RELATIONSHIP BETWEEN FINANCIAL DISTRESS AND FINANCIAL LITERACY AT IBI DARMAJAYA

RONAL DIANTRY

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CHENG SHIU UNIVERSITY

ABSTRACT

The objective of this study is to prove the relationship between financial distress and financial literacy among undergraduate students at IBI DARMAJAYA, Indonesia. This study uses a quantitative approach to determine the relationship between these two variables. Questionnaires from previous research were used to measure the level of financial distress and financial literacy of 92 undergraduate students. The research found there is a negative moderate relationship between financial distress and financial literacy.

Keywords: Financial Distress, Financial Literacy

LEGITIMATION

I hereby declare that I have checked this project, and I assume this project is adequate in terms of scope and quality in Cheng Shiu University.

Signature :

Name of Supervisor :

Date :

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I am grateful and would like to express my sincere gratitude to my supervisor, Instructor. “Paul” You, Lin for his priceless guidance, ceaseless encouragement and constant support in making this research possible. I really appreciate his guidance throughout the research which empowers me to develop an understanding of this research. Without his assistance, it would be lots tougher to complete it. As well as, I sincerely appreciate for his time to do proofreading and correcting my mistakes.

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CHAPTER I

INTRODUCTION

This chapter describes the background why financial literacy and high financial distress can be an issue, and the goals that want to be achieved throughout the research.

1.1 Research Background

Study further encounters one issue is called financial distress. According to (Khaliq et al., 2014) financial distress is a condition when the company does not have an ability of face difficult to pay off its obligations to the creditors. In term of an individual, such as college students, it can be described as a situation where the students have a low capability to fulfill their financial needs. Drentea (2000) the distress can trigger some problems, for instance the anxiety and depression and school dropout (Archuleta, et al., 2013).

A number of researchers have been conducted to find out the background of financial distress in college students and the impact of the distressful. Northern et al., (2010) stated that financial stress may be defined as the inability to meet one’s financial obligations, but can also include psychological or emotional effects (Heckman et al., 2014). Financial distress is not only related to crisis financial condition, but also the outcome from financial distress will affect psychologically and emotionally.

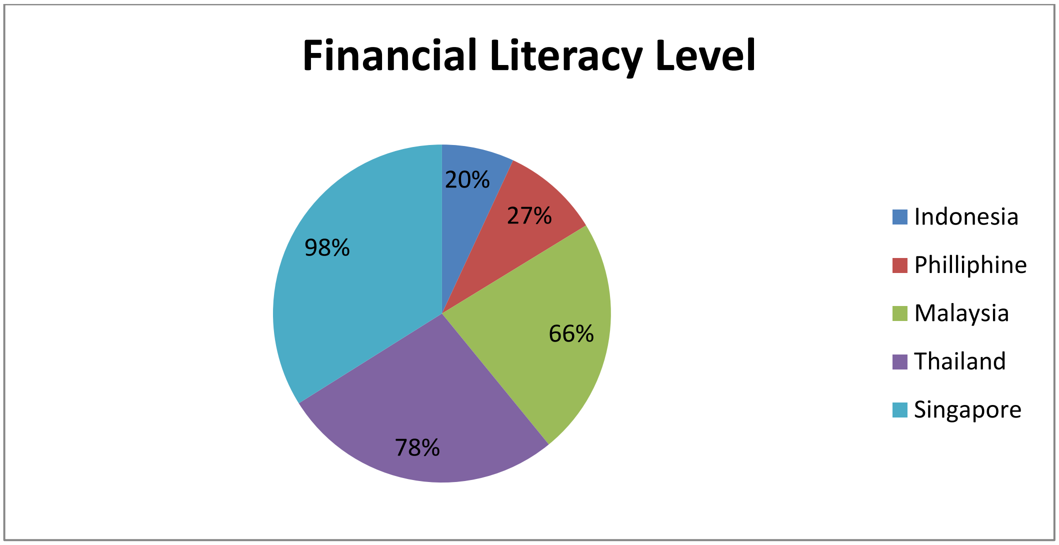
Furthermore, Joo (1998) found that financial stress refers to stress that is caused by a financial situation including personal, family and other various financial conditions (Idris et al., 2013). Financial distress can trigger and disrupt undergraduate students' perform that eventually having a chance to stop pursuing their degress or drop out.

Informatics and Business Institute Darmajaya is one of the fastest growing universities in Lampung Province, Indonesia. This institute has nearly five thousands students with the incoming new students per year is around one thousand. This university, every year, need to deal with a number of financial problem, particularly on the tuition fee payment made by students. 25% of the students delayed the payment due to several issues such as lack of payment information due, the money is used, and family crisis economy.

Joo and Garman (1999) stated that financial distress happens due to the fact an individual does not have financial literacy (Idris et al., 2013). An individual has knowledge and skills from its experience to manage financial effectively and efficiently. One of knowledge which has important role is financial literacy. Financial literacy is a concept of comprehending on using, earning, managing, and investing money. In accordance to financial literacy as important knowledge, Organization for Economic Cooperation and Development (OECD) also defines financial literacy as a blend of awareness, knowledge, skill, attitude and behavior important to settle on solid financial decisions and eventually accomplish individual financial wellbeing (OECD, 2011).

DEFINIT (2013) survey found, Indonesia is in the lowest financial literacy level (Hidajat et al., 2016). The graph of financial literacy in Indonesia, Malaysia, Philliphine, Singapore, and Thailand as follows:

Graph 1.1 ASEAN Financial Literacy



Source : DEFINIT, 2013

As shown in graph, Indonesia rank is in the lowest level that is 20%. Whereas, Philippine is slightly higher 7% than Indonesia that is 27%, Malaysia is significantly higher 46% than Indonesia that is 66%, Thailand is significantly higher 58% than Indonesia that is 78%, and Singapore is significantly higher 78% than Indonesia that is 98%.

The prior research that had been conducted by Taft et al., (2013) found there is a relation between financial literacy and financial wellbeing. In its research, it concludes that as become higher financial literacy, it is also followed financial wellbeing. Idris et al., (2013) study found that there is a weak positive relation between financial literacy and financial distress among youths in Malaysia. It concludes that if respondents have high financial literacy, thus respondents will have low financial distress. Sabri (2011) also identified a positive relation between financial literacy and financial wellbeing. In its research Sabri concludes that financial wellbeing can be increased through having financial knowledge. However, Sabri and MacDonald (2010) study found that financial literacy negatively related to financial problems among Malaysian college students. They found that financial literacy has no relation directly against financial problem due to saving behavior; it mitigates financial problem. Based on those findings, it is obviously indicating an inconsistency result on relation between financial literacy and financial distress. Therefore, researcher desires to repeat this research to find out how is the relation between financial distress and financial literacy at IBI DARMAJAYA.

1.2 Research Questions

Based on the background, the issue in this research can be defined as follows:

1. Does financial distress significantly related to financial literacy?

1.3 Research Objectives

This research aims to find out the relation between financial distress and financial literacy.

CHAPTER II

LITERATURE REVIEW

This chapter describes the summary of theories, factors, categories, previous research, and Theoretical Framework.

2.1 Financial Distress

Heckman et al., (2014) stated that financial stress is a concern because of the negative health outcomes associated with increased levels of stress. Based on its theory, an individual with high financial stress will impact to bad health. This theory is consistent with research result of O'Neill et al., (2005). As high financial stress, concern will increase as well. If this problem is taken positively, it may help people to manage income effectively and efficiently in order to solve the problem. Basically, income is the primary problem of financial distress, and it will get worsen once an individual does not have enough income.

Furthermore, a person with low financial skill tends to make financial stressors even worse. A research about financial distress related to negative health effects had been conducted by O'Neill et al., (2005) stated that financial problems such as overextended credit is one of many life event that can cause people to experience the physical manifestation of stress, for instance insomnia, migraines, and anxiety that are associated with many health problems. Therefore, a person with financial distress is not only overcoming its financial issue, however he/she also acquires bad health impact from it.

According to Northern et al., (2010) while being unable to pay bills and other financial difficulties may indeed produce stress, there are important psychological aspects of stress that may be missed when using financial data alone (Heckman et al., 2014). Heckman et al., (2014) stated that inability to pay bills is one of stress moment to one student However, stress is complex, one might feel stress cause of 1 particular problem, but others may not. Thus, it is known financial distress a relative condition among students.

Hamid and Abdullah (2009) defined financial distress as a reaction, such as mental or physical discomfort, to stress about one's state of general financial wellbeing. Low financial wellbeing is one of financial distress sign, or it can be called one condition against another one. In other words, once financial wellbeing is high then the person will not feel financial distress, while once financial wellbeing is low then the person will have financial distress.

Based on theories and definition about financial distress, researcher conclude financial distress is an unfulfilled financial needs which will increase an individual stress.

2.1.1 Financial Distress Factors

Based on Eunyoung (2004) research result, from every factors that had been investigated, it found that uncontrol spend is the most problematic. In its research, it can be indicated that to manage spend an individual needs financial knowledge and apply its knowledge.

Furthermore, Trombitas (2012) had identified several factors as follows: (1) needs to payback loan. As become expensive tuition, it insists undergraduate students to borrow money from financial institution or from family/friends eventually undergraduate students must payback the loan. (2) Tuition. Researcher found that freshman who had never been living outside parents house felt not good at managing its money. Otherwise, it is caused the increasing of tuition is not followed by job vacancy. (3) borrowing money for paying tuition. Researcher stated that respondents who do not feel bad impact from financial distress probably having loan.

Additionally, Heckman et al., (2014) found that there are some factors which made financial distress existed. (1) Having no money to participate in campus' activities as peers do. The increasing of campus' activities (i.e. tour trip, concerts, cultural events, etc) requires much money. Thus, Heckman et al., suggest campus to provide students with affordable ways to engage with their peers and may be another way to reduce the financial stress among students. (2) Spending money more than their capabilities by borrowing or crediting. Researcher suggest the credit policy maker or the person who lends money should consider the implication from the borrowing. (3) Paying bills not on time. Heckman said that being unable to pay bills on time may plausibly be a stressful event for one student, but not for another student. As well as, Heckman et al., found that Many of the studies mentioned above do not include an explanation of the theoretical framework used to investigate issues related to financial stress.

2.1.2 Financial Distress Categories

Based on (Idris et al., 2013) financial distress level is divided into 3 categories as follows:

Table 2.1 Financial Distress Categories

Financial distress scale	Categories
1.00 – 1.99	
2.00 – 2.99	High financial distress
3.00 – 3.99	
4.00 – 4.99	
5.00 – 5.99	Moderate financial distress
6.00 – 6.99	
7.00 – 7.99	
8.00 – 8.99	Low financial distress
9.00 – 9.99	
10.00 – 10.99	

Financial distress categories which are: (1) high financial distress (1 – 4.99), moderate financial distress (5 – 6.99), dan low financial distress (7.00 – 10.99).

2.2 Financial Literacy

Huston (2010) stated that financial literacy is typically an input to model the need for financial education and explain variation in financial outcomes. In other words, people who have no financial knowledge will be taught about financial. Therefore, he/she will be better on applying its knowledge in financial. Huston also stated that a person who is able, definitely has knowledge and skills to apply it.

OECD (2014) defines financial literacy as knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial wellbeing of individuals and society, and to enable participation in economic life. According to OECD, financial literacy is not only about comprehending, however it gives people motivation and confidence. Moreover, financial literacy improves both side which is individual and society.

Remund (2010) defines Financial literacy is typically measured at the individual level and then aggregated by groups, such as high school students or low-income adults, to provide a macro view. Principally, assessment must be done to measure the capability, finance concept, and its confidence of someone. As well as measuring from one person to big group, therefore financial literacy can be measured effectively.

Kim (2001) stated that financial literacy is basic knowledge that people need in order to survive in modern society (Sabri, 2011). As become modern the era, then financial will be complicated as well. Habschick et al., (2007) stated that complexity of financial need and complexity of financial product get more complex from times to times.

Financial literacy is an important component of sound financial decision-making, and many young people wish they had more financial knowledge. Having much knowledge will help people to make a better decision. Not only their decision become better, but also it can make their lives welfare. Based on theory and definition, researcher is able to conclude that financial literacy is financial knowledge which will help people to take decision on using their money.

2.2.1 Financial Literacy Factors

Remund (2010) and Chen and Volpe (1998) stated 4 important factors related to financial literacy which are: budgeting, saving, borrowing, and investing.

1. Budgeting

Mymoneycoach (www.mymoneycoach.ca) defines Budgeting is the process of creating a plan to spend your money**.** An activity arrange systematically and cover all of company/someone activities in financial terms, therefore the spending allows the user to determine in advance which one is more prioritized. Budgeting also allows the user to ensure their money is controlled for one prioritized activity to another.

2. Saving

Financeintheclassroom (www.financeintheclassroom.org) defines Savings is the portion of income not spent on current expenditures. In other words, saving is an act of not spending money on a purpose to buy an expensive stuff such as a car, motorcycle, etc. On the other side, the one who does saving is preparing for emergency situation that may occur in unexpected time. Financeintheclassroom also mentioned Without savings, unexpected events can become large financial burdens.

3. Borrowing

Borrowing is an action to use resource from someone/bank that eventually the user requires giving it back in greater value. Businessdictionary (www.businessdictionary.com) stated that receiving something of value in exchange for an obligation to pay back something of usually greater value at a particular time in the future. In other words, borrow is done to fulfill someone's need immediately with or without adding greater value to pay it back to the lender.

4. Investing

Investopedia (www.investopedia.com) defines Investing is the act of committing money or capital to an endeavor (a business, project, real estate, etc) with the expectation of obtaining an additional income or profit. In addition, Investopedia also mentioned investing can include the amount of time you put into the study of a prospective company, especially since time is money. Therefore, by investing money to a company will result interest earnings or profit.

2.2.2 Financial Literacy Categories

Based on Chen and Volpe research (1998) questionnaries contain financial question which intended to measure undergraduate students literacy and divide it.

Table 2.2 Financial Literacy Categories

Financial Literacy	High	>80%
	Moderate	60-79%
	Low	<60%

In its research, financial literacy is divided into 3 categories which are: high (>80%), moderate (60 – 79%), and low (<60%).

2.3 Previous Research

Idris et al., (2013) study was conducted in Malaysia. Researchers used questionnaires to assess financial literacy and financial distress among youths in Malaysia. The Finding shows that there is a weak positive relationship between financial literacy and financial distress. Idris et al., (2013) study found that if respondents have high financial literacy, therefore respondents will have low financial distress. Based on those findings, once financial literacy is high, therefore it will impact to its financial capabilities and vice versa. The result is consistent to the prior research Chen and Volpe (1998) that financial distress is one of factors leading to reduce productivity at the workplace. The researcher believes that by improving their financial literacy will mitigate financial distress, and it results increasing productivity.

Taft et al., (2013) study is the relation between financial literacy, financial wellbeing, and financial concerns. Researchers used questionnaires which are designed, and distributed to random people. The result shows that age and education are positively correlated with financial literacy and financial wellbeing. Taft et al., (2013) concluded that higher financial literacy leads to greater financial wellbeing and less financial concerns. Thus, financial wellbeing leads to less financial concern.

Sabri (2011) conducted a research which analyzed financial literacy and financial wellbeing. The finding stated that financial wellbeing can be increased through financial literacy. In other words, as become high financial literacy will be followed by financial wellbeing. In its research, it is believed that education from early childhood will lead to financial wellbeing. In addition, financial literacy can be accessed easily through religion places such as mosques and churches.

Huston (2010) defined that financial literacy is a component of human that can be increased through financial activities. Although financial literacy and financial wellbeing are related, however a person may not exhibit predicted behaviors or increases in financial wellbeing because of behavior, self-control problems, families, peers, economy, communities and insitutions.

However, Sabri and MacDonald (2010) study found that financial literacy is associated with better savings behavior and financial literacy was also negatively related to financial problems among Malaysian college students. In the research, Sabri and MacDonald (2010) stated that those who had greater savings behavior would still have more financial problems. This research was using questionnaires as an assessment of financial literacy and financial distress.

2.4 Theoretical Framework

Graph 2.1 Theoretical Framework

CHAPTER III

METHODOLOGY

This chapter describes type of research, population and sample, data types, measurement variables, instrument requirement test, and data analysis.

3.1 Type of Research

This research is a descriptive quantitative due to the fact it shows the idea of variables and explains the relation between financial literacy to financial distress with application data process called SPSS. The relationship will be proven by Pearson correlation test.

3.2 Population and Sample

3.2.1 Population

Sugiyono (2015) stated that population is a generalization area which contain objects or subjects that have qualities and particular characteristics used by the researchers to study and take the conclusion. Population is not the real number taken, but instead researchers are able to choose the amount of sample from real numbers. In this research, the object as population will be undergraduate students which are indicated having or ever had financial distress at IBI DARMAJAYA.

3.2.2 Sample

According to Sugiyono (2015) sample is a piece from the real amount and characteristics which is own by the population. If population is huge, then researchers are not able to explore all of them, therefore researchers are able sampling the population. Consequently, the sample must represent from the population.

Sampling technique in this research is non probability sampling. Non probability sampling is giving no same opportunities to everybody which will be taken. In other words, researcher uses non probability method due to unmatch characteristics on taking sample.

Due to the fact that undergraduate students who have financial distress is not easy to be found, therefore researcher uses 2 sampling methods which are: (1) purposive sampling and (2) snowball sampling. Purposive sampling is a technique to take sample in order to choose the correct respondents or it is in the research categories. As well as researcher uses snowball sampling in order to find other respondents from the first respondent. Sample in this research is active undergraduate students periode 2016/2017. Characteristic in this research is undergraduate students who have or had been trough financial distress. This research uses Slovin sampling method with standard error 10%. The formula to measure sample as follows:

$$n = \frac{N}{(1+Ne^2)}$$

Explanation:

n: Sample size

N: Population number

e: Standard error

Thus, counting sample amount with total of population 5,716 and standard error 10% as follows:

$$n = \frac{5,176}{1 + 5,176(0.1)^2}$$

$$n = \frac{5,176}{52.76}$$

n = 98 respondents.

Originally, the calculation from Slovin's formula is 98 respondents. However, due to 6 respondents have biasedness answer researcher determined to only use 92 respondents.

3.3 Data Types

Research data is crucial factor which will be a consideration on deciding the method of collecting data. Data is source which will be used in a research. Merriam-Webster (https://www.merriam-webster.com/) stated that data is factual information such as measurements or statistics used as basis for reasoning, discussion, or calculation. Data respondents in this research are collected from March – September 2017 through only survey. Data it is divided into two categories, which is:

3.3.1 Primary Data

(Purwanto and Suharyadi (2009) defines Primary data is a collected data directly from the source, which will be used by researchers to answer research questions. Institute for work and health (https://www.iwh.on.ca/) adding the questions the researchers ask are tailored to elicit the data that will help them with their study. Researchers collect the data themselves, using surveys, interviews and direct observations.

3.3.2 Secondary Data

Secondary data is an acquired data or collected by researchers from various sources such as: IDX, books, statistic center, etc. Information filled in ready to use and it is more affordable than Primary data. (https://www.iwh.on.ca/wrmb/) In addition, administrative data tends to have large samples, since the data collection is comprehensive and routine.

3.4 Measurement of Variables

Measuring variables are used to identify proper measurement for each variables, thus it does not deviate from theoretical framework.

3.4.1 Measurement of Financial Distress

Measuring financial distress in this research using Likert Scale. According to Likert (as stated on https://www.simplypsychology.org/) the principle of measuring attitudes by asking people to respond to a series of statements about a topic, in terms of the extent to which they agree with them, and so tapping into the cognitive and affective components of attitudes. To measure respondent answer, it has 4 options to fill in the answer which is:

Table 3.1 Financial Distress Indicator

4	Strongly agree
3	Agree
2	Disagree
1	Strongly Disagree

Furthermore, financial distress has 3 categories which are:

Table 3.2 Financial Distress Categories

2.6 – 4.0	High
1.51 – 2.5	Moderate
0 – 1.5	Low

3.4.2 Measurement of Financial Literacy

Measuring financial literacy in this research is using ratio scale. Ratio scale is measurement scale which has zero point. By using questionnaires from indicators, each question will have 8.33 if the respondents answer it correctly, threfore if respondents answer the entire questionnaries correctly then he/she will get 100 points. On the other hand, if the answer is wrong then he/she will get 0 point. In financial literacy variables grouping score conclude by counting the correct answer which are classified into 3 categories as follow:

Table 3.3 Financial Literacy Categories

> 80	High
60 – 79	Moderate
< 60	Low

3.5 Instrument Requirements Tests

3.5.1 Validity Test

According to Explorable, (http://explorable.com) test validity is an indicator of how much meaning can be placed upon a set of test results. In psychological and educational testing, where the importance and accuracy of tests is paramount, test validity is crucial. The result from 92 respondents will be tested using validity formula:

$$r = \frac{n(\sum \mathrm{xy}) - (\sum \mathrm{x})(\sum \mathrm{y})}{\sqrt{[n\,(\sum x^2) - (\sum x)^2][n(n\,(\sum y^2) - (\sum y)^2]}}$$

Explanation:

r = correlation coefficient value

∑Y = observation number Y

∑X = observation number X

∑XY = observed variables number X multiplied by Y

Criteria validity instrument test as follows:

1. Probability value (Sig) on the value a is 0.05

    1.1 If r count > r table means H0 is rejected, and Ha is accepted

    1.2 If r count < r table means H0 is accepted, and Ha is rejected

2. SPSS ver.24 does the validity test

3. Taking conclusion based on probability set value

3.5.2 Reliability Test

Sugiyono (2015) stated reliability is having trusted characteristic, which if the same measurement is used many times by the same researcher or others will have the same result. The reliability function is to see how far measurement tool is consistence, and to present the same result when measuring same object and same subject. As becomes higher the result, it specifies the questionnaires are more acceptable and accurate. Validity test uses Cronbach's Alpha formula as follows:

$$r11 = \left(\frac{k}{(\mathrm{k} - 1)}\right) 1 - \left(\frac{\sum \sigma_t^2}{\sigma_t^2 x}\right)$$

Explanation

r11 = instrument reliability

∑σi = total variants in each item

k = total questionnaire

σ_t^2 = total variant

Researcher will examine the validity test result based on Interpretation table as follows:

Table 3.4 Interpretation Table

R coefficient	Reliability
0.8000 – 1.0000	Excellent
0.6000 – 0.7999	Acceptable
0.4000 – 0.5999	Moderate
0.2000 – 0.3999	Poor
0.0000 – 0.1999	Unacceptable

3.6 Data Analysis

3.6.1 Pearson Correlation

According to North Dakota State University (https://www.ndsu.edu/) Pearson correlation is a measure of the degree to which two variables vary together, or a measure of the intensity of the association between two variables. Therefore, financial literacy (X) towards dependent variable (Y) which is financial distress will be tested with Pearson correlation. Pearson correlation formula as follows:

$$\frac{n(\sum \mathrm{xy}) - (\sum \mathrm{x})(\sum \mathrm{y})}{\sqrt{[n\ (\sum x^2) - (\sum x)^2][n(n\ (\sum y^2) - (\sum y)^2]}}$$

Explanation:

$\sum Y$ = total amount of observation financial distress

$\sum X$ = total amount of observation financial literacy

$\sum XY$ = multiplication total amount of observation between financial distress and financial literacy

$(\sum Y^2)$ = total amount of observation financial distress square

$(\sum Y)^2$ = total amount of observation square financial distress

$(\sum X^2)$ = total amount of observation financial literacy square

$(\sum X)^2$ = total amount of observation square financial literacy

n = total amount of respondents

Ho: there is no significant relationship between financial distress and financial literacy

Ha: there is significant relationship between financial distress and financial literacy

CHAPTER IV

RESULTS

This chapter describes data description, respondents answer, required instrument tests, data analysis test, and discussion

4.1 Data description

Data descriptive is an explanation of how the data itself, and further process to test data analysis. The data is taken from respondents; entirely active IBI DARMAJAYA students who have or ever had financial distress characteristics in 2016/2017. Total respondents is summed by Slovin's formula becomes 92 respondents. SPSS is used as a tool to obtain the test results.

4.2 Descriptive Research Variables

The questionnaires are distributed to 92 respondents as follow:

4.2.1 Financial Distress

Table 4.1 Financial Distress Result (Y)

No	Question	Mean	St.dev
1	I feel difficult to pay my tuition.	3.32	0.948
2	My spend causes my money depletion than the time it should be.	3.6	0.758
3	I feel difficult to participate in campus activities.	3.33	0.829
4	I feel difficult to buy guidebooks	3.59	0.728
5	I feel difficult to payback my loans.	3.45	0.869
6	I feel my financial weaken after paying my obligation	2.82	1.176

As shown in table 4.1, it shows financial distress result from question 1 – 6. The first question has mean as much as 3.32, which is categorized as high financial distress. The second question has mean as much as 3.6, which is categorized as high financial distress. The third question has mean as much as 3.33, which is categorized as high financial distress. The forth question has mean as much as 3.59, which is categorized as high financial distress. The fifth question has mean as much as 3.45, which is categorized as high financial distress. Last but not least, the sixth question has mean as much as 2.82, which is categorized as high financial distress.

4.2.2 Financial Literacy

Table 4.2 Financial Literacy Result (X1)

No	Question	Correct	Incorrect	Mean	Category
1	Personal finance literacy can help you	65.2%	34.8	5.433	Moderate
2	Personal financial planning involves	40.2%	59.8%	3.350	Low
3	The most liquid asset is	53.3%	46.7%	4.485	Low
4	If you invest Rp 1,000,000. today at 4% for a year, your balance in a year will be	52.2%	47.8%	4.394	Low
5	Which of the following investments requires that you keep your money invested for a specified period or facing an early withdrawal penalty?	52.2%	47.8%	4.346	Low
6	You will improve your credit worthiness by	62%	38%	5.161	Moderate
7	If interest rates rise, the price of a treasury bond will	59.8%	40.2%	4.980	Moderate
8	The best investment is	46.7%	53.3%	3.936	Low

9	Mutual fund is	67.4%	32.6%	5.614	Moderate
10	The auto insurance company determines your premium based on	60.9%	39.1%	5.126	Moderate
11	The main reason to purchase insurance is to	53.3%	46.7%	4.437	Low
12	____ would not ordinarily be covered under a hometown policy.	65.2%	34.8%	5.433	Moderate
	Mean			**56.50%**	

As shown in table 4.2, it shows entire financial literacy questions answered and define how the result is. (Chen and Volpe, 1998) Based on prior research, Category is determined by the score; Financial literacy is considered high if the score is >80, then moderate if the score is between 60 – 80, and considered as low if the score is lesser <60. It is identified that the highest correct answer is located in number 9 as much as 67.4% or it is categorized as moderate financial literacy, and the lowest correct answer is located in number 2 as much as 40.2% or it is categorized as low financial literacy. Furthermore, total mean is divided with total question, thus the mean is 56.50% or it completely means the total respondents have low financial literacy.

Furthermore, the tendency financial literacy data as shown in the below:

Table 4.3 Tendency Financial Literacy Data

Category	Percentage
High	5.4%
Moderate	23.9%
Low	70.7%
Total	100%

As shown in table 4.3, the table describes tendency financial literacy data into 3 categories, which is high, moderate, and low. The amount of respondents who have high financial literacy are 5 respondents or 5.4%, respondents who have moderate financial literacy are 22 of 92 respondents or 23.9%, and respondents who have low financial literacy are 65 respondents or 70.7% from total respondents. Therefore, entire respondents are properly counted and divided into their categories based on (Chen and Volpe, 1998) research.

4.3 Instrument Tests

In advance of processing data, the entire results from financial distress and financial literacy measurement will be tested with validity test and reliability test.

4.3.1 Validity Test

Validity test is held to find out how far the questionnaires are able to measure indicator from investigated statements. To conduct validity test, researcher uses Pearson product-moment correlation formula. If Pearson product-moment correlation shows each questions with higher value than r-table signifies valid and vice versa. The test is held with processed data application called SPSS 24.0, each questions results will be shown as follow:

Table 4.4 Validity Test Result (Y)

Question item	r-count	r-table	Sign	Explanation	Valid/Uvalid
Q1	0.493	0.2028	0.000	r-count > r-table	Valid
Q2	0.408	0.2028	0.000	r-count > r-table	Valid
Q3	0.559	0.2028	0.000	r-count > r-table	Valid
Q4	0.506	0.2028	0.000	r-count > r-table	Valid
Q5	0.784	0.2028	0.000	r-count > r-table	Valid
Q6	0.719	0.2028	0.000	r-count > r-table	Valid

As shown in table 4.4, validity test for financial distress (Y) indicates moderate significant result. The result states each questions has higher value for r-count than r-table, which the highest r-count is 0.719 and the lowest is 0.493. Therefore, entire questions are valid and passed the test.

4.3.2 Reliability Test

Reliability test is held to see how far measurement tool is consistence, and to present the same result when measuring same object and same subject. As becomes higher the result, it specifies the questionnaires are more acceptable and accurate. The test aims for variable Y, which is financial distress. Furthermore, the test uses SPSS 24.0 the result will be shown as follows:

Table 4.5 Reliability Test Result (Y)

Variable	Cronbach's Alpha	Reliability
Financial Distress	0.611	Acceptable

As shown in table 4.5, variable financial distress has passed the test with Cronbach's Alpha value as much as 0.611, which means questionnaires in variable financial distress (Y) has acceptable reliability.

4.4 Data Analysis Result

4.4.1 Pearson Correlation

The research uses only 2 variables which is financial distress (Y) and financial literacy (X). Thus Pearson correlation is chosen as a formula to measure the relation in consort with application process data, SPSS 24.0 Furthermore, Pearson correlation formula as follows:

$$\frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\,(\sum x^2) - (\sum x)^2][n(n\,(\sum y^2) - (\sum y)^2]}}$$

Explanation:

$\sum Y$ = total amount of observation financial distress

$\sum X$ = total amount of observation financial literacy

$\sum XY$ = multiplication total amount of observation between financial distress and financial literacy

$(\sum Y^2)$ = total amount of observation financial distress square

$(\sum Y)^2$ = total amount of observation square financial distress

$(\sum X^2)$ = total amount of observation financial literacy square

$(\sum X)^2$ = total amount of observation square financial literacy

n = total amount of respondents

Table 4.6 Pearson Correlation Result of effect of X and Y

		Financial distress (Y)	Financial literacy (X)
Financial distress	Pearson correlation	1	-.665**
	Sig. (2-tailed)		.000
	N		92
Financial literacy	Pearson correlation	-.665**	1
	Sig. (2-tailed)	.000	
	N	92	92

As shown in table 4.6, it shows Pearson correlation result. Pearson correlation defines the relation between 2 variables, which are financial distress (Y) and financial literacy (X) are having significant moderate and negative relationship. A negative coefficient means once one variable increase, another will decrease. In this context, once financial distress increase will cause financial literacy decrease and vice versa. This result indicates relationship between financial distress and literacy exists.

4.5 Discussion and Result

Based on the result, respondents tend to have high financial distress and low financial literacy, despite only few respondents have low financial distress, yet they have high financial literacy. In addition, since researcher's point of view, the researcher concludes the negative relationship between financial distress and financial literacy level obtained in this study due to low biasedness between 2 variables. As some respondents were not filling out identities to keep their privacy, therefore researcher is able to receive honest answer.

Data analysis shows financial distress and financial literacy are correlated. The outcome Pearson correlation test for financial distress and financial literacy show significant moderate and negative relationship. Therefore, the researcher concludes the correlation between two variables exists.

CHAPTER V

CONCLUSION

5.1 Conclusion

Based on data analysis, researcher is able to summarize the result. The Indication of relationship with significance 0.000, which means the variables are significantly correlated. Furthermore, the correlation test shows negative relationship with score -0.655. Thus, it can be concluded that financial distress and financial literacy are significant related.

The findings are consistent with prior research Chen and Volpe (1998), Idris et al, (2013), Sabri (2011), and Taft et al., (2013). However, the finding is inconsistent with prior research Sabri and MacDonald (2010). Researcher assumes the inconsistency exist because of respondents has low family income, thus whether he/she has high financial literacy eventually the respondents still feel financial distress. In my opinion, the correlation exists due to low financial literacy. Thus respondents tend to spend their money uncontrollably without saving or preparing amount of budget to encounter what will they need in future. For instance, when new semester comes students will have a lot of need such as new guide books, however they do not prepare for what is coming rather than spending money on vacation or buying stuff they desire. This causes undergraduate students have difficulty in their needs.

This research intends to ensure self-awareness of financial literacy and financial distress among undergraduate students in Indonesia, especially at IBI DARMAJAYA, which is located in Bandar Lampung. As well as this research aims to provide information for Indonesia's government about how substantial undergraduate students comprehend financial. Not to mention, this research is expected to help readers in Indonesia to do a research about financial distress, which researcher acknowledges not many researchers have done this before. Last but not least, this study can be used as a reference for further studies.

5.2 Limitation and Future Research

As for research limitation, the object of this research is undergraduate students. As importantly, researcher only uses 2 variables which are financial distress and financial literacy. In accordance with this research limitation, researcher suggests further researcher shall use socio demographic factors such as gender, year of class, and employment status. As well as using lower error tolerance in Slovin's formula, so that the result is more reliable. Not to mention, adding other variables such as financial behavior to seek new finding. Last but not least, consider to conduct the research on other objects such as civil servants or employees to acquire new result.

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APPENDICES

1. Questionnaires Forms

1.1 Financial Distress

No	Question	SA	A	D	SD
1	I feel difficult to pay my tuition.				
2	My spend causes my money depletion than the time it should be.				
3	I feel difficult to participate in campus activities.				
4	I feel difficult to buy guidebooks				
5	I feel difficult to payback my loans.				
6	I feel my financial weaken after paying my obligation				

Please fill in the answer based on your state, as condition as follows:

SA : Strongly Agree

A : Agree

D : Disagree

SD : Strongly disagree

1.2 Financial Literacy

Choose the correct answer by giving marks (x) on one of the options:

1. Personal finance literacy can help you
    a. Avoid being victimized by financial scams.
    b. Buy the right kind of insurance to protect you from catastrophic risk
    c. Learn the right approach to invest for your future needs
    d. Lead a financially secure life through forming healthy spending habits
    e. Do all of the above
2. Personal financial planning involves
    a. Establishing an adequate financial record keeping system
    b. Developing a sound yearly budget of expenses and income
    c. Minimizing taxes and insurance expenses
    d. Preparing plans for future financial needs and goals
    e. Examining your investment portfolios to maximize returns
3. The most liquid asset is
    a. Money in a certificate of deposit account
    b. Money in a checking account
    c. A car

d. A computer

e. A house

4. If you invest Rp 1,000,000. today at 4% for a year, your balance in a year will be

   a. Higher if the interest is compounded daily rather than monthly

   b. Higher if the interest is compounded quarterly rather than weekly

   c. Higher if the interest is compounded yearly rather than quarterly

   d. Rp 1,040,000 no matter how the interest is computed

   e. Rp 1,000,000 no matter how the interest is computed

5. Which of the following investments requires that you keep your money invested for a specified period or face an early withdrawal penalty?

   a. Certificate of deposit

   b. Checking account that pays interest

   c. Government savings bond

   d. Money market mutual fund

   e. Passbook savings account

6. You will improve your creditworthiness by

   a. Visiting your local commercial bank

   b. Showing no record of personal bankruptcies in recent years

c. Paying cash for all goods and services

d. Borrowing large amount of money from your friends

e. Donating money to charity

7. If interest rates rise, the price of a treasury bond will

a. Increase

b. Decrease

c. Remain the same

d. Trade at a premium

e. Be impossible to predict

8. The best investment is

a. Land’s letter

b. Stock share/obligation

c. Savings

d. Insurance

e. All of the above

9. Mutual fund is

a. As shareholders of a mutual fund, you have a right to tell fund managers what securities to buy

b. A mutual fund is a diversified collection of securities used as an investment vehicle

c. A mutual fund is an investment corporation that raises funds from investors and purchases securities

d. Your ownership in a mutual fund is proportional to the number of shares you own in the fund

e. None of the above

10. The auto insurance company determines your premium based on

a. Age of insured

b. Record of accidents

c. Type and age of vehicle

d. Completion of a driver education course

e. All of the above

11. The main reason to purchase insurance is to

a. Protect you from a loss recently incurred

b. Provide you with excellent investment returns

c. Protect you from sustaining a catastrophic loss.

d. Protect you from small incidental losses

e. Improve your standard of living by filling fraudulent claims

12. ____ would not ordinarily be covered under a hometown policy

a. War

b. Earthquake

c. Flood

d. Your being sued by someone for slander

e. All of the above