The Impact of Financial Knowledge, Financial Self-Efficacy, and Saving Behaviour on Junior High School Students: A Case Study of Rural and Urban Area Students

Badria Julianti[1], Sylviana Maya Damayanti[2]
[1]Research Scholar, School of Business and Management, ITB, Bandung
[2]Assistant Professor, School of Business and Management, ITB, Bandung

ABSTRACT: Financial knowledge, financial behaviour, financial self-efficacy, and financial behaviour are needed to make the right financial decisions. This study determines the differences in rural and urban junior high school students' financial knowledge, financial behaviour, financial self-efficacy, and saving behaviour. This study also finds the influence of financial knowledge, financial self-efficacy, and saving behaviour on students' financial behaviour. This study used the t-test, independent t-test and multiple linear regression methods to analyse the data obtained in the survey. The respondent of the survey is junior high school students aged 11 to 15 years. Data were obtained from the results of questionnaires filled in online by students. The results showed differences in financial knowledge, financial behaviour, and financial self-efficacy in rural and urban junior high school students. The findings in this study show that the financial behaviour of junior high school students in rural and urban areas shows the same results. Our research shows that demographics, financial knowledge, and financial self-efficacy influence students' financial behaviour. However, financial behaviour is not influenced by students' saving behaviour.

KEYWORDS: Financial knowledge; Financial behavior; Financial self-efficacy; Saving behavior.

INTRODUCTION

Financial skills such as financial literacy, financial behavior, financial self-efficacy, and financial behavior remain to be developed by the government, various financial institutions, educational institutions, media, and other entities at national and international levels through financial education. Multiple countries have launched national financial literacy strategies in the last decade to improve the financial well-being of their citizens. Strategies are implemented to improve financial literacy through financial education programs [1]. Financial education is a program that offers the knowledge needed to help people make better financial decisions [2]. Through the Financial Services Authority (OJK), the Indonesian government created the Indonesian Financial Literacy National Strategy (SNLKI) to guide financial education activities to encourage public financial literacy. The goal is to spur economic growth in Indonesia, and economic growth has always been a priority for the government in any country because it reflects the prosperity of the people [3]. The Indonesian government also continues to provide education facilities concerning financial knowledge. SNLKI (2019) shows a financial literacy index of 38.03%, while for financial inclusion, it is 76.19%, both increased from the previous year [4]. SNLKI 2017 shows a financial literacy index of 29.7% and financial inclusion of 67.8% [3]. The 2013 SNLKI shows a financial literacy index of 21.84% and financial inclusion of 59.74% [5]. Based on the 2017 SNLKI, the
West Java financial literacy index is 33%, and the 2019 SNLKI shows the West Java financial literacy index is 37.43%. Although the financial literacy index in West Java has increased, its ranking has decreased. West Java's ranking in 2016 was in eighth place, while in 2019, West Java's ranking was 12th, which is the lowest financial literacy index in Java. The large gap between financial literacy and financial inclusion shows that many Indonesians still do not have this ability. Therefore, developing financial education is one way to make financial literacy easily accessible to the public [6]. Financial education can provide someone with knowledge related to finance to influence financial decisions and financial behavior [7].

Table 1. Financial literacy and financial inclusion in Java and Bali.

Province	Year	Financial Literacy	Financial Inclusion
DKI Jakarta	2019	59,16%	94,76%
	2017	40%	78,2%
West Java	**2019**	**37,43%**	**88,4%**
	2017	**33%**	**71,4%**
Central Java	2019	47,38%	65,71%
	2017	33,5%	66,2%
DIY. Yogyakarta	2019	58,53%	76,12%
	2017	38,5%	76,7%
East Java	2019	48,95%	87,96%
	2017	35,6%	73,2%
Banten	2019	39,27%	84,29%
	2017	38,2%	69,5%
Bali	2019	38,06%	92,9%
	2017	37,5%	76%

The lack of research on financial knowledge, financial behavior, financial self-efficacy, and saving behavior in junior high school students is a new discussion. Junior high school students aged 11-15 years, at this age they can think abstractly by manipulating the ideas in their minds, without concrete manipulation. Based on the Piaget cognitive stage of students, 12 years and over is the formal operational stage [8]. The characteristics of this stage are gaining the ability to think abstractly, reason logically, and conclude from the available information. Based on this theory, junior high school students can decide for themselves every problem they face. From a psychological perspective, the age of 11-15 years is the initial stage of the life cycle, from childhood to early adulthood [9]. This study will investigate the effect of financial self-efficacy on financial knowledge, financial behavior, and saving behavior in junior high school students. This study uses a survey as a data collection instrument. We expect that this research can input teachers, financial literacy curriculum developers, and the government. In addition, this study contributes to the literature on the novel relationship between financial behavior and financial knowledge, financial self-efficacy, and saving behavior in junior high school students. This study did analyze using multiple linear regression. The results of the study indicate that financial behavior is influenced by financial self-efficacy. Based on a unique data set from 750 respondents, covering both rural and urban areas in Bandung, our analytical framework starts by looking at the effect of financial behavior on financial knowledge, financial self-efficacy, and saving behavior in junior high school students. Here, we consider student demographics, including the area of residence (rural/urban) and gender, to investigate financial behavior driven by an area of residence and gender. Finally, we identify what effect financial behavior has on distinctive student demographics.

REVIEW OF LITERATURE

Financial behavior can be described as all human activities related to money management [10]. Financial behavior can be seen in consumers' specific actions towards financial products and services [1]. Someone which possesses sufficient financial literacy skills will influence their financial behavior in a positive direction [11]. Understanding financial behavior is essential for society, especially for young people, to start learning about managing finances during youth to have a greater chance of success in adulthood. Financial behavior is influenced by financial literacy ability. Aspects of youth financial literacy, such as money attitudes and financial behavior, are also essential components of financial literacy [12]. Financial literacy is an important aspect; however, it is not enough to implement responsible financial behavior [13].

Financial literacy and self-efficacy are two essential factors that play a role in influencing one's financial behavior [14]. Financial attitudes such as receiving information, appreciating the value of financial management, avoiding impulsive consumption, having a future orientation, and being fully responsible are all related to good financial behavior. Financial knowledge will help

someone to make reliable financial decisions for the future [15]. However, good financial knowledge does not guarantee to make the right decisions [16]. This phenomenon results in irresponsible financial behavior and results in poor financial skills. This has led to the emergence of debt among adults and young people, especially in the middle class [2]. In times of economic crisis, when people's incomes decline, the ability and encouragement to save become necessary for both individuals and the economic community. The ability to save that is developed in childhood is an essential indicator of saving behavior in adulthood [1]. Saving as a child has a significant impact on the likelihood of saving each month and the amount saved as an adult [9]. This requires someone to understand and manage their finances from an early age. In managing personal finances, individuals also need self-confidence or 'self-efficacy' in their abilities [17]. Financial self-efficacy is a measure of an individual's belief in using related financial services in the context of the financial domain [18].The level of financial competence of 15-year-olds is determined by their knowledge and skills both inside and outside the classroom [19]. Students' abilities will affect literacy skills, financial behavior, financial self-efficacy, and student saving behavior. Students with high, medium, or low socioeconomic status have varying levels of financial knowledge, attitudes, and behaviors [20]. Students from affluent backgrounds will have high levels of knowledge, attitudes, and behaviors. This shows that parents' socioeconomic status can have a positive effect on the development of their children's financial behavior [21]. Students with low math skills, immigrant students, students with low socioeconomic status, students with mothers who did not have a college degree, and students who did not discuss financial problems with family and friends had the lowest levels of financial literacy among high school students [22]. This shows that the student's living environment will affect the financial ability of the student. In addition, cultural differences affect the financial literacy and behavior of 15-year-old high school students (M. Brown et al., 2018). Financial behavior is influenced by ethnicity, age, income, education, area of residence, and financial knowledge Students' backgrounds significantly affect financial literacy skills, financial behavior, financial self-efficacy, and saving behavior. Therefore, in this study, we wanted to see the area where students live, including villages and cities, on financial literacy abilities, financial behavior, financial self-efficacy, and saving behavior. Based on the discussion above, the following hypotheses are proposed:

H_{0a} : There is no difference in financial knowledge, financial behavior, financial self-efficacy, and saving behavior in rural and urban junior high school students.

H_{1a} : There are differences in financial knowledge, financial behavior, financial self-efficacy, and saving behavior in rural and urban junior high school students.

Students can improve their financial skills by learning problem-solving and critical thinking skills [23]. These skills can help solve financial problems and are used in real-life situations to deal with everyday problems. Problem-solving and critical thinking skills can help improve financial literacy skills, so students can deal with many concepts that include financial knowledge, attitudes, behavior, and wellbeing [12]. Financial literacy is a combination of financial knowledge, attitudes towards money, financial self-efficacy, and financial behavior that supports the use of financial knowledge in everyday financial decision-making [22]. Financial knowledge is closely related to financial behavior (Shim et al., 2010). Financial knowledge will help people make reasonable financial decisions in the future to improve their financial behavior (Margaretha & Pambudhi, 2017). Financial literacy is closely related to long- and shortterm [24]. A person's financial behavior is influenced by ethnicity, income, gender, income regularity, education, age, and financial knowledge [25]. Financial literacy and financial self-efficacy are two essential abilities that influence financial behavior [14]. Financial self-efficacy measures one's belief in using financial products [18].

A person's financial behavior also affects saving behavior which is influenced by financial literacy, which, in the future, this ability can help a person avoid financial problems (Gilenko & Chernova, 2021). Overall, financial literacy skills, financial behavior, financial self-efficacy, and saving behavior are needed to avoid financial problems in the future. These four financial capabilities will also be related to student demographics, where student residence and gender are the benchmarks of demographics. In this study, we want to analyze the effect of students' financial knowledge, financial self-efficacy, and saving behavior on financial behavior on other variables. In light of the above discussion, the following hypothesis is proposed:

H_{0b} : There are no influences of demographics, financial knowledge, financial self-efficacy, and saving behavior on financial behavior in junior high school students.

H_{1b} : There are influences of demographics, financial knowledge, financial self-efficacy, and saving behavior on financial behavior in junior high school students.

METHODOLOGY

This study used quantitative methods. Quantitative techniques collect quantitative data and objective statistics using scientific calculations generated from a sample of people or residents who answer several survey questions to assess the frequency and percentage of their responses (Creswell, 2017). Quantitative methods focus on objective measurement and statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys (Babbie, 2014). One of the main goals of quantitative research is to collect numerical data and generalize it to various groups of people or to explain certain phenomena (Muijs, 2004).

Population and Samples

The survey was conducted in a questionnaire to junior high school students in Lembang District with 7.585 junior high school students and Sumur Bandung District, Bandung City, with 4,045 junior high school students. The minimum number of students who must fill out the questionnaire is calculated using Slovin's formula, and the minimum number of students who must fill out respondents is 744. The study was conducted on students aged 11 to 15 years who are currently studying in junior high school. The number of respondents was 750 junior high school students. The research was carried out in junior high schools in the seventh, eighth, and ninth grades. Data was collected using an online questionnaire, and a survey was conducted from October to November 2021.

Data

The questions in this questionnaire are adapted from the 2018 PISA questionnaire, which was held in Indonesia. However, in the questionnaire, several questions were added that were adapted from other journals. The questionnaire contains 58 questions divided into four sections: demographics (region and gender), financial knowledge, financial behavior, financial self-efficacy, and saving behavior. Indicators for each variable and points for each answer given to respondents can be seen in table 2.

Table 2. Variable Identification

Variable	Indicator	Sources	Scoring
Financial Knowledge	Information about managing money	[26]	No = 0 Yes = 1
	Terms/Words in finance	[26]	I don't want to know = 0 Never heard = 1 Heard of it, but don't know what it means = 2 Study it, and I know what it means = 3
Financial Behavior	Perceived financial behavior control	[26]	Strongly Disagree = 0 Disagree = 1 Agree = 2 Strongly Agree = 3
	Decision to buy goods/services	[26]	Never = 0 Seldom = 1 Sometimes = 2 Always = 3
	Participation in financial inclusion	[26]	No = 0 Yes = 1
Financial Self-efficacy	Confident in Managing Finances	[26]	Very Insecure = 0 Insecure = 1 Confident = 2 Very Confident = 3

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	Experienced in Managing Personal Money	[26]	No = 0 Yes = 1
	Share about problems related to money	[26]	Strongly Disagree = 0 Disagree = 1 Agree = 2 Strongly Agree = 3
Saving Behavior	Consistent in Saving	[1]	No = 0 Yes = 1
	Saving for Purposes	[1]	No = 0 Yes = 1

The methodology used in this study is Multiple Linear Regression. This method is used to find significant factors that influence financial behavior. The multiple linear regression model has passed the validity, reliability, and classical assumption tests (normality, multicollinearity, and homogeneity). In multiple linear regression, the dependent variable must be continuous, and the independent variable must be a continuous variable or dichotomous, called a dummy variable. The model to analyze the effect of financial knowledge, financial self-efficacy, and saving behavior on financial behavior is as follows.

$$FinancialBehavior = \alpha + \beta_1 Demographic + \beta_2 Financial\ Knowledge + \beta_3 Financial self efficacy + \beta_4 Saving behavior + \varepsilon$$

To analyze the effect of living areas, namely Rural and Urban, this study used t-test and independent ttest to analyze it.

RESULT AND DISCUSSION

The research respondents consisted of 384 (51.2%) from rural areas and 366 from urban areas. The age distribution of respondents who were collected was nine students (1.2%), 12 years old 182 students (24.3%), 13-year-olds 262 (34.9%), 14-year-old 176 students (23.5%) and aged 15 years as many as 121 students (16.1%). The average age of respondents who are willing to answer is 13.27. Female respondents were 414 students (55.2%), and male respondents were 336 students (44.8%). Students' financial ability is calculated based on the number of scores on each variable. Summary statistics can be seen in table 3.

Table 3. Statistics Summary

Variables	Mean	Std. Deviation	Minimum	Maximum
Score of Financial Ability				
Financial Knowledge	34.69	8.757	0	55
Financial Behavior	18.23	4.223	3	28
Financial self-efficacy	18.68	3.811	3	28
Saving Behavior	3.45	1.069	0	6

The average score of financial knowledgeability is 34.69 from the maximum score obtained is 65, or the financial knowledge index is 53.37%. The average financial behavior ability score is 18.23 from the maximum score obtained 26, or the financial behavior index is 70%. The average score of financial self-efficacy ability is 18.68 from the maximum score obtained at 31, or the financial selfefficacy index is 60.26%. The average score of the ability to save behavior is 3.45 from the maximum score obtained six, or the index of saving behavior is 57.5%. Financial knowledge has a low percentage compared to financial behavior, saving behavior, and financial self-efficacy. This finding is in line with research conducted by Arceo-Gómez & Villagómez (2017).

The survey data was then tested for validity and reliability; the test results were that all questions in the questionnaire were valid and reliable. Then, the data were tested for normality, multicollinearity test, and homogeneity test. After testing, all data are normal, there is no multicollinearity, and all data are homogeneous. Therefore, the data can be processed further, namely t-test, independent t-test, and multiple linear regression. The t-test was carried out to determine the differences in financial knowledge,

financial behavior, financial self-efficacy, and saving behavior in the area where students live, namely, villages or cities. Then, the data will be tested by independent t-test.

Table 4. T-test based on student living area

Variable	Area	Mean	Std. Deviation	Std. Error Mean
Financial_Knowledge	Rural	32.46	8.350	0.426
	Urban	37.04	8.571	0.448
Financial_Behaviour	Rural	19.90	4.269	0.218
	Urban	16.48	3.385	0.177
Financial_Selfefficacy	Rural	18.14	3.830	0.195
	Urban	19.26	3.710	0.194
Saving_Behaviour	Rural	3.42	1.137	0.058
	Urban	3.48	0.992	0.052

Table 5. Independent t-test

Variable	Levene's Test for Equality of Variances	T-test for Equality of Means
	F	Sig. (2-tailed)
Financial Knowledge	1.689	0.000
Financial Behavior	10.976	0.000
Financial self-efficacy	0.011	0.000
Saving Behavior	4.676	0.452

The results of the t-test test are shown in table 3 and independent t-test in table 5. Based on the test results, the average financial knowledge in rural areas is 32.46, while the average in urban areas is 37.04. The results of the independent t-test of financial knowledge showed that the calculated F value of the leverage test was 1.689 with a significance value of 0.000 <0.05 (alpha). This means that there are differences between rural and urban areas in terms of financial knowledge data and have unequal (nonidentical) variances. These results show that the urban area average is higher than the rural area average in financial knowledge. This finding is in line with previous research [22]. This conclusion is because students with higher cognitive abilities or from higher secondary school pathways are more likely to display higher levels of financial knowledge.

The results of financial behavior in rural areas show an average of 19.90, while urban areas are 16.48. The independent t-test of financial behavior results showed that the calculated F value for the leverage test was 10.976 with a significance value of 0.000 <0.05 (alpha). This means that there is a difference between rural and urban areas on financial behavior data and has unequal (non-identical) variances. The test results show that the rural area average is higher than the urban area average in financial behavior. This result is interesting because the financial behavior of junior high school students in the village is better than in the city. Students' financial behavior is correlated with financial knowledge and financial attitudes [27], however, junior high school students' financial knowledge scores in urban areas are higher, but financial behavior scores are lower than rural junior high school students. Student differences in financial behavior can be caused by the source of money students get. Students in urban areas are given pocket money by their parents, while some rural areas have their income [9].

Financial self-efficacy in rural areas has an average of 18.14, while in urban areas, it is 19.26. The independent t-test financial self-efficacy results showed that the F value for the calculated Levene test was 0.011 with a significance value of 0.000 <0.05 (alpha). There are differences between rural and urban areas on financial self-efficacy data and have unequal (not identical) variants. These results show that the average urban area is higher than the average rural area on financial self-efficacy. This difference reflects the different financial education between rural and urban areas, resulting in students' financial self-efficacy [22]. The financial knowledge and financial self-efficacy of urban junior high school students are higher than that of rural junior high

school students. Financial education facilities in urban areas are sufficient, and the support for good student cognitive abilities leads to better financial knowledge and financial self-efficacy [9].

Saving behavior in rural areas has an average of 3.42, while in urban areas, it is 3.48. The independent t-test of saving behavior showed that the calculated F value for the Levene test was 4.676 with a significance value of 0.452 <0.05 (alpha). There are no differences in the variable data area and have the exact (identical) variance. The results show that the average urban area is higher than the average rural area in saving behavior. The data processing results on students' saving behavior showed that the average urban area was 0.06 higher than rural areas; however, this difference was insignificant. Learning in the 2013 curriculum has the same material. Students who live in villages or cities also learn the same things. The material for the 2nd grade of elementary school is learning about money denominations. Then the learning materials for Social Sciences (IPS) grade 4 elementary school learn about currency, and these materials always go hand in hand with the narrative of the importance of saving. This allows rural and urban students to have the same perception about the importance of saving to have good saving behavior. The results show the importance of financial ability being integrated with education in schools so that everyone can have good financial abilities. In addition, the financial capacity that is integrated with education in schools will get equitable results, both in villages and in cities.

The influence of financial knowledge, financial self-efficacy, and saving behavior on financial behavior will be analyzed using multiple linear regression. The results of multiple linear regression are shown in table 5. Based on the results of the regression equation in table 5, the constant value is 11,582. This means that if demographic conditions, financial knowledge, financial self-efficacy, and saving behavior are held constant, the financial behavior variable (Y) will increase by 10.192. The value of the regression coefficient on financial knowledge, financial self-efficacy, and saving behavior is buoyant, so it can be said that these variables have a positive relationship to the financial behavior variable (Y). This shows that financial knowledge, financial self-efficacy, and saving behavior have increased by one variable unit. The Y variable also increases by the value of the regression coefficient. The value of the demographic regression coefficient is negative. This result shows that financial behavior is negatively related to demography.

Table 6. Regression Coefficients

Variable	Unstandardized Coefficients	t	Sig.
	B		
(Constant)	11.582	14.600	0.000
Demography	-2.304	-12.407	0.000
Financial Knowledge	0.038	2.288	0.022
Financial self-efficacy	0.363	9.719	0.000
Saving Behavior	0.204	1.614	0.107

Based on table 5 of the hypotheses of the t-test results, the demographic significance (P Value) is 0.000 <0.05. These results show that demographics have a significant influence on financial behavior. The significance number (P Value) of financial knowledge is 0.022 < 0.05. These results indicate that financial knowledge has a significant influence on financial behavior. The significance number (P Value) of financial self-efficacy is 0.000 <0.05. These results show that financial self-efficacy has a significant influence on financial behavior. The significance number (P Value) of saving behavior is 0.022 < 0.05. These results show that saving behavior has a significant influence on financial behavior.

Demographics consisting of student area and gender were negatively related to financial behavior. The negative demographic coefficient shows that female students who live in rural areas have better financial behavior than boys who live in urban areas. This result contradicts the findings [22], which states that male students' financial behavior is better than female students. However, other findings suggest no difference in financial behavior between women and men [28]. Financial knowledge has a significant influence on financial behavior. Financial knowledge positively correlates with financial behavior (Andarsari & Ningtyas, 2019; Amagir et al., 2020). Financial education has an essential contribution to financial knowledge and financial behavior to be better [7]. Our findings further show that financial behavior is also influenced by financial self-efficacy. Financial self-efficacy

has a positive influence on financial behavior [30]. The regression results show that saving behavior does not influence financial behavior.

CONCLUSION

This study aims to determine differences in financial knowledge, financial behavior, financial self-efficacy, and saving behavior based on the area where students live (rural and urban). The results showed significant differences in financial knowledge, financial behavior, and financial self-efficacy in junior high school students with living areas in villages and cities. The financial knowledge and financial self-efficacy of urban junior high school students are higher than that of rural junior high school students. Meanwhile, the financial behavior of junior high school students in rural areas is better than that of urban junior high school students. However, rural and urban junior high school students' financial behavior did not significantly differ because they received the same financial education as elementary school students. These results show the importance of financial education in schools so that the whole community can improve their financial capabilities.

This study further examines the influence of demographics, financial knowledge, financial selfefficacy, and saving behavior on the financial behavior of junior high school students. The results showed that the financial behavior of junior high school students was influenced by demographics, financial knowledge, and financial self-efficacy. Based on the results of the study, financial behavior is not influenced by students' saving behavior. This study recommends that the government, curriculum developers, and teachers implement financial education in learning materials in schools. The limitation of this study lies in the limited survey area.

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