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Article

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Cogent Business & Management

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Suggested Citation: Fachrudin, Khaira Amalia; Latifah, Siti (2022) : Relationship between individual characteristics, neurotic personality, personal financial distress, and financial behavior, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 9, Iss. 1, pp. 1-16, <https://doi.org/10.1080/23311975.2022.2105565>

This Version is available at:

<https://hdl.handle.net/10419/289107>

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To cite this article: Khaira Amalia Fachrudin & Siti Latifah (2022) Relationship between individual characteristics, neurotic personality, personal financial distress, and financial behavior, Cogent Business & Management, 9:1, 2105565, DOI: [10.1080/23311975.2022.2105565](https://doi.org/10.1080/23311975.2022.2105565)

To link to this article: <https://doi.org/10.1080/23311975.2022.2105565>



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Received: 03 March 2022
 Accepted: 20 July 2022

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Reviewing editor:
 David McMillan, University of Stirling,
 Stirling, United Kingdom

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BANKING & FINANCE | RESEARCH ARTICLE

Relationship between individual characteristics, neurotic personality, personal financial distress, and financial behavior

Khaira Amalia Fachrudin^{1*} and Siti Latifah¹

Abstract: Financial distress is not only experienced by people with no income, but also those with a large income. This research aims to examine the effect of individual characteristics and a neurotic personality on personal financial difficulties with financial behaviour as an intervening variable. The study involved 600 Indonesian respondents. The data were analysed using structural equation modelling—the partial least squares method. The results of this study revealed that at an alpha level of 5%, neurotic traits have significant effects on financial behaviour and personal financial distress. The higher the score of a person's neuroticism, the lower their investment consideration, which consequently leads to the tendency of falling into debt and as a result financial distress. Good financial behaviour can mitigate the financial distress faced by an individual with a high neuroticism score.



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PUBLIC INTEREST STATEMENT

Managing finances can be a problem for most people as financial planning often fails, causing financial distress. It generally refers to individual's inability to meet their needs and triggers financial problems related to daily life. Financial distress is triggered by many things, from personal to job problems. The effect would be more pronounced in individuals with bad personalities, and the neurotic aspect may also be an antecedent. However, previous research rarely exposes the relationship between personality and individual adaptability when experiencing financial distress. Accordingly, this study was conducted to empirically analyze how individual characteristics and neurotic personality relate to financial distress, involving 600 respondents in Indonesia. In addition to insightful scope, the results are also interesting, finding that neuroticism scores are negatively related to investment decision, which consequently leads into debt and financial distress. Identifying personal financial behaviors of individuals with high neuroticism scores is suggested to reduce financial distress.

Subjects: Economics; Finance; Business, Management and Accounting

Keywords: personal financial distress; investment behaviour; debt behaviour; neurotic personality traits

1. Introduction

There are two sides to an individual's financial condition, the first called prosperity and the latter called personal financial distress. An increased financial pressure can put an individual's prosperity and financial comfort at risk (Vosloo et al., 2014). Personal financial distress is a condition where a person cannot fulfill his financial needs (Nareswari et al., 2020). Personal financial distress has an impact on personal life (Nareswari et al., 2020).

Financial distress is a subjective phenomenon. Two people in the same financial situation may have different levels of financial difficulty. Pressure about financial problems is increasingly common in society (Lajuni et al., 2018). Previous studies of financial stress concern personal finances related to health (Garman & Sorhaindo, 2005). Financial distress has also been associated with lower self-esteem (Kernis et al., 1991) and dissatisfaction with one's financial situation (Garman & Sorhaindo, 2005). Another study found that insufficient income and inefficient cash flow management behavior resulted in financial difficulties (Eccles et al., 2013). Failure to overcome challenges can contribute to emotional stress (Scott, 2010). Financial stress can lead to poor performance and motivation at work as well as physical and mental health which leads to stress and subsequently has a negative impact on performance at work (Prawitz & Garman, 2009).

In Indonesia, many people experience financial difficulties due to low incomes. Meanwhile, as many as twenty-eight percent of the people whose expenses are greater than their income. In addition, there are also those who experience difficulties because they are in debt and find it difficult to pay it off, including debt through an online loan application. This debt is done for the sake of a hedonic lifestyle. There is also a debt to start a new business that was not previously studied so that the business failed. When they can't afford to pay their debts, they go into debt again to cover their previous debt, when they can't afford it anymore, they go into debt again, and so on. The result is divorce in the household, robbery, fraud, illness, feelings of inferiority and withdrawal from association, or suicide.

Neuroticism is a personality trait that shows in negative emotions such as sadness, fear, anxiety, and shame. Individuals with high neuroticism scores were found to be associated with experiencing financial distress and having a savings deficit, financial distress, difficulty in paying out bills, delay in purchasing daily necessities, and having a consistent shortage of money every end of the month (Bukhori, 2021; Brown & Taylor, 2014; Xu et al., 2015).

The effects of individual characteristics such as gender, age, marital status, education, and income have been previously studied by researchers. These characteristics have effects on personal financial distress (Nguyen Vu & Scott, 2017). Nonetheless, a study in Sri Lanka found that there is no significant difference in financial distress between gender or age among students (Sivarajah et al., 2014). Students from low-income to middle-income families feel financially suppressed by loans they have received (Archuleta et al., 2013). Divorced adults face more financial distress, while unmarried adults experience no financial distress (Sayilir et al., 2019). On the contrary, these personal characteristics have impacts on financial prosperity (Taft et al., 2013). Similarly, education and marital status have significant effects on financial prosperity.

Financial behaviour is defined as human behaviour in relation to financial management (Baker & Nofsinger, 2010). Social scientists believe that the way to better predict financial and economic processes is linked to our understanding towards society's behaviours and attitudes towards finances, as well as the characteristics of various social groups who share the same views and behaviours (Németh & Zsótér, 2017; Permana et al., 2021). Behavior has a relationship with

financial distress (Chalise & Anong, 2017). Financial behaviour can determine individual lifelong financial outcomes and has a stronger impact on the incidence of personal financial distress than religiosity or financial knowledge (Lajuni et al., 2018). Financial behaviour was found to be a factor that strongly contributes to financial distress. This is a significant result as individuals who exhibit positive financial behaviour, such as spending less than they earn, saving up for an uncertain future, using credit cards carefully and looking for financial advice, are less likely to experience financial distress (Nguyen Vu & Scott, 2017).

The above-mentioned studies have elaborated on the relationship between financial distress and individual characteristics, neurotic traits, and financial behaviour in regard to saving and shopping behaviours. Nowadays, financial behaviour within the investment context and debt is more important because investments are more substantial than savings. In addition, this fact indicates that many people are experiencing financial distress due to their mounting debt. Based on the phenomenon and research gap, this study will look at financial behaviour in the context of investment behaviours and financial behaviour. There have been no studies comprehensively touching on these relationships by using those financial behaviours as intervening variables. The present study aims to examine the effect of individual characteristics and neurotic personality traits on personal financial distress with financial behavior as an intervening variable. Other personalities such as openness to experience, conscientiousness, extraversion and agreeableness were not examined in this study because based on previous research, only neurotic personality is often associated with personal financial distress. There may be other factors that can influence financial behavior and personal financial distress, but this study limits it to individual characteristics and neurotic personality so that the discussion becomes more focused. The test on financial behaviour as an intervening variable is critical as individual characteristics and neuroticism traits are inherent in an individual, while financial behaviour can still be changed to anticipate personal financial distress.

This research is important because many people are currently experiencing financial difficulties. In general, the objective of this research is to study what factors can affect personal financial distress so that anticipatory steps can be taken. As mentioned earlier, individual characteristics and personality are somewhat difficult to change, but behavior is not so difficult to change. Nareswari et al. (2020) said that to mitigate personal financial distress, one must have good financial behavior. In particular, by studying the factors that influence personal financial distress, the people closest to them can help overcome the stress faced by sufferers.

2. Theoretical background

The theory of planned behaviour links beliefs with behaviour. This theory asserts that attitudes, subjective norms, and perceived behavioural control will develop an individual's behavioural intention. Behavioural intention will determine human social behavior (Aziz, 2019). This concept was first proposed by Ajzen (1991) to increase the predictive power of reasoned action theory by incorporating perceived behavioural control. This theory has been applied to studies on the relationships between beliefs, attitudes, intentions and behaviour in various areas such as financial management.

2.1. Personal financial distress and neurotic personality

The cumulative aspect of stress emerges as a stack of stressing factors, such that before one problem can be handled, other problems are already felt. These are the causes of stress that contribute to financial distress, as the situation is often characterized by a continuous pileup of stressful reminders, including unpaid bills, dunning notices, calls from creditors and collection agencies, etc. For many, then, financial distress is related to outstanding debt balances that have grown worse over time (Boss et al., 2016).

Financial distress may not necessarily be a negative issue if one uses it as a source of motivation to increase productivity and ultimately gain income to help solve problems. Financial distress can turn into a problem if the income obtained is insufficient to meet daily needs. It can be worse

when an individual has no knowledge or skills to manage personal finances. Moreover, financial distress will have an impact on the health, function and family quality of life as well as productivity at work (Idris et al., 2017). Financial distress includes having more difficulty paying bills, late bills and late debt payments, as well as having accounts in collection and foreclosure (Liao, 2021).

Personality is relatively more permanent than individual thoughts, emotions, motives, and behaviors (McCrae & John, 1992). Personality is a set of traits and psychological mechanisms that last a long time and affect interactions, adaptability, physical environment, intrapsychic environment and social environment (Larsen & Buss, 2017). The Big Five Personality Traits Model is one of the most popular personality theories put forward by the famous psychologist Lewis Goldberg.

The theory of personality that is considered the best and is the basis of most modern research is the Big Five Personality or known as OCEAN (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). This personality is owned by every human being (Goldberg, 1990), with different scores. Personality is directly related to financial behavior (Gokhan & Mutlu, 2019), as well as the Big Five Personality. However, the personality trait that is always associated with personal financial distress is neurotic personality (Xu et al., 2015; Brown & Taylor, 2014; Liao, 2020; Bukhori, 2021). Neuroticism represents a person's tendency to experience a negative emotion. People with high neuroticism scores tend to react to a situation with fear, sorrow, anger, anxiety, and so on. They are vulnerable to stress. People with high neuroticism scores tend to suffer from financial difficulties and tend to be in debt (Brown & Taylor, 2014; Ibrahim, 2021).

2.2. Individual characteristics and financial behaviour

Financial behaviour involves proper money management typically measured in terms of savings, investment, debt management, cash/credit management, retirement planning and insurance (Farrell et al., 2016; Vosloo et al., 2014). Financial behaviour includes saving, falling into debt, and investing behaviour. Investment behaviour is defined as how investors evaluate, predict, analyse and review decision making procedures, including investment psychology, information gathering, definition and understanding, research, and analysis (Lee et al., 2010). Investment generates yields and capital gain for the purpose of improving prosperity (Fachrudin & Ihsan, 2021). Debt behaviour reflects an individual's behaviour when in debt.

Financial behavior includes three financial dimensions, namely consumption; cash-flow management; and saving and investment (Dew & Xiao, 2011). According to Herdjiono and Damanik (2016), the financial behavior variable is measured in reference to the indicators of making an investment, paying off the dues or debt on time, making careful consideration before purchasing goods, and financial budget planning.

Every human being has individual characteristics that are different from one another, namely gender, age, educational level, marital status, and income. Men can make better investment choices than women (Bajtelsmit & Bernasek, 1996; Dickason-Koekemoer et al., 2019). Štefko et al. (2017) said that men have better investment behavior. In addition, Baxter et al. (2007) and Teoh et al. (2013) found that married couples with sufficient income are usually able to pay their debts on time.

Narges and Laily (2011) found that age has a positive effect on financial well-being, something that is opposite to financial distress. While gender is not related to it (Joo & Grable, 2004). However, it is related to education level and income, investment behavior, and debt behavior (Fachrudin et al., 2022b). On the other hand, Narges and Laily (2011) found that income is positively related to financial well-being; and O'Neill (1995) found that gender, marital status, and education were related to financial health.

3. Hypothesis development

According to (Capuano & Ramsay, 2011), individual characteristics can affect financial behavior. Someone who has good financial behavior, such as being wise in debt, tends to be less likely to experience financial distress (Giriati & Giriati, 2021). Gender and ages have a significant effect on financial behavior, especially investment behavior. Gender, age, marital status, and income have a significant effect on financial behavior, especially debt behavior (Fachrudin, et al., 2022b). In addition, age plays a significant role in excessive use of credit (Hamid & Abdullah, 2009).

Mayfield et al. (2008) found that men are more likely to make short-term and long-term investments. Men make better investment choices than women (Bajtelsmit & Bernasek, 1996; Dickason-Koekemoer et al., 2019). Štefko et al. (2017) said that men consider multifacet variables so that they have better investment behavior.

Young adults must make sound financial decisions as they are faced with challenges such as having to have savings for emergencies, credit and risk management, retirement plans, and property management (Lajuni et al., 2018). Married couples with sufficient income can usually pay their debts on time (Baxter et al., 2007; Teoh et al., 2013). Decreased income, especially when the economic situation is bad can also cause financial distress (Chalise & Anong, 2017).

Another study found that insufficient income and inefficient cash flow management behavior resulted in financial difficulties (Eccles et al., 2013). Based on this explanation, the following hypothesis is proposed:

H1. Gender has a significant effect on financial behaviour and on personal financial distress

H2. Age has a significant effect on financial behaviour and on personal financial distress

H3. Educational level has a significant effect on financial behaviour and on personal financial distress

H4. Marital status has a significant effect on financial behaviour and on personal financial distress

H5. Income has a significant effect on financial behaviour and on personal financial distress

Personality shows thoughts, emotions, motives, and behaviors (Peong et al., 2021). These are psychological factors that fundamentally shape human behavior. People who feel anxious and insecure with others tend to believe that investing in stocks is detrimental and will ultimately lead to money losses (Lai, 2019). Neuroticism is a personality trait that is often associated with financial distress (Xu et al., 2015; Brown & Taylor, 2014; Liao, 2020; Bukhori, 2021).

Individuals with neuroticism traits are easily nervous and cannot control emotional stability so that they have the potential to not be able to control their consumptive behavior so that it will increase their debt (Fachrudin et al., 2022a). They also tend to have low analytical and critical thinking capabilities which causes them to tend to take low risks due to excessive anxiety when making high-risk decisions. Mayfield et al. (2008) found that individuals tend to avoid short-term investments. These individuals tend to have a pessimistic paradigm that has the potential to affect their willingness to assume investment risk (Nga & Yien, 2013). Neuroticism has a negative and significant effect on investment behavior (Fachrudin et al., 2022a). Neuroticism personality also has a significant effect on financial behavior, both investment behavior and debt behavior (Fachrudin et al., 2022b). Based on the explanation, the following hypothesis is proposed:

H6. Neurotic personality has a significant effect on financial behaviour and on personal financial distress

Behavioral traits have a stronger impact on the incidence of personal financial difficulties than religiosity or financial knowledge (Lajuni et al., 2018). Individuals who exhibit positive financial behaviors, such as spending within their means, saving, using credit cards carefully, are less likely to experience financial difficulties (Nguyen Vu & Scott, 2017). Based on this explanation, the following hypothesis is proposed:

H7. Financial behavior has a significant effect on personal financial distress

According to the transtheoretical model, intervention can change behavior (Xiao, 2008). People are more likely to change their behavior if they find the change beneficial. Financial behavior may be able to act as an intervening variable. If someone feels the opportunity to experience financial difficulties then he needs to change his behavior. Therefore, the following hypothesis is proposed:

H8. Gender, age, educational level, marital status and income are able to mediate the relationship between personal financial distress through financial behavior

H9. Neurotic personality is able to mediate the relationship between personal financial distress through financial behavior

4. Research methods

This research uses a quantitative descriptive model and is associative in nature. The study was conducted in Indonesia with 600 respondents in Medan, North Sumatra, Indonesia. Primary data collected through questionnaires were used in this study. Neuroticism scores were measured with questionnaires that are commonly referred to by psychologists. The questionnaire for personal financial behaviour and financial distress was developed based on the indicators from previous research. Tests of validity and reliability were applied to 30 people other than the samples.

The independent variable is comprised of individual characteristics which include gender (X_1), age (X_2), educational level (X_3), marital status (X_4), income per month (X_5), and neurotic personality (X_6). The neurotic score ranges from 0 to 100%, the greater the neurotic score, the greater a person's tendency to experience a negative emotion. The measurement of this score refers to an instrument that is common among professional psychologists in evaluating the respondent's personality. This measure produces scores for all OCEAN personalities, but for the purposes of this study only neurotic scores were taken (Table 1).

The intervening variable is financial behaviour (Y_1) which serves as the latent variable in this study. The dependent variable, in the meantime, is personal financial distress (Y_2), which also serves as a latent variable. Measurement of financial behavior is done by asking questions in intervals 1 to 5 about investments made to achieve prosperity in the future, seeking information about investment in decision making, considering investment returns, considering investment risk, behavior in debt, and behavior in paying bills. A scale of 1 indicates bad behavior and 5 is very good.

The measurement of personal financial difficulties was carried out by asking questions about the adequacy of money, feelings about current financial conditions, comfort with current financial conditions, concerns about monthly living expenses, compatibility between monthly income and monthly expenses, and feelings of stress about personal finances (Prawitz et al., 2006). Data

analysis used structural equation modeling—the partial least squares method because this method was appropriate for the type of data used in this study, namely a combination of observed and unobserved variables.

5. Results

In this section, respondents' characteristics will be presented, validity and reliability testing, and significance test for influence. Respondents' characteristics are presented in [Table 2](#)

To assess whether the outer model meets the requirements of convergent validity for the reflective contract, the loading value must be greater than 0.7 and the p-value is significant (<0.05). [Table 3](#) presents the loading values for each indicator by analyzing the test in two stages.

From [Table 3](#), the entire loading value is > 0.7, which means that it has met the validity requirements based on the loading value.

Furthermore, validity testing is carried out based on the average variance extracted (AVE) value. The recommended AVE value is above 0.5 (Sholihin & Ratmono, 2013). The results showed that all

Table 1. Operational definition and measurement of variables

Variables	Measurements and Scale
Gender (X_1)	Measured on a nominal scale where 1 is female and 2 is male
Ages (X_2)	Measured with an ordinal scale as follows: 1 = < 20 years old 2 = 20–29.93 = 30–39.94 = 40–49.95 = 50–59.96 = 60–69.97 = > 70
Education Level (X_3)	Measured by the ordinal scale as follows: 1 = Senior High School 2 = Diploma 3 = Undergraduate Program 4 = Graduate Program 5 = Postgraduate Program
Marital Status (X_4)	Measured with an ordinal scale as follows: 1 = Not Married 2 = Married 3 = Widow/Widower
Income (X_5)	It is income per month which is measured by interval scale, namely: 1 = < IDR 5,000,000 2 = IDR 5,000,000—IDR 9,999,999 3 = IDR 10,000,000—IDR 14,999,999 4 = IDR 15,000,000—IDR 19,999,999 5 = IDR 20,000,000—IDR 24,999,999 6 = IDR 25,000,000—IDR 30,000,000 7 = > IDR 30,000,000
Neuroticism Personality (X_6)	Measured through 60 questions to measure five personality traits or OCEAN (Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism). In this case only the Neuroticism score is taken, which has a ratio scale.
Variables	Indicators and Scale
Financial Behavior (Y_1)	Interval scale questionnaire. Measured by indicators that have passed the reliability and validity test as follows: Considerations in investing Investment return considerations Investment risk considerations Punctuality in paying debts Punctuality in paying bills
Personal Financial Distress (Y_2)	Interval scale questionnaire. It is measured by indicators that have passed the reliability and validity tests as follows: Suffering about current financial situation Discomfort with the current financial situation Worries about monthly living expenses Insufficient monthly income Stress about personal finances

Table 2. Description of the respondents' characteristics

		Count	Percentage
Gender (X_1)	1 = Female	329	54.83%
	2 = Male	271	45.17%
Age (X_2)	1 = < 20 year	8	1.33%
	2 = 20 – 29.9 years	203	33.83%
	3 = 30 – 39.9 years	149	24.83%
	4 = 40 – 49.9 years	141	23.50%
	5 = 50 – 59.9 years	82	13.67%
	6 = 60 – 69.9 years	14	2.33%
	7 = > 70 years	3	0.50%
Educational Level (X_3)	1 = Senior High School	59	9.83%
	2 = Diploma	31	5.17%
	3 = Undergraduate Programmed	275	45.83%
	4 = Graduate Programmed	208	34.67%
	5 = Postgraduate Programmed	27	4.50%
Marital Status (X_4)	1 = Not Married	210	35.00%
	2 = Married	356	59.33%
	3 = Widow/Widower	34	5.67%
Income (X_5)	1 = < IDR 5,000,000	233	38.83%
	2 = IDR 5,000,000 – IDR 9,999,999	161	26.83%
	3 = IDR 10,000,000 – IDR 14,999,999	105	17.50%
	4 = IDR 15,000,000 – IDR 19,999,999	41	6.83%
	5 = IDR 20,000,000 – IDR 24,999,999	20	3.33%
	6 = IDR 25,000,000 – IDR 30,000,000	15	2.50%
	7 = > IDR 30,000,000	25	4.17%

(Continued)

Table2. (Continued)			
		Count	Percentage
Neurotic Personality (X ₆)	Neurotic score	Min	0%
		Max	98%
		Average	35.5%
		St. Dev	26.16%
Financial Behavior (Y ₁)	Behavior in investing and debt	Min	1
		Max	5
		Average	4.34
		St. Dev	0.83
Personal Financial Distress (Y ₂)	Financial difficulties faced by individuals	Min	1
		Max	5
		Average	2.82
		St. Dev	1.17

Table 3. Validity testing based on the second stage loading factor and AVE

	X1	X2	X3	X4	X5	X6	Y1	Y2	AVE
X1	1.000								
X2		1.000							
X3			1.000						
X4				1.000					
X5					1.000				
X6						1.000			
Y1.1.5							0.750		
Y1.2							0.763		
Y1.3							0.760		
Y1.4							0.821		
Y1.6							0.773		
Y2.2								0.871	
Y2.3								0.861	
Y2.4								0.832	
Y2.5								0.807	
Y2.6								0.838	

variables have AVE values > 0.5 which means that they have met the validity requirements based on the AVE.

Furthermore, reliability testing was carried out based on the composite reliability (CR) value. The recommended CR value is above 0.7 (Sholihin & Ratmono, 2013). The results showed that all CR values are obtained > 0.7, which means that the reliability requirements based on CR have been met. Furthermore, reliability testing was carried out based on the value of Cronbach's alpha (CA). The recommended CA value is above 0.7 (Sholihin & Ratmono, 2013). Moreover, the calculation showed the Cronbach's Alpha (CA) > 0.7, which means that they have met the reliability requirements based on Cronbach's Alpha. Furthermore, to test the extent to which a construct is really

Figure 1. Structural model with loading factor and path coefficients.

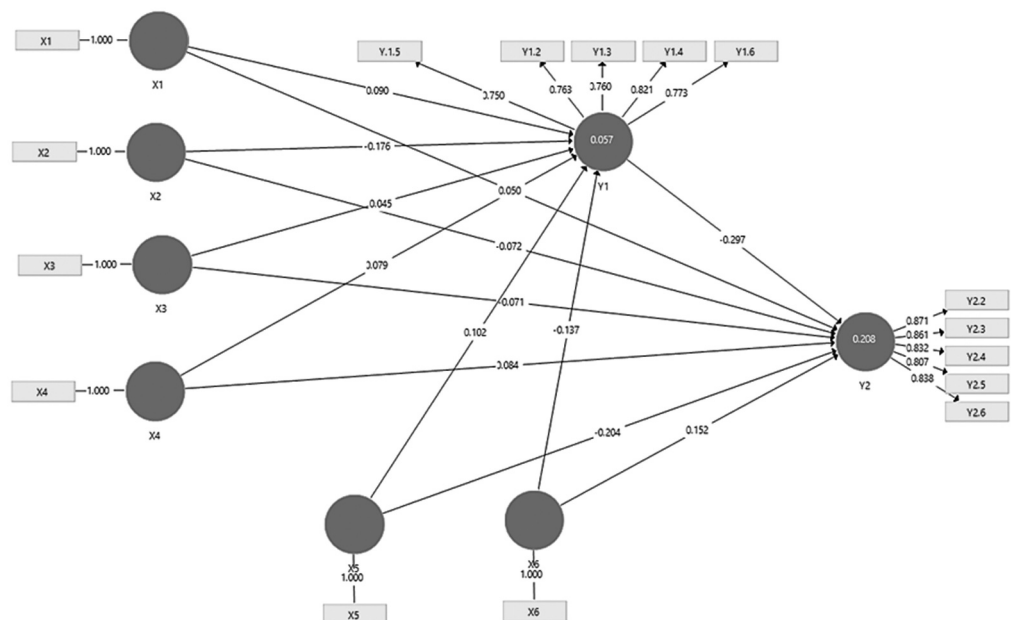


Table 4. Discriminant validity test

	X1	X2	X3	X4	X5	X6	Y1	Y2
X1	1.000							
X2	0.123	1.000						
X3	0.021	-0.146	1.000					
X4	0.050	0.680	-0.100	1.000				
X5	0.228	0.287	0.289	0.226	1.000			
X6	-0.067	-0.271	-0.055	-0.251	-0.213	1.000		
Y1	0.106	-0.051	0.101	0.017	0.132	-0.139	0.774	
Y2	-0.044	-0.083	-0.166	-0.045	-0.287	0.236	-0.342	0.842

Table 5. Effects of significance test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X ₁ → Y ₁	0.090	0.088	0.042	2.137	0.033**
X ₁ → Y ₂	0.050	0.050	0.036	1.399	0.1125
X ₂ → Y ₁	-0.176	-0.181	0.061	2.879	0.004***
X ₂ → Y ₂	-0.072	-0.072	0.050	1.457	0.101
X ₃ → Y ₁	0.045	0.044	0.046	0.672	0.232
X ₃ → Y ₂	-0.071	-0.070	0.039	1.807	0.071*
X ₄ → Y ₁	0.079	0.081	0.057	1.394	0.114
X ₄ → Y ₂	0.084	0.087	0.047	1.803	0.072*
X ₅ → Y ₁	0.071	0.073	0.039	2.613	0.009***
X ₅ → Y ₂	-0.204	-0.203	0.037	5.460	0.000***
X ₆ → Y ₁	-0.137	-0.140	0.042	3.233	0.001***
X ₆ → Y ₂	0.152	0.156	0.041	3.699	0.000***
Y ₁ → Y ₂	-0.297	-0.299	0.040	7.523	0.000***

R Square: Y₁ = 0.057; Y₂ = 0.208

X₂ = Gender; X₂ = Age; X₃ = Educational Level; X₄ = Marital Status; X₅ = Income Per Month; X₅ = Neurotic Personality; Y₁ = Financial Behavior; Y₂ = Personal Financial Distress

*, **, *** significant at alpha 10%, 5%, and 1%

different from other constructs, a discriminant validity test was conducted using the Fornell-Larcker approach. Table 4 presents the results of discriminant validity testing.

In discriminant validity testing, the value of the square root of the AVE of a latent variable is compared with the correlation value between the latent variable and other latent variables. From Table 4, it is known that the value of the square root of AVE for each latent variable is greater than the correlation value between the latent variable and other latent variables. So it is concluded that it has met the requirements of discriminant validity. Table 5 presents the results of the significance test of the effect (Figure 1).

Table 5 demonstrates the results of the effect significance test. It is shown that there is a significant impact at the alpha level of 5% where men have better financial behaviour than women. In addition, the older a person and the higher their income, the better their financial behaviour is; the higher the income of a person, the less likely they are to experience financial difficulties. Moreover, the R² value obtained is medium, but it still fulfills the research objectives

previously mentioned, namely to find out what factors can affect personal financial distress and the test results have shown it.

Table 6 demonstrates the mediating test. The above table indicates that financial behaviour plays a role in mediating the effect of gender, age, income, and neurotic personality traits on personal financial distress. This finding is the novelty of this research. Indirectly, gender has no effects on personal financial distress. However, women who fail to efficiently manage their finances will likely suffer financial difficulties. High income can directly reduce personal financial distress, but if financial behaviour is worsening, financial pressure increases. Neurotic personality traits have a direct positive effect on financial distress, but if financial behaviour is good, the pressure being faced eases. This finding indicates that financial behaviour acts as a mediating variable where it can ease the financial pressure an individual, including those with high neuroticism scores.

6. Discussion

The findings are in line with the findings of Eccles et al. (2013) who said that insufficient income and inefficient cash flow management behavior resulted in financial difficulties, and Chalise and Anong (2017), who said that declining income caused financial distress.

At the alpha level of 5%, age, gender, education, and marital status have no significant effects on personal financial distress; however, at the alpha level of 10%, education and marital status have significant effects. These findings are not in line with the research reporting that married men and married women are equally affected by financial distress (Mills et al., 1992; Riswanto et al., 2018). Married people and widows and widowers tend to feel more financial distress because they have dependents. In the case of Indonesia, the dependents are not only biological children, but also siblings and biological parents. The costs incurred are not only the cost of daily needs, but also the cost of medical treatment when sick.

People who are highly educated in this regard are more likely to experience financial difficulties because they may have many desires so that their expenses are more than their income. To fulfill it they owed. Currently, there are many shopping features that offer pay later, which triggers people to shop a lot.

Neurotic traits have significant effects on financial behaviour and personal financial distress. The higher the neuroticism score, the lower the tendency of a person to make investments and the more likely they are to be in debt. It is also likely that a person with a higher neuroticism score would always feel dissatisfied, worried, and stressful about their financial condition. Good financial behaviour negatively affects personal financial distress. This finding is congruent with findings that

Table 6. Mediating test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 → Y1 → Y2	-0.027	-0.026	0.013	2.077	0.038**
X2 → Y1 → Y2	0.052	0.054	0.019	2.805	0.005***
X3 → Y1 → Y2	-0.013	-0.014	0.015	0.631	0.253
X4 → Y1 → Y2	-0.024	-0.024	0.017	1.345	0.124
X5 → Y1 → Y2	-0.030	-0.031	0.012	2.525	0.012**
X6 → Y1 → Y2	0.041	0.042	0.014	2.967	0.003***

X₂ = Gender; X₃ = Age; X₄ = Educational Level; X₅ = Marital Status; X₆ = Income Per Month; X₇ = Neurotic Personality; Y₁ = Financial Behavior; Y₂ = Personal Financial Distress

*, **, *** significant at alpha 10%, 5%, and 1%

individuals with a high neuroticism score are likely to seek advice in making an investment decision, tend to avoid short-term investment, have fewer assets at risk in their portfolios, tend to opt for simple debt products like overdrafts, and are likely to have a lot of debt and face financial distress (Brown & Taylor, 2014; Mayfield et al., 2008; Oehler et al., 2018; Tauni et al., 2016).

Financial behaviour is found to have a negative and significant impact on financial distress. The better a person's financial behavior, the less financial difficulties he feels. This is because they have prepared investments for their welfare and managed their debts well. This finding is in line with a study stating that financial behaviour is a good predictor for financial wellbeing, considering that financial distress and financial wellbeing are two opposing sides for describing the financial condition of an individual (Oquaye et al., 2020).

This finding supports the transtheoretical model which says that interventions can change behavior (Xiao, 2008). This finding shows that women and their parents really need to change their financial behavior in a better direction in order to avoid financial difficulties. Likewise, people with high incomes because if they are not able to manage their debts and investments, they may experience financial difficulties. Finally, people with high neurotic scores need to be guided in order to have good financial behavior so that they do not experience severe financial difficulties.

7. Conclusion

People who experience financial distress tend to feel unprosperous in their current financial condition, worry about monthly living expenses, find that monthly income is insufficient for monthly expenses, and stress about personal finance. The situation is affected by income and neuroticism traits. However, good investment and debt behaviour can ease this feeling of stress. It is therefore pivotal for an individual to amend their financial behaviour, particularly investment and debt behaviour. Neurotic traits have negative effects on an individual's financial behaviour. It is suggested that employers should not assign people with high neuroticism scores roles as financial decision makers within a company.

The present study generated findings that answered the research question in this study, namely what factors affect financial distress, despite the fact that the coefficient of determination generated is relatively low at 20.8%. Future research can be expanded by adding other variables such as shopping behaviour, lifestyle, and participation in health insurance.

This study has contributed to the factors that influence financial distress and the role of financial behavior in mediating the relationship between individual characteristics and neurotic personality on financial distress. Another contribution is to contribute to the relationship of neurotic personality which is usually a study in the field of psychology—with the financial sector.

This study has limitations, namely it does not include variables related to health insurance. Health insurance has a significant effect on the risk of bankruptcy (Argys et al., 2020), because health insurance can reduce financial risk and increase a person's level of financial well-being. Health status affects behavior in spending and saving, causing financial distress (Chalise & Anong, 2017).

The implication of this research is that to be successful, one must be able to formulate and implement financial plans, resist temptations, and face life realistically. Parents and educational institutions need to provide information about the importance of good financial behavior. An appeal not to be trapped in fraudulent investments and online debt with instant approval also needs to be carried out. The government is expected to implement policies that are oriented towards improving a good financial habit.

Acknowledgements

The authors gratefully acknowledged that the present research is funded by Universitas Sumatera Utara Research Institution as per contract Talenta No. 6789/UN5.1.R/PPM/2021, dated June 16, 2021

Funding

The authors received no direct funding for this research.

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Disclosure statement

No potential conflict of interest was reported by the author(s)

Citation information

Cite this article as: Relationship between individual characteristics, neurotic personality, personal financial distress, and financial behavior, Khaira Amalia Fachrudin & Siti Latifah, *Cogent Business & Management* (2022), 9: 2105565.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Archuleta, K. L., Dale, A., & Spann, S. M. (2013). College students and financial distress: exploring debt, financial satisfaction, and financial anxiety. *Journal of Financial Counseling and Planning*, 24(2), 50–62. <https://psycnet.apa.org/record/2014-06577-004>
- Argys, L. M., Friedson, A. I., Pitts, M. M., & Tello-Trillo, D. S. (2020). Losing public health insurance: TennCare reform and personal financial distress. *Journal of Public Economics*, 187, 104202. <https://doi.org/10.1016/j.jpubeco.2020.104202>
- Aziz, A. (2019). Applying theory of planned behavior to understand pro-environmental intention and behavior of students. *Arthatama*, 3(1), 1–15. <https://arthatamajournal.co.id/index.php/home/article/view/20>
- Bajtelsmit, V. L., & Bernasek, A. (1996). Why do women invest differently than men? *Journal of Financial Counseling and Planning*, 7, 1–10.
- Baker, H. K., & Nofsinger, J. R. (2010). *Behavioral finance: Investors, corporations, and markets*. John Wiley & Sons.
- Baxter, R. A., Gawler, M., & Ang, R. (2007, December). Predictive model of insolvency risk for Australian corporations. In *Proceedings of the sixth Australasian conference on data mining and analytics-volume 70* (pp. 21–27).
- Boss, P., Bryant, C. M., & Mancini, J. A. (2016). *Family stress management: A contextual approach*. Sage Publications.
- Brown, S., & Taylor, K. (2014). Household finances and the 'Big Five' personality traits. *Journal of Economic Psychology*, 45, 197–212. <https://doi.org/10.1016/j.joep.2014.10.006>
- Bukhori, A. (2021). The role of youth in managing educational startup: Case study of PrivatQ startup. *Research Horizon*, 1(2), 62–70. <https://doi.org/10.54518/rh.1.2.2021.62-70>
- Capuano, A., & Ramsay, I. (2011). Legal Studies Research Paper 540 (The University of Melbourne). <https://dx.doi.org/10.2139/ssrn.1793502>
- Chalise, L., & Anong, S. (2017). Spending behavior change and financial distress during the great recession. *Journal of Financial Counseling and Planning*, 28(1), 49–61. <https://doi.org/10.1891/1052-3073.28.1.49>
- Dew, J., & Xiao, J. J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning*, 22(1), 43–59. <https://core.ac.uk/download/pdf/56698666.pdf>
- Dickason-Koekemoer, Z., Ferreira, S., McMillan, D., & McMillan, D. (2019). A conceptual model of financial well-being for South African investors. *Cogent Business & Management*, 6(1), 1676612. <https://doi.org/10.1080/23311975.2019.1676612>
- Eccles, D. W., Ward, P., Goldsmith, E., & Arsal, G. (2013). The relationship between retirement wealth and householders' lifetime personal financial and investing behaviors. *Journal of Consumer Affairs*, 47(3), 432–464. <https://doi.org/10.1111/joca.12022>
- Fachrudin, K. A., & Ihsan, M. F. (2021). The effect of financial distress probability, firm size and liquidity on stock return of energy users companies in Indonesia. *International Journal of Energy Economics and Policy*, 11(3), 296–300. <https://doi.org/10.32479/ijeep.10677>
- Fachrudin, K. A., Tarigan, D. L., & Iman, M. F. (2022a). Personality traits and financial behavior. *International Journal of Advance and Innovative Research*, 9 (1), 248–281. <https://www.researchgate.net/publication/360140932> (VIII)
- Fachrudin, K. A., Pirzada, K., Iman, M. F., & Abdul Wahab, N. S. (2022b). The role of financial behavior in mediating the influence of socioeconomic characteristics and neurotic personality traits on financial satisfaction. *Cogent Business & Management*, 9(1), 1, 2080152. <https://doi.org/10.1080/23311975.2022.2080152>
- Farrell, L., Fry, T. R., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology*, 54, 85–99. <https://doi.org/10.1016/j.joep.2015.07.001>
- Garman, E. T., & Sorhaindo, B. (2005). Delphi study of experts' rankings of personal finance concepts important in the development of the InCharge financial distress/financial well-being scale. *Consumer Interests Annual*, 51, 184–194. https://www.consumerinterests.org/assets/docs/CIA/CIA2005/garman_delphistudyofexpertsratingsofpersonalfinanceconcept.pdf
- Giriati, G., & Giriati. (2021). Turnaround prediction model with content dimension on financial distressed firms. *Journal of Banking and Finance Review*, 5(4), 36–42. [https://doi.org/10.35609/jfbr.2021.5.4\(4\)](https://doi.org/10.35609/jfbr.2021.5.4(4))
- Gokhan, O., & Mutlu, U. (2019). The effects of personality traits on financial behaviour. *Journal of Business Economics and Finance*, 8(3), 155–164. <https://doi.org/10.17261/Pressacademia.2019.1122>
- Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five factor structure. *Journal of Personality and Social Psychology*, 59(6), 1216–1229. <https://doi.org/10.1037/0022-3514.59.6.1216>
- Hamid, N. H., & Abdullah, A. (2009). Financial distress among employees: An explanatory study. *Persidangan Kebangsaan Ekonomi Malaysia (PERKEM IV): Memacu Pembangunan Ekonomi Dalam Ketidaktentuan Persekitaran Global*, 2–4 June Kuantan, Pahang, Malaysia 2 (Universiti Kebangsaan Malaysia), 395–405. <https://www.ukm.my/fep/perkem/pdf/perkemIV/PERKEM2009-2-31.pdf>
- Herdjiono, I., & Damanik, L. A. (2016). Pengaruh financial attitude, financial knowledge, parental income terhadap financial management behavior. *Jurnal Manajemen Teori Dan Terapan/ Journal of Theory and Applied Management*, 9(3), 226–241. <https://doi.org/10.20473/jmtt.v9i3.3077>

- Ibrahim, A. Z. (2021). Determine the food access among low-income households in rural area, Kedah, Malaysia. *Journal of Business Economics Review*, 6(3), 212–222. [https://doi.org/10.35609/jber.2021.6.3\(5\)](https://doi.org/10.35609/jber.2021.6.3(5))
- Idris, F. H., Krishnan, K. S. D., & Azmi, N. (2017). Relationship between financial literacy and financial distress among youths in Malaysia-An empirical study. *Geografia-Malaysian Journal of Society and Space*, 9(4), 106–117. <https://www.ukm.my/geografia/images/upload/11oke.geografia-okt2013-faoziah%20et%20al-edam.pdf>
- Joo, S. H., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, 25(1), 25–50. <https://doi.org/10.1023/B:JEEI.0000016722.37994.9f>
- Kernis, M. H., Grannemann, B. D., & Mathis, L. C. (1991). Stability of self-esteem as a moderator of the relation between level of self-esteem and depression. *Journal of Personality and Social Psychology*, 61(1), 80–84. <https://doi.org/10.1037/0022-3514.61.1.80>
- Lai, C. P. (2019). Personality traits and stock investment of individuals. *Sustainability*, 11(19), 54–74. 5474. <https://doi.org/10.3390/su11195474>
- Lajuni, N., Bujang, I., Karia, A. A., & Yacob, Y. (2018). Religiosity, financial knowledge, and financial behavior influence on personal financial distress among millennial generation. *Jurnal Manajemen Dan Kewirausahaan*, 20(2), 926–98. <https://doi.org/10.9744/jmk.20.2.92-98>
- Larsen, R., & Buss, D. M. (2017). *Personality psychology: Domains of knowledge about human nature* (Sixth ed.). McGraw-Hill Education.
- Lee, Y. J., Wang, G. L., Kao, K. S., Chen, C. Y., & Zhu, F. P. (2010). The investment behavior, decision factors and their effects toward investment performance in the Taiwan stock market. *Journal of Global Business Management*, 6(2), 1. <http://www.jgbm.org/page/22%20Yu-Je%20Lee%20.pdf>
- Liao, C. (2021). ADHD Symptoms and financial distress. *Review of Finance*, 25(4), 1129–1210. <https://doi.org/10.1093/rof/rfaa013>
- Mayfield, C., Perdue, G., & Wooten, K. (2008). Investment management and personality type. *Financial Services Review*, 17(3), 219–236. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.320.6394&rep=rep1&type=pdf>
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60(2), 175–215. <https://doi.org/10.1111/j.1467-6494.1992.tb00970.x>
- Mills, R. J., Grasmick, H. G., Morgan, C. S., & Wenk, D. (1992). The effects of gender, family satisfaction, and economic strain on psychological well-being. *Family Relations*, 41(4), 440–445. <https://doi.org/10.2307/585588>
- Nareswari, N., Negoro, N. P., & Dalem, G. D. W. (2020). Mitigating personal financial distress: the role of religiosity and financial literacy. *Procedia business and financial technology, proceedings of the 2nd International Conference on Business and Management of Technology (ICONBMT 2020)*, Part 2, 115–120.
- Narges, D., & Laily, H. P. (2011). Determinants of financial wellness among Malaysia workers. *African Journal of Business Management*, 5(24), 10092–10100. <https://doi.org/10.5897/AJBM10.1267>
- Németh, E., & Zsótér, B. (2017). Personality, attitude and behavioural components of financial literacy: A comparative analysis. *Journal of Economics and Behavioral Studies*, 9(2), 46–57. <https://doi.org/10.22610/jeb.v9i2.1649>
- Nga, J. K., & Yien, L. K. (2013). The influence of personality trait and demographics on financial decision making among Generation Y. *Young Consumers: Insight and Ideas for Responsible Marketers*, 14(3), 230–243. <https://doi.org/10.1108/YC-11-2012-00325>
- Nguyen Vu, N., & Scott, J. (2017). Financial capability: Literacy, behavior, and distress. *Janine, Financial Capability: Literacy, Behavior, and Distress*. Available at SSRN. Retrieved June 9, 2017, from <https://ssrn.com/abstract=3178367>
- O'Neill, B. M. (1995). *Characteristics and practices of financially-stressed homeowners in Prince William County, Virginia* (Virginia Polytechnic Institute and State University). [Doctoral Dissertation. Virginia Tech]. <https://vtechworks.lib.vt.edu/handle/10919/38054>
- Oehler, A., Wendt, S., Wedlich, F., & Horn, M. (2018). Investors' personality influences investment decisions: Experimental evidence on extraversion and neuroticism. *Journal of Behavioral Finance*, 19(1), 30–48. <https://doi.org/10.1080/15427560.2017.1366495>
- Oquaye, M., Owusu, G. M. Y., & Bokpin, G. A. (2020). The antecedents and consequence of financial well-being: A survey of parliamentarians in Ghana. *Review of Behavioral Finance*, 14(1), 68–90. <https://doi.org/10.1108/RBF-12-2019-0169>
- Peong, K. K., Peong, K. P., & Tan, K. Y. (2021). Behavioural intention of commercial banks' customers towards financial technology services. *Journal of Banking and Finance Review*, 5(4), 10–27. [https://doi.org/10.35609/jfbr.2021.5.4\(2\)](https://doi.org/10.35609/jfbr.2021.5.4(2))
- Permana, I., Dewi, R., Budhiana, J., Mariam, I., Novianty, L., Utami, R. N., La Ede, A. R., & Rahman La Ede, A. (2021). Socio-Cultural approach on disaster risk management of Sirnaresmi customary Village, West Java. *Research Horizon*, 1(4), 136–142. <https://doi.org/10.54518/rh.1.4.2021.136-142>
- Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). The incharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Journal of Financial Counseling and Planning*, 17(1), 34–50. <https://ssrn.com/abstract=2239338>
- Prawitz, A. D., & Garman, T. E. (2009). It's time to create a financially literate workforce to improve the bottom line. *Benefits Compensation Digest*, 46(4), 1–6. <https://www.paamonim.org/wp-content/uploads/2014/12/Benefits-Compensation-Feb-09-Article.pdf>
- Riswanto, A., Saribanon, E., & Gaffar, V. (2018). The importance of the cultural and gender outlook on consumer behavior studies: An Indonesian perspective. *Arthatama*, 2(1), 35–49. <https://arthatamajournal.co.id/index.php/home/article/view/16>
- Sayilir, Ö., İlhan, Z., & Yılmaz, V. (2019). Financial distress of adults: A survey in Eskişehir, Turkey. *Gazi İktisat ve İşletme Dergisi*, 5(3), 160–169. <https://doi.org/10.30855/gjeb.2019.5.3.002>
- Scott, R. H., III. (2010). Credit card ownership among American high school seniors: 1997–2008. *Journal of Family and Economic Issues*, 31(2), 151–160. <https://doi.org/10.1007/s10834-010-9182-7>
- Sholihin, M., & Ratmono, D. (2013). *Analysis of SEM-PLS with WarpPLS 3.0 for nonlinear relations in social and business research*. Andi Publisher.
- Sivarajah, K., Achchuthan, S., & Umanakanan, R. (2014). Financial stress and personal characteristics of the school teachers: Evidence from Sri Lanka. *Public Policy and Administration Research*, 3(4), 40–49. <https://iiste.org/Journals/index.php/PPAR/article/view/11677>
- Štefko, R., Bačík, R., Fedorko, R., Horváth, J., Propper, M., & Gavurová, B. (2017). Gender differences in the case of

- work satisfaction and motivation. *Polish Journal of Management Studies*, 16(1), 215–225. <https://doi.org/10.17512/pjms.2017.16.1.18>
- Taft, M. K., Hosein, Z. Z., Mehri, S. M. T., & Roshan, A. (2013). The relation between financial literacy, financial wellbeing and financial concerns. *International Journal of Business and Management*, 8 (11), 63. <https://doi.org/10.5539/ijbm.v8n11p63>
- Tauni, M. Z., Fang, H. X., & Iqbal, A. (2016). Information sources and trading behavior: Does investor personality matter? *Qualitative Research in Financial Markets*, 8(2), 94–117. <https://doi.org/10.1108/QRFM-08-2015-0031>
- Teoh, W. M. Y., Chong, S. C., Yong, S. M., & Baumann, C. (2013). Exploring the factors influencing credit card spending behavior among Malaysians. *International Journal of Bank Marketing*, 31(6), 481–500. <https://doi.org/10.1108/IJBM-04-2013-0037>
- Vosloo, W., Fouché, J., & Barnard, J. (2014). The relationship between financial efficacy, satisfaction with remuneration and personal financial well-being. *The International Business & Economics Research Journal*, 13(6), 1455.
- Xiao, J. J. (2008). Applying behavior theories to financial behavior. In J. J. Xiao (Ed.), *Handbook of consumer finance research* (pp. 69–81 https://doi.org/10.1007/978-0-387-75734-6_5). Springer, .
- Xu, Y., Beller, A. H., Roberts, B. W., & Brown, J. R. (2015). Personality and young adult financial distress. *Journal of Economic Psychology*, 51, 90–100. <https://doi.org/10.1016/j.joep.2015.08.010>



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