

Influence of Demographic & Economic Factors, Behavioral Characteristics, and Financial Literacy on Financial Distress

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ABSTRACT

Objectives. This study aims to determine the factors of different pressure on financial distress on individual by using the demographic & economic factors, behavioral characteristics, and financial literacy as an indicator.

Methods. A quantitative study with questionnaire survey is used in this research, containing several questions that were distributed to 120 respondents to collect data.

Results. Based on the calculation, it can be explained that the influence of the independent variable on the dependent variable such as demographic & economic variables are proven from the significant value of $0.009 > 0.05$, meaning that the variable partially has significant influence on financial distress. Characteristic behavioral variables are proven from the significant value of $0.510 > 0.05$, meaning that the variable partially has no significant influence on financial distress. Financial literacy variable are proven from significant value for $0.564 > 0.05$, meaning that the variable partially has no significant influence on the financial distress.

Conclusions. It has shown that while demographic and economic variables are important factors of those who suffer from financial difficulties, but behavioral factors (such as an individual's capacity for self-control, planning, and patience) and financial literacy do not significantly influence financial distress. Although, if we put demographic & economic factors, behavioral characteristic, and financial literacy together, it shows that they have significant influence on financial distress.

Keywords: Behavioural Characteristic, Demographic & Economic, Financial Distress, Financial Literacy

1. INTRODUCTION

The financial crisis is mostly coming from poor financial decision and the increasing number of financial pressure within the society. Financial distress can be a severe problem for the people involved. However, a very large fiscal cost associated with the financial crisis is a reminder that the increase of financial distress and poor financial behavior from a relatively small number of people can have serious negative external economic effects on the economy [1]. In this context, understanding why people experience financial distress is the key to minimizing financial distress in the future.

O'Neill et al. say that financial distress can be defined as a reaction, such as mental or physical discomfort to emphasize individual in general financial situation [2]. Particularly, this includes perceptions of a person's capacity to manage economic resources (such as income and savings), pay bills, pay debts, and fulfill needs or desires in life. Financial distress is a subjective phenomenon, two individuals in the same financial situation may have different levels of financial distress.

This study aims to determine the most influential factors of a person experiencing financial distress. We focus on using demographic and economic factors, behavioral characteristics, and financial literacy as indicators to determine the causes of different pressure in financial distress for individual. Demographic and economic factors (such as gender, age, marital status, education, employment, income, debt, monthly expenses, etc.) show that they have an influence on financial distress [1].

Previous studies explained the importance of behavioral characteristics and financial literacy towards financial distress. Behavioral characteristics (such as self control, time preference, and financial management and organization) and the level of financial literacy in making financial decisions will

result in differences in the ability of individual to expedite their income over time [3].

2. LITERATURE REVIEW

2.1 Financial Distress

Financial distress is a danger situation in financial or urgent financial need. Financial distress can be studied both objectively and subjectively. Objectively, the level of a person's financial distress is determined by the facts, such as the amount of income, assets, and debt of that person. Meanwhile, subjectively, financial difficulties can be caused by two people with the same income, assets, debt, etc., who experience different levels of financial distress. In other words, some people tend to be depressed about their finances than others in the same financial situation [4]. One of the causes of financial difficulties according to Brigham and Daves is the existence of a series of errors, improper decision making, and interconnected weaknesses that can contribute directly or indirectly to management, as well as the absence or lack of effort to monitor financial conditions so that the usage of money is not in accordance with their needs [5].

2.2 Demographic & Economic Factors

According to Johan Suszczmilch, demography is a science that is used to analyse changes in living things, especially humans, which appear from birth, death and growth [6]. Ameriks et al. examined the role of planning in explaining why different households end up with different levels of wealth [7]. By using survey data for individuals in the U.S., they examine that attitudes and skills influence people's trends in planning, while different trends in planning affect the collection of wealth. They found evidence that individuals who have a high tendency towards planning, spend more time developing financial plans, save and accumulate are much wealthier than those who have a low tendency.

2.3 Behavioural Characteristic

2.3.1 Self-Control and Time Preference

Time Preference in financial decision making is generally considered to know the choice of individuals whether to spend their current money or delay for later, for example by saving [8]. Walker used a sample of 100 respondents to study the key factors that influence individual perceptions of their financial situation after a significant life event with financial implications for the birth of a baby. He interviewed young mothers in the UK and compiled the measurement of 'financial handling' by using responses to questions about

whether respondents believed they had enough money to cope with life (before and after the birth of a baby) or not. He found that time preferences, financial management and attitudes toward debt tend to be important hypotheses for the level of household financial difficulties, after controlling for demographics and income. Similarly, self-control is considered to be important for influencing people's financial decisions. Some studies have found that preferences for the future and self-control have a positive impact on savings and financial handling [9,10].

2.3.2 Financial Management and Organization

Some studies show that differences in the style and level of financial management and planning have an important influence on debt status or the level of household financial problems. Livingstone and Lunt examined social, economic and psychological factors related to debt in the UK, using a sample of 279 respondents [11]. The author explores some factors that distinguish debtors from non-debtors, the amount of debt taken by individuals and the amount of debt to be repaid. To carry out their analysis, the authors collected the data from a survey specifically designed about the experience of individual debt based in Oxford and around it during September 1989. They found that socio-demographic has little to do in personal debt and debt repayment, while attitudinal factors (such as whether individuals are pro-credit or anti-debt, or whether they consider credit useful but problematic or not) are important hypotheses.

2.4 Financial Literacy

Financial knowledge has a close relationship with financial literacy or financial education. Financial knowledge can be channeled through financial education or financial literacy. Mason & Wilson say that financial literacy is a 'meaning-making process' in which individuals use a combination of skills, resources, and contextual knowledge to process information and make decisions with knowledge of the financial consequences of that decision [12]. According to Nababan and Sadalia there are several financial aspects of financial literacy, as follow [13]:

2.4.1 Basic Personal Finance

In the Basic Personal Finance, it covers a person's basic understanding of a financial system such as

simple interest calculation, compound interest, inflation, opportunity cost, time value, asset liquidity, and others.

2.4.2 Money Management

Money management studies how an individual manages their personal money. The better individuals' understanding of financial literacy, the better they will manage their personal money.

2.4.3 Credit and Debt Management

Credit Management is a series of activities and components that are related to each other systematically in the process of collecting and presenting credit information for a bank.

3. THEORETICAL FRAMEWORK

There are several factors that causes financial distress according to some studies. First are demographic and economic factors, including gender, age, marital status, education, employment, income, debt, monthly expenses, and others. Demographic and economic factors have an influence on people's financial distress. For example, in terms of age, today's young generation are more likely to experience financial distress than the older generation, this could be because the lifestyle of the younger generation is now more consumptive than previous generation. In addition, gender also influences financial distress, because there are more financial needs of women than men, such as the needs for make-up, cosmetics and skin care.

Research conducted by McCarthy states that demographic and economic factors influence financial distress [1]. The end of a relationship, having a dependent child, stop working and having a debt are all influential factors that can increase possibility of someone experiencing financial distress. However, people who have higher education and income can reduce the possibility of financial distress.

H1: Demographic and economic factors have an influence on financial distress.

Behavioral characteristics especially such as self-control, planning, patience also affect people's ability to manage finances. If someone can manage finances

well then it can reduce the possibility of financial distress. This is evident in the study of Giannetti et al. where they found that someone who has a low level of patience has more potential to experience financial distress, while someone who is financially organized has a lower chance to experience financial distress [14].

H2: Behavioral characteristics has an influence on financial distress.

Financial literacy is one provision to achieve a person's financial well-being, because it affects financial expenses such as savings, wealth, debt, and pension funds. In other words, financial literacy is needed in managing the money obtained during productive age to finance the needs when the age is unproductive. Research conducted by Lusardi and Mitchell concerning upon the influence of planning and financial literacy on individual wealth ownership in the U.S. which is approaching retirement is important to be mentioned [15]. They compared the wealth ownership of two groups at the same age (51-56 years) in two different years, 1992 and 2004, and found that in both groups, someone who had a plan tended to have a higher level of financial literacy and ended up with a higher level of wealth in retirement than someone who did not have a plan.

H3: Financial literacy has an influence on financial distress.

Based on existing research and theory, we make the theoretical framework with financial distress as the dependent variable, while the independent variables are demographic and economic factors, behavioral characteristics, and financial literacy.

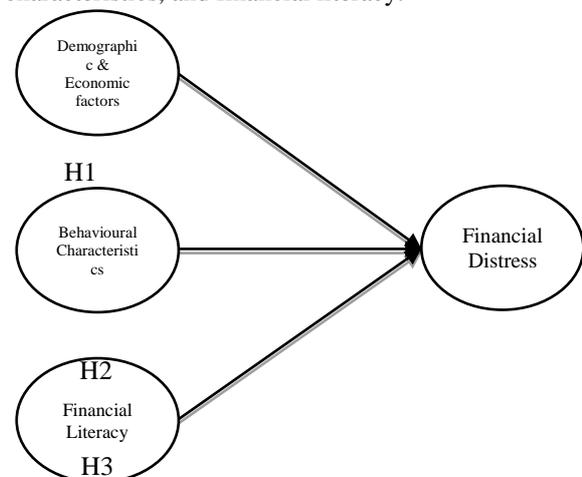


Fig 1: Conceptual Framework

4. METHODS

This research is a quantitative study using a questionnaire survey containing several questions that were distributed to certain respondents to collect data. The distributed questionnaire has been tested for validity and reliability using SPSS (version 23). Validity testing is done by looking at each indicator in the 3 variables studied. Indicators are called valid (construct validity) if it is below significant 0.05. Reliability test is used with a composite variable value with the provisions of the value must be greater than 0.6 (composite reliability > 0.6). The results of the reliability test show that the composite reliability value is 0.783 (more than 0.6), so it can be concluded that all indicators/measuring instruments are reliable and can be done for further analysis.

4.1 Sample

From the above hypothesis, we took 12 sample that were collected from employees with a variety of professions in Indonesia. Respondent asked to fill out a form and whether they want participant in this study or not. They are asked some information on the demographic and financial information such as age, marital status, and wages. If they choose to participate in this study, they must answer the question of factors Demographic and Economic, Behavioral Characteristic and Financial Literacy.

4.2 Measures

4.2.1 Dependent variables: Financial Distress.

In accordance with the recent literature, this study defines financial distress as the situation and as the dependent variable in which the individual reports of having difficulty paying the monthly payment and how well the respondents responsible for bills and credit commitments. Researchers categorize the answers to these questions in Financial Distress, ranging from "strongly disagree" to "strongly agree" [1,14].

4.2.2 Independent variables: Demographic & Economic factors.

This study uses demographics & Economic factors, such as levels of age, sex, marital status,

education, occupation, income, and debt as an independent variable to identify its influence towards the respondents. Education is a measure to achieve knowledge and potentiality of economic; employment is a measure of community status, skills, financial income, and exposure to certain occupations; income is a measure of one's financial resources; and debt is a measure of current economic viability.

4.2.3 Behavioral Characteristics

In this study respondents are asked questions about the behavioral characteristics of a person, such as respondents' level of self-control, time preference and whether respondents are well-organized with their money.

4.2.4 Self-Control and Time Preference

Time preference in financial decision making is generally considered to describe an individual choice as to whether they spend their money now or to put it off for later. Self-control is considered as an important influence on a person's financial decisions. Several studies have found that the preference for the future and self-control have a positive impact on saving and in overcoming the financial [9-10]. Particularly, we made a dummy variable "Live Today", "Impulsive" and "Priority", and the potential response is "Strongly Agree", "Disagree", "Neutral", "Agree" and "Strongly Agree".

4.2.5 Financial Management and Organization

Some researches suggest that different style and the level of financial management and planning have a significant influence on the debt status or level of financial tackle [10,16,11]. Researchers represent financial management respondents using responses to some of the statements provided in the questionnaire.

Respondents were asked how accurate they know how much money they have to arrange their savings, checking accounts and loan accounts. Respondents were also asked whether they had checked out the various accounts and investments

or not. The answers range between "Strongly Agree", "Disagree", "Neutral", "Agree" and "Strongly Agree".

4.2.6 Financial Literacy

Financial literacy has been shown to affect many different financial outcomes such as savings, wealth, debt and pension funds. Respondents were presented with some of the questions that we use to assess the basic financial literacy. Additional questions were also asked to assess the respondents' knowledge of genuine value for money and their ability to calculate percentages. The answer to that question is to notify the variety of answers ranging from "Strongly Disagree" to "Strongly Agree".

5. EMPIRICAL APPROACH

This study estimates the relationship between categories of demographic and economic factors, financial literacy and behavioral characteristics on

the likelihood of experiencing financial difficulties. We set the following probit model:

$$\text{Prob}(y_i = 1) = F(\beta x_i) + \epsilon_i \quad i = 1, 2, \dots, n$$

Where y is the dependent variable "Financial Distress", x is composed of several characteristics proposed to influence financial distress (including demographic and economic factors, behavior characteristics and variables of financial literacy). β are some parameters to be estimated, while ϵ is an error and i is the number of observations.

6. RESULT

We did the research and collected the complete the data from all the research instruments including test and questionnaire. To gain the objectives of the research, the researchers analyzed the data systematically and accurately. The Data was analyzed to draw conclusion about the objective of the study.

Table 1. Descriptive Statistics

	Frequency	Percent	Valid percent	Cumulative percent
Gender				
Male	54	45,0	45,0	45,0
Female	66	55,0	55,0	100,0
Total	120	100,0	100,0	
Age (years)				
18 – 24	36	30,0	30,0	30,0
25 – 44	74	81,7	61,7	91,7
45 – 50	10	8,3	8,3	100,0
Total	120	100,0	100,0	
Marital Status				
Single	88	73,3	73,3	73,3
Married	30	25,0	25,0	98,3
Other	2	1,7	1,7	100,0
Total	120	100,0	100,0	
Education				
SMA	14	11,7	11,7	11,7
D3	29	24,2	24,2	35,9
S1	67	55,8	55,8	91,7
S2	10	8,3	8,3	100,0
Total	120	100,0	100,0	
Occupation				
Staff	84	70,0	70,0	70,0
Manager	11	9,2	9,2	79,2
Director	3	2,5	2,5	81,7
Other	22	18,3	18,3	100,0
Total	120	100,0	100,0	

Salary (IDR)				
< 3 m	20	16,7	16,7	16,7
3 – 5 m	43	35,8	35,8	52,5
5 – 10 m	39	32,5	32,5	85,0
> 10 m	18	15,0	15,0	100,0
Total	120	100,0	100,0	
Debt Outstanding				
Debt	35	29,2	29,2	29,2
No Debt	85	70,8	70,8	100,0
Total	120	100,0	100,0	

A sample of 120 respondents, mostly dominated by women (55%) around 25-44 years (81.7%). Most of marital status is unmarried (73.3%), 55.8% of respondents have a bachelor degree. In terms of employment, 70% of whom have positions as staff. Other consideration is salaries, where 35% of whom have a salary of between 3-5 million. 70.8% of respondents have no debt.

7. DISCUSSION

7.1 Regression Test Results

The results of multiple linear regression used in this research is SPSS for windows 23. The results of multiple linear regression analysis of data obtained are as follows:

Table 2. Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1							
(Constant)	4,280	1,505		2,844	,005		
Demographic & Economic	,204	,077	,240	2,670	,009	,996	1,004
Behavioural Characteristic	,026	,039	,063	,662	,510	,883	1,132
Financial Literacy	,016	,028	,055	,579	,564	,883	1,132

a. Dependent Variable: Financial Distress

Information:

X1: Significant

X2: Not Significant

X3: Not Significant

The regression equation as follows:

$$Y' = a + b_1X_1 + b_2X_2 + b_3X_3$$

$$Y' = 4.280 + (0.204) X_1 + (0.026) X_2 + (0.016) X_3$$

X3

$$Y' = 4.280 + 0.204 X_1 + 0.026X_2 + 0.016X_3$$

Information:

Y' = Financial Distress

A = Constant

b1, b2, b3 = Regression Coefficients

X1 = Demographic and Economic Factors

X2 = Behavioral Characteristic

X3 = Financial Literacy

The regression equation above can be explained as follows:

- The constant of 4.280; meaning that if the Demographic and Economic Factors (X1), Behavioral Characteristic (X2) and Financial Literacy (X3) is 0, then the Financial Distress (Y') value was 4.280 points
- The regression coefficient Demographic and Economic Factors variables (X1) 0.204; meaning that if the variable Demographic and Economic Factors rose 1, the Financial Distress (Y') will increase by 0.204 points. If the coefficient is positive, it means that there is a positive correlation between

Demographic and Economic Factors in Financial Distress, the more Demographic & Economic Factors increase, the higher Financial Distress rises.

- Characteristic Behavioral regression coefficient (X2) 0.026; meaning that if the variable Behavioral Characteristic rose 1, the Financial Distress) Y 'will increase by 0.026 points. The coefficient is positive, it means there is a positive relationship between the Behavioral Characteristic with Financial Distress, the more Behavioral Characteristic increase, then the higher Financial Distress rises.
- Financial Literacy regression coefficient (X3) of 0.016; meaning that if the variable Financial Literacy rose 1, the Financial Distress(Y)will increase by 0.016 points. The coefficient is positive, it means there is a

positive relationship between the Financial Literacy with the Financial Distress, the more Financial Literacy increase, then the higher Financial Distress rises.

7.2 The Correlation Coefficient (R)

Testing of the correlation coefficient (R) aims to find out the close relationship between the independent variables that are consisted of Demographic & Economic Factors, Behavioral Characteristics, and Financial Literacy. In SPSS output, coefficient determination lies in the model summary table and a written summary R as follows:

Table 3. Test Correlation Coefficient

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,264 ^a	,070	,046	1,60207

From above, the data acquisition can be obtained from correlation coefficient (R) of 0.264, or 26.4%, which means that the level of relationship between variables Demographic & Economic, Behavioral Characteristic, and Financial Literacy are low.

7.3 The Coefficient of Determination (R²)

Testing the coefficient of determination (R²) aims to find out how much percentage of the ability of independent variables to explain the dependent variable. In SPSS output, coefficient of determination lies in the Model Summary table and writing R Square.

Table 4. Tests Coefficient Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,264 ^a	,070	,046	1,60207

From above, the data management results obtained by the coefficient of determination (R²) of 0.070, which means that the variable Demographic & Economic, Behavioral Characteristic, and Financial Literacy affecting the financial distress of 7% and the remaining 93% can be explained by other variables which is not examined in this study.

7.4 F Test Results

F test was used to test whether the changes in independent variable (Demographic & Economic, Behavioral Characteristic, and Financial Literacy) have a significant effect on the dependent variable (Financial Distress) by comparing F arithmetic with F table, with an alpha level of 0:05. F test results from SPSS calculation as follows:

Table 5. Test Results Table F

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22,262	3	7,421	2,891	,038 ^b
	Residual	297,729	116	2,567		
	Total	319,992	119			

- H₀: Demographic & Economic, Behavioral Characteristic, and Financial Literacy does not significantly influence the Financial Distress
- H₁: Demographic & Economic, Behavioral Characteristic, and Financial Literacy significantly influence the Financial Distress

Based on the calculation, a significant result is of 0.038 > 0.05. Thus, variable Demographic &

Economic, Behavioral Characteristic, and Financial Literacy together have significant influence on financial distress, so it can be stated that H₀ is refused and H₁ is accepted.

7.5 T Test Results

T test was used to test whether each independent variable have significant effect on Financial Distress by comparing the value of the T table with alpha 0.05. The obtained results SPSS calculations are as follows:

Table 6. Test Results Table T

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,280	1,505		2,844	,005		
	Demographic & Economic	,204	,077	,240	2,670	,009	,996	1,004
	Behavioural Characteristic	,026	,039	,063	,662	,510	,883	1,132
	Financial Literacy	,016	,028	,055	,579	,564	,883	1,132

than men [17]. The

Information:

- X₁: Significant
- X₂: Not Significant
- X₃: Not Significant

Based on the calculation above, it can be explained that the influence of the independent variable on the dependent variable are as follows:

7.5.1 Demographic & Economic

Evident from the significant value of 0.009 less than 0.05, meaning that the variable Demographic & Economic partially has significant influence on the financial distress. This is similar to the research conducted by McCharty, it has shown that demographic and economic variables are important determinants of who gets into financial difficulties [1]. Another research by Sina concluded that there was a tendency to experience financial stress and that there were differences between the two gender categories, where women were more likely to experience financial stress

positive influence indicates that the higher the level of gender, income of a person, education, age and the higher the expenditure for making credit and vice versa.

7.5.2 Behavioral Characteristic

Evident from the significant value of 0.510 more than 0.05, meaning that the variable Behavioral Characteristic partially has no significant influence on the financial distress. This result are apparently incompatible with the previous study in which the results show that behavioral characteristics matter and effect financial distress [1]. Demographic and economic factor seems to be more important than behavioral characteristic in Indonesia. In the same study McCharty also said there are several theories that discuss about how to dealing or overcoming behaviour. However, the evidence on the effect of such

efforts in changing the impact of behavior on financial outcomes is low.

7.5.3 Financial Literacy

Proved of significant value for 0.564 more than 0.05, meaning that the variable Financial Literacy partially has no significant influence on the financial distress. This result is the same as previous research by Herdjiono and Damanik, It is not proven that someone with high financial knowledge has good financial behavior or someone with low financial knowledge has a bad financial management behavior [18]. Personal financial management behavior can be influenced by various factors. Personal knowledge of finance tends to be different, and it does not merely a person with high financial knowledge who are capable to control the management of his financial behavior related to personal financial distress. There are various sources of knowledge of financial literacy that can be obtained, including in formal education, such as high school programs or lectures, seminars and training classes outside of school, as well as informal sources, such as from parents, friends, and work environment [19].

8. LIMITATIONS

This research has several limitations, one of the major limitations is the number of samples taken. The sample was taken only 120 people. Other limitations is the variable. There are several factors which can influence financial distress in individual. But we only focused on demographic & economic factors, behavioral characteristic, and financial literacy.

The results of this study suggest implications for further research. Financial distress can be studied by using a greater number of sample and distributed to people who constantly have debt or financially struggled. Also, they can use other variables to analyze what factors influence financial distress, such as job insecurities, personality, education loan debt, etc.

9. CONCLUSION

Based on the results of descriptive analysis and discussion conducted by researchers, it has shown that while demographic and economic variables are important determinants of those who suffer from financial difficulties, but behavioral factors (such as an individual's capacity for self-control, planning, and patience) and financial literacy do not significantly influence financial distress. Although, if we put demographic & economic factors, behavioral characteristic, and financial literacy together, it shows that they have significant influence on financial distress.

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