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### Empowering Women through Social Media-based Financial-Literacy Education Program

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#### **Abstract**

In 2019 Indonesia's financial literacy index stood at 38.03%, an improvement over time, but still considerably low compared to global standard. This number becomes even more disheartening when gender is taken into account as women in Indonesia have a noticeably lower financial literacy rate than men. This is the problem that we try to solve by presenting an approach for structuring and disseminating financial knowledge with the aim of improving financial literacy in Indonesia. We utilised a framework for social media knowledge management to develop a financial education program while simultaneously approaching the problem in exploratory manner by conducting indepth interviews to gain understanding on various aspects of financial literacy. Judgement sampling technique was used for practicality purposes via in-depth interviews with 13 women who live in Bandung as the main object of the study. Among the respondents of our study, 76% were deemed well-literate while the rest were considered still literate. While encouraging, examining the data further shows that our respondents' understanding towards financial management is a bit more complicated and nuanced owing to a wide range of behaviour that our respondents exhibit.

**Keywords**: Financial Literacy, Financial Education, Knowledge Management, Social Media, Economic Empowerment.



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### INTRODUCTION

In 2019, Indonesia's Financial Services Authority reported that the country's financial literacy index is at 38.03% (Otoritas Jasa Keuangan, 2020). Though there were some improvements over time, these numbers still cannot be considered a good achievement. While reasons for this low achievement are due to the combination of issues of both financial knowledge and behaviours (OECD, 2019), it is still relevant to consider financial literacy as among the must-have qualities for modern civilization especially in the midst of the growing complexity of the financial system.

As one of the demographic aspects, gender is known to affect the level of financial literacy. Based on the National Survey of Financial Literacy and Inclusion, the literacy rate for women is 36.13% while for men is 39.94% (Otoritas Jasa Keuangan, 2020). This is due to various reasons, including differences in attitudes of risk management and the stigma of women's roles which are identical to non-economic activities (Intan, 2020). These factors make the process of providing financial information to women a bit more difficult than to men. This inequality is also the basis for encouraging efforts to increase the level of financial literacy for women in Indonesia.

West Java as one of the most populous provinces in Indonesia often becomes the adoption target of various financial products and services. However, the level of financial literacy of the people of West Java is still at 35% (Otoritas Jasa Keuangan, 2020). In addition, from direct observation in the West Java region, it was identified a number of mistakes are often made in terms of financial management, such as misunderstandings regarding debt due to differences in branding. This condition makes financial literacy a very important aspect in West Java (Haryadi, 2019).

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This research presents an approach for structuring and disseminating financial knowledge as a way to improve financial literacy of Indonesians, especially women. Utilising a framework describing the relationship between social media and knowledge management, we develop procedures for designing the contents of knowledge to address the needs of women in Bandung, West Java. Finally, we use social media as means to facilitate knowledge transfer from experts to our target beneficiaries.

#### LITERATURE REVIEW

Financial literacy refers to the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through both appropriate short-term decision-making and sound, long-range financial planning, by considering life events and changing economic conditions (Remund, 2010). The complexity of the financial system in recent years, as well as decline in public welfare policies, increased life expectancy and health care costs in old age emphasises the need for financial literacy as a means to help people make appropriate financial decisions (Hung, Yoong, and Brown, 2012).

Following the results of some national surveys on financial literacy, women generally perform better in household money management but are lacking in making major decisions for long-term planning purposes, choosing products and staying informed with recent updates on financial issues (Lusardi and Mitchell, 2011). Both knowledge and confidence contribute to these differences (Smith and Liao, n.d.). Women were less likely to give the correct answers as well as more likely to respond "don't know" when their financial competency was being assessed (Lusardi and Mitchell, 2011).

Regarding women's financial literacy, financial planning and debt management are the most important knowledge to have. A good understanding of financial and debt management can lead to better financial results (Kumar et al., 2018). Financial planning is defined as the process of estimating needs related to procurement, fulfilment, storage, and financial administration in the future (Management Study Guide, 2021). At the household and individual levels, financial planning is related to the allocation of short-term and long-term funds, such as daily needs, education funds, pension funds, entertainment needs, and expenses for unexpected events (Andoko & Martok, 2020). On the other side, debt management is a process of planning and allocating debt (Heath, 2021). The purpose of debt management is to utilise lending alternatives as part of a financial strategy that helps meet short-term and long-term needs. In Indonesia itself, the practice of debt is quite commonly used, ranging from debts to official institutions to individuals or families.

Research shows that lower levels of financial literacy disadvantage women in the form of reduced economic power within the household as well as women's active participation within the economy (Hung, Yoong and Brown, 2012). Even at the household level, where women are known to play the role of financial managers of the family (Lind et al., 2020), the ability to manage financial matters is salient to family's financial stability and welfare (Gunawan et al., 2021). Women are also found to be more vulnerable to various financial issues, such as financial crime, consumptive lifestyle, as well as poor financial decisions and inability to set goals (Lusardi, Mitchell, and Curto, 2010).

Considering financial literacy provides a strong support for women to respond to the challenging dynamics of the financial world, designing relevant education programmes is essential to help closing the gender gap. We propose an alternative of using social media to facilitate financial education programmes as it has the power to bridge the gaps between knowledge seekers and

owners (Fernandes, Lynch, and Netemeyer, 2014). Social media is even more important for the development of knowledge as it increases the opportunities for people to engage and collaborate with each other despite geographical locations. Finally, we expect that utilising social media for the purpose of improving financial literacy may reduce the possibility of failing to help those most in need.

#### **METHODOLOGY**

In designing our proposed program for financial education, we adapt the framework of social media knowledge management by Bharati, Zhang, and Chaudry (2015). Started as an adaptation of an earlier theoretical version by Tsai and Ghoshal (1998) about the relationship between the three dimensions of social capital – structural, cognitive, relational; and knowledge exchange, they added some highlights on the role of social media for enabling both social capital and knowledge management. Social capital is considered a crucial prerequisite leading for knowledge management to function. Finally, organisation knowledge quality is affected by how well knowledge management performs.

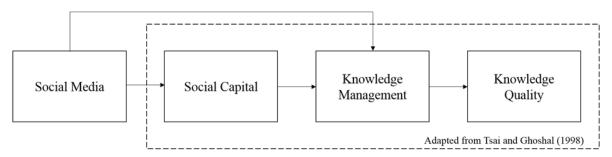


Figure 1 - Research Framework for Social Media Knowledge Management (Bharati, Zhang, and Chaudry, 2015)

We argue that this framework is suitable for designing our financial education program. Representing structural dimension, the way we interact with our beneficiaries through social media helped us to establish and maintain relationships with women in the city of Bandung as our beneficiaries. These interactions are also important considering both parties agreed upon a common set of goals, visions and values as we developed our knowledge contents to address the needs of our beneficiaries. Powered by the use of social media as a medium for knowledge dissemination, achievement of these dimensions subsequently lead to knowledge management.

Data was collected through in-depth interviews. In this process, an interview guide consisting of 5 sections was developed, including respondent demographic data, financial planning topics, cash management topics, debt management topics, and the "other" section to address the preferences and needs of respondents directly. The interview instrument contains two types of questions, the main question that must be asked as a discussion starter and operational questions that function as probing. These two types of questions are made to ensure that the exploratory nature remains in focus.

The study was conducted on women who are estimated to be managing household finances in Bandung. The sample selection was done through a judgement sampling technique, due to the Covid-19 pandemic so there is no need for generalisation of the results. To assess the data adequacy, a thematic analysis was carried out as the basis for assessing indicators, where data patterns were indicated by the similarity of words or themes from the transcript (Warren, 2020).

Respondents' interview results were converted into literacy level assessments with a 4-point Likert scale (1 not literate and 4 literate well) based on the results of Bloom's taxonomic classification which is common for knowledge assessment. Next, an assessment is carried out using the hold-out method where data is divided into two smaller parts for comparison (Brun, Xu, & Dougherty, 2008). Both groups were processed by calculating the data independently. The data is said to be sufficient should the mean difference between the two groups does not exceed 0.2.

Data processing is carried out in an exploratory manner through a discussion. This method was chosen because the research needs to review the actual representation of women's financial literacy level and the problems that may be faced in order to achieve the ideal financial condition. The results of this analysis become the basis for the development of further research, including the development of social media content to increase awareness of literacy levels and help solve existing problems.

#### FINDINGS AND DISCUSSION

The data collection process resulted in 13 data sets. This data then converted into a value according to the indicator assessment matrix to consider the data adequacy. The topic of debt management was not included in the calculation of data adequacy because data collection results show that not all respondents have the same conditions in terms of debt. From this calculation process, the average value for the holdout sample is 2.67 and for all samples is 2.75 Because the average difference does not exceed 0.2 as the limit has been set, then the amount of data that has been obtained is declared sufficient. The level of financial literacy of the respondents was obtained from the average of each criterion reviewed and the rounding technique. This evaluation process gives the result that there are no respondents who have a literacy level of 1 (not literate) and 2 (less literate) while 76.92% of respondents have a fairly good level of literacy (3 – literate) and 23.08% of respondents have a very good level of literacy (4 – well literate).

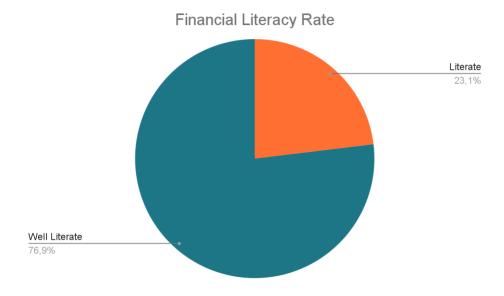


Figure 2 - Financial Literacy Assessment Results

Looking at the demographic distribution of respondents with financial literacy levels, the biggest range is shown by the age and income components. However, this component does not have a significant effect on higher levels of financial literacy because there is no very clear distinction between respondents with very high and very low age or income.

Table 1 - Summary of Respondents' Demographics and Financial Literacy

ID	Age	Occupation	Income	Dependents	FLR
T1	49	Housewife	Rp6.000.000,00	2	3
T2	27	Clothes Seller	Rp10.000.000,00	1	4
Т3	26	Food Seller	Rp4.000.000,00	1	3
T4	51	Housewife	Rp2.000.000,00	0	3
Т5	40	Food Seller	Rp3.000.000,00	2	3
Т6	24	Employee	Rp5.000.000,00	0	3
Т7	38	Seller and renter	Rp3.000.000,00 - Rp5.000.000,00	2	3
Т8	60	Civil servant	Rp7.500.000,00 - Rp10.000.000,00	1	3
Т9	54	Housewife	Rp10.000.000,00	4	3
T10	41	Food seller	Rp1.000.000,00	3	3
T11	60	Housewife	Rp10.000.000,00	1	4
T12	63	Seller	Rp1.000.000,00	1	3
T13	61	Housewife	-	1	4

From the data obtained, respondents showed very diverse financial planning behaviour. Some respondents have excellent financial management techniques through the budgeting system and others have never done structured financial planning. Broadly speaking, the pattern of financial planning is influenced by the respondent's past experience in managing finances and very few are doing continuous learning related to financial planning. From the control process, all respondents stated that they had full control over financial planning without intervention and communication

with other parties. This is because most of the respondents stated that their income is only for their daily needs, while their long-term needs have been managed by other parties.

For financial management, several respondents stated that they had implemented a recording and evaluation system on a regular basis. Respondents generally already have a saving system, either from the remaining money used or allocated from the start. In the use of technology-based financial products, respondents are quite familiar with electronic money in various activities. However, most of the financial management is still limited to cash only, so respondents say that there are quite a lot of out-of-control in the use of non-cash money.

In managing debt, most of the respondents stated that debt is something that is not recommended and avoids it, either owing from well-known institutions or to individuals. They will tend to do the saving process first rather than having to go into debt. Respondents also understand the risks in debt that come from personal experience and the results of environmental observations. Although all respondents stated that they avoided debt, several respondents said they were still active in doing instalment programs in buying something. This underlies the conclusion that respondents have a fairly narrow understanding of debt, where debt is defined as borrowing cash from other parties and returning it in a similar form.

This research possesses several limitations. First, we do not consider various scenarios on why the gender gap in financial literacy does persist over time. For example, Al-Bahrani, Buser, and Patel (2020) found empirical support that men are driven by objective financial knowledge, whereas self-efficacy seems to play a significant part in encouraging women to be financially literate. The difference implies that adjustments need to be made on how financial knowledge is narrated and presented. For women-targeted education programmes, it may be more effective to provide illustrations using names and near-actual situations than just merely theoretical reasonings on why some things should be done. Another limitation is present considering the role of potentially prerequisite variables in order to make financial education more effective. These variables may range from previous financial experiences to traits such as cognitive ability or emotion. For example, within our samples we found some women who already have experience with credit cards. As we tried to identify relevant knowledge for her, she opted out debt management and expressed her interests on investing instead. These variations among individuals imply that there is no "one-size fits all" in terms of relevant knowledge on financial literacy.

### **CONCLUSION AND FURTHER RESEARCH**

At a superficial level, the result of this study shows an encouraging sign of high-degree of financial literacy for women. More than three quarters of the respondents in our sample were included in the well-literate group while the rest were still considered to be literate even though not as high as the other group. Examining the data further, however, shows a much more nuanced insight. Regarding financial planning for example, some respondents had exercised excellent financial management techniques while on the other end of the spectrum, there were some respondents who never even undertook basic financial planning. This wide range of financial management behaviour calls for a more comprehensive financial education program so that it can better serve the beneficiaries accordingly. We believe that using a framework for social media knowledge management is one of the right steps to develop the education program.

Many financial education programs are implemented without evaluations with regards to whether they do the job as intended. Amid the growing interests on financial education as a way to reach financial literacy, we therefore propose that further research can be directed to measuring the effectiveness of the education program itself. Indicators, as well as measurement procedures may be developed to validate the effectiveness claim objectively. Another direction of further research may focus on uncovering whether some combination of different approaches need to be undertaken to train multiple skills in order to affect multiple behaviours characterizing financial literacy and how those approaches should be implemented.

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