

## The Role of Indonesian Credit Cooperatives Towards Strengthening Financial Literacy and Improving Financial Behavior

Daniel Adi Setya Rahardjo<sup>1</sup>, Suwardi<sup>2</sup>

<sup>1</sup>[Danieladi@stekom.ac.id](mailto:Danieladi@stekom.ac.id), Universitas Sains dan Teknologi Komputer

<sup>2</sup>[suwardi@stekom.ac.id](mailto:suwardi@stekom.ac.id), Universitas Sains dan Teknologi Komputer

### Abstract

This study examines the effect of financial literacy on the financial behavior of Credit Union (CU) members in Indonesia in realizing the 2021-2025 SNLKI strategic direction. This exploratory study uses convenience sampling taken from the members of CU in Indonesia. The reason for selecting respondents is the availability of very abundant data. The process of collecting data was by distributing questionnaires via email to members of credit unions in Kalimantan and Java. Questionnaires were randomly sent to Credit Union members over the age of 18. Data analysis used SurveyMonkey and data processing used the Microsoft Excel program which was sent to researchers. The results of the study found a positive relationship between financial literacy and financial behavior.

**Keywords:** credit union, financial literacy, financial behavior

### Abstrak

Penelitian ini mengkaji pengaruh literasi keuangan terhadap perilaku keuangan anggota Credit Union (CU) di Indonesia dalam mewujudkan arah strategis SNLKI 2021-2025. Studi eksplorasi ini menggunakan convenience sampling yang diambil dari anggota CU di Indonesia. Alasan pemilihan responden adalah ketersediaan data yang sangat melimpah. Proses pengumpulan data dilakukan dengan menyebarkan kuesioner melalui email kepada anggota credit union di Kalimantan dan Jawa. Kuesioner dikirim secara acak kepada anggota Credit Union yang berusia di atas 18 tahun. Analisis data menggunakan SurveyMonkey dan pengolahan data menggunakan program Microsoft Excel yang dikirimkan kepada peneliti. Hasil penelitian menemukan adanya hubungan positif antara literasi keuangan dengan perilaku keuangan.

**Kata kunci:** credit union, literasi keuangan, perilaku keuangan

## I. INTRODUCTION

Financial literacy is one of the things that is often discussed nowadays. Especially for the younger generation. Knowledge of financial literacy is considered to be quite useful to learn from an early age. The Financial Services Authority (OJK) as the financial supervisory body in Indonesia stated that the vision of financial literacy is to realize Indonesian people who have a high level of financial literacy so that people can choose and utilize financial products and services to improve their welfare. And the mission of financial literacy is to educate Indonesian people in the financial sector so they can manage finances intelligently, as well as increase access to information and use of financial products and services through developing infrastructure to support financial literacy. The financial education approach cannot be generally accepted, but a different approach is needed according to the characteristics of the industry and the majority of consumers in it. Financial Literacy is the ability to understand how money works in the world and take an informed as well as a judicious decision with regard to all financial activities (Thavva, 2021). Several empirical studies on financial literacy conclude that there is a positive effect of financial literacy on individual financial behavior and financial status. Individuals who are responsible for their financial behavior tend to be effective in using their money, such as making a budget, saving and controlling expenses, investing, and paying obligations on time. Financial literacy helps individuals avoid financial problems, especially those that occur due to financial mismanagement (Robb, 2011; Ningtyas, 2019; Arofah, 2018). Bellet (2018) states that financial literacy has an effect on household financial management and the goal of accumulating wealth. In relation to investment risk, high financial knowledge prevents individuals from purchasing high-risk investment assets (Bianchi, 2017). Entrepreneurs are also required to

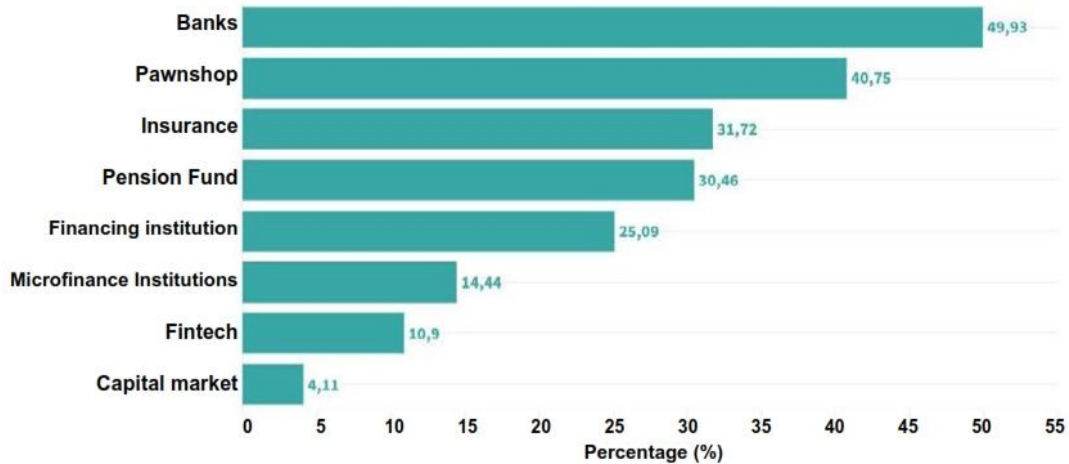
sharpen financial literacy to manage their financial funding. Husein et.al (2018) stated that the higher the financial literacy, the greater their chances of accessing external funding so they are able to develop their business. Disney & Gathergood (2013) state that households with high financial literacy will be able to manage the use of credit cards and other credit properly. Whereas Chu et.al (2016) stated the opposite that someone with low financial literacy skills has an effect on bad financial decisions in investing so that it has an impact on a decrease in his financial condition. Behaviors such as saving, paying bills on time and in full every month, or other financial behavior activities are good because they are considered actions, not just because they have a high level of financial literacy. This study tries to find new findings with a focus on understanding financial literacy among Credit Union members in Indonesia. The development of credit unions in Indonesia which has increased drastically is seen as an opportunity in measuring the success of literacy education in Indonesia.

Financial literacy education in Indonesia is increasingly being encouraged with programs compiled by the OJK as an institution that supervises and regulates financial service activities. Therefore, education about financial products and management not only increases financial literacy, but also contributes to increasing financial inclusion. However, currently Indonesia is facing several obstacles in increasing its financial literacy and inclusion index. A number of challenges are faced, namely the uneven level of education, lack of curiosity about financial products, uncertainty about the legitimacy of financial products, and the uneven distribution of supporting infrastructure, as well as other factors.

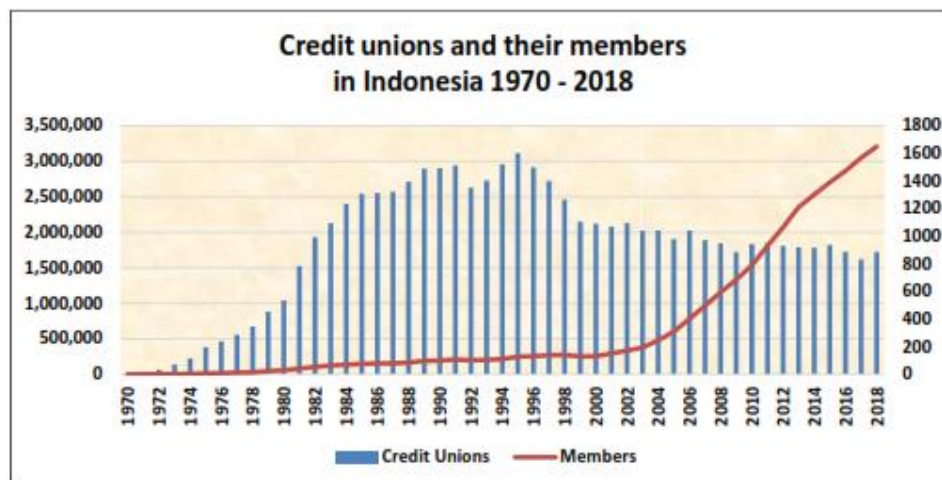
Cooperatives as a non-bank financial institution have a very important role in efforts to foster economic growth and increase awareness, roles and responsibilities of the community (Nashela, 2016). Cooperatives are known in Indonesia as one of the economic actors towards development apart from BUMN and the private sector. Savings and loan cooperatives are cooperatives engaged in providing credit to members with the lowest possible interest. One form of credit cooperative that is starting to develop in Indonesia is the Credit Union (CU). Financial institutions aiming to improve the welfare of their members have special characteristics in that they are owned and managed by their own members. Credit Unions are indeed unique and very interesting to be studied and even suspected by parties who do not understand or are new to them. Credit Unions have common cooperative characteristics such as education and training for members and other management apparatus, Credit Unions also have bank characteristics and insurance characteristics which can be seen from their various deposit products and loan products. Credit Union is here as an answer to the modernization of cooperatives in Indonesia. Credit Union promotes savings programs for its members so that welfare is truly achieved not only through business capital loans, but also with savings owned by each member, both useful as collateral and as savings from the results of the business that has been undertaken. The legal basis used in running a Credit Union is Article 33 of the 1945 Constitution, Law Number 25 of 1992 concerning Cooperatives and Government Regulation Number 9 of 1995 concerning Implementation of Savings and Loan Business Activities by Cooperatives. However, actually CU is not synonymous with Savings and Loans Cooperatives or cooperatives in general (Setyowati, et.al., 2022)

Indonesian people's understanding of making financial decisions is getting better. This can be seen from data from the Financial Services Authority (OJK) regarding the financial literacy index in Indonesia which is 49.68% in 2022. Based on the sector, banks have the highest level of financial literacy, reaching 49.93% this year. Its position was followed by the pawnshop and insurance sectors with a financial literacy index of 40.75% and 31.72% respectively. The financial literacy index in the pension fund sector is 30.46%. Then, the financial literacy index in the sector of financial institutions and microfinance institutions is 25.09% and 14.44%, respectively. The financial technology or Fintech sector has a financial literacy index of 10.90%. Meanwhile, the financial literacy index in the capital market sector was 4.11%. (DataIndonesia.id)

**Figure 1. Financial Literacy Level by Financial Services Sector (2022)**



Nationally, Credit Unions (CU) in Indonesia are no longer just financial institutions, but have become economic movements because of the magnitude and breadth of the impact they have produced. Induk Credit Cooperative (INKOPDIT) is a national level Secondary Credit Cooperative domiciled in Jakarta which functions as a national financial service center to serve Puskopdit (Credit Cooperative Centers) throughout Indonesia. The main function of INKOPDIT is to develop Credit Cooperatives in the territory of Indonesia both in quantity and quality so that the credit Cooperative business network is strong, healthy and independent starting from Primary, Secondary Regional and National Credit Cooperatives. In Indonesia there are 857 credit unions with 3,045,786 members and assets of IDR 33 trillion (2019) spread across all provinces of Indonesia. Currently, the Main Credit Cooperative (Inkopdit) has a network of 37 Credit Cooperative Centers (Puskopdit) / Pre Puskopdit / BK3D spread across several provinces throughout Indonesia (Inkopdit, 2022). Mook (2014) states the main purpose of CU is not only developing financial capacity but also improving the economic welfare of members. The amount of credit that may be disbursed to customers of banks/financial institutions can be affected by the literacy level of the individual applying for credit (Ismanto et.al., 2019). Research on the function of CU in consumer finance is still limited compared to other financial institutions. McKillop et.al (2020) emphasized that CU has good capacity in instilling perceptions of financial literacy in its members.



*Source: Inkopdit (2019) an Sumarwan (2022)*

One of the Puskopdit in Indonesia is Jatra Miguna with an office in Yogyakarta. Consisting of 23 Credit Unions (CU) located in Central Java, DI Yogyakarta and East Nusa Tenggara, this Puskopdit has a total of 32,900 individual members and total primary assets of IDR 223,194,637,505 and Puskopdit assets

of IDR 22,477,172 .827,- Another Puskopdit is BKCU Kalimantan, one of the biggest Puskopdit in Indonesia. BKCU Kalimantan changed its name to Puskopcuina and became an equal partner of Inkopdit owning and joining the Asian Confederation of Credit Union (ACCU) since 2021. Puskocuina has 45 credit unions with 550,788 members spread throughout Indonesia.

This study is hoped that this research model can be used as a first step in determining the correlation and impact of increasing financial literacy and financial behavior in the credit unions service system. Furthermore, the research questions posed are:

**RQ1: Is self-reported financial knowledge higher or lower in agreement with actual financial knowledge as indicated on the financial literacy assessment?**

**RQ2: Is higher financial literacy among credit union members related to financial behavior?**

## **II. LITERATURE REVIEW**

### **Financial Literacy**

The general understanding of financial literacy is the knowledge and skills of the community that are able to provide confidence regarding financial institutions and the various products within the index size parameter. Financial literacy refers to a state of competency development that provides opportunities for each individual to respond effectively to new personal events in a changing economic environment (Mihalová, 2014). With financial literacy, it is hoped that the community will have qualified financial education so that they are able to take a stand and make wise financial decisions. While the definition of financial literacy according to the Financial Services Authority (OJK) is knowledge, skills, and beliefs that affect human behavior as a form of improving the quality of financial management and decision making so as to achieve life welfare.

In 2008 a consumer financial literacy measurement model was developed by Lusardi and Michell, known as the Big Three. The Big Three measurement model is considered important by researchers in assessing understanding of economic financial conditions. The first question measures numeracy or the ability to perform simple calculations related to interest rate compounding. The second question measures understanding of inflation, again in the context of simple financial decisions. The third question measures knowledge about risk diversification; this is a joint test of knowledge of "stocks" and "stock mutual funds", and diversification of risk, because the answer to this question depends on knowing what stocks are and that mutual funds are made up of many stocks.

Financial knowledge, both basic and digital, is needed as individual responsibilities increase to secure their long-term financial well-being (Normawati, et.al., 2021). Financial knowledge is an integral dimension, although not exactly the same as financial literacy (Robb, 2011; Huston, 2010), financial literacy involves how consumers can take advantage of the information they get.

To further deepen the understanding of financial literacy, it is also necessary to understand the different contexts in the concepts of financial behavior, financial security and financial well-being, and financial capability. Hasibuan (2017) illustrates financial behavior as how well individuals and households manage their finances which includes; budgets, savings, investments, insurance, and financial planning. Financial behavior can be seen as encompassing four broad areas, namely, saving, spending, borrowing and investment. Individuals differ in their habits and such behavior is influenced by a multitude of factors including family advice, knowledge about finance, peer groups, advertisements, economic status, marital status, outlook towards the future, income levels, etc (vr, Sudindra, 2018). Financial well-being is illustrated as the financial condition of individuals or families who have sufficient resources to wade through and live life comfortably and worry-free. Measurement of financial well-being can be done with objective indicators; income, expenses, debt, assets, debt ratios, and subjective.

Reporting from the OJK, the meaning of financial health is a person's ability to balance current and future financial needs. This includes one's ability to deal with unexpected conditions in financial activities. Meanwhile, financial health implies a relative meaning that refers to the ability to manage income and expenses in a way that produces a stable and manageable financial situation (Barnard, et.al., 2010). Financial capability is closely related to peace of mind and self-control over financial problems (Law, 2021). The combination of good knowledge, experience in managing finances, financial resources owned, and habits in managing is a perfect combination in understanding the meaning of financial ability.

### **Credit Union**

Credit Union is engaged in the field of capital formation business through members' continuous savings to then be loaned to its members easily and quickly for productive and welfare purposes. Cooperatives need to accumulate capital from their members through the savings provided by them in this case mandatory,

principal and voluntary savings so that from the savings the cooperative is then able to channel credit to its members. A credit cooperative or Credit Union, or commonly abbreviated as CU, is a financial agency engaged in the savings and loan sector which is owned and managed by its members themselves. Credit Union which are often also called "Credit Unions" are cooperatives that have a single business, namely savings and loans as their main business or business. Credit Cooperatives which are often also called "Credit Unions" are cooperatives that have a single business, namely savings and loans as their main business or business. Credit Union is a financial institution that has existed in Indonesia since the 1970s which has participated in helping the problems faced by Indonesian people, especially in the economic field by providing credit to its members, saving at low cost or enjoying other new products and services. The existence of savings and credit by members causes a circulation of money in society so that it can be used for development. CU as a non-for-profit financial institution is open to all groups, including those who are poor, to help each other through democratic capital creation, according to their own capabilities ([www.woccu.org](http://www.woccu.org)).

Credit Union is a member-based financial institution with the noble aim of empowering members of the community to improve their welfare and dignity, through savings and loan-not borrow-to-save services ([cucoindo.org](http://cucoindo.org)) McKillop et.al (2020) explains Credit Union is a financial organization that is owned and regulated by members with the aim of realizing predetermined economic and social goals. Furthermore, it is stated that credit unions are human and social agitators. CU's main work ethic is to get opportunities to work with other people and groups so as to achieve a healthy financial condition.

Credit Union Pillars ([cucoindo.org](http://cucoindo.org))

1. Education  
Education is the main foundation of CU because education is fundamental element in helping and controlling CU to continue to grow
2. Self-Looking  
That the credit union originates from members, is managed by members and for members
3. Solidarity  
That all members of the credit union must prioritize shared values with the motto: "it's hard for you, i can help you, it's hard for you to help me."
4. Innovation  
That innovation is needed as a path to sustainable progress to meet the demands of the times.
5. Unity  
That cooperation between credit unions can strengthen the credit union movement so that it can make it easier to strengthen the socio-economic conditions of all credit union members

Credit Union was built on the basis of social justice. Byrne et.al (2012) states that CU has formed a program to integrate financial services in a more conventional society and aims to avoid greater risk of 'predator' loans. Credit unions are different from other financial services entities. The most striking big difference between the two lies in the purpose. Some are looking for profit (profit) and some are not only about profit (non-profit). As is known, the Bank of course aims to find and reap the greatest profit that can be obtained from customer loan flows. This is also triggered by competitiveness with other banks. Meanwhile, credit unions, which are cooperatives, of course prioritize the economic interests of their members. This type of cooperative financial institution is intended for the purpose of supporting its members in various needs. For example business capital loans, workshops and sharing to add insight and so on. The most important thing is meeting the needs of members, after that new increase in profits. The basic ideology of credit unions according to Croteau (1963) is the financial health of the members. Croteau explained in more detail, CUs that use the member-owner model also focus on the welfare of their members so that there is a mutually beneficial relationship where the financial success of the members increases the success of the credit union.

Researchers agree that CUs need to offer competitive financial services and even provide access to low-interest capital and the highest possible return on invested capital to their members. This concept is inversely proportional to conventional banks which seek maximum profits for owners and not members/customers. McKillop (2020) adds that in order to prioritize the financial well-being of its members, credit unions need to prioritize the needs of their members above their own individual needs. Measuring the level of financial literacy has many obstacles due to simple characteristics on a test basis (Riger, 2020). The results-based measurement approach offers a more comprehensive overview of the effect of financial literacy on behavior, although it is more complicated to manage. Interest in understanding capabilities that aim to increase financial results, it is necessary to consider the definition of size, so that when there is a change in results it creates better behavior (Puelz, 2020). This study proposes a measurement model by examining administrative data with observations on members who are actively refinancing debt in order to reduce the risk of interest payments.

### **History of the Journey of the Indonesian Credit Cooperative Movement (GKKI)**

As we all know, the birth of GKKI stems from the existence of a handful of God's people whose hearts were moved to care for marginalized communities, through the Credit Union vehicle, after being inspired and obtaining aspirations from the Seminar on Social Economic Life in Asia (SELA) which they follow in the 1960s. Father Karl Albrecht SJ, initiated a Study Circle on Credit Unions by gathering several volunteers, including Mr. Robby W Tulus, Michael Wuryadi (Alm), Mrs. Daisy Tanireja, etc.

After believing that Credit Unions could be a means of human development, through community-based socio-economic empowerment, through Savings and Loans activities, in 1970, the Credit Union Counseling Office (CUCO) Consultation Bureau was established. The institution which functions to prepare the Credit Union Training Motivation and Education Program for the community, is managed by volunteers, led by Father Albrecht as the Main Director and Mr. Robby Tulus as the Managing Director. From the courses/training that had been held, in 1971 there were 3-5 CUs in Jakarta and Bandung, and Periangin Timur, West Java. In order to intensify coaching and mentoring, CUCO developed a regional Coordinator system. A reputation shown by the CU Movement through CUCO to be proud of, in 1972, it was entrusted by the Asian Confederation of Credit Unions (ACCU) to host the First Asian Credit Unions Managers Conference, at the Bahari Hotel, Cipayung, West Java. Attended by pioneers, movers and Executive leaders/Managing Directors of Credit Union Development Institutions in Asia. The event really encouraged and convinced the movers, CU leaders who were in Indonesia at that time, about the spirit of human solidarity in CU and concern and mutual assurance of the prospects for developing CU in Asia.

This familial relationship continued intensively through a field study education program in 1984 – 1987, by visiting each other, between CU leaders, to several CU Leagues in Asia, organized by CUCO/BK3I. Starting with the Indonesia – Thailand (IndoThai) program, InSriThai (Indonesia Sri Lanka Thailand) and InPhiThai (Indonesia-Philippines-Thailand). This program is very effective, CU leaders can adapt the experience from the results of the study seen, after as a follow-up plan, to improve the quality of service in their respective CUs. The decisive thing was of course the big event that happened in 1976, in Bandung, Central Java, namely the Indonesian Credit Union National Conference, which received direct directions from the Director General of Cooperatives of the Ministry of NaKerTransKop, regarding the continuation of the Credit Union movement in Indonesia, after a grace period of 5 years, provided to restore public trust in cooperatives. The government can justify the continuation of Credit Unions with the provision of changing the term Credit Union into Indonesian to become Credit Cooperatives, in accordance with Law on Principles of Cooperatives No. 12 of 1967, Article 16, concerning Types of Cooperatives. This was accepted by the Conference participants. So CUCO changed to the Indonesian Credit Cooperative Consultation Bureau (BK3I), the Coordinator changed to the Regional Development Agency (BPD).

After a dynamic journey, around 1981, the Consultation Bureau changed to the Indonesian Credit Coordinating Body with the permanent abbreviation BK3I, and the BPD changed to the Regional Credit Cooperative Coordinating Body/BK3D. Around 1982, at the national level, it had changed to become the National Credit Cooperative Coordinating Body/BNKKK whose chairman was entrusted to Mr. Robby W Tulus, after 1983 it was continued by Mr. J K Lumunon, because Mr. Robby Tulus left Indonesia for Canada.

According to its development and the passage of time in 1984, it returned to become the Coordinating Board for Indonesian Credit Cooperatives / BK3I. In connection with cooperative relations with the authorities and other legal entities, through the Notary Office of Melly Karmila, SH, BK3I obtained Foundation Legal Entity Status, dated April 20, 1989. While preparations for obtaining BH Inkopdit, efforts are still being made, so that on the way BK3I/Inkopdit Foundation Letterhead is used. Thanks to the Minister of Cooperatives, Mr. Adisasono (Alm), who truly understood the existence of the Indonesian Credit Cooperative Movement, under the coordination of the Inkopdit which had demonstrated its achievements, reputation and supremacy as a Cooperative movement, in July 1998, Legal Entity No. 018/BH/M.I/VII/1998 for Main Credit Cooperatives. Partly because of this official legalization, the development of the Indonesian Credit Cooperative Movement has grown to this day (cucoindo.org).

### **Financial Behavior**

Nowadays, behavioral finance is not just a concept but has become an operational method for analyzing and explaining the existence of stock price mispricing, explaining why individuals do not diversify and how noise traders create inefficient markets. Behavioral Finance means the ability of individuals to manage their finances to be successful in life. This includes handling income and financial condition. Several definitions of financial behavior are shown in Table 1.

Table 1. Financial Behavior

Experts (Year)	Statement
Litner (1998)	Financial behavior is a science that studies how humans respond and react to existing information in an effort to make decisions that can optimize the rate of return by taking into account the risks inherent in it (elements of attitude and action are determining factors in investing).
Litner (1998)	Financial behavior is a study that studies how psychological phenomena affect financial behavior. The behavior of the stock players is called the behavior of practitioners.
Nofsinger (2001)	Financial behavior is studying how humans actually behave in a financial setting (a financial setting).
Xiao (2008)	Defines financial behavior as any human behavior related to managing money.
Riitsalu, L., & Pöder, K. (2016)	Financial behavior is part of the more significant discussion surrounding financial literacy instead of the more traditional view that there is a cause-and-effect relationship between financial literacy and financial behavior

Individual financial knowledge subjectively plays an important role in changing financial behavior (Dare, 2020). Dare further stated that individual knowledge influences how individuals control spending and the impact on positive financial behavior. Lusardi (2009) concluded in his research that there is a positive correlation between test-based knowledge assessment and self-reported knowledge. The study in measuring the effect of the relationship between financial literacy, financial knowledge, education, behavior and well-being was started by Huston (2010) who stated; there are other influences which include culture, economic conditions, time preference and 'contradictory' meaning of behavior. The results of Huston's study of other influences provide an opportunity for researchers to broaden their perspective in the relationship between objective financial knowledge and financial behavior. Self-esteem greatly influences financial behavior (Tang, 2016). As Tang (2016) adds, psychological factors are antecedent factors in changing financial behavior. Another factor is the future orientation of an individual can change financial behavior. Shih et.al (2022) emphasized that attitudes towards planning for the future give individuals greater hope about the future itself. Mudzingiri et.al (2018) stated that a future-oriented mindset has a positive effect on financial behavior.

The development of financial behavior measurement instruments to assist researchers and professionals in understanding financial management behavior has been proposed by many experts. In 2011 Dew and Xiao developed a measurement model called the Financial Management Behavior Scale (FMBS). FMBS consists of five questions covering; investment, cash flow, consumption, credit, and savings where these five domains are considered as important elements in financial management. Dew and Xiao (2011) stated that this scale was applied to better understand the level of consumer involvement in financial behavior and how they make decisions related to their financial health. The conclusion from this scale is that when the score obtained on the FMBS measurement model increases, savings increase but debt levels decrease. The development of research in measuring financial behavior develops with the inclusion of questions based on tests and results as well as self-assessment to determine the overall level of consumer financial well-being.

### III. METODOLOGY

This study uses the Five Big Questions from Lusardi (2008) and adds literacy questions from Lusardi's research (2009). The research instrument included a survey of financial literacy and financial behavior involving two Puskopdit from BKCU Kalimantan (Puskopciuna) and Jatra Miguna. Survey questions were developed to develop the characteristics of financial literacy and financial behavior in the credit union group and then data analysis was carried out to find answers to the research questions. Data collection used the convenience sampling method which involved two PUSKOPDIT which were geographically different, namely from BKCU/Puskopciuna with 523 respondents and Jawa Jatra Miguna Central Java with 588 respondents. Table 2 shows an illustration of the demographics of the PUSKOPDIT and Credit Union (CU) sample respondents. Data analysis uses Pearson and Spearman Correlation to test the relationship. There are 17 questions consisting of 5 test-based questions that focus on objective measures of financial literacy. Then 1 question item relates to measuring financial literacy individually which needs to be answered by the respondent himself. To examine the financial behavior of members, researchers asked 7

questions. And finally 4 question items were asked to test the influence of demographics covering four categories; ethnicity, gender, CU location and employment status.

Table 2. Demographic Characteristics of NFCS and Credit Union Samples

Variable	Puskopdit						CU		CU		CU	
	BKCU and JM		BKCU		JM		BKCU and JM		BKCU		JM	
	n	%	n	%	n	%	n	%	n	%	n	%
<b>Race</b>												
Java	1314	75	987	79	327	64	809	73	472	90	337	57
Non Java	116	7	21	2	95	19	195	18	7	1	188	32
Other	61	3	48	4	14	3	18	2	18	3	0	0
Missing	0	0	0	0	0	0	32	3	0	0	32	5
<b>Gender</b>												
Male	848	48	606	49	242	48	443	40	207	40	236	40
Female	912	52	644	52	268	53	655	59	310	59	345	59
Other	0	0	0	0	0	0	13	1	6	1	7	1
Missing	0	0	0	0	0	0	0	0	0	0	0	0
<b>Employment</b>												
Employed	932	53	654	52	278	55	749	67	321	61	428	73
Not Employed	340	19	239	19	101	20	73	7	50	10	23	4
Retired	416	24	309	25	107	21	264	24	146	28	118	20
Student	72	4	48	4	24	5	25	2	6	1	19	3

**IV. ANALYSIS AND RESULTS**

In Table 2, the results of the combined demographic analysis of the two PUSKOPDIT Indonesia BKCU and Jatra Miguna (JM) are presented. It can be seen that the average respondent comes from the Javanese ethnic group, which is 73% more, the respondents based on gender are women (59%). The Pearson Analysis Test was carried out to answer Research Questions 1. The correlation coefficient measures the strength (direction and magnitude) of the association or relationship between two variables (Obilor, 2018). The results of the Pearson correlation test showed that all the coefficients had a positive and significant correlation with the value ( $p < 0.001$ ). This confirms that respondents who considered themselves to have more financial knowledge answered questions about financial knowledge correctly. The coefficient level obtained from the CU respondent sample obtained a value between 0.42 - 0.43 which shows a higher result than the correlation coefficient level taken from the PUSKOPDIT sample as a whole which only reached 0.23 - 0.27. It can be concluded that the correlation between Self-Reported Knowledge and the real condition of financial knowledge is bigger and stronger than the CU sample.

Research Question 2 includes items used in finding answers to questions which include:

- a. Paying bills on time,
- b. Staying with a budget or spending plan,
- c. Paying off credit card balances in full each month,
- d. Not maxing out the limit on a credit card,
- e. Starting or maintaining an emergency spending account,
- f. Saving money from each paycheck,
- g. Contributing to a retirement account?



Schober et.al (2018) states that when research is carried out to decide a relationship between variables that are abnormal data, data with relevant outliers and ordinal data, the Spearman correlation test can be applied. See Table 4. The results of the Spearman correlation test show that financial knowledge has a positive effect on paying bills on time, paying off credit balances regularly every month, always carrying out budget planning, managing/preparing budgets for emergencies, setting aside salary money for savings and preparing budget for pension funds. Positive financial behavior is shown when respondents can answer the questions asked about financial literacy correctly and more. Spearman test results also show that the average respondent has a positive financial behavior by not using credit cards to the fullest. The findings show that more respondents who answered financial literacy questions correctly did not use their credit cards beyond the maximum balance limit.

Table 3. demographic analysis of PUSKOPDIT Indonesia BKCUCU and Jatra Miguna (JM)

Dependent Variable	Correlation ( $\rho$ ) with Number of Correct Answers	P
Paying bills	.22	< .001
Spending plan	.18	< .001
Paying off credit cards	.24	< .001
Maxing credit cards	-.21	< .001
Emergency fund	.26	< .001
Saving each paycheck	.23	< .001
Retirement contribution	.15	< .001

**Multiple linear regression analysis**

In this study, multiple linear regression tests were used to determine the effect of demographic characteristics on financial literacy. The independent variables (x) in this study are: ethnicity, gender and employment status while the dependent variable (y) is the number of questions answered correctly by the respondents. The reference variables used are Java, Male, and employed. See Table 4.

The results of the regression test in Table 4 show that financial knowledge obtains a value of  $p < .001$ , which means that the demographic variables together significantly explain the number of variants in financial literacy reaching 15%. Variable 'Ethnicity' is correlated with financial literacy and in individual regression it is found that the Javanese Ethnic gets a value of  $\beta = -0.38, p < .001$  and Non Java is  $\beta = -0.93, p < .001$ . This shows that the category of non-Javanese answered fewer questions correctly than the category of Javanese. In the gender category it was found that gender had an effect and correlated with financial knowledge. The regression results show that women tend to answer financial literacy questions correctly less than male respondents where the value is  $\beta = -0.38, p < .001$ . Finally, in the employment status category, it was found that fewer respondents who did not work answered financial literacy questions correctly than those who worked ( $\beta = -0.30, p = 0.028$ )

Table 4. Coefficients for Regression with Demographic Characteristics Predicting Knowledge

Variable	B	Std. Error	Beta	Sig.	95% CI		VIF
					Lower	Upper	
Java	-0.93	0.09	-0.30	< .001	-1.10	-0.75	1.06
Non Java	-0.83	0.17	-0.14	< .001	-1.17	-0.49	1.02
Other	0.01	0.26	0.00	.969	-0.50	0.52	1.01
Gender: Female	-0.38	0.07	-0.16	< .001	-0.52	-0.25	1.03
Gender: Other	0.47	0.45	0.03	.293	-0.41	1.36	1.01
Status: Not employed	-0.30	0.14	-0.06	.028	-0.57	-0.03	1.04
Status: Retired	-0.10	0.08	-0.04	.222	-0.25	0.06	1.06

**Findings**

To test the results of a comparison of the financial literature review of members of the CU sample with the results conducted by PUSKOPDIT, it can be seen in the results of the independent sample t-test. The results of the t-test show that statistically more respondents from CU members answered questions correctly than respondents from PUSKOPDIT.

To examine the effect of self-reported financial knowledge and actual knowledge, the Pearson Correlation test was used. The person correlation test shows that self-reported knowledge has a positive and significant effect on actual knowledge. Furthermore, the results of the test that examined the relationship between financial knowledge and financial behavior used Spearman's correlation analysis. The results of the analysis found that financial knowledge has a significant positive effect on paying bills on time, in accordance with budget planning, paying off credit card balances (per month), maintaining emergency expenses, setting aside salary money for savings and preparing for retirement funds. Conversely, financial knowledge has a significant negative effect on the use of credit card limits, this can be concluded as a positive behavior. To determine the influence of demographic characteristics on the financial knowledge of credit union members/respondents. The results of multiple linear regression analysis showed that respondents from outside Java tended to have lower knowledge than members of union credit in Java with a value of  $p < 0.001$ . For the gender category, it was found that female respondents tended to have lower knowledge than men with a  $p < 0.001$ . The job category in the results of the multiple linear regression union shows that respondents who do not/have not worked have lower financial knowledge than those who have worked with a value of  $p < 0.028$ .

## **V. CONCLUSION**

The study of financial literacy has developed a lot in the last few decades by developing more varied survey instruments and respondents (Potrich et.al., 2016; Hasting et.at., 2014; Huston, 2010). Financial literacy plays an important role in economic development (Lusardi, 2014; Kaiser et, al, 2020; Luburic, 2018). The author concludes that to achieve financial capability, products and services are needed that are suitable for consumers or customers.

There is a positive influence between financial literacy and financial behavior on individuals who have a greater level of financial knowledge can make better financial decisions (Lusardi, 2020). This study is hoped that Credit Unions will become a solution and play an important role in increasing understanding of financial literacy and positive financial behavior. Respondents' responses to a survey conducted among credit union members divided into several PUSKOPDITs in Indonesia showed that on average PUSKOPDIT members answered questions correctly about test-based financial literacy. The test results show that there is a positive and significant relationship between self-reported financial knowledge and actual financial knowledge. Participants who considered themselves more knowledgeable tended to answer more questions correctly. The results of the study also found that financial knowledge has a positive effect on financial behavior significantly positive. This is evidenced by respondents who answered more questions correctly, they were involved in positive financial behavior. Demographic factors which include ethnicity, gender, and occupation collectively explain significant differences in financial knowledge.

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