

# Community service to improve the comprehension of investment literacy for employees in Bogor City

Peter, Dini Iskandar, Herlina, Martalena,

Tedy Wahyusaputra, Bram Hadiano

Maranatha Christian University, Jl. Prof. Drg. Surya Sumantri, MPH. No. 65 Bandung

\*Corresponding author: bram.hadiano@eco.maranatha.edu

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**Abstrak:** Kegiatan pengabdian kepada masyarakat ini bertujuan untuk meningkatkan pemahaman masyarakat terhadap literasi investasi di tengah maraknya investasi bodong. Sasarannya adalah para pegawai dan staf BPK Penabur Kota Bogor. Metode yang digunakan dalam pengabdian kepada masyarakat ini menggunakan metode ceramah untuk melatih peserta, soal-soal tingkat lanjut untuk menilai tingkat pengetahuan investasi mereka, dan uji t-test sampel berpasangan untuk mendeteksi perbedaan jawaban tepat guna mengukur efektivitas kegiatan ini. Berdasarkan evaluasi, tingkat literasi investasi mereka meningkat sebelum dan sesudah pelatihan, tercermin dari 62,83% menjadi 78,95% jawaban benar, yang berarti mereka berada pada tingkat sedang berdasarkan kriteria tertentu. Dengan tingkat tersebut, partisipan disarankan untuk mulai berinvestasi pada obligasi, saham, dan reksa dana dengan menghubungi perusahaan sekuritas setempat atau mengikuti sertifikasi keuangan yang disediakan oleh Universitas Kristen Maranatha untuk mendapatkan pengetahuan ekonomi yang komprehensif.

**Kata kunci:** literasi investasi, kota Bogor, pengabdian kepada masyarakat, perusahaan sekuritas

**Abstract:** This community service intends to enhance people's understanding of investment literacy amid fraudulent investments. The people intended are employees and affiliated persons of BPK Penabur in Bogor City. Moreover, the service community team uses the lecture method to train the participants, the advanced questions to assess their investment knowledge level, and the pair sample t-test to detect the difference of precise correct responses to measure the effectiveness of this event. Based on the evaluation, the team reports that their investment literacy level elevates before and after the training sections, reflected by 62.83% to 78.95% correct responses, which is they have the middle level based on the certain criteria. Having this level, they are suggested to start investing in bonds, shares, and mutual funds by contacting the local securities companies or following the financial certification provided by Maranatha Christian University to get comprehensive economic knowledge.

**Keywords:** Bogor City, community service, investment literacy, securities company

## 1. Introduction

For society, planning investments is crucial. The investment enables people to be wealthy (Hartono, 2017). Moreover, to realize this circumstance, they establish the business.

Indeed, they must consider opportunities and threats in the marketplace and internal strengths and weaknesses (Wheelen et al., 2018). In this way, they need to search for funds, either from equity or liabilities. Using equity, especially stocks, requires the company to pay dividends to reward shareholders (Black, 1976). Meanwhile, debt utilization demands that the company pay interest and principal to the banks (Gitman & Zutter, 2015).

Additionally, people can invest their money in capital market instruments, such as buying shares, bonds, and mutual funds, to increase their wealth. Their purchase must be through a securities company with a broker-dealer intermediary function for shares and bonds, and one of its examples is BNI Securities (Citasti & Darma, 2020). If they buy shares and bonds, they will obtain dividends and coupons as a company reward (Gitman & Zutter, 2015). Furthermore, to buy mutual funds, they must contact the investment managers (Hartono, 2017). In Indonesia, BNI, Manulife, and Mega Asset Management are three related instances (Hanum et al., 2017).

This information is one example of investment-related financial knowledge that can help society reasonably avoid investments with unclear purposes and irrational returns offered by irresponsible parties. As Detik News informs, Bogor City is one of the places where the case happened. In August 2023, police officers arrested two women as fraudsters who could not compensate 10% to 50% of the money collected for auction and could not return the principal and its compensation to society (Mahendra, 2003).

Based on this tendency, Mr. Wahyu Krisnata, S.E., M.Pd., BPK Penabur Bogor's office head, argues that investment knowledge is needed to prevent this fraudulent investment. Besides considering this situation, borrowing money from the online platform becomes his concern because some teachers are involved in this action. Additionally, Mrs. Dian, the head of the financial bureau, emphasizes the importance of pension planning to employees.

Responding to their request, Dr. Peter, S.E., M.T., offers financial literacy consisting of investment and pension planning for the employees in BPK Penabur Bogor in service to the community activities through the chairman, Mr. Aryawan Handoko. Considering the suitable benefits of these situations, the chairman agreed to facilitate this event by emailing an invitation letter with No. 075/BGR/UMU/H03/02/2024 dated February 27th, 2024.

Although two topics are delivered, this paper only focuses on investment planning and literacy as an outcome of community service. Another part will be presented in the research paper. Therefore, this community service aims to examine the effectiveness of investment literacy training by comparing the correct answer ratio pre and post-related substance

delivery by the appointed lecturer.

**2. Methods**

The service to the community will be held on March 27th, 2024, in the auditorium of BPK Penabur at Jalan Dewi Sartika No. 5, Bogor. Six lecturers and two undergraduate students from the Management Department of Maranatha Christian University will participate. Their positions and additional tasks are available in Table 1.

Table 1. The names of the lecturer and undergraduate students becoming the committee with their position and the additional task

No.	Name	Status	Position and the additional task
1.	Dr. Peter, S.E., M.T.	Lecturer	Head of the committee, contact person, and keynote presenter
2.	Dini Iskandar, S.E., MM.	Lecturer	Secretary of the committee
3.	Herlina, S.E., M.T.	Lecturer	Treasurer of the committee
4.	Martalena, S.E., M.M., CFP.	Lecturer	Committee member for preparing the substances
5.	Tedy Wahyusaputera, S.E., M.M., CFP.	Lecturer	Committee member for preparing the substances and a keynote presenter
6.	Dr. Bram Hadianto, S.E., M.Si.	Lecturer	Committee member for writing a paper for journal publication
7.	Fransisca Carolina	Undergraduate Students	Committee member for preparing the content of the banner and Google form
8.	Amisiska Natalia Saragi	Undergraduate Students	Committee member for preparing the content of e-news of Maranatha Christian University (MCU) and YouTube for the Institution for Research and Community Service of MCU

For the preparation stage, the head of this service community committee, Dr. Peter, S.E., M.T., and three members, Herlina, S.E., M.T., Tedy Wahyusaputra, S.E., M.M., and Dini Iskandar, S.E., M.M., went to BPK Penabur Bogor, on January 23rd, 2024 to coordinate. After that, the committee arranged the schedule for March 27th, 2024, divided into four primary sections: opening, filling in the online questionnaire, presenting the materials, and closing, where the details are in Table 2.

Table 2. Schedule of the service community on March 27th, 2024

Time	Section	Person in charge (PIC)	Assistant of PIC
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Table 2. Schedule of the service community on March 27th, 2024

Time	Section	Person in charge (PIC)	Assistant of PIC
08.30-08.45	Opening prayer and welcoming speech	The representative of BPK Penabur Bogor	-
08.45-09.00	Filling in the online questionnaire	The representative of the service community and BPK Penabur Bogor	-
09.00-10.00	Financial planning and investment	Dr. Peter, S.E., M.T.	Tedy Wahyusaputra, Martalena, Herlina, and Dini Iskandar
10.00-11.00	Pension literacy	Tedy Wahyusaputra, S.E., M.M., CFP.	Martalena, Herlina, Dini, and Peter
11.00-11.20	Question and answer	Dr. Peter, S.E., M.T. Tedy Wahyusaputra, S.E., M.M., CFP.	-
11.20-11.35	Filling in the online questionnaire	The representative of the service community and BPK Penabur Bogor	-
11.35-11.50	Closing prayer and speech	The representative of BPK Penabur Bogor	-

Then, the technique to deliver the materials needs to be defined. Related to this situation, this community service utilizes the lecture-discussion technique. With this method, Kaur (2011) explains that the lecturer in charge inspires the audience to comment on the topics being delivered; consequently, an active question-and-answer section will happen.

The ending step is the event success evaluation. It utilizes the advanced questions from Lusardi and Mitchell (2007) to test participants' investment literacy comprehension. Their topic covers the capital market function (IL1), mutual fund information (IL2), the association between the interest rate and bond price (IL3), the determination of the safer (IL4) and risky instruments (IL5), long-period return (IL6), the highest fluctuation of the instruments (IL7), and risk diversification (IL8) (see Table 3 for further details). Then, the percentage of correct answers (PCA) is calculated and statistically compared. This service to the community will be effective if the post-PCA is more substantial than the pre-PCA, supported by the probability (1-tailed) under the 5% significance level based on the paired sample t-test, as Ghozali (2021) enlightens.

Table 3. Multiple choice of investment literacy problems

Question topic	The problem and the answer choices
Capital market function (IL1)	The primary function of the stock market is to: a. Help the investor to predict the earnings b. Create an increase in the stock price c. <b>Facilitate stock purchasing and selling between investors.</b>
The feature of mutual funds (IL2)	Which one is correct about mutual funds? a. When someone invests in mutual funds, he cannot withdraw his money one year ahead. b. <b>Mutual funds enable clients to choose their portfolio, in which the investment manager sets stocks and bonds.</b> c. Mutual funds ensure that the clients will have past returns.
Association between interest and bond price (IL3)	When the interest rate increases, bond price will: a. Increase b. <b>Decrease</b> c. Be unchanged
The determination of the safer instruments (IL4)	Please respond with true or false based on the following statements: Buying stocks is safer than buying mutual funds. a. True b. <b>False</b>
The determination of the risky instruments (IL5)	Please respond with true or false based on the following statements: Buying stocks is riskier than buying bonds. a. <b>True</b> b. False
Long-period return (IL6)	Which invested asset does give the highest return for 20 years? a. Saving account deposits b. Stocks c. <b>Bonds</b>
The highest fluctuation of the instruments (IL7)	The financial assets with high fluctuation in price are: a. Saving deposit account b. <b>Stocks</b> c. Bonds
The risk diversification (IL8)	When the investors put their money in various assets, their risk becomes: a. High b. <b>Low</b> c. Equal

Note: The bold is a correct answer

### 3. Results and Discussion

In the first section, Dr. Peter presented and explained financial planning and investment topics (see Figure 1A). He also detailed the related aspects, such as definition, purposes, and investor-preferred focus: capital gain, dividend, liquidity, and cash flow. Procedures, risk profiles, the type of instruments, and pre-investment understanding were the other substances delivered in his section.



Figure 1A. Financial Planning and Investment Section  
 Figure 1B. Financial Planning and Section

In the second section, Mr. Tedy Wahyusaputra, S.E., M.M., CFP., presents the pension planning topic (see Figure 1B). He also explains the planning aspects, such as their importance, reasons, problems, general faults, income strategy, the kind of pension, pension benefits-based final tax, and the expense and replacement ratio technique to calculate the money needed for a pension.

Based on the online link result, the total number of participants filling in the multiple-choice problems before and after training is unequal; consistent participants are needed. There are 115 people in total, and their features based on gender, time of life, occupation, and last formal education are available in Table 4. Dominantly, the participants are females (79.13%), aged between 41 and 50 (26.96%), and teachers (76.52%). Based on formal education, the utmost is from an undergraduate scientific program (87.83%). At the smallest, the participants are males (20.87%), aged between 51 and 59 (17.39%), vice headmaster for curriculum (0.87%), head of office (0.87%), businessman (0.87%), and housewife (0.87%). Based on formal education, the least is from elementary school (0.87%).

While, Table 5 presents the testing difference between correct answer percentages (CAP) before and after training. Fortunately, the average CAP after training (72.39%) is higher than the average PCA before training (62.83%), confirmed by a one-tailed probability of a t-statistic of 0.000. This circumstance means successful community service delivery of the substance of investment literacy.

Table 4. The features of the participants

Feature	Description	Total	Portion
Gender	Male	24	20.87%
	Female	91	79.13%
Time of life	From 22 to 30 years old	34	29.57%
	From 31 to 40 years old	30	26.09%
	From 41 to 50 years old	31	26.96%
	From 51 to 59 years old	20	17.39%
Occupation	Headmaster	3	2.61%
	Vice headmaster for curriculum	1	0.87%
	Head of the office	1	0.87%
	Teacher	88	76.52%
	Administration staff	11	9.57%
	Librarian	3	2.61%
	Businessman	1	0.87%
	Private employees (Non-teacher)	6	5.22%
	Housewife	1	0.87%
Last formal schooling	Elementary school	1	0.87%
	Senior high school	4	3.48%
	Undergraduate vocational program	5	4.35%
	Undergraduate scientific program	101	87.83%
	Master program	4	3.48%

Table 5. The investment literacy correct responses and their difference before and after training based on the paired sample t-test

Condition	Mean	Paired difference						
		Average	Standard Deviation	Standard Error of Average	t-statistic	Degree of freedom	Probability	
							2-tailed	1-tailed
PCA after training	72.39%	9.5652%	0.146534	0.013664	7.000	114	0.000	0.000
PCA before training	62.83%							

The CAP's average investment-associated financial literacy level after and before training is 72.39% and 62.83%. According to Chen and Volpe (1998), this level is medium. Therefore, this evidence supports Herlina et al. (2023), using 40 senior high school students of BPK Penabur Cirebon as participants in their service to the community with average correct answers of 63.16% to 78.95% based on the advance question of Lusardi and Mitchell

(2007). Besides, our result is similar to Peter et al. (2024), with 28 employees in BPK Penabur Metro, Lampung, as the participants. After training, their intermediate level exists at 62.45%, which rises from 36.56% before training, based on the questions of Chen and Volpe (1998).

#### 4. Conclusion

The investment as the financial literacy part educates society on the benefits and risks of capital market instruments. Therefore, the community service team at Maranatha Christian University is called to deliver the related substance to the employees of BPK Penabur Bogor as the partner. Based on the evaluation, we infer an intermediate level of investment literacy before and after training, reflected by 62.83% and 78.95%. Through this community service, the employees of BPK Penabur Bogor do not fall into the trap of fraudulent investments. Instead, they are expected to allocate their money to capital market instruments, such as stocks, bonds, and mutual funds, by contacting the securities companies based on their risk preference. As another suggestion, they should follow certified financial lessons at Maranatha Christian University to get a higher comprehensive economic level.

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