

INVESTMENT INCLUSION AMONG INDONESIA ONLINE COMMUNITY

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Abstract. In the globalization era, internet is essential tools that provide us so many conveniences to ease our daily lives. Including in the financial sector. Internet helps increasing the financial understanding of people. Financial literacy and inclusion is one of the important things in determining the economic situation of a country. Financial literacy and inclusion could be achieved by financial education. The data collected from the World Bank shows that Financial Inclusion in Indonesia only reach 30% of total Indonesian adults. One of the easiest way to improve Indonesian economy is by implementing financial education specialized in investment, such as Mutual Fund, Stock, and Bond. This study is to determine the level of Investment literacy and inclusion among Indonesia largest online community such us detik, kaskus, and kompasiana. The data collected from the questionnaire that will be spread on the internet to the online community. The questionnaire is based on the research that conducted by Ronald P. Volpe, World Bank, and Otoritas Jasa Keuangan. The result suggested that there is still low Investment literacy and Inclusion in Indonesia online community, and still needed to be improved significantly.

Keywords: Investment Literacy; Investment Inclusion; Online community.

Introduction

Economy is always had a significant impact on humanity. One of the main things that move the economy is from the financial sector. To be able to maximize the potential of the financial sector a good financial literacy is needed. In the last decade, financial literacy has become one of the policy focuses of government agencies, banking industries, grass roots consumer and community interest groups, and other organization. The low level of financial literacy can influence an individual's or family's day to day money management and ability, which will affect financial inclusion. Financial inclusion itself directly correlated with how the financial sector works. Effective Financial Inclusion that could be achieved through good understanding of financial education can help individuals develop efficient household budgets, create savings plans, manage debt and formulate strategic investment decisions for themselves and their families*. It also provides more opportunities to save and invest, helps people obtain goods and services at lower costs and helps develop better financial sector

Indonesia is one of the largest Asia's Economic Potential with outstanding amount of population and geographically dispersed condition as an archipelago. Unfortunately those potential only offset with a low level of financial inclusion (33%). Tens of millions of people are unable to find access to the financial institution service due to the uneven spread of formal financial institution networks, the spread of geographic and population structure, as well as the absence of collateral and low financial literacy. (OJK Annual Report, 2015). 203 million, or 81.5% of Indonesians are at the bottom of the

* U.S. Financial Literacy & Education Commission, The National Strategy for Financial Literacy, 2006, <http://www.mymoney.gov/sites/default/files/downloads/ownership.pdf> (accessed April 3, 2015).

economic pyramid. Like everyone else, those living in poverty need access to financial services in order to find opportunities to improve their lives and their communities.

In contrast with the financial condition of Indonesia, according to kemenkominfo (Indonesia the untold story, 2014), the internet usage of Indonesia is considerably high. Indonesia is among the world's biggest internet user with the total of 2,3% of total internet usage. Majority of them spent more than 3 hours a day online. Even 13 million households that considered poor are having an access to daily internet (Bappenas, 2013). With the potential within the Indonesia online community, an internet based investment is needed, while investment lack of liquidity represents a risk, it may also be a source of added return to long-term investors (Scholes, 2000). With the large potential within the Indonesia mobile community, financial literacy and also investment inclusion which will also affect the economic growth in Indonesia could be increased with the help of decent financial education.

Investment literacy

Investment literacy evaluates the understanding of risk and return, how bonds, stocks, and mutual fund work, and basic asset pricing. Specifically these are explained as follows:

- The function of stock market, interest rate and bond price. This variable indicates the respondent's knowledge about assets function.
- How buying bonds and stock work. This variable includes the knowledge about selling and buying bonds and stock in the market.
- Risk and return on stock and bonds. Evaluates respondents' knowledge that each of the stock and bond has its own risk and return and diversification which will give highest return.
- Highest return of investment & its fluctuation. Evaluate respondents' knowledge that there are many factors that have different return and fluctuation that influence the return.
- Asset diversification. Evaluate respondents' knowledge that to keep the investment safe, minimize risk and maximize return, asset diversification is needed.

Investment Inclusion

The investment inclusion evaluates whether the respondent had already participated in investment or not. The investment included in the test is basic financial investment such as: fund deposit, bond, stock, and mutual fund.

Measurement

The data measured focused on Basic financial literacy, investment literacy, and investment inclusion. The data measured using median scoring weight. The determining weight consists of two classifications following Volpe (2002) and Huston (2010)

- Basic financial literacy and investment literacy that scores below the median score will be classified as low literacy level
- Basic financial literacy and investment literacy that scores above the median score will be classified as high literacy level

The investment inclusion scoring is based on Volpe (2002) which only has yes (1) and no (0).

Research Method

Logistic regression will be used to determine the relationship between investment inclusion and demography factor, basic financial literacy level, and investment inclusion level with the model:

$$IC = B_0 + B_1(FORUM_1) + B_2(FORUM_2) + B_3(INCOME_1) + B_4(INCOME_2) + B_5(INCOME_3) + B_6(GENDER) + B_7(EDUCATION_1) + B_8(EDUCATION_2) + B_9(EDUCATION_3) + B_{10}(MARITAL) + B_{11}(BASICFINANCE) + B_{12}(INVLIT) + e_i$$

Data analysis**Variables**

- **Demography profile**

- **Gender**

Most of the respondents are male (57%). Female respondent are (43%)

- **Educational background**

Highest level of education is S2 & S3 (11%). Lowest level of education are SMP (2%). Majority of the respondent are D3 & S1 graduatee (47%). Senior high school has (40%) of total respondents.

- **Incomes**

Majority of the respondent (51,7%) has income ranging from Rp.0,00 – Rp.5.000.000,00, while second majority (22,4%) has the income ranging from Rp.5.000.001,00 – Rp.10.000.000,00. Around 17% has the income more than Rp.15.000.000,00, and only 9% of the respondent has the range income of Rp.10.000.001,00 – Rp.15.000.000,00.

- **Marital status**

Majority of the respondent are not married (74%), while only 26% are married.

- **Type of online community**

The leading online community chosen by the respondent would be detik.com (28%), the next most chosen was kaskus.com (24%), and the least choice was Kompasiana with (13%). Also the respondent could also choose more than one online community with Detik & Kaskus (13%), Detik & Kompas (15%), Kaskus & Kompas (3%), and all three of them (4%).

- **Basic financial, investment literacy & investment inclusion**

No	Variable	True	False
Basic Literacy Group			
1	Plan	87,4%	12,6%
2	Plan2	87,4%	12,6%
3	Plan3	87,4%	12,6%
4	ID	97,2%	7,8%
5	Intl_dep	94,9%	5,1%
6	Min_blnc	89,5%	10,5%
7	Loan_intr	55,5%	44,5%
Investment Literacy Group			
8	Asset_ret	47,3%	52,7%
9	Asset_div	45,5%	54,5%
10	Asset_flg	65,3%	34,7%
11	Stck_kwld	51,7%	48,3%
12	Mfund_risk	66,6%	33,4%
13	Crtf_ret	31,1%	68,9%
14	Stck_split	40,1%	59,9%
15	Mfund_sec	42,2%	57,8%
16	Cmpd_intr	60,7%	39,3%
17	Bond_intr	41,1%	58,9%
18	Bond_mtur	48,6%	51,4%
19	Stck_own	73,8%	26,2%
20	Bond_own	47,8%	52,2%
Investment Inclusion			
21	Invst_incl	23,1%	76,1%

- **Relationship Between Demographic and Investment Inclusion**

This study applies the Spearman correlation to test the correlation between demography profile and investment inclusion. Table 4-4 show the significance correlation of each demography profile towards investment inclusion.

Demography profile and Investment inclusion spearman correlation

	Basic financial literacy	Investment literacy	Investment inclusion
Spearman coefficient correlation			
Gender	.126**	.044	-.075
Education background	.203***	.163**	.234***
Income	.022	.209**	.223***
Marital status	-.124**	-.101*	-.245***
Forum chosen	-.119**	.117*	-.093*
Basic financial literacy		.157***	.170***
Investment literacy			.333***
***, **, * indicates significance of 1%, 5%, 10% respectively			

The most significant correlation (at 1% level) is Education background, income, and marital status. This finding is reciprocal with the study previously held by DEFINIT (2012), Volpe (2002), and Huston (2010) as education, income, and marital status is significantly correlate with investment inclusion. While men tend to have higher investment inclusion compared to women in line with the result defined by Volpe (2002), gender is not significant correlate with financial literacy level. Forum chosen is significance only on 10% level, which indicates that forum chosen is correlated but not that significant with investment inclusion.

- **Relationship Between Basic Financial Literacy and Investment Inclusion**

Basic financial literacy had a significance level of 1% towards investment inclusion. The correlation level of basic financial literacy and investment had a positive correlation which mean the higher number of basic financial literacy the respondent will likely more inclusive to investment.

- **Relationship between Investment Literacy and Investment Inclusion**

Investment literacy had a significance level of 1% towards investment inclusion. Which means investment inclusion had a very deep connection with investment literacy level. The correlation level between investment literacy and investment inclusion is positive with the correlation number of .333. Which means that there is 33% probability that respondent would likely to invest with higher investment literacy.

Regression

- **OLS Regression of Demography, Basic Financial Literacy and Investment literacy level**

Classical assumption were first tested (See Appendix B) to confirm that the data have no symptoms of heteroscedasticity and mutli-collinery.

	Basic financial literacy	Investment literacy
(Constant)	4.740***	-.918
Gender	.323**	-.075
Education background	.620***	.354**
Income	-.149	.574**
Marital status	-.207	.722*
Forum choosen	-0.47	.089
Basic financial literacy		.801***
N	389	389
Adjusted R-Square	.077	.191
***, **, * indicates significance of 1%, 5%, 10% respectively		

The table shows the regression outcome of the influence demographic factors against basic financial literacy, and for the investment literacy influence by demographic factors and investment literacy level. The dependent variable that are tested are the demography factor for basic financial literacy, and demography factor added with basic financial literacy for investment literacy. It can be seen that education background influenced the entire categories of basic financial literacy and investment literacy. If the education background were higher (the education benchmark in the regression is "SMP") the basic financial literacy and investment literacy will increase by .620 and 0.354 respectively. Other factors that have an influence at the 5% significance level for basic financial literacy is gender that will increase .323 if the gender change it male. The factor that have an influence at 10% level of investment literacy is marital status that will increase .722 if the marital status was changed into married, meanwhile the factor that will have an influence at 5% level for investment literacy is income, which will increase .574 in every increased income variable. The only factor that has an influence at 1% level for investment literacy came from basic financial literacy that will increase the level of investment literacy for .801.

• Logistic Regression

The dependent variable that tested here are demography factor, basic financial literacy and investment inclusion. The result shown in table are the significant variable with the significant level below 10% and their odds ratio. Odds ratio is a ratio of the bigger figure of the ratio, the more likely the respondent participate in investment inclusion. Marital status, basic financial literacy, investment literacy level, gender, detik, and income1 are variable that considered to be significant, while education is considered to be significant in basic financial and investment literacy, the result shown in table 4-6 indicates there is no significant relationship between education and investment inclusion. The factor that has the significance of 10% level are gender, detik, and income1 with odds ratio of .587; .333; 1.984 respectively. Basic financial literacy has 5% significance level with odds ratio of 2.707. which means that respondent with high basic financial literacy has a odds 2.7 times to be investment inclusive compared to respondent with low basic financial literacy. Marital status and investment literacy have 1% significance level with odds ratio of .333 and 15.958 respectively.

Variable	Sig.	Exp(B)
Gender	.070 [*]	.587
Detik	.081 [*]	.333
Kaskus	.141	1.964
Rp. 5.000.001 – Rp. 10.000.000 (Income1)	.083 [*]	1.914
Rp. 10.000.001 – Rp. 15.000.000 (Income2)	.913	.937
> Rp. 15.000.000 (Income3)	.714	1.242
SMA	.999	1.987
D3 & S1	.999	.089
S2 & S3	.999	.324
Marital	.000 ^{***}	.349
Basic financial literacy	.049 ^{**}	2.707
Investment literacy	.000 ^{***}	15.958
Nagelkerke R square	0,345	

***, **, * denote significance level of 1%, 5%, 10% respectively

Conclusion and Recommendation

The level of basic financial literacy among online community in Indonesia is considered to be good, while there are still many respondent that scores low on investment literacy moreover in investment literacy, which means that investment education in Indonesia is not good enough. Based on the result obtained, this study suggests that the government team-up with financial institution and online community in Indonesia to improve investment literacy and inclusion by educating Indonesian people the importance of investing from early ages in both online, and offline method.

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