MILLENNIALS: THEIR FINANCIAL LITERACY AND DECISION MAKING

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Abstract: Millennials are now the largest population groupings in Indonesia, therefore their decisions in financial matters have significant implications for themselves as well as the country’s economy. This paper is aimed to evaluate the level of financial literacy possessed by the Millennials and their attitudes towards making key financial decisions. Data were collected through questionnaire of 30 questions with 15 questions regarding financial literacy and 15 questions related to financial decision making, with the participants in the study consists of 446 individuals who were born from 1980s to 2000s. The result reveals that better financial literacy leads to better financial decision at 1% significance level. This study also indicates that, although demographic profiles such as gender, education, length of working experience, income, number of credit card ownership and mother education have positive correlation with the level of financial literacy, they do not have moderating effect to the financial literacy and financial decision making of the millennials.

Keywords: Financial Literacy, Financial Decision Making, Personal Finance

INTRODUCTION

The availability of wide financial access and financial infrastructure play pivotal role in economic development. Countries with lower financial inclusion, often have a greater suffering from poverty, greater income inequality and ultimately slower economic growth (Demirgüç-Kunt & Klapper, 2013), and the demand of financial services in a country are influenced by financial literacy of the individuals. This is due to the nature that people will demand more financial products if they are comfortable using them, and their understanding about financial management will strengthen along with their relationship with banks or other financial institution.

Over the past 10 years the Indonesian has recorded strong economic growth. It has also shown significant improvement in some measures of health, as life expectancy has risen from

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66 years of age in 2000 to 71 in 2017, with the average of the population is relatively young. Data from Indonesia Central Bureau of Statistics in 2017 shows Millennials (those who were born from 1980s to 2000s) as the largest population groupings in Indonesia, amounted around 88 million or 33.75% of the total country’s population. This means that their decisions in financial matters will have significant implications, not just for themselves, but also to the country’s economy in overall (compared to any birth cohort), and their economic influence is expected to grow over the next decade. This fact makes the need for financial literacy among millennials more crucial compared to the prior generations, since it will help their understanding about the basics of finance which in the end will help them to increase their earning potential and strengthen the nation economy in future.

Modern life has brought new challenges, and millennials are facing some of those challenges more keenly than others. Overlaying millennial personal finances is the reality that they are the first generation of digital natives. On one side, the growth of financial technology (fintech) industry along with mobile technology have empowered millennials to seek out their own solutions through googling, consulting, online expert communities or other educational platforms. It has also given them access to nearly countless tools to easily organized their financial matters from the palm of their hands, such as instantly pay for goods, transfer money or make and track an investment. On the other side, large tech boom and increase time spent on social media have been claimed as main factor that supports consumerism that may lead to heavy spending, which in the end may cause increase reliance on debt. Furthermore, credit card companies, banks and other financial institutions are overwhelming consumers with credit opportunities, and without the proper knowledge or checks and balances, it is easy to get into financial trouble.

In an increasingly complex marketplace, learning how to manage money is as important as earning it. The consequences of not knowing even the basics about household financial matters can prove to be costly for adults as they make financial decisions for short term or the long term. However, the 2016 national literacy and financial inclusion poll conducted by Financial Services Authority (OJK) shows that the majority of Indonesian do not have a complete grasp on financial services and products. The survey by OJK showed that the financial literacy and inclusion indices stood at 29.66 percent and 67.82 percent respectively. This means over two thirds of respondents have knowledge and confidence in financial institutions, but they do not have enough experience in using these financial services.

It is crucial for individuals to be able to differentiate and choose among wide array of financial products and services available in order to make choices that are most appropriate to their financial goals and needs. While investments should represent logical decisions and is based on the risk and potential return, many Indonesian investors still make emotional decisions instead of relying on logic. In May 2018, OJK published the consumers’ loss from caused by Investment fraud in Indonesia reached more than 100 trillion rupiahs for the last decade. Domestic investment in stock market in Indonesia is also considered low. Data issued by The Securities Depository and Settlement Institution in 2016 shows that the number of people invests in stocks and mutual funds is around 1 million (compared to the total population of 262 Million.), despite the fact that Indonesian stocks have been among the world’s best performers over the past five years. Hence, having financial literacy is very important, not only to enable individuals to reach the best potential for their investment, but also to avoid mistakes.
that can hamper their long-term financial success.

This paper is aimed to evaluate the level of financial literacy possessed by the Millennials and their attitudes towards making key financial decisions. We find that financial literacy proves to be a key determinant of better financial decision making. Analysing the relationship between financial literacy and decision making of the millennials will provide the opportunity to improve the understanding on how well-equipped young adults in making effective financial decision making, specifically in a macro view. This study is also important to the manager of financial institutions and advisors since they are able to put more emphasis when giving their quality advice to the workers. Scholars and academicians stand to benefit from the added knowledge in the area of personal finance management and also be able to identify other research gaps for future studies, especially in the context of developing countries.

LITERATURE REVIEW

Financial literacy, financial education and financial knowledge has been used interchangeably in academic literature as well as in the media. At its core, financial literacy is understanding how to use money responsibly. Lusardi and Mitchell (2014) described financial literacy as “people’s ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt and pensions”. Level of financial literacy is typically measured by a set of questions to assess ones understanding in financial topics such as inflation, compound interest as well as diversification (Lusardi & Mitchell, 2011a), which the score is then calculated using the number of correctly answered questions.

The coincidence of literacy with poverty is a phenomenon long realized by experts (Demirgüç-Kunt & Klapper, 2013; Roy-Singh, 1990), and the concerns about the degree of financial literacy score are confirmed by different studies. Findings by Lusardi and Mitchell (2007) shows that many households are unfamiliar with even most basic economic concepts needed to make savings and investment decisions. Furthermore, Lusardi and Mitchell (2011b) provides evidence that overall, financial literacy around the world is low, especially among women, the young and the old of the population as well as the less educated.

Ample of research find that financial wellbeing and financial literacy are tightly intertwined. Low levels of financial literacy have been linked to high levels of personal and household debt (Lusardi & Tufano, 2009), poor health and productivity (Garman, Kim, Kratzer, Brunson, & Joo, 1999), and inadequate retirement planning (Lusardi & Mitchell, 2007a). The research of Chen and Volpe (1998) found that students that low level of financial knowledge have limited ability to make informed decision and hence have a higher probability in making incorrect financial choice. Mavrinac and Chin (2004) suggest that for the majority, a lack of knowledge is the source of excessive debt and bankruptcy, instead of lack of income. Low level of financial literacy resulted into inability to understand basic financial concepts and poor judgement in financial decisions, such as borrowing decisions and retirement planning.

Meanwhile, higher score in financial literacy will increase the chances for individuals to save and invest, getting out of debt, spending less than they earn, and living in a budget. The study conducted by Cole, Sampson, and Zia (2009) on financial literacy in the developing world find that financial literacy is a powerful predictor of demand for savings, loans and insurance services. Hence having a good financial literacy will enable individual to process economic information and make an informed short term or long term financial decision about wealth accumulation, debt and financial, and thus decrease chance of bankruptcy and receive
The level of financial literacy also tends to vary according to demographic factors as well as education and income levels. Ample of research found significant influence of education on financial literacy (Alessie, Van Rooij, & Lusardi, 2011; Lusardi, 2009; Lusardi & Mitchell, 2007b), where higher education levels are expected to be associated with higher financial awareness among people. Ansong and Gyensare (2012) also found that mother’s education is also positively correlated with respondents’ financial literacy, but not the fathers. Studies of financial literacy also confirmed the correlation between financial literacy and socio-demographic factors. Lusardi and Mitchell (2014) find that females at all age recorded lower financial literacy than male. Chen and Volpe (1998) found that women generally have less enthusiasm for, lower confidence in and less willingness to earn about personal finance topics compared to men. Lusardi, Mitchell, and Curto (2010) show that the level of financial literacy is low among the young, and later Lusardi and Mitchell (2014) find that financial literacy increases with age, but decline at old age. Similar findings also found by Oseifuah and Gyekye (2014), where students in South African being male, financing college using debt, and exposed to money management course and decision significantly have better financial literacy. However, in their study among Indians, Agarwalla, Barua, Jacob, and Varma (2015) find that financial knowledge among the women are marginally higher than men, and greater access to consumption credits has influenced the financial behaviour of young employees. Bhushan and Medury (2014) suggest that several factors that influenced financial literacy level are gender, education, income, nature of employment and place of work. Whereas age and geographic region do not affect the level of financial literacy.

RESEARCH METHODS

The study is focused on the Millennials of the urban city Bandung in West Java. The authors conducted a survey, using the own developed instruments that consists of 30 questions with 15 questions regarding financial literacy and 15 questions related to financial decision making. The operational variables on this research can be seen on Table 1.

| Variable          | Concept                                                                                          | Indicator                                                                                     |
|-------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Financial Literacy (X) | The competence in understanding financial knowledge which includes basic concepts of finance, savings, borrowing, investment and insurance along with basic knowledge on financial institutions, bank or non-bank | The basic knowledge of: • Time Value of Money • Financial Products • Risk and Return          |
Since the study mainly focused on millennials generation, respondent between age 23 – 35 have been targeted. The questionnaire was run from September 3rd until October 5th 2019 and we collected 500 responses out of which 446 qualified as fully completed. Questions related with financial literacy are in multiple choices with only one right answer. Each question is coded as a dummy variable, with correct answer is given 1 point. If the respondent gave an incorrect response or did not know the answer, the variable is coded as zero, since it is assumed that they cannot answer the question correctly. Questions related to financial decision making are in multiple choices with four choices in every question, with every choice has a score from 1 to 4. A person will get maximum 15 points for question related to financial literacy, and maximum 60 points for questions related to financial decision making. Only fully completed questionnaires were accepted for evaluation. The questionnaires were distributed online and the questions was clearly described and respondents were not allowed to choose more than one answer. After collected, the questionnaires then tabulated and the results were summarized for the purpose of analysis. Financial literacy score for the millennials is divided into:

| Financial Literacy | Score  |
|--------------------|--------|
| Very Low           | 0,00 – 3,00 |
| Low                | 3,01 – 6,00 |
| Fair               | 6,01 – 9,00 |
| Good               | 9,01 – 12,00 |
| Excellent          | 12,01 – 15,00 |

The competency in financial decision making for the millennials is divided into:

| Financial Behavior | Score  |
|--------------------|--------|
| Very Low           | 15,00 – 24,00 |
| Low                | 24,01 – 33,00 |
| Fair               | 33,01 – 42,00 |
| Good               | 42,01 – 51,00 |
| Excellent          | 51,01 – 60,00 |

Other than descriptive analysis, the data also analysed using regression analysis to identify the influence of financial literacy towards financial decision making. Since each question and the questionnaire as a whole must be evaluated before final administration, we also conduct reliability and validity tests during pre-testing stage. The responses of the questionnaires are then analysed based on of validity analysis and reliability testing. We
made some minor adjustment to improve the questionnaires that did not meet sufficient requirement on validity and reliability test.

**FINDINGS AND DISCUSSION**

In exploring the relationship between financial literacy and financial decision making, we also control for the effects of demographic factors. The research instrument required each respondent to provide his/her demographic and socioeconomics data that includes gender, age, level of education, field of work, years of work experience, marital status, living arrangement, and parents’ education which later on coded as nominal variables. Table 2 shows profile of the respondents in this research.
### Table 2 Demographic Profiles of the Respondents

| Demographic Variables | N     | Percentage |
|-----------------------|-------|------------|
| Gender                |       |            |
| Female                | 234   | 52%        |
| Male                  | 212   | 48%        |
| Age                   |       |            |
| 19-23                 | 104   | 23%        |
| 24-28                 | 176   | 39%        |
| 29-33                 | 96    | 22%        |
| 34-38                 | 70    | 16%        |
| Marital Status        |       |            |
| Married               | 191   | 43%        |
| Not Married           | 255   | 57%        |
| Level of Education    |       |            |
| High School           | 19    | 4%         |
| Diploma Certified     | 22    | 5%         |
| Bachelor Degree       | 304   | 68%        |
| Post Graduate Degree  | 101   | 23%        |
| Education Background  |       |            |
| Economy/ Business     | 235   | 53%        |
| Others                | 211   | 47%        |
| Received Financial Education |     |            |
| Yes                   | 390   | 87%        |
| No                    | 56    | 13%        |
| Length of Working Experience |   |            |
| Never                 | 40    | 9%         |
| Less than 1 year      | 71    | 16%        |
| 1-2 years             | 92    | 21%        |
| 3-5 years             | 100   | 22%        |
| More than 5 years     | 143   | 32%        |
| Monthly Income        |       |            |
| ≤ Rp 4.000.000        | 157   | 35%        |
| Rp 4.000.001 - Rp 7.000.000 | 145 | 33%        |
| Rp 7.000.001 - Rp 11.000.000 | 64 | 14%        |
| Rp 11.000.001 - Rp 14.000.000 | 33 | 7%         |
| ≥ Rp 14.000.001       | 47    | 11%        |
| # Credit Card         |       |            |
| 0                     | 280   | 63%        |
| 1                     | 87    | 20%        |
| 2                     | 57    | 13%        |
| ≥ 2                   | 22    | 5%         |
| Boardinghouse atau apartement | |            |
| Have their own house  | 110   | 25%        |
| Living with parents   | 188   | 42%        |
| Level of Education (Mother) | |            |
| High School (≤ SMA )  | 227   | 51%        |
| Diploma Certified (D3)| 52    | 12%        |
| Bachelor (D4/S1)      | 118   | 26%        |
| Postgrade (S2 &S 3)   | 49    | 11%        |
| Level of Education (Father) |   |            |
| High School (≤ SMA )  | 159   | 36%        |
| Diploma Certified (D3)| 48    | 11%        |
| Bachelor (D4/S1)      | 153   | 34%        |
| Postgrade (S2 &S 3)   | 64    | 14%        |
| Supporting Family (Parents/ Siblings) | |            |
| Yes                   | 105   | 24%        |
| No                    | 341   | 76%        |
From Table 2, it can be seen that the sample has gender distribution of approximately 52% female (n = 234) and 48% (n=212) male, with the age distribution of sample respondents is dominated by age group 24 – 28 years old (39% of the total respondents), in comparison with other age groups (from 19 - 23 to 34 – 38). In terms of education, more than half of the respondents (58%) studied economics and business with the majority of the respondent (68%) possessed a bachelor degree, 23% and 5% respondents have completed post graduate and diploma degree respectively, and high school graduates composed the smallest proportion of the sample (4%). In terms of the familiarity with financial products, 87% of the respondent have received the (formal or non-formal) financial education, however, the majority of the sample (63%) do not own credit card.

With respect to monthly income of the respondents, the highest proportion of respondents (35%) less than Rp.4.000.000 per month, and 11% earn more than Rp.14.000.000 per month. Sample distribution with regard to years of work experience16% respondents possess working experience of less than 1 year, 32% of the total work experience of more than 5 years and 21% and 22% of respondents have 1 – 2 years and 3 – 5 working experience respectively.

Demographic data also show that the respondents is divided in the various stages of life cycle, with 57% of the sample are married and 43% are not married. Majority of respondents (42%) live with their parents, 33% live in boarding house or apartment and 25% own a house. This living arrangement could indicate respondent financial obligation, with those who stay with their parents is assumed to have smallest percentage of their income allocated to pay for housing rent or mortgage.

We also include family demographic such as parents’ level and education as well as whether the respondents support their parents or siblings. These profiles are used to capture the social impact through peers and experience in determining the financial knowledge and decision making. The demographic profiles of the respondents show that around 50% of respondents’ parents education are high school graduates, and the rest possessed bachelor degree or higher. Majority of the respondents (76%) do not support their parents and siblings.

**Table 3 Descriptive Statistics of Financial Literacy Score**

| Category     | Financial Literacy | Financial Behavior |
|--------------|--------------------|--------------------|
| Very Low     | 54                 | 1                  |
| Low          | 94                 | 75                 |
| Fair         | 134                | 312                |
| Good         | 134                | 58                 |
| Very Good    | 30                 | -                  |
| Mean         | 7                  | 41                 |
| Median       | 3                  | 41                 |
| Standard Deviation | 15             | 54                 |
| Min          | 0                  | 23                 |
| Max          | 15                 | 54                 |

A person’s financial literacy score is the sum of the number of correct responses to the financial literacy and financial decision making questions. Table 3 shows that, in terms of Financial Literacy, the average score of the respondents is 7 which is considered as fair, with the percentage of respondents that are categorized as having a fair and good financial literacy,
are each composing 30% of the sample. Meanwhile 12.11% and 21.08% of the total respondents are categorized as having very low and low financial literacy, and 6.73% is considered as having very good financial literacy.

Table 4 shows the group of questions correspond to each financial knowledge, as well as the percentage of correct, incorrect, and do not know answer for each category. The question with the worst results is in the area of bond with 16% of the total respondent answer correctly, followed by knowledge on insurance and time value of money with the percentage of sample answered correctly are 22% and 33% correspondently. The question with the best result is in the area of financial market with 59% correct answers, followed by question on inflation and investment risk.

**Table 4 Strongest and Weakest Areas of Financial Literacy**

| Topics            | True  | False | Do Not Know |
|-------------------|-------|-------|-------------|
| Saving            | 49.55%| 48.65%| 1.79%       |
| Credit Management | 43.72%| 28.92%| 27.35%      |
| Inflation         | 58.74%| 16.82%| 24.44%      |
| Time Value of Money | 33.41%| 53.36%| 13.23%      |
| Financial Market  | 58.52%| 21.08%| 20.40%      |
| Investment Risk   | 56.84%| 20.96%| 22.20%      |
| Rate of Return    | 54.93%| 21.41%| 23.65%      |
| Stock             | 51.79%| 32.17%| 16.03%      |
| Bond              | 15.92%| 56.50%| 27.58%      |
| Insurance         | 21.75%| 70.18%| 8.07%       |

Low score in answering questions on bond could be interpreted that the respondents are less financially knowledgeable on the investment alternatives, whereas low score on insurance and time value of money should be brought to attention, since the increase in the life expectancy for Indonesian population means the possibility of more time spent in retirement. Furthermore, compared to previous generation, millennials generation has variety of ways to generate and dispose their income. These changes also mean that the income stream of individuals has become more inconsistent over a long period. There are periods of high income followed by low level of income or no income at all. Thus, a greater need of financial planning as well as expanded insurance expenses to cover unpredictable eventualities.

In terms of financial decision making, the result is presented on Table 6. On average the respondents fall within fair category with average score of 41.07. One interesting finding is that the respondents who required to support parents or siblings (sandwich generation) have better score in financial decision making. Better score on financial decision making also showed by the sample that falls in the category of longer working experience, higher monthly income and ownership of credit card.
### Table 5: Financial Literacy Score Based on Demographic Characteristics

| Demographic Variables        | Very Low | Low | Fair | Good | Very Good |
|------------------------------|----------|-----|------|------|-----------|
| **Gender**                   |          |     |      |      |           |
| Female                       | 28       | 54  | 80   | 61   | 11        |
| Male                         | 26       | 40  | 54   | 73   |           |
| **Age**                      |          |     |      |      |           |
| 19-23                        | 18       | 26  | 29   | 29   | 2         |
| 24-28                        | 20       | 34  | 58   | 57   |           |
| 29-33                        | 8        | 19  | 24   | 31   | 14        |
| 34-38                        | 8        | 15  | 23   | 17   | 7         |
| **Marital Status**           |          |     |      |      |           |
| Married                      | 22       | 44  | 57   | 48   | 20        |
| Not Married                  | 32       | 50  | 77   | 86   | 10        |
| **Level of Education**       |          |     |      |      |           |
| High School                  | 5        | 6   | 4    | 4    | 0         |
| Diploma Certified            | 2        | 7   | 10   | 3    | 0         |
| Bachelor Degree              | 36       | 61  | 93   | 97   | 17        |
| Post Graduate Degree         | 11       | 20  | 27   | 30   | 13        |
| **Education Background**     |          |     |      |      |           |
| Economy/Business             | 7        | 33  | 75   | 97   | 23        |
| Others                       | 47       | 61  | 59   | 37   | 7         |
| **Received Financial Education** |      |     |      |      |           |
| Yes                          | 34       | 71  | 125  | 131  | 29        |
| No                           | 20       | 23  | 9    | 3    | 1         |
| **Length of Working Experience** |      |     |      |      |           |
| Never                        | 9        | 13  | 13   | 5    | 0         |
| Less than 1 year             | 7        | 14  | 21   | 25   | 4         |
| 1-2 years                    | 15       | 15  | 33   | 26   | 3         |
| 3-5 years                    | 5        | 26  | 31   | 33   | 5         |
| More than 5 years            | 18       | 26  | 36   | 45   | 18        |
| **Monthly Income**           |          |     |      |      |           |
| ≤ Rp 4.000.000               | 31       | 47  | 48   | 30   | 1         |
| Rp 4.000.001 - Rp 7.000.000  | 14       | 31  | 46   | 47   | 7         |
| Rp 7.000.001 - Rp 11.000.000 | 4        | 10  | 18   | 24   | 8         |
| Rp 11.000.001 - Rp 14.000.000| 1        | 3   | 11   | 12   | 6         |
| ≥ Rp 14.000.001              | 4        | 3   | 11   | 21   | 8         |
| **# Credit Card**            |          |     |      |      |           |
| 0                            | 44       | 68  | 89   | 69   | 10        |
| 1                            | 4        | 18  | 24   | 33   | 8         |
| 2                            | 6        | 7   | 14   | 21   | 9         |
| ≥ 2                          | 0        | 1   | 7    | 11   | 3         |
| **Living Arrangement**       |          |     |      |      |           |
| Boardinghouse atau apartemen | 19       | 24  | 42   | 52   | 11        |
| Have their own house         | 17       | 28  | 30   | 24   | 11        |
| Living with parents          | 18       | 42  | 62   | 58   | 8         |
| **Level of Education (Mother)** |      |     |      |      |           |
| High School                  | 33       | 56  | 67   | 58   | 13        |
| Diploma Certified            | 4        | 7   | 17   | 17   | 7         |
| Bachelor (D4/S1)             | 11       | 25  | 39   | 37   | 6         |
| Postgrade (S2 & S3)          | 8        | 4   | 12   | 21   | 4         |
| **Level of Education (Father)** |      |     |      |      |           |
| High School                  | 22       | 42  | 45   | 40   | 10        |
| Diploma Certified            | 3        | 10  | 11   | 19   | 5         |
| Bachelor (D4/S1)             | 21       | 28  | 53   | 39   | 12        |
| Postgrade (S2 & S3)          | 8        | 14  | 25   | 36   | 3         |
| **Supporting Family (Parents/ Siblings)** |      |     |      |      |           |
| Yes                          | 10       | 17  | 43   | 29   | 6         |
| No                           | 44       | 77  | 91   | 105  | 24        |

The same association also can be seen in financial literacy. Higher score of financial literacy is associated with gender, education background, working experience, monthly income, number of credit card and mother education.
| Demographic Variables          | Very Low | Low | Fair | Good | Very Good |
|-------------------------------|----------|-----|------|------|-----------|
| Gender                        |          |     |      |      |           |
| Female                        | 0%       | 14% | 74%  | 12%  | 0%        |
| Male                          | 0%       | 20% | 66%  | 14%  | 0%        |
| Age                           |          |     |      |      |           |
| 19-23                         | 0%       | 25% | 63%  | 12%  | 0%        |
| 24-28                         | 0%       | 13% | 74%  | 14%  | 0%        |
| 29-33                         | 1%       | 20% | 69%  | 10%  | 0%        |
| 34-38                         | 0%       | 11% | 71%  | 17%  | 0%        |
| Marital Status                |          |     |      |      |           |
| Married                       | 0%       | 12% | 75%  | 13%  | 0%        |
| Not Married                   | 0%       | 20% | 66%  | 13%  | 0%        |
| Level of Education            |          |     |      |      |           |
| High School                   | 0%       | 42% | 47%  | 11%  | 0%        |
| Diploma Certified             | 0%       | 23% | 64%  | 14%  | 0%        |
| Bachelor Degree               | 0%       | 15% | 71%  | 13%  | 0%        |
| Post Graduate Degree          | 0%       | 15% | 72%  | 13%  | 0%        |
| Education Background          |          |     |      |      |           |
| Economy/ Business             | 0%       | 18% | 69%  | 12%  | 0%        |
| Others                        | 0%       | 15% | 71%  | 14%  | 0%        |
| Received Financial Education  |          |     |      |      |           |
| Yes                           | 0%       | 17% | 68%  | 14%  | 0%        |
| No                            | 0%       | 13% | 82%  | 5%   | 0%        |
| Length of Working Experience  |          |     |      |      |           |
| Never                         | 0%       | 25% | 65%  | 10%  | 0%        |
| Less than 1 year              | 0%       | 34% | 58%  | 8%   | 0%        |
| 1-2 years                     | 0%       | 12% | 72%  | 16%  | 0%        |
| 3-5 years                     | 0%       | 7%  | 83%  | 10%  | 0%        |
| More than 5 years             | 1%       | 16% | 67%  | 16%  | 0%        |
| Monthly Income                |          |     |      |      |           |
| ≤ Rp 4.000.000                | 1%       | 25% | 66%  | 8%   | 0%        |
| Rp 4.000.001 - Rp 7.000.000   | 0%       | 15% | 72%  | 12%  | 0%        |
| Rp 7.000.001 - Rp 11.000.000  | 0%       | 11% | 77%  | 13%  | 0%        |
| Rp 11.000.001 - Rp 14.000.000 | 0%       | 9%  | 67%  | 24%  | 0%        |
| ≥ Rp 14.000.001               | 0%       | 6%  | 70%  | 23%  | 0%        |
| 0 # Credit Card               | 1        | 0%  | 20%  | 10%  | 0%        |
| 1                            | 0%       | 14% | 70%  | 16%  | 0%        |
| 2                            | 0%       | 11% | 67%  | 23%  | 0%        |
| ≥ 2                          | 5%       | 9%  | 73%  | 14%  | 0%        |
| Living Arrangement            |          |     |      |      |           |
| Boardinghouse atau apartement | 1%       | 21% | 65%  | 14%  | 0%        |
| Have their own house          | 0%       | 8%  | 80%  | 12%  | 0%        |
| Living with parents           | 0%       | 19% | 68%  | 13%  | 0%        |
| Level of Education (Mother)   |          |     |      |      |           |
| High School                   | 0%       | 13% | 73%  | 14%  | 0%        |
| Diploma Certified             | 0%       | 15% | 83%  | 2%   | 0%        |
| Bachelor (D4/S1)              | 1%       | 22% | 65%  | 12%  | 0%        |
| Postgrade (S2 & S3)           | 0%       | 20% | 53%  | 27%  | 0%        |
| Level of Education (Father)   |          |     |      |      |           |
| High School                   | 0%       | 15% | 70%  | 15%  | 0%        |
| Diploma Certified (D3)        | 0%       | 2%  | 92%  | 6%   | 0%        |
| Bachelor (D4/S1)              | 0%       | 19% | 67%  | 14%  | 0%        |
| Postgrade (S2 & S3)           | 1%       | 24% | 63%  | 12%  | 0%        |
| Supporting Family (Parents/ Siblings) | Yes | 0%  | 16%  | 68%  | 16%  | 0% |
| No                            | 0%       | 17% | 71%  | 12%  | 0%        |
Various stage of individuals also impacts their financial literacy and decision making. As a young adult one is also likely to have comparatively small income needs, especially if one is providing only for themselves. Marital status and dependents, such as children, parents, or siblings, determine whether one is planning only for themselves or for others as well. If they have a spouse or other dependents, they have a financial responsibility to someone else. Having to be responsible for other family member requires an individual to make number of financial decisions related to saving or consuming, not only for himself, but also for his family, including healthcare or education costs. When someone have no one and almost nothing to protect, their willingness to assume risk is also usually high. Therefore, providing for others increases income needs and hence will influence both the attitudes and tolerance toward risk.

This study also finds that credit card users learned about credit card users have higher score of financial literacy, which indicates that they learned about credit management and other financial decision making as they owned them. This finding is in line with Agarwalla et al. (2015) which suggest that people learn about credit card fees through experience because there was immediate negative feedback, and they learn to avoid any costly outcome that might occur.

Table 7 Correlation Matrix

| Demographic Factors            | Financial Literacy | Financial Decision makings |
|-------------------------------|-------------------|----------------------------|
| Age                           | 0.066             | 0.056                      |
|                               | (0.165)           | (0.240)                    |
| Gender                        | 0.111*            | -0.021                     |
|                               | (0.019)           | (0.653)                    |
| Marital Status                | -0.007            | -0.014                     |
|                               | (0.881)           | (0.771)                    |
| Education                     | 0.066             | 0.037                      |
|                               | (0.162)           | (0.434)                    |
| Education Background          | 0.324**           | -0.017                     |
|                               | (0.000)           | (0.726)                    |
| Received Financial Education  | 0.303**           | 0.093*                     |
|                               | (0.000)           | (0.049)                    |
| Length of Working Experince   | 0.117*            | 0.122*                     |
|                               | 0.013             | 0.010                      |
| Monthly Income                | 0.283**           | 0.254**                    |
|                               | (0.000)           | (0.000)                    |
| # of Credit Card              | 0.230**           | 0.195**                    |
|                               | (0.000)           | (0.000)                    |
| Living Arrangement            | 0.006             | 0.009                      |
|                               | (0.900)           | (0.843)                    |
| Mother Education              | 0.122**           | -0.035                     |
|                               | (0.010)           | (0.465)                    |
| Father Education              | 0.071             | -0.049                     |
|                               | (0.134)           | (0.305)                    |
| Supporting Parents/ Siblings  | 0.048             | 0.098*                     |
|                               | (0.311)           | (0.039)                    |
Our results also strengthen the argument for financial education can positively related to the increasing financial knowledge and better decision making. Although there are many variables that could affect financial decision making, those who scored higher on the financial literacy tests were more likely to follow the recommended financial practice. Better informed consumers will make more effective choice and are less likely to be mis-buy or mis-sold products and services, which in the end could help to create more competitive and more efficient financial market.

| Variables                  | Financial Decision Making |
|----------------------------|---------------------------|
| Financial Literacy         | 0.287*** 0.284*** 0.295*** 0.307*** 0.285*** 0.288*** 0.286*** 0.286*** 0.290*** |
| Gender                     | 0.732 |
| Financial Literacy* Gender | .091 |
| Education Background       | 0.477 |
| Financial Literacy* Education | 0.296 |
| Financial Literacy* WorkExperience | 0.191 |
| Financial Literacy* MonthlyIncome | -0.055 |
| Financial Literacy* #Credit Card | 0.164 |
| Mother Education           | 0.763 |
| Financial Literacy* SupportingParents | -0.079 |
| # of Obs                   | 446 446 446 446 446 446 446 446 446 |
| R²                         | 0.030 0.030 0.031 0.034 0.035 0.030 0.031 0.030 .031
demographic factor does not have any influences that can strengthen or weaken the relationship between financial literacy and financial decisions made by the Millennials, as seen on Table 8.

CONCLUSION AND SUGGESTION

This study on the Indonesian Millennials shows that their financial literacy is positively related to their financial decision making, and therefore financial literacy appear to be especially important for influencing financial decision making. In the area of financial literacy, it is found almost 60% of the respondent are able to answer the questions related to the area of financial market. However, most of the respondents (less than 40%) are able to answer question on Bond, Insurance and Time Value of Money.

The data also show that few indicators of financial literacy are associated with some demographic variables, namely gender, education background, financial education (formal or informal), length of working experience, monthly income, number of credit card possessed and mother’s education. While the financial decisions are positively related to factors such as financial (formal or informal), length of working experience, monthly income, number of credit card owned by individual, and whether the individual is supporting parents or other siblings.

Looking at the result of this study that shows financial literacy of more than half of the millennials included in this sample is considered fair or lower, and financial education is positively correlated with financial literacy and financial decision making, indicates that it is necessary for educational institutions as well as workplace to adopt the enrichment of financial education/ training. This findings also support the social learning theory Bandura (1986) which have been identified as parental and peers influence. This theory stated that as individual learn over the years through social interaction, they will begin to understand and form their values, knowledge, and attitude about finances. In the case of the Indonesian millennials, family, friends, work place, educational institution where they study as well as the media help to shape their knowledge and attitude over time.

We also used different demographic variables that affect significantly to the financial literacy to examine whether demographic variables of the respondent have mediating effect to the financial literacy and decision making. However, from the data collected the demographic factor does not have any influences that can strengthen or weaken the relationship between financial literacy and financial decision making of the Millennials.

Although this research have identified the importance of financial literacy for better financial decision making of the millennials and identified several demographic factors that are associated with the level of financial literacy and decision making, this research have not accommodate the impact of financial attitudes towards financial products, as well as the impact of financial technology to the financial literacy or decision making. Future research may be to examine the effect of financial attitude towards financial products, and the use of fintech to represents a net gain for better personal finance outcomes of the millennials, since nowadays over 90% of millennials own smartphones that often offer ready access to money management capabilities and to consumptions.

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