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THE IMPACT OF COMMUNITY - BASED TRAINING TOWARD FINANCIAL LITERACY AND FINANCIAL INCLUSION LEVEL AMONG MIDDLE-UP WOMEN IN BANDUNG CASE STUDY: *ARISAN* COMMUNITY GROUP

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Abstract. The increase in Indonesia's GPD per capita leads to numerous options of investment being offered to Indonesian society. Unfortunately, women in Indonesia have not efficiently utilized the investment options and women have lower financial literacy levels. Whereas, financial inclusion and financial literacy to women give various advantages toward women. Increases in women's financial inclusion are critical as women have important role in the economy and society. The increase the financial inclusion is supported by financial literacy. Women in the urban area have advantages of the financial inclusion facilities and middle-up class are considered to have more resources to save and invest. Unfortunately, 17 out of 21 middle-up women in Bandung are struggling in saving and investing. This research aims to analyze how the level of financial literacy of middle-up women in Bandung affects financial inclusion intention in saving and investing. Therefore, experimental analysis is conducted by distributing questionnaires to respondents before-after the community-based training through arisan. This study revealed that community-based training does increase the financial literacy and inclusion intention level toward middle-up income women who lived in urban areas. The result implies community-based training can be applied to the OJK program to increase women's financial literacy and inclusion level.

Keywords: financial literacy; financial inclusion intention; community-based training; women; saving; investment

INTRODUCTION

As the one of fastest growing economist countries, Indonesia ranked 15th in the G20 it leads to an increase in its GDP per capita with 8.1% compare to the previous year. This indicates, the average of Indonesian society income has rose from IDR49.97 million per year to IDR 51.89 million per year. Based on Keynes (1936), absolute income is the main determinant of savings and it will in-line with the increase on the absolute income. Moreover, access to financial services will increases 3% - 5% savings rate at minimum (Aportela, 1999 cited in Rao and Baza, 2017). The rights for all individual to gain access and full services from the financial institution called financial inclusion (Bank Indonesia, 2014). Thus, the increase of financial inclusion index in Indonesia from 2013 with 59.7% to 2016 with 67.8% and increase on the GDP per capita of Indonesia society will increase the saving rate which in - line with investments rates as it is the act of conducting small savings today in order to fulfill future expense (K J, 2016). In 2016, with the rapid growth of economy in Indonesia with more than half of the fourth largest population in the world are using the financial services. There are numerous options of investment product being offered to Indonesian society. However, women in Indonesia have not efficiently utilized the wide-range of investment options. Based on OJK in 2016, only 25% of women in Indonesia has been well- literate and just 60% of them who has make use of financial product which lower than the average of Indonesian society.

The low level of financial inclusion brings disadvantage to women as it will help women to broaden the access of women toward financial products, protect them from unexpected short-term shock, and enable them to make saving and investment in long-term period (Mwangi and Atieno, 2018). The improvement of financial inclusion toward women in Indonesia is become critical as they have huge role on both economy and society with half of the population in Indonesia is women with 49.7%, owned 52.9% of small-sized enterprises and 34% of medium-sized enterprises, women labor force participation rate in 2017 has reached 50.74% and take roles in managing including money their household. To increase the women inclusion toward financial services, must be accompanied with the increased in women's financial literacy.

Financial literacy supports financial inclusion, such as savings and wealth accumulation (Jamison et al., 2014, Berry, Karlan, & Pradhan, 2018; Rooij, Maarten, Lusardi, & Alessie, 2012; Drexler, Fisher, & Schoar, 2014 cited in Grohmann, Klühs and Menkhoff, 2018). It also influenced financial decisions taken by individual (Potrich, Vieira and Kirch, 2018) which is a necessity before women involve in any investment product to make an appropriate investment decision as each of the product has their own characteristics especially the risk and return. Moreover, financial literacy also helps developing country encourages the growth (Worthington, 2006 cited in Haque and Mehwish, 2016) as financial literacy gap between gender will cause unrealized potential gains among half of the populations. The society role of women makes it more important for them to be financially literate as

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they are responsible for financial literacy among generations. Due to the important role of women makes OJK prioritizing them to be the target of financial literacy. So, women could choose and optimally utilized financial products and services as financial literacy gives control to financial future, effective use of financial products and services and it may prevent women dealing with fraud investments (Wachira, 2012).

Women in urban area has more exposure and advantage of the financial inclusion facilities as 62% of bank branch in urban area in Indonesia can be reached less than 10 minutes compare to rural area only 31% of bank branch located less than 10 minutes (The World Bank, 2010). In Bandung, as the fifth largest city in Indonesia, lot of financial facilities are being provide with 274 financial institutions in 2016. Unfortunately, from the survey being conducted by the author, 17 out of 21 middle-up women in Bandung are struggling in saving and investing even though the financial literacy in West Java is above the average of Indonesia with 33% and financial inclusion is 71.4%. Women with middle-up class are chosen because they are considered to have more resources and ability to save and invest. Therefore, this research aims to analyse how the level of financial literacy of middle-up women in Bandung will affect financial inclusion intention by them especially in saving and investing. To see the different level of financial literacy this research done experimental analysis with intervention of community-based training regarding financial through women's social gathering better known as *"arisan"* as a study found that women learn better in community or group (Ingvarson *et al.*, 2007). There will be pre-test and post-test conducted before and after the financial education which will be compared to see the different of financial literacy level and financial inclusion intension after the training. MANOVA is used in this research to analyse the difference between the pre-test and post-test as the result of community-based training. The result of MANOVA shows that the community-based training increases the financial literacy level and financial inclusion intention among the member of *"arisan"*.

LITERATURE REVIEW

Financial literacy is a consolidation of awareness, knowledge, skill, attitude and behavior which is very important to make financial decisions and reach financial independent and prosperity (OECD INFE, 2011). Financial Literacy is the knowledge, educations and awareness of people towards financial products, institutions and concepts that will leads to the ability of them on computing interest payment, money management and financial planning which have a positive impact toward financial behavior of individuals, households and entrepreneur (Abubakar, 2015). Being lack of financial literacy or illiteracy will leads people to become the prey of predatory lending, subprime mortgage, fraud and high interest rates which results in bad credit, owing large debt, bankruptcy and bad financial decisions (Investopedia, 2018). Lot of advantages gained for people being well-literate, it is very unfortunate that some research shows women have lower knowledge concerning financial topics, financial analysis, and investing (Hira and Mugenda, 1999; Webster and Ellis, 1996; Goldsmith and Goldsmith, 1997 cited in Chen and Volpe, 2002). According to Lusardi (2008); Lusardi and Mitchell (2014) financial literacy affect how individual make their financial decision, furthermore it also encourage saving, wealth accumulation, financial security, asset allocation, participation in stock market, and investment behaviour.

Financial inclusion relates heavily on the awareness, utilization and availability of financial products, the indicators of financial inclusion by the citizens are the number of financial products known or aware, the financial products they owned, and financial product that they choose recently (Organisation for Economic Co-operation and Development, 2013). According to Strategi Nasional Keuangan Inklusif (SNKI), financial inclusion has important role to promote economic growth, minimize poverty and social gap also run the economy to increase people's prosperity. Due to the importance of financial inclusion, Bank Indonesia has six pillars national strategy to increase financial inclusion in Indonesia that consists of financial literacy, public financial facilities, financial information mapping, supporting regulations, intermediation and distribution, and consumer protection (Bi.go.id, 2018).

The research intervention are conducted through community-based training which utilizing the community for the learning activities so, the member of the community uses it as their learning process (Wegahtay and Melese, 2017). Community-based learning aims to help the members in the community and enabling them to solve their real problems and issues which being faced through the community-based training (Communities Scotland and the Scottish Executive, 2004). The community-based training is chosen as it is a win-win program for both the community and the author or institution who conducted the training (Diab and Flack, 2013). Moreover, from the study done by Kumar *et al.*(2018) utilizing the group consists of women for training, it able to create enjoyable and comfy environment for them in expressing their opinions and shares their story and Ingvarson *et al.*(2007) in their study also find that women prefer to do the training in small group where the member are their friends and family as women are more open for discussion and share their understanding and experiences.

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METHODOLOGY.

The type of the research is quantitative research more precisely experimental research. The primary-data obtained from the middle-up income women in Bandung who joined *arisan* (the form of group) before and after the training will be used in this research. Thus, the method that is going to be used is questionnaire-based survey which are distributed to 101 middle-up income women on productive age (15 – 64 years old) with annual income IDR36 million – IDR120 million in Bandung who incorporated in *"arisan"*. The questionnaires consist 20 questions of both advanced financial literacy test consists of risk and return on various types of investment; knowledge regarding stocks, bonds, and mutual fund; and financial inclusion intention in saving and investing toward middle-up income women in Bandung who joined *arisan* to test the hypothesis regarding the impact of group-based training to the women's financial literacy and financial inclusion intension.

The group-based training about advanced financial literacy (the importance of doing investment, different between saving and investing, the concept of risk and return, risk and return of financial products which consists of mutual fund, stocks, bonds, financial product with capital guaranteed, financial product without capital guaranteed, save at home, save at banks deposit, arisan, precious metal and real estate, the principle on doing investment, how to identify fraud investment, and regarding "Yuk Nabung Saham") through 45 minutes presentation with each group consist of 10 – 15 women. As the research is within group experiment, the questionnaires are distributed two times which are the pre-test (before the training) and the post-test (after the training) which are conducted on the same day to reduce the history effect and experimental mortality. To summarize and draw the respondents' characteristics this research will use descriptive statistics of mean or average, median (mid-point of the data), mode (value that occurs the most), percentage, frequencies and the dispersion of the data (Hussain, 2014). To see the difference before and after the group-based training, the data that being obtained from the survey being analyzed using MANOVA with the independent variable is the community-based training as the interventions and dependent variables are financial literacy level and financial inclusion intention. MANOVA stands for multivariate analysis of variance which is the extension of ANOVA which is common analysis of variances. MANOVA is a statistical technique that being used to calculate the significance test of the mean differences simultaneously between groups for two or more dependent groups (Sutrisno and Wulandari, 2018).

As MANOVA only explain the mean difference the group as a whole before and after being trained. To show the difference in respondents' characteristics generate different result on before and after the training, cross-tabulations analysis is performed. According to Colwell and Carter (2012) cross-tabulations commonly known as cross-tabs is exhibiting the summary of the distributions of two or more variables, it allows the author to examine the relations of the frequency of one variable to one or more other variables. The data that would be used for the cross-tab analysis are age, work, and education and see the relations of it to the percentage different of financial literacy level and financial inclusion intention before and after the training. Moreover, OLS regression also being performed to identify which demographic characteristics statistically affect the changes on financial literacy and financial inclusion before and after the training. To check the validity of the questionnaire this research used face validity and expert validity and reliability is measured using Cronbach's alpha.

FINDINGS AND ARGUMENT

The respondent in this reasearch are 100% women with age ranged from 20 – 51 years old and lived in the urban area. The respondents' characteristics in term of marital status, 73.3% has married and 26.7% are still single. Based on education, 23.3% are Diploma, 36.9% are high school graduates and equivalent, 36.7% bachelor graduate, and 3.33% graduated from academy. 46.7% of the respondents' occupation is housewives, 26.7% are college students, 23.3% are businesswomen, and 3.3% are work in health sector. Moreover, it also found the average score of financial literacy is 50.09 from scale 0 – 100 means, on average the respondents have low financial literacy level. For the financial inclusion intention the mean score is 3.33 from scale 1 – 5 indicates that the middle-up income women still indifferent to be financially inclusive. After the pretest conducted and the respondents have been trainded, to analyse the impact of the group-based training, MANOVA is performed and the mean score of the respondents before and after the test are shown on table 1.

Table 1. Descriptive Statistics

	Financial Literacy Training	Mean	Std. Deviation	N
Financial Literacy Level	Before Training	49.9531	12.40485	97
	After Training	76.2679	10.16781	95
	TOTAL	62.9735	17.38471	192
Financial Inclusion Intention	Before Training	3.3271	0.35176	97

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	After Training	3.4746	0.30418	95
	TOTAL	3.4001	0.33645	192

The increase on both the financial literacy level and financial inclusion intention from the multvariate test composed with Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root are statistically significant as all the p-value on each test is less than 0.05. The test between-subject test also performed as it is different from multivariate test which all the variables are combined being tests whereas, the univariate test evaluates each variable separately, the significance of financial literacy level is 0.000 lower than 0.05 and the financial inclusion intention is 0.006 which also lower than 0.05. Due to the significance results are obtained, Therefore, the Ho: Financial training in community-based program for middle-up income women in Bandung do not improve (generate same result) financial literacy and inclusion intention of the members, is rejected. Then the H_1: Financial training in community-based program for middle-up income women in Bandung improves financial literacy and inclusion intention of the members is accepted. As the increase on financial inclusion intention is not as significant as the financial literacy, to deepen the analysis the paired sample t-test are performed measure the willingness of respondents to be inclusive toward financial products which give return 19.99% that equal to IHSG return and the attractiveness is increasing after respondents received the training from 55% to 81% and it is statistically significant as the score is 0.000 which lower than 0.05.

From the cross-tabulation results, indicates financial literacy level after the community-based training are affected the most to them whose aged 21 - 25, have not married, have 4 dependent children, graduated from diploma or academy, work as college students, income between IDR 25,000,001 – IDR 35,000,000, participate in taking financial decision with their partner, consider themselves have bad financial literacy level, do not want to participate in any kind of investment, and consider themselves to be a beginner in doing investment. Whereas for financial inclusion intention changes are they who aged between 51- 55, separated or widow, have four dependent children, graduated from Diploma, work as businesswomen, income between less than IDR 5,000,000, other family member who taking the financial decision, consider themselves to have average financial knowledge, do not want to participate in any kind of investment product and consider themselves to have average experience in doing investment. In addition, from the OLS regression, demographic characteristics that statistically significant is respondents' self-assessment where they consider themselves to have bad financial literacy knowledge, income level between IDR 5 million to IDR 15 million, and respondents' who have bachelor's degree which shown on table 2.

Table 2. OLS Regression Result Summary

Independent Variables	Models	Dependent variables	Significant level
Self-assessment, bad financial knowledge	The OLS regression model with experience	Financial Literacy Changes increase 10.317	5%
		Financial inclusion score after the training decrease 0.30	5%
	The OLS regression model with experience-assessment	Financial literacy changes increase 9.475	10%
		Financial inclusion score after the training decrease 0.313	5%
Income, IDR 5 million –IDR15 million per month	The OLS regression model with experience	Financial inclusion intention changes increase 0.083	5%
	The OLS regression model with experience-assessment	Financial inclusion intention changes increase 0.077	10%
Education, bachelor's graduate	The OLS regression model with experience	Financial inclusion score after the training increase 0.174	5%
		Financial Literacy score after the training increase 5.991	1%
	The OLS regression model with experience-assessment	Financial Literacy score after the training increase 5.912	1%

CONCLUSIONS

From the results above it conclude that the group-based training does have effect in increasing financial literacy level from low to moderate level and financial inclusion intention especially to investment product with return equal to the IHSG as the multivariate test, univariate test, paired sample t-test are statistically significant, the null hypothesis of the research being

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rejected it indicates that there is significant impact from the group-based training as the intervention toward the financial literacy level and financial intention inclusion of the member. Therefore, from this research the group-based training consists of 10 – 15 women per group (*arisan*) on the training can be used to increase financial literacy and financial inclusion intention of women in urban area with middle-up income. From the cross-tabs analysis, the respondents' responses are differ being affected by their demographic characteristics that shown on the different changes level on financial literacy and financial inclusion intention that being identified on cross-tabs analysis. Moreover, results from OLS regression shows the demographic characteristic that statistically significant to affect the dependent variable are income level, education level, and respondents' self-assessment.

The results on the research shows that community-based training through *arisan* improve the financial literacy level and financial inclusion intention. Thus, OJK could create program where training is done through small-group to conduct financial education with the aims to financial literacy and financial inclusion intention toward women especially women who are bachelor's graduated, aware of their financial knowledge (bad self-assessment), middle up income with IDR 5,000,000 – IDR 15,000,000, have large household size, age between 21 – 55, who are unmarried or have been separated, work as college student or businesswomen, and they who initially do not want to participate in any investment as from the OLS regression and cross-tabs analysis respondents with these characteristics are significant and have high changes on financial literacy and financial inclusion intention. As this research is conducted in Bandung area and the object is limited with middle-up income who joined *arisan*, the results may differ and may from the research conducted different cities and different social classes. Thus, for further study, the research can be restructured for other object or the community can be changed. Lastly, the further examination to complement the result by conduct research toward the actual women's financial inclusion level after joining the community-based training.

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