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THE INFLUENCE OF FINANCIAL LITERACY ON WOMEN'S WEALTH IN BANDUNG, WEST JAVA

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Abstract:

The current state of the financial industry is starting to provide various products and services to help individuals overcome their financial difficulties. To pursue the expansion of the financial industry, individuals must be financially literate in helping them manage their financial products and services. This paper aims to determine factors of financial literacy that influence women's wealth accumulation. This research produced a simple conceptual framework on the relationship between financial literacy and women's wealth accumulation based on literature synthesis. The framework suggested that financial knowledge, financial behaviour, and financial attitude will influence financial literacy. In contrast, as moderating factors, demographics will also influence women's financial literacy. Thus, financial literacy will influence wealth accumulation.

Keywords:

Financial Literacy, Wealth Accumulation, Women

Introduction

Nowadays, the financial industry is starting to shift to the digital world by providing various products and services. Due to the recent shift to digital finance, the crisis of confidence in

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financial institutions and financial fraud practices is starting to arise. Therefore, individuals are looking for more information before deciding whether to buy financial products, make decisions, and know the consequences of insufficient knowledge in dealing with financial matters is significant. Consequently, individuals must be financially literate to pursue the expansion of financial products and services in helping them manage their financial products and services (Lusardi, 2019).

Several institutions that have conducted surveys to measure the world financial literacy index have shown results that are not in line with expectations. Empirically, women tend to have lower levels of financial literacy than men (Cupak et al., 2018). This statement is supported by previous surveys that show that globally only 35% of men and 30% of women are financially literate. At the same time, women to be slightly more financially literate than men. Moreover, without proper financial literacy, it can result in various kinds of financial problems. Financial literacy also affects an individual's financial decisions when individuals are responsible for their financial activities such as paying bills, preparing taxes, investments, saving plans, and making short and long-term spending. Most women said that men are mostly more responsible in those financial activities, also at the same time, men said they are more responsible in those financial activities. However, based on the empirical data, the financial responsibilities of an individual is not centralized in one gender, but it is sensitive to the individual's education level. Other than the gender gap, previous studies also found a positive relationship between financial literacy and wealth. Individuals with higher financial literacy levels would have a total net worth bigger than individuals with lower financial literacy levels (Chu et al., 2017).

Additionally, OJK conducted a National Survey on Financial Literacy and Inclusion (SNLIK) in 2019 and showed West Java has a pretty high financial inclusion index with a low financial literacy level. OJK National Survey in 2019 shows that the financial inclusion index of West Java is 86,48%, while its financial literacy index is 37,43%. Compared with the national index, the West Java financial literacy index is still below the national index by 0,6%. As the capital city of West Java, Bandung is considered essential to be chosen as a research location because it can represent the entire population of West Java. Moreover, considering that almost all activity centers in the West Java region are located in Bandung, the population of Bandung is the largest in West Java, which is 16,13%.

As Indonesia's most important financial institution, OJK must raise financial literacy in the country to keep up with the growing range of financial goods and services. Financial education may be able to assist with this issue. Theoretically, financial education will lead consumers to get more financial knowledge, and more knowledge means that consumers will get better financial behaviors that will lead them to improved outcomes. There are several techniques of financial education, and different programs will have a varied influence on different audiences. Therefore, it is essential to know the characteristics of the target; thus, proper financial education will have a significant impact on the participants. Other than all of those factors, there are only a few studies regarding the impact of financial literacy levels on wealth, especially with women's wealth in Bandung as the subject.

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Literature Review

Financial Literacy

Financial literacy integrates knowledge, attitude, and behaviour to make good financial decisions and finally reach financial well-being (OECD, 2011). Someone is considered financially literate if they can make sound financial decisions based on their knowledge of finance. The better a person's financial education, the more financially intelligent and competent he or she becomes (Kadoya & Khan, 2017). However, most people still misunderstood that financial literacy is part of financial education or knowledge. Financial literacy is not the same as financial knowledge. There are two elements to financial literacy: comprehension of the financial aspect and its application in real life (Zait & Bertea, 2015). It means that an individual has to be able and confident to apply their financial knowledge in making financial decisions. Therefore, in developing financial literacy measurement instruments, both financial knowledge and appropriate application would be essential to be determined.

Financial Literacy Framework

In 2020, the OECD International Network for Financial Education (OECD/INFE) published research covering several financial literacy outcomes that may be essential and relevant to improving daily financial well-being. To become financially literate, a person must possess a variety of financial literacy components. By combining those components, based on an individual's preference, cultural, and economic context, an individual will be able to maintain and improve their financial well-being. These components cover:

Knowledge

Financial knowledge refers to all of the information that a person has accumulated. Knowledge is a key component of financial literacy. Individuals may use knowledge to analyze financial goods and services and make suitable and conceited financial decisions.

Behaviour

Financial behaviour refers to the person's activities, both needed abilities to continuously act with the goal of obtaining positive results and behaviors that are likely to contribute to financial well-being. Financial behaviours also refer to human behaviours relevant to money management (Rai, 2018). Financial behaviour does affect financial well-being; thus, it is needed to emphasize the critical point that is financial decision making (Valaskova et al., 2019).

Attitude

Financial attitude refers to the internal or emotional systems that affect judgments, habits, and welfare.

Wealth

Income and wealth can both be used by an individual to meet its economic consumption. However, most individuals continue to confuse income with wealth. Income is money that flows from various economic activities such as work, business, governmental subsidies, property rents, and so on (Keeley, 2015). While wealth, also known as net worth, is the value of the assets minus the value of its liabilities at a given time and often distributed unequally

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(OECD, 2013). Income can be the primary resource to support current consumption, but wealth also can support current and future consumption. Wealth is higher on average than income because it is accumulated over time and more brutal to be measured than income, so only a few studies focused on measuring wealth.

Component of Wealth

To identify women's wealth, a researcher must identify these three components: non-financial assets, financial assets, and liabilities. Knowing the composition of wealth can be very useful to understand how the women's participate in the asset market, the diversification of their portfolio, and what factors can affect their portfolio behaviour (OECD, 2013).

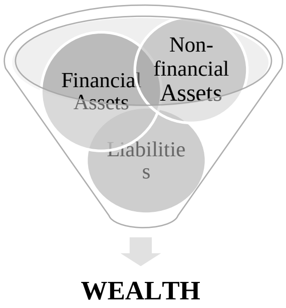

Figure 1: Components of Wealth

Source: OECD 2013 Framework for Statistics on the Distribution of Household Income, Consumption, and Wealth

Financial Assets

Financial assets are related to financial claims, agreements between creditor and debtor under the terms of liability. Based on the OECD Statistical Framework on the Distribution of Household Income, Consumption and Wealth, financial assets consist of currency, deposits, bonds, other debts securities, shares and equity, mutual funds, and other investments funds.

Non-financial Assets

Non-financial assets are both produced and non-produced assets whose values are not based on the financial agreements of two parties (OECD, 2013). Based on OECD Framework for Statistics on the Distribution of Household Income, Consumption, and Wealth, non-financial assets consist of owner-occupied residences, other real estates, consumer durables, valuables, intellectual property, and other non-financial assets.

Liabilities

Liability occurs when a debtor is obligated to provide a payment(s) to the creditor under a specific period. Based on OECD Framework for Statistics on the Distribution of Household Income, Consumption, and Wealth, liabilities consist of owner-occupied residence loans, durable consumer loans, consumer credit loans, and other liabilities.

Financial Literacy and Wealth

Financial literacy contributes to imparting knowledge and skills necessary to ensure considerable wealth accumulation (Lusardi, 2019). Different people have varied

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responsibilities, values, needs, wants, and resources. Everyone needs to determine his or her plan as he or she is the only one who well understands the way he or she lives, works, his or her preferences, his or her obligations, and dreams or aspirations for the future. With the capacity to develop informed and effective decisions so far as the usage and management of cash are concerned, the ability to concentrate on the most critical part of financial management becomes easier (Ramalho & Forte, 2019).

Individuals need to understand their wealth position, which involves examining one's net worth and cash flows. A person's net worth includes considering one's assets vis a vis his liabilities at a given point in time. This analysis assists in identifying which financial goals will be achieved and at what time, thus creating a financial plan (Mitchell & Lusardi, 2015).

Individuals should plan for insurance protection as well. Individuals need to protect themselves against unforeseen risks such as illness, accidents, loss of personal property damage, or loss of income, leading to financial loss and depletion of wealth. To identify how much insurance to buy at the most cost-effective terms, people should understand the insurance market as well as the risks they might face. Moreover, individuals also need to save and invest during their productive years of employment. Saving money enables one to meet emergencies when they occur, as well as provide cash for future expenses when they are needed. Saving is essential to enable a person to achieve his/ her investment goals which could either be to accumulate assets or derive income. Several variables impact investment decisions, including one's financial position, risk attitudes, age, and tax position (Seetharaman, 2017).

Providing for retirement is also important in wealth management. Individuals need an understanding of how much it costs to live in retirement. They also need to develop a plan to distribute assets to meet any income shortfall (Robb & Woodyard, 2011).

Borrowing and debt literacy are where people take up loans or mortgages to repay them over time. A sign of wise borrowing is the amount of money borrowed viz-a-viz income. A financially literate individual can determine whether a debt is reasonable, the capacity to pay back credit cards and money borrowed when they fall due, and maintains an excellent credit rating. Understanding financial products involve competence in investing and choosing financial products such as shares, managed funds, savings accounts, personal loans, mortgages, insurance and also knowing their key features such as the interest rates charged, inflation, risk, and returns required to make an informed and confident decision about those products (Robb & Woodyard, 2011).

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Methodology

Research Design

This research's methodology is divided into various stages, which are as follows:

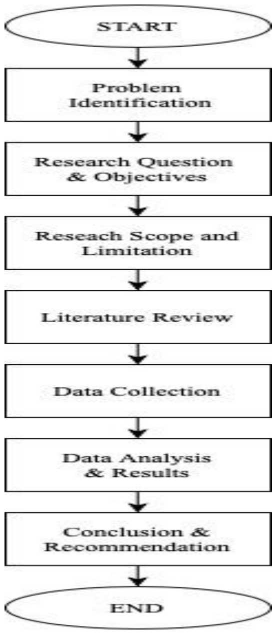

Figure 3: Research Design

Source: Researcher's Interpretation

The research is started by identifying the problem then defining the research questions, scope, and limitations. The next step is searching for relevant literature to support the research. After reviewing the literature, the researcher collects the data, both primary and secondary data. The data collected will be analysed to get the results of the research. From these results, the researcher will make conclusions and provide recommendations that are relevant to the research.

Data Collection

Primary Data

The researcher initially collects primary data for a specific research purpose (Hox and Boejie, 2005). This research collected the primary data by distributing questionnaires and targeting Bandung women as the research population. The samples of this research are women who live in Bandung, which represent whole Bandung women.

The researcher used a questionnaire to get primary data for this research, with women in Bandung as the sample of this research. The questionnaire must be relevant and accurate to meet the purpose of the research (Quinlan et al., 2015).

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The questionnaire is divided into three sections: sociodemographic characteristics of respondents, financial literacy level, and wealth assessment. The sociodemographic part of the questionnaire collected respondents' gender, marital status, age, education level, job, and income band. The financial literacy level measured the respondents' financial knowledge, behaviour and attitudes, and financial inclusion. Both parts are adapted from the OECD / INFE Toolkit for Measuring Financial Literacy and Financial Inclusion 2015. The researcher used this publication as the questionnaire guideline because this guideline has been tested during the measurement of financial literacy and inclusion exercise of OECD. The researcher also adopted the OECD Framework for Statistics on the Distribution of Household Income, Consumption, and Wealth 2013 for the variable measuring wealth. The usage of this guideline is to measure wealth accumulation because it provides a framework for microeconomic data.

Secondary Data

Secondary data is also needed to enrich the information to support the research. Other researchers collect secondary data for different research purposes (Hox and Boejie, 2005). This research also collects secondary resources to support the research, such as journals, textbooks, and research publications relevant to the research topic.

Sampling Size

Research is ideal for including the whole population as the research respondents, but it has a very low possibility. Therefore, the researcher needs to take the population sample to conclude the research and generalize it (Das, Mitra & Mandal, 2016). According to Dinas Kependudukan dan Pencatatan Sipil kota Bandung in its publication, Jumlah Penduduk Berdasarkan Jenis Kelamin di kota Bandung tahun 2020, the size of women population as in 2020 was 1.244.761. The researcher used 90% confidence and a 10% margin of error to calculate the number of samples used in this research. Based on the sample size table below, the researcher needs to distribute 100 valid questionnaires.

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Size of Population	Sample Size (n) for Precision (e) of:			
	±3%	±5%	±7%	±10%
500	a	222	145	83
600	a	240	152	86
700	a	255	158	88
800	a	267	163	89
900	a	277	166	90
1,000	a	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	385	200	99
15,000	1,034	390	201	99
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
>100,000	1,111	400	204	100

a = Assumption of normal population is poor (Yamane, 1967). The entire population should be sampled.

Figure 4: Sampling Size

Source: Israel, 1992

Sampling Technique

The number of samples is defined using non-probability sampling. Non-probability sampling is a sampling technique in which the samples are chosen based on personal judgment or convenience; in other words, the probability of any individual in the population being selected is unknown (Quinlan et al., 2015). Specifically, the researcher uses a convenience sampling technique to choose the respondents to represent the population. In inconvenience sampling (or haphazard sampling), the researcher chooses the most accessible respondent in the population (Etikan, Musa & Alkassim, 2016). Convenience sampling also enables the researcher to get many completed questionnaires at low cost and less time-consuming (Quinlan et al., 2015). For the questionnaires, the researcher will distribute them online. Online questionnaires will be necessary, such as Google Form.

Data Analysis

Financial Literacy Score

This research used questionnaires from OECD INFE Toolkit Measuring Financial Literacy 2015 with some adjustments and divided into six parts based on the research framework. Financial literacy consists of three components which are financial knowledge, financial behaviour, and financial attitudes.

Financial Knowledge

To measure the respondents' financial knowledge, with a score from seven multiple-choice questions regarding the time value of money, interest paid on loan, interest, principal,

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compound interest, risk and return, inflation, and diversification must be combined. Respondents who answered the questions right will get a score of 1 for each correct answer. Respondents with high financial knowledge are respondents with 5/7 right questions of all questions, which means they can answer five questions correctly.

Financial Behaviour

The researcher will measure the respondents' financial behaviour. There are four semantic questions (financial behaviour), three multiple-choice questions (daily decision, budget, and inclusion statement), and two multiple response questions (savings and influenced decisions). For the semantic questions, if the respondents gave a 4 - 6, they will get a score of 1. For the multiple-choice questions, the correct answer also will get a score of 1. In the end, all scores were summed, and those who scored at least 5 included respondents who have positive financial behaviours.

Financial Attitude

The researcher will assess the respondents with two semantic questions. In the end, all scores were averaged, and those who scored above 4 included respondents who have positive financial attitude.

After assessing all elements, the researcher can know the respondents' financial literacy level. A financially literate person must cope with all financial literacy elements: financial knowledge, financial behaviour, and financial attitudes. In other words, being financially literate, a respondent must have high financial knowledge, financial behaviour, and financial attitudes. If the respondent only copes with two elements, the respondent only has a medium financial literacy level. If the respondent only copes with one element, they still have low financial literacy.

Relationship between Demographics and Financial Literacy

This research researcher also wants to know which factors that can affect an individual's financial literacy level. This research used Pearson Correlation with Sig to know whether demographics and financial education affect an individual's financial literacy level. (2-tailed) score as the determinant. From the correlation score, the strength of the correlation could be described verbally (Evans, 1996):

a. r = 0.00 - 0.19 (indicate very weak)
b. r = 0.20 - 0.39 (indicate weak)
c. r = 0.40 - 0.59 (indicate moderate)
d. r = 0.60 - 0.79 (indicate strong)
e. r = 0.80 – 1.00 (very strong)

Relationship between Financial Literacy and Wealth

One of this research aims to know the relationship between financial literacy level and wealth accumulation. To achieve that objective, the researcher will use the Pearson Chi-square score and Pearson Correlation to know whether the financial literacy level of a representative of women could affect the rest of women's wealth.

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Conceptual Framework

According to the literature review, financial literacy has an influence on the building of women's wealth. There are also a handful of factors that will influence the financial literacy of an individual, such as demographic factors, financial knowledge, financial behaviour, and financial attitude. All of them indirectly lead to the financial literacy level, and indirectly will influence the wealth accumulation. Below is the proposed conceptual framework that can be used to describe the relationship between financial literacy factors and wealth accumulation:

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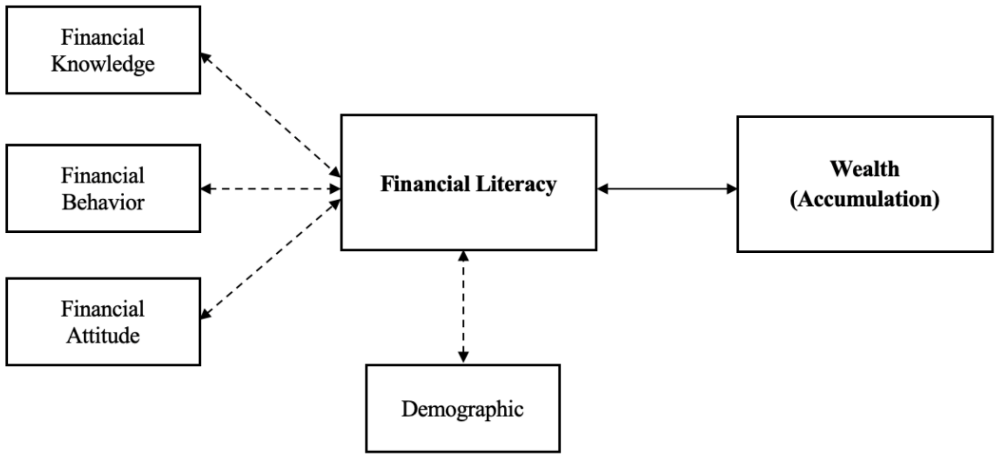

Figure 5: Conceptual Framework

Source: Researchers' Analysis

From the figure above, we can know what factors affect financial literacy on women's wealth accumulation and how both things associate. Financial literacy that consists of financial knowledge, behaviour, and attitude will affect how the individual manages her own daily financial decisions that might lead to wealth.

Conclusion

In conclusion, the researcher collected evidence of the relationship between financial literacy and wealth accumulation. The researcher also able to identify factors that influence financial literacy. According to the conceptual framework, the researcher can observe that financial literacy is influenced by sociodemographic, financial knowledge, financial behaviour, and financial attitude. Furthermore, financial literacy has a strong relationship with wealth accumulation since it affects financial decision-making.

The next phase of this research is to use statistical and research analysis to validate the conceptual framework. The research results will be beneficial for all parties, including the women themselves, the government, and the financial industry.

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