, it was found that there was a significant difference in the level of financial intelligence from the results before and after the training on financial planning or education taken from 32 data samples. There was an increase in the score of financial management practices from 3.45 (somewhere between sometimes and usual) to 4.84 (somewhere between usual and always).

There was a significant increase in the scores of Financial Quiz before and after the training of Financial Education.

Among 32 participant, more than 29 persons had the scores between 60 and 100.

About the limitations of this study, it is necessary to re-carry out the data collection and samples of SBEs to further expand the efforts to increase their financial intelligence. In addition, more in-depth-exploration is needed regarding the plan to provide the training about the use of financial applications on mobile phones, that will make the participants easier to carry out the ideal financial practices.

## ACKNOWLEDGMENTS

Special thanks to the Ministry of Research, Technology and Higher Education of the Republic of Indonesia (Ristekdikti) who had assisted in providing grant funds for conducting this research, so that researchers could collect the data and also carried-out data processing and analysis.

Special thanks also presented to Universitas Kristen Maranatha (Maranatha Christian University) for providing a place for research, and the LPPM that continuously provides data update and processing for researchers.

## REFERENCES

- [1] OECD: Improving Financial Literacy: Analysis of Issues and Policies. (2005).
- [2] Lusardi, A & Mitchell, O. S: Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics* 54 (2007) 205–224. (2007).
- [3] S7P Global: Financial literacy around the world: Insight from The S&P Global FINLIT survey. <https://www.spglobal.com/corporate-responsibility/global-financial-literacy-survey>. (2015).
- [4] Lusardi, A & Mitchell, O. S: " Financial literacy: evidence and implication for financial education. Trends and issues May 2009. (2009).
- [5] Rita, M.R., Santoso, B: Literasi Keuangan Dan Perencanaan Keuangan Pada Dana Pendidikan Anak Jurnal Ekonomi..XX, (2), Juli 2015: 212-227. (2015).
- [6] Zahroh: Menguji Tingkat Pengetahuan Keuangan, Sikap Keuangan Pribadi, Dan Perilaku Keuangan Pribadi Mahasiswa Jurusan Manajemen Fakultas Ekonomika Dan Bisnis Semester 3 Dan Semester 7. Skripsi di Fakultas Ekonomika dan Binis, Universitas Diponegoro, Semarang. (2014).
- [7] O'Neill, B: Financial Self-Assessment Tools: Rutgers Cooperative Extension. <https://njaes.rutgers.edu/sshw/message/message.php?p=Finance&m=334>(2003).

[8] Sugiyono: Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung : Alfabeta, CV. (2017).

[9] Malinda, Maya: Perencanaan Keuangan Pribadi, Penerbit Andi, Yogyakarta. (2007).

[10] Malinda, Maya: Perencanaan Keuangan, (Cocok Bagi Karyawan, Perusaha Kecil Menengah), Penerbit Andi, Yogyakarta. (2017).

[11] Ghozali, Imam: Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23 (Edisi 8). Cetakan ke VIII. Semarang : Badan Penerbit Universitas Diponegoro. (2016).