FINANCIAL DISTRESS DURING THE PANDEMIC: DO FINANCIAL LITERACY AND FINANCIAL COPING BEHAVIOR MATTER?

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Abstract

This study aims to: first, identify financial socialization agents that have the potential to influence financial literacy levels in teenagers. The second objective was to examine the effect of financial literacy on financial emergencies during the pandemic. The extent of the financial distress has a negative impact on the health and performance of the students (not attending classes and poor academic performance). The third goal of this research is to examine the effect of financial literacy and financial distress on coping behaviors. This study used 206 respondents. Hypothesis testing with structural equation modeling using Partial Least Squares (PLS). Based on the results of the factor analysis test, financial socialization agents that affect the level of financial literacy are parents and family, people other than parents (teachers and financial professionals), and formal education. The results of this study found empirical evidence that financial literacy has a significant negative effect on financial distress, both directly and through coping behavior.

Keywords:
Financial Literacy; Financial Well-Being; Coping Behavior; Financial Distress.

Kata Kunci:
Literasi Keuangan; Kesejahteraan Finansial; Perilaku Mengatasi; Kesulitan keuangan.

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Abstrak


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The COVID-19 pandemic is not only related to health problems but also related to life problems across multi-dimensional aspects, including economic aspects. Both health and economic problems are the most important aspects that require fast, appropriate and sustainable intervention for the survival of mankind. Survival, in the midst of the COVID-19 pandemic, is not only a physical challenge but also a mental one and includes surviving financial distress. The recession caused by the pandemic has resulted in increased unemployment and job insecurity. (Kawohl & Nordt, 2020; Laanani et al., 2015); declining incomes and increasing debt (Stevenson & Wakefield, 2021), and personal financial crises (Fowler et al., 2015). The groups affected by the pandemic are the groups that were already economically and psychologically vulnerable (Ntountoulaki et al., 2017). Teenagers are a psychologically vulnerable group, data show that many adolescents experience financial distress (O’Neill et al., 2005).

The transition from dependence to independence occurs during adolescence. They already have financial autonomy and financial responsibilities, for example making a monthly budget, being responsible for paying bills, and maybe even having their first time using credit. Financial literacy is capable to provide provisions in facing the challenges of financial independence (Lyons et al., 2006). The level of financial literacy of adolescents tends to be low (Hira and Brinkman, 1992) which causes poor consumer behavior such as excessive spending on goods and services to impress others, poor financial management, and tends to buy impulsively if they have more resources. Poor financial habits will carry over into adulthood, causing lifelong difficulties.

Based on previous research, financial socialization affects the level of financial literacy (Lucey and Giannangelo, 2006). Financial socialization is the process of acquiring good financial standards, values, norms, skills, knowledge, and financial attitudes that promote financial independence to facilitate the transition to financial well-being (Kim & Chatterjee, 2013). Parents, peers, teachers, family members, and media are agents of financial socialization (Koonce et al., 2008; Pinto et al., 2005). However, most of the previous research focused on the role of parents as agents of financial socialization, rather than on other actors. Therefore, the first objective of this study was to identify all financial socialization agents that have the potential to increase financial literacy. In order to design an effective financial education program, it is necessary to disseminate appropriate financial information to youth, especially in countries that do not have a specific mandate for financial education.

Financial literacy helps to make effective financial decisions (Lusardi & Mitchell, 2007). Financial literacy is defined as having two dimensions: knowledge and skills to manage financial resources effectively for financial well-being (US Commission on Education and Financial Literacy, 2006). At the corporate level, financial distress refers to a situation when the inability to pay debts to creditors will eventually lead to bankruptcy; whereas from an individual perspective, financial distress is an individual’s perception of his/her financial condition that produces feelings of distress (O’Neill et al., 2006). The link between financial literacy and financial difficulties has led to conflicting results from previous studies. Shim et al. (2009) found evidence that financial literacy has no effect on financial well-being. In their study, financial well-being was defined as satisfaction with one’s current financial status, including debt levels. On the other hand, Joo & Grable (2004) show that financial literacy has an impact on financial well-being. Scott et al. (2018) found that financial literacy reduces financial distress stemming from simple financial problems, but not from very complex financial decisions.

In this study, we consider that coping behavior can act as a mediating variable for the effect of financial literacy on financial distress. The level of financial literacy will be impacted by the financial attitude (Kirsch, 2014; Sari et al., 2017), which in this case is the students' coping behavior. Coping is a person’s attitude in response to problems and part of the ongoing adaptation to life, which covers the reactive process and future-oriented process to avoid future problems (preventive coping) and to attain
future goals (proactive coping) (Schwarzer & Knoll, 2003). During a pandemic, coping behavior is very important because it requires the ability to respond and adapt continuously to new normal habits, and includes reactive processes.

Greenglass & Fiksenbaum (2009) found that proactive coping behavior increases the positive effect and decreases the depressive symptoms. Gan et al. (2007) found that proactive coping behavior has an effect on reducing financial stress. High levels of financial distress affect public health (Mill et al., 1992) which in turn reduces productivity (Garman & Sorhairdo, 2005). However, there is still a lack of discussion on mechanisms to reduce financial distress for adolescents; thus providing an opportunity for researchers to identify appropriate strategies to help adolescents overcome financial difficulties. Therefore, the objective of this research is to also examine the effects of financial literacy on financial distress through coping behavior.

The profitable segment of the market is teenagers because at this stage they experience lifestyle changes and are financially more independent. Their parents allow them to make their own consumption decisions. If they have a low level of financial literacy at this age, it leads to poor financial management (Chen & Volpe, 1998; Murphy, 2005), making them vulnerable to financial distress. While financial distress which ultimately has an impact on academic achievement, mental and physical health (Bodvarsson & Walker, 2004).

Adult consumer behavior is typically studied during teenagers by financial socialization agents (Moschis, 1987). Financial socialization is the development of values, attitudes, standards, norms, and knowledge and behaviors that provide a context for good financial practices (Danes, 1994) that ultimately support or hinder an individual's financial ability and well-being (Drever et al., 2015; Hibbert et al., 2004; Jorgensen & Savla, 2010; Smith & Barboza, 2013). According to consumer socialization theory, financial skills are acquired through interaction with financial socialization agents to acquire financial knowledge, attitudes, and values which ultimately influence their financial behavior (Moschis, 1987). Financial socialization agents are: a. Parents and Family: Parents are the main agents for financial socialization (Beutler et al., 2008). According to the social learning theory, children learn through observing their parents’ behavior, interactions and parental guidance. Jorgensen & Savla (2010) surveyed college students and they found that students who learn and discuss financial matters with their parents have a more healthy financial attitude. Smith & Barboza (2013) found evidence that college students gain financial knowledge through discussions with their parents. Parents have an important role in shaping their children’s financial habits and values (Pinto et al., 2005). b. People other than family: (1) Peers. Peers have an important influence on adolescents because at this age parents weaken their children to reduce their dependence on them. Young adults, who perceive their friends’ opinions as highly important, would be likely to act in a similar fashion as their friends do, even though sometimes it is against their parents’ advice. The influence of peer groups on adolescents’ attitudes and values regarding money is important (Hayta, 2008). (2) Teachers. Schools are social institutions that provide adolescents with knowledge and skills in various areas, including finance. During adolescence, teens spend almost as much time at school with their teachers and friends as they do with their families. Teachers play an equally important role, along with parents, in shaping children’s financial behavior (Ozgen, 1995). c. Formal Education. Although financial literacy education is not mandated in Indonesia, there are some schools that have voluntarily introduced financial literacy education, in collaboration with various financial institutions and financial services. Based on a regulation issued by the Indonesian Financial Services Authority, financial institutions and financial services are obliged to provide financial literacy to the public, including through schools. d. Mass Media. Mass media has an important effect on the socialization of youth (Koonce et al., 2008). Koonce et al. (2008) found that adolescents learn lots of things from media outlets such as television, radio, newspapers, magazines and the internet.
Lachance and Legault (2007) stated that mass media was the second most influential socialization medium for adolescents’ attitudes toward consumption, credit, and advertising.

Based on the family life cycle and the theory of the individual (Korin et al., 1980) teenagers is a transitional phase toward financial independence. The development of financial independence in teenagers is related to financial socialization by agents. Through this financial socialization, teenagers acquire financial values, norms, knowledge, and skills that enhance financial literacy (Kim & Chatterjee, 2013). Based on the entire discussion, the following hypothesis was developed. H1a: The level of financial literacy is influenced by the financial socialization of the parents H1b: Level of financial literacy is influenced by financial socialization from individuals other than parents H1c: The level of financial literacy is influenced by financial socialization from formal education H1d: The level of financial literacy is influenced by financial socialization through mass media

Financial well-being is the perception and reaction of individuals on their financial satisfaction (O'Neill et al., 2006). Financial distress and well-being are on one continuum, financial distress is on one side of the continuum and financial well-being is on the other. Financial distress is an individual's perception of his or her financial situation, which leads to feelings of depression. It is not directly related to the financial situation of the individual, such as: low income or high debt of the individual. A person may be in debt but still feel a slight financial distress (O'Neill et al., 2006). Financial difficulties are not only experienced by people with low incomes, but also those who have poor financial management (Garman & Sorhaindo, 2005).

Empirical evidence is still sparse about the effect of financial literacy on financial distress. Shim et al. (2009) found no empirical evidence that students’ financial distress were influenced by financial literacy. However, Joo & Grable (2004) indicate that financial well-being is influenced by financial literacy. Meanwhile, Scott et al. (2018) found that financial literacy was only able to reduce financial distress caused by simple financial problems, but not complex ones.

High financial literacy does not always lead to better financial behavior, especially when implemented in complex real-life situations (eg, retirement planning). However, in less complex financial decisions, the impact of financial literacy on financial behavior can be greater and easier to observe (eg understanding the impact of the late payment of debt).

Coping behavior is a continuous adaptation to life that involves reactive processes (dealing with problems), forward-looking processes (preemptive coping strategies i.e making a budget, tracking monthly expenses), and determining strategies to achieve future goals (proactive coping i.e saving and investing ) (Schwarwer & Knoll, 2003). The level of financial difficulty can be reduced through coping behaviors (Greenglass & Fiksenbaum, 2009). Financial stress can be minimized with positive financial behaviors (Kim et al., 2003). Xiao et al. (2006) found that financial distress could be reduced by positive financial behaviors (eg, deleveraging, budgeting).

In this study, we predict that financial literacy can indirectly reduce financial distress by developing responsible financial behavior, namely coping behavior. This study draws overall conclusions from the above discussion, and develops the hypotheses below. H2a: Financial literacy negatively affects financial distress H2b: Financial literacy negatively affects financial distress through coping behavior.

RESEARCH METHOD

The respondents of this research consist of 206 young adults from public and private universities who engaged in an online finance workshop prepared by the Institute for Research and Community Service at Universitas Negeri Yogyakarta di Yogyakarta, Indonesia. Yogyakarta was chosen as the
research site because it is a “student city” and there are many multicultural immigrants from different regions of Indonesia.

Table 1. Sample description

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>2</td>
<td>1.62</td>
<td>0.48</td>
</tr>
<tr>
<td>GPA</td>
<td>0</td>
<td>4</td>
<td>3.03</td>
<td>1.27</td>
</tr>
<tr>
<td>Parents’ Income</td>
<td>1</td>
<td>5</td>
<td>2.70</td>
<td>0.99</td>
</tr>
<tr>
<td>Parents’ Education</td>
<td>0</td>
<td>6</td>
<td>2.62</td>
<td>1.36</td>
</tr>
</tbody>
</table>

Financial literacy is the capacity to apply understanding and abilities to efficaciously manage financial sources for the financial wellness (US Financial Literacy and Education Commission, 2006). A financial coping attitude is a mindset to reply to financial issues, in addition to a transformation process to create an orientation to achieve the destiny target (Biggs et al., 2017). Financial coping conduct consists of preventive financial behavior and proactive financial behavior. Preventive behavior was measured by the student's understanding of managing money. The questions included whether the respondents keep track of their monthly expenditure, if they created a budget or whether they spent money without any plan or thought. Proactive financial coping behavior was measured by questions relating to whether people were saving or investing for the future. The instruments in the questionnaire were measured on a 5-point scale that ranged from 1 (never) to 5 (very often).

Financial difficulty is a person's perception of his/her financial circumstance that produces emotions of misery. It's miles the continuum in which financial distress is on one aspect and financial well-being is on the alternative aspect. Financial misery became measured by three constructs: financial strain, mental distress, and subjective well-being. Financial pressure measured the quantity to which the scholars had been concerned in relation to cash or that they had a problem deciding to buy something; it turned into measured through 3 questions the use of a scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Psychological distress measured their level of concern for the future. This measurement was adapted from Bohnert et al., (2008) using a 5-point scale that ranged from 1 (never) to 5 (very often). Subjective well-being measured the satisfaction of the respondents with their lives (satisfied with life and self (satisfied with self). It was measured with items adapted from Diener (1984), using a 5-point scale that ranged from 1 (never) to 5 (very often).

The hypothesis was analyzed by using structural equation modeling with partial least squares (PLS). PLS can test the measurement model and structural model simultaneously. The measurement model determines the reliability and validity of the measures (indicators) associated with the research construct, while the structural model examines the relationship between constructs. Although the measurement model and the structural model are tested together, they have to be interpreted separately (Hulland, 1999).

RESULTS AND DISCUSSION

Evaluation of the relationship between indicators and constructs using measurement models, by assessing the reliability and validity of the constructs. The dimensions of financial literacy, coping behavior, and financial distress were measured reflectively. Convergent validity was assessed by its loading factor and significance (p-value < 0.05). Hair Jr et al., (2016) states that the loading value should be at least 0.60 and ideally 0.70 or above. Construct validity was measured using the average variance extracted (AVE). The minimum value of AVE is 0.50, the construct must acquire a value above 0.50 in order to have an adequate convergent validity. Thus, sufficient reliability and convergent validity were demonstrated, as shown in Table 2.
Table 2. Convergent Validity

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Loading</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Assessment Financial Literacy (Composite Reliability = 0.965 AVE = 0.935)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Assessment Financial Literacy 1</td>
<td>0.899</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Self-Assessment Financial Literacy 2</td>
<td>0.948</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Self-Assessment Financial Literacy 3</td>
<td>0.942</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Self-Assessment Financial Literacy 4</td>
<td>0.948</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Preventive Coping Behavior (Composite Reliability = 0.881 AVE = 0.844)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preventive Coping Behavior 1</td>
<td>0.823</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Preventive Coping Behavior 2</td>
<td>0.926</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Preventive Coping Behavior 3</td>
<td>0.777</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Proactive Coping Behavior</td>
<td>Single item</td>
<td></td>
</tr>
<tr>
<td>Financial Stress (Composite Reliability = 0.871 AVE = 0.834)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Stress 1</td>
<td>0.749</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Financial Stress 2</td>
<td>0.945</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Financial Stress 3</td>
<td>0.794</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Psychological Stress</td>
<td>Single item</td>
<td></td>
</tr>
<tr>
<td>Subjective Behavior (Composite Reliability = 0.890 AVE = 0.895)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective Behavior 1</td>
<td>0.895</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Subjective Behavior 2</td>
<td>0.895</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

Source: Data processed, 2022

Table 3. Discriminant Validity

<table>
<thead>
<tr>
<th></th>
<th>Self-Assessment FinLit</th>
<th>Test FinLit</th>
<th>Preventive Coping Behavior</th>
<th>Proactive Coping Behavior</th>
<th>Financial Stress</th>
<th>Psychological Stress</th>
<th>Subjective Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Assessment FinLit</td>
<td>0.935</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Financial Literacy</td>
<td>-0.058</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preventive Coping Behavior</td>
<td>0.405</td>
<td>0.110</td>
<td>0.844</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proactive Coping Behavior</td>
<td>0.548</td>
<td>0.110</td>
<td>0.260</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Stress</td>
<td>1.000</td>
<td>0.044</td>
<td>-0.149</td>
<td>0.074</td>
<td>0.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.098</td>
<td>-0.149</td>
<td>0.074</td>
<td>0.834</td>
<td>0.044</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Stress</td>
<td>0.834</td>
<td>-0.120</td>
<td>0.140</td>
<td>0.153</td>
<td>0.200</td>
<td>0.442</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>0.140</td>
<td>0.140</td>
<td>0.442</td>
<td>0.200</td>
<td>0.153</td>
<td>0.834</td>
<td></td>
</tr>
<tr>
<td>Subjective Behavior</td>
<td>0.0251</td>
<td>0.274</td>
<td>-0.260</td>
<td>-0.260</td>
<td>-0.456</td>
<td>-0.115</td>
<td>0.895</td>
</tr>
</tbody>
</table>

Source: Data processed, 2022
Discriminant validity was used to evaluate whether or not a construct exhibited extra variance with its measures as compared to other constructs. Discriminant validity turned into assessed by comparing the square root of the AVE with the correlation among the constructs. If the price of the square root of the AVE for the construct is more than the correlation among the constructs, then it's far declared a valid (Sholihin et al., 2011).

Reasonable discriminant validity was assessed by means of all diagonal items turned into higher than off-diagonal objects (table 3). In general, the evaluation indicates that the dimension model is reliable and valid.

Hypothesis 1 became used to decide which elements have an effect on the extent of financial literacy: parents and circle of relatives, human beings other than the family, formal schooling, and mass media.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Financial literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>0.39***</td>
</tr>
<tr>
<td>People other than parents (POTP): Teachers and Financial Professionals</td>
<td>0.20***</td>
</tr>
<tr>
<td>Formal Education (FOREDU): School and Financial Training</td>
<td>0.23***</td>
</tr>
<tr>
<td>Mass Media</td>
<td>0.02</td>
</tr>
</tbody>
</table>

***p < 0.01

Source: Data processed, 2022

Based on the test results, the factors that significantly affected financial literacy were (1) parents, (2) people other than family: teachers and financial professionals, (3) formal education: school and financial training. So H1a, H1b, and H1c are supported. Structural models are used to test hypotheses, specifically to test whether the effect of financial literacy on financial difficulty is direct or oblique (i.e., mediated through coping behaviors).

![Figure 1. Result](source: Data processed, 2022)
The analysis data in table 5 Panel A present shows that financial literacy has a negative effect on financial distress (coefficient: -0.17; p<0.05, R²=0.03), supporting H2a. Farther analyzes were performed, and financial literacy had a positive effect on coping behavior (coefficient: 0.59, p<0.01). In addition, financial coping behavior has a negative connection with financial distress (coefficient: -0.32; p<0.01). Nonetheless, financial literacy has a significant correlation with financial difficulties (coefficient: -0.19; p<0.10) (see Table 5, Section B). Even though there's an indirect effect of financial literacy on financial difficulties through financial coping behavior, financial literacy itself nevertheless has an instantaneous effect on the financial issue. This mediation is partly due to the fact the connection between the impartial variable and the dependent variable stays significant after controlling for the impact of the mediating variable (Baron & Kenny, 1986).

This study investigates the agents of financial socialization that affect financial literacy and the financial well-being of adolescents. Research contribution This research is to fill out research on financial literacy education that has not been integrated with the school curriculum in Indonesia, so this finding is useful for planning effective programs to improve the financial literacy of the youth generation.

The data analysis carried out shows that Hypothesis 1 is in accordance with previous research, parents are agents of financial socialization in adolescents (Isomidinova et al., 2017). Moreover, this study explains that parents, educators, financial professionals, financial education courses in schools, and financial training have a critical role to educate youth on financial literacy. This data supports (Sari et al., 2017) that financial literacy is an important effect and action needs to be taken to improve public financial literacy in countries where financial literacy education is not required to be studied. Therefore, financial literacy education is very important for young people. this can be done by including financial literacy in the formal education curriculum and also through training and short courses outside of school.

The outcome from the analysis for the second hypothesis advises that coping behavior partially mediates the effect of financial literacy on financial distress. Financial literacy has a direct and significant impact on financial distress and coping behaviors. The policy implications of our research are that there should be particular strategies and programs for promoting financial literacy to reduce financial distress. In particular, efforts are needed to design educational programs, not only for increasing personal financial knowledge but also for improving the ability to adapt to ongoing or coping behavior, especially during the pandemic. The results of our study encourage further investigation and continued development of “just in time” personal finance programs to help vulnerable individuals, so they do not fall into financial distress during the pandemic.

CONCLUSIONS AND SUGGESTIONS

This research finds out that financial literacy has a negative impact on financial distress, and that financial literacy has a significant negative impact on financial distress, both directly and through coping behaviors. The policy implications of our research are that there should be particular strategies and programs for promoting financial literacy to reduce financial distress. In particular, efforts are needed to design educational programs, not only for increasing personal financial knowledge but also for improving
the ability to adapt to ongoing or coping behavior, especially during the pandemic. The results of our study encourage further investigation and continued development of “just in time” personal finance programs to help vulnerable individuals, so they do not fall into financial distress during the pandemic.

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