Financial Knowledge as mediator variable between Money Attitude and Financial Satisfaction

المعرفة المالية كمتغير وسيط بين موقف المال والرضا المالي

Dr. Samira M. Allam

Faculty of Business, Ain Shams University- ASU, Egypt.
Faculty of Business, Badr University in Cairo- BUC, Egypt
samira.allam@bus.asu.edu.eg

Dr. Mona A. Khalil

Lecturer of Business Administration
High Institute for Computer and Information Systems
Aboukir High Institutes - Alexandria

مجلة الدراسات التجارية المعاصرة

كلية التجارة – جامعة كفر الشيخ

المجلد التاسع . العدد السادس عشر- الجزء الثاني

يوليو ٢٠٢٣

رابط المجلـة : https://csj.journals.ekb.eg

Abstract

In this study, financial knowledge is functioned as a mediator variable to reveal how investors' attitudes toward money influence their financial satisfaction. The questionnaire is conducted to assess the validity of the constructs and the interrelationships between the variables, as well as to give relative weights to the assessment criteria for money attitude and its effect on financial satisfaction. Money Attitude (MA) is a measure of attitude about money that is broken down into four primary categories: avoidance, worship, status, and vigilance. A sample of 400 respondents was used. Partial Least Square Modeling (Smart-PLS) version 3.0 software was employed for analyzing data. The findings indicated that there is a significant relationship between money attitude and financial satisfaction. Also, the attitude toward money has a significant effect on financial knowledge. Moreover, it suggested that there is a significant effect of financial knowledge as a mediator variable on the relationship between money attitude and financial satisfaction of individuals in the Egyptian Stock Exchange.

Keywords: Financial Knowledge, Mediator, Money Attitude, Financial Satisfaction.

مستخلص:

تهدف الدراسة الحالية إلى اختبار الثقافة المالية كمتغير وسيط في العلاقة بين الموقف المالي للمستثمرين والرضا المالي. وتحقيقاً هذا الهدف تم إجراء استبيان على عينة من (٤٠٠) مستثمراً فردياً مسجلين فى البورصة المصرية، تم تحليل البيانات باستخدام برنامج نمذجة المعادلات البنائية باستخدام طريقة المربعات الصغرى Partial Least Square Modeling (Smart-PLS). أشارت النتائج إلى وجود علاقة ذات دلالة إحصائية بين الموقف المالي– متمثلاً فى أربعة أبعاد هي تجنب المال، عبادة المال، مكانة المال، واليقظة المالية – والرضا المالي. كما وجدت أن للموقف المالي تأثير ذو دلالة احصائية على الثقافة المالية. علاوةً على ذلك ، فقد توصلت الدراسة إلى أن هناك دور للثقافة المالية كمتغير وسيط فى العلاقة بين الموقف المالى والرضا المالى للمستثمرين .

الكلمات المفتاحية: الثقافة المالية – متغير وسيط – الموقف المالى – الرضا المالى .

1- INTRODUCTION

People are not predisposed to make judgments with a certain level of reason by nature; instead, they make decisions that are unexpectedly contradictory and contaminated by the absence of irrationality. Several studies have been able to demonstrate behavioral biases that show divergence from what would be predicted using classic economic theory, emphasizing this inconsistency and bias (Sorongan, 2022), since these biases cannot be isolated from human beings (Jain & Kesari, 2021).

According to Sattar, Toseef, and Sattaz (2020), investment choices are presented to be dependent on the trade-off between risk and return. Nevertheless, this is not the only factor that influences investment decisions. It may also be characterized as a difficult and complicated procedure depending on the decision-maker's psychology as well as situational and environmental factors. To put it another way, the decision-making process is neither static nor confined to deterministic cases. It may be influenced by stochastic behavioral elements, and behavioral factors may not always be in control of all financial choices and responses (Wangi & Baskara, 2021). Investors often lack the necessary knowledge, desire, or even time to make informed decisions (Adiputra, 2021).

The behavioral aspects of investing decisions, which combine the fields of psychology and economics, have long been a controversial issue in the literature on finance (Budiarso et al, 2020). Also, it has to do with how people really behave when making financial decisions (Dai, Kostini, & Tresna, 2021).

The Theory of Planned Behavior (TPB), which Ajzen (1985) described as one of the most trustworthy models for describing human behavior (Ajzen, 1991), and which was developed from Ajzen and Fishbein's 1980 Theory of Rational Acts. This view of TPB holds that human behavior and decision-making are influenced by motivational variables such as attitudes and perceived behavioral control (Nadeem et al., 2020).

However, the reality is quite different, and the history of financial markets, as depicted in the history of stocks, has drawn a completely different scenario from what is happening within those markets. All investors are assumed to be rational in financial markets, assuming that there are no imbalances and that if there are they must be within the narrowest limits. Al Mansour's (2020) work led to the development of an assumption. As stock prices fluctuate disproportionally in response to new information, behavioral finance becomes necessary to explain these market imbalances because the rational assumption justification for such discrepancies about rationality or its lack that investors must possess is not always of the degree of rationality thought to be found (Ahmad & Wu, 2022).

Since the current era is increasingly focused on technology, which enables us to manage financial matters, it must be asserted that financial knowledge makes it simple for both current and prospective investors to take an important financial decision. Investors are primarily anticipated to have financial awareness toward desired investments, in addition to the availability of some skills and expectations (Sorongan 2022).

2- Conceptual framework and Literature Review

a) Conceptual framework:

1. Money Attitude

Money is seen as a key driver of financial behavior or as a tool with the potential to influence money management activities (Culbertson, 1968). Researchers have long believed that while money first served as a means of transaction in the marketplace, it has evolved into a diverse symbol that has importance for all people. One of the least studied subfields in psychology is money psychology (Furnham & Okamura, 1999).

While discussing the money attitude, we must begin with attitude, which is a presumption about how someone, something, or some event would make you feel and what you might do in response to it, or even what you will do in response to that person, thing, or even an event (Ajayi et al, 2022). An inclination to act in a particular manner toward something to keep or get rid of it. Attitudes may also refer to a set of beliefs about the object's goodness or not (Culbertson, 1968). According to Ningsi and Manurung (2021) and Sorongan (2022), an assessment of concepts, occasions, things, or people is crucial in forecasting one's behavior in different contexts. It is true that one's money attitude will affect their spending and saving behaviors as well as their ability to reach their life objectives (Sabri, Wijekoon, & Rahim, 2020, Nga & Yeoh, 2015).

The term money attitude may be used to describe a judgment or impression about money that is dependent on how one feels about money (Ajayi, 2022). According to an individual's personal, cultural, and moral attitudes regarding financial decisions and things, money has the power to affect human behavior and may change how something seems (Sabri et al., 2020). The four types of money attitude are avoidance, worship, status, and vigilance (Klontz et al., 2011). According to Sabri et al., (2022), it is one of the most important determinants or basic drivers of financial health. It deals with individual tendencies and affects financial matters (Fei et al., 2020; Warmath et al., 2018).

Prior studies have characterized monetary intelligence (MI) as people's attitudes toward finding methods to enjoy money, which is strongly correlated with financial satisfaction (Nadeem et al., 2020; Rose et al., 2016; Tang, 2016). Influenced by several variables. As a result, it differs from one another (Qamar, Khemta, & Jamil, 2016).

Experiences and events that people have throughout their lives have an impact on how they see money. To gauge people's attitudes about money, many studies in the area of economic psychology have been carried out (Gąsiorowska, 2008), addressed a wide range of topics, including investing and corporate ethics (Furnham & Horne, 2021, Tang et al, 2018. Jia et al, 2013).

The literature on money attitude has been divided into three broad categories: scales based on money utility or marginal utility, as described by prospect theory "idiosyncratic scales" and scales that have been constructed with greater care and are used more consistently. Three scales can be categorized under this heading, first Yamauchi and Templer (1982) Money Attitude Scale (MAS), measured the influence of money on consumers' financial behavior, second: the Furnham (1984) Money Beliefs and Behavior Scale (MBBS), looked at the relationship between demographic factors and monetary beliefs. In addition to the six basic elements—good, bad, success, respect, freedom-power, third: budget—in Tang's Money Ethic Scale (MES), that was developed in 1992, this scale also took into account preoccupation, spending capacity, retention, security, ineptitude, and effort components. Components of the freshly redesigned Love of Money Scale, which measures the power-prestige element of the Money Attitude (Tang, 2007; Tang & Chiu, 2003; Luna-Arocas & Tang, 2004). According to some experts, many individuals not only lack basic financial knowledge but also hold unhelpful views and engage in unhelpful behaviors when it comes to money. People therefore make bad financial judgments and selections (Furnham & Horne, 2021; Yildirim & Özbek, 2022).

Researchers from a range of disciplines, including behavioral economics, clinical, personality psychology, and financial planning have produced a number of measures of money beliefs and attitudes. They were all motivated to develop an accurate, thorough, and sensitive typology or model of financial attitudes (Furnham & Horne, 2021). As was already said, many money attitude measurements have been developed throughout time (De Almeida et al., 2021).

Financial attitude refers to a person's basic knowledge of money and their capacity for making financial judgments (Shim et al., 2009). While their financial views are crucial to examine, the opinions of retail investors (Grable & Lytton, 1999), together with their financial behavior and knowledge (Sachdeva et al,2022, Talwar et al, 2021). Entrepreneurs do not have financial plans because of a lack of understanding of finances, which could be interpreted as a lack of financial literacy, according to a number of problems related to financial attitude (Dai et al., 2021).

Yildirim and Özbek (2022) indicated that financial attitudes are formed between the ages of 17 and 21. Therefore, financial attitude insights can be used to gauge someone's level of financial knowledge, which can then be improved through education. Also, it may have an impact on their satisfaction, happiness, or financial security (Talwar et al., 2021). Regional and cultural factors influence financial attitudes (Bapat, 2020; Jorgensen et al., 2017; Tang, 1995; Tang,1992).

Few researches have explored financial attitudes and proved their significance in influencing financial means (Godwin, 1994; Godwin & Koonce, 1992; Schaeffel et al., 1993), by focusing on financial attitudes, which were defined as preferences and dispositions toward personal finance issues, or as a psychological predisposition shown by evaluating financial management with a degree of agreement or disagreement (Aydin, 2019; Parrotta & Johnson, 1998; Schewe & Meredith, 1994).

2. Financial Knowledge

Financial Knowledge involves learning about finances, While Bowen (2002) described it as the foundation of financial understanding and the necessary ideas for society, when connecting financial satisfaction to financial knowledge, concluded that financial satisfaction can come from the process of making wise financial decisions because of having good financial knowledge. According to Joo (2008), reported that financial knowledge, along with financial satisfaction and financial behavior, is a component of a person's financial wellness (Sabri et al., 2020). Whether this financial expertise encompasses both general personal finance knowledge and knowledge of investments and savings (Wangi & Baskara, 2021). According to Sabri et al. (2020), having a favorable impact on one's money attitude is having financial knowledge. There are numerous definitions of financial knowledge because it is characterized as acknowledging the person's capacity to get data from a variety of sources, including emergencies in addition to observations and conceptualization. It has been common practice in literature to use the terms financial literacy, knowledge, education, and capability interchangeably. In some circumstances, it is referred to as the capacity to hold information regarding financial concerns or principles (Bapat, 2020).

According to Perry & Morris (2005), a person's knowledge and understanding of financial concepts can be assessed based on many variables, such as interest rates, financing costs, and credit, as well as credit level and data, financial management, investments, and credit reports. Furthermore, this metric is employed by (Ida & Dwinta, 2010; Grable et al., 2009). Halim & Astuti (2015) defined financial knowledge as the capacity to comprehend, evaluate, and manage finances in order to make the best financial decisions and avoid or solve financial issues. Ida & Dwinta (2010) contended that developing financial skills and learning to use financial tools like budgeting, investing, and insurance plan selection are prerequisites for having financial knowledge. Danes et al (1999) and Keller (1987) stated that financial knowledge is obtained from education, such as schools, seminars, training, and non-formal education. It is tested by answering basic questions regarding numeracy (interest, compound interest, inflation, and risk diversification). Rai, Dua, & Yadav (2019) and Falahati & Sabri (2015) have concluded that there is a correlation between financial knowledge and financial health.

Financial knowledge can be divided into two parts, subjective and objective knowledge, subjective refers to consumer assessment which reflects in an objective assessment that relied on accurate information and refers to belief to what we know. When objective knowledge relates to what an individual knows and wealth inequality. In addition, it could be defined as main determinant for wealth inequality (Bapat, 2020). It should be noted that financial knowledge has been addressed as one of the most important drivers or components of financial capability along with both financial attitude and financial behavior (Johan et al., 2021). And it is considered as one of three pillars of financial literacy, which also covers financial attitude and conduct (OECD, 2015). Schmeiser & Seligman (2013) claimed that the standard questions for assessing financial knowledge have not been carefully validated to verify that they truly reflect an individual's financial knowledge level.

The widespread lack of financial literacy among Americans of all ages is something the general population in the United States is starting to become more aware of, as studies have shown for years. Thus, the American financial system changes, this knowledge gap is becoming more pronounced, elevating the importance of personal finance as a subject (Robb & Woodyard, 2011). Although it can be transferred or acquired at various intervals or phases of life, previous studies indicated that there is a form of decline in financial knowledge, which has an impact on investments and financial management and considered as a major factor influencing financial satisfaction (Bapat, 2020).

Terms of financial literacy and financial knowledge can be used interchangeably to convey the same meaning. Financial knowledge also aids in the prevention of financial problems, so mistakes in financial decisions can come from either the decision itself or, conversely, from poor financial planning or even a lack of financial culture or knowledge. As a result, relying on what financial knowledge indicates is evidence of a person's level of awareness or grasp of financial concerns, safeguarding investors' decisions and assisting them in risk mitigation (Sorongan, 2022).

Al-Tamimi & Bin Kalli (2009), Howlett, Kees & Kemp (2008), and Yoong, See & Baronovich (2012) have mentioned that financial literacy, education, and knowledge can all be used interchangeably whereas, Raut (2020) defines financial literacy (FL) as a proxy for financial knowledge. Huston (2010) on the other hand, showed that both financial education and knowledge are only two aspects of financial literacy, and it encompasses much more. (Rai et al., 2019). It is also considered a critical component of economic and financial stability and prosperity around the world (Remund, 2010).

Financial literacy is defined by Sabri et al. (2022) as financial knowledge and involves knowledge, skills, attitude, and ability to make informed economic decisions and improve a person's overall financial well-being. As a result, it is clear that financial literacy as a concept goes deeper than simply receiving financial information or even guidance. It also includes understanding, monitoring, and effective use of funding sources.

3. Financial Satisfaction

Financial satisfaction is one way to achieve happiness, which is described as a sort of enjoyment that results from one's own work. This in order to meet one's short- and long-term consumption demands without any deficits, one must engage in a certain style of behavior that is related to how one manages one's income (Arifin, 2018; Sahi, 2013; Vera-Toscano et al., 2006), which comprises being in good health, content, and unconcerned about money (Zimmerman, 1995).

An evaluation of each person's financial situation versus their own serves as an illustration of financial satisfaction, or a person's opinion of their own knowledge, thoroughness, observance, and even their perception of their own financial status (Ali et al., 2015). Hira & Mugenda (1998) defined it as a person's subjective assessment of the sufficiency of their financial resources. Joo & Grable (2004) indicated that financial satisfaction can be assessed in both subjective and objective ways. It's also known as financial attitude, and it's connected to one's financial mindset. A person's attitude toward money can be defined as their state of mind, beliefs, and evaluations. Positive financial thoughts will motivate someone to save money, make investments, and make plans (Devi et al., 2021). A positive financial condition will result from the decision to view money as valuable and needing to be accounted for, elevating the individual's quality of life and financial satisfaction (Arifin, 2018).

b) Literature Review:

Money attitude has attracted increasing attention recently due to its significant consequences for economic growth, reduction of poverty, and personal wellbeing. After reviewing money attitude, study turns to look at how it interacts with both financial knowledge and satisfaction.

Many studies have investigated whether behavior affects investment decision-making and whether this influence can be assessed. The issue of the market scenario's actuality clashing with financial theory existed before the 1990s. The mismatch between theory and the market was predicted by finance theories in more recent times. Modern finance indicated that behavioral finance also regulated market behavior and incorporated with the psychology of finance under the label of behavioral finance. It has been established that behavior is an integral part of the decisions made, so it is useful to consider the behavioral side of individuals and financial institutions when making decisions. However, traditional finance theories, such as rational behavior and profit maximization, are limited in their ability to examine individual behavior.

Sorongan (2022) asserted that financial behavior, attitude, and literacy have an impact on investing decisions. Results showed that financial attitude and literacy have a positive impact on financial behavior.

Raut (2020) discovered the importance of past behavior theory in making an investment decision for individual investors, and examined the planned behavior using the questionnaire which indicated that behavior has a direct impact on the investor's inclination, which proved the success of the TPB theory, it had been noticed that the Indian investor is impacted by social pressures, which can be alleviated by financial literacy.

According to the literature, interest in money attitude has grown recently because of its important consequences for individual and economic well-being. The study starts by testing money attitude and its impact on financial satisfaction, after that financial knowledge is used as a mediator variable between the relationship between money attitude and financial satisfaction.

1- Money Attitude (MA) and Financial Satisfaction (FS):

There is evidence from numerous studies that money attitude and financial satisfaction are related. Participants who associated money with independence, power, success, and influence stated that they worked harder with the money they had, referring to Furnham's research (von Stumm et al., 2013). And had higher standards in terms of the income they needed to be rich (Furnham et al., 2012). Dowling et al. (2009) discovered that worrying about money matters and using money as a measure of success increased the likelihood of having financial concerns, which in turn reduced financial satisfaction.

Wilhelm et al. (1993) showed that participants who were free from correlation iniquity when spending money and thought that money might be used to feel financial satisfaction were significant contributors to the anticipation of subjective riches. Robb & Woodyard (2011) found that financial attitude had a favorable and significant impact on financial satisfaction. Chandra and Memarista (2015) discovered a relationship between financial attitude and financial satisfaction, and Joo and Grable (2004), contested the idea that financial attitude has a greater impact on financial satisfaction than other demographic factors and income levels; in contrast Xiao (2015) who concluded that financial attitude has a negative impact on financial satisfaction. However, having the best financial attitude does not guarantee having the best financial satisfaction. As there are other factors, such as financial literacy that can increase financial satisfaction.

Halim and Astuti (2015) stated that, if people have positive attitude toward money, they will have a healthier financial situation and can enhance their quality of life, which will boost their financial satisfaction, if they can treat money as a valuable resource and be responsible with it.

Therefore, hypothesis links between money attitude and financial satisfaction can be formulated as follows:

H1. There is a significant effect of money attitude on financial satisfaction.

2. Financial Knowledge (FK) and Financial Satisfaction (FS)

Financial knowledge (FK) could be described as one component of one's overall financial wellbeing Joo (2008). Ali et al. (2015) demonstrated how better financial knowledge has a favorable impact on financial behavior, including managing income, learning to save, setting up pension plans investments, and creating a budget for someone to improve their financial capabilities that take part in financial satisfaction (FS).

Many studies examined the impact of financial knowledge, which is favorably associated to both financial behavior and satisfaction. In other words, investors who have a good financial knowledge will act responsibly and experience a high level of financial satisfaction (Li et al., 2019; Ali et al., 2015; Falahati et al., 2012, Mandell, 2008; Xiao et al., 2006; Joo 2004; Hilgert et al., 2003).

Bapat (2020) focused on two main goals to explore the antecedents in financial management behavior among young people in India and to determine the significance of antecedent behavior in personal investment decisions.

Johan et al (2021) investigated how a 14-week personal finance course affected students' financial knowledge, attitudes, and behavior. Concluded that this course had a favorable and statistically significant influence on financial knowledge.

Wangi & Baskara (2021) concluded that financial attitude, behavior, knowledge, and demographic factors have a positive influence on investor behavior and are considered necessary while making investment decisions or managing funds. Norvilitis et al (2006) showed that comprehensive financial literacy is required. Age, conduct, and financial literacy may all play a significant effect in how much debt someone has. A behavioral element that can be addressed in this situation is behavior toward debt rather than money, which makes financial knowledge and behavioral aspects considerably more complex.

Therefore, hypothesis links between financial knowledge and financial satisfaction can be formulated as follows:

H2. There is a significant effect of financial knowledge on financial satisfaction.

3. Money Attitude (MA) and Financial Knowledge (FK):

Education improvement can lead to the development of financial knowledge and make investments so simple (Urban et al., 2015). Financial knowledge distinguishes people from others with less financial understanding by making them more accountable for managing their finances and exhibiting responsible financial behavior (Hilgert et al., 2003). Lack of knowledge may result in bankruptcies, credit issues, low savings rates, and impulsive purchasing. Perry & Morris (2005) and Robb (2011) examined college students' credit card usage and financial knowledge, demonstrated that a crucial factor in undergraduates' credit card decisions is their level of financial knowledge because these people are more likely to use credit responsibly. Borden et al., (2008) claimed that there is no significant effect of financial knowledge on money attitude. They discovered that although having a strong understanding of finances can make people's attitudes toward managing money more responsible, people don't always behave in this way. Therefore, hypothesis links between money attitude and financial knowledge can be formulated as follows:

H3. There is a significant effect of money attitude on financial knowledge.

4. Financial knowledge as mediator variable Between money attitude and financial satisfaction

According to several studies, financial knowledge has a modifying influence rather than having a direct effect on risky behaviors like investing choices (Aydemir & Aren, 2017). Many studies have shown that the association between behavioral biases and investment decisions is moderately affected, both negatively and favorably, by financial knowledge (Hayat & Anwar, 2016). Hadi (2017) showed that financial knowledge had a moderating effect on the relationship between financial attitude and investment choices.

Also, it has been demonstrated that attitudes may have a major impact on how people financially behave. Thus, financial knowledge has a considerable impact on that behavior. Moreover, those who score higher on knowledge also score higher on attitude (Fessler et al., 2020). Moreover, Aydin & Selcuk (2019) concluded that people who have more financial knowledge have more positive attitudes toward money, while those whom considered to have poor financial knowledge are less likely to undertake hazardous investments like stock trades, whereas those with high financial knowledge demonstrate responsible financial conduct (Fox et al., 2005). (Van Rooij et al., 2011). In the same context (Lusardi & Mitchell, 2008) indicated that many people are unfamiliar with basic financial principles. Owing to their lack of investment expertise, people are less likely to make wise financial decisions (Chen & Volpe, 1998).

An empirical Investigation has shown that education, financial knowledge, and risk tolerance are strongly correlated with stock market embarrassment (Cole et al., 2014). Financial literacy boosts one's likelihood of investing in stocks (Deng et al., 2019). Attitudes and knowledge have an impact on how consumers plan their finances (Weisfeld-Spolter et al., 2018). The association between financial knowledge and behavior was mediated by attitude, which has a considerable favorable impact on financial attitude and behavior (Fessler et al., 2020).

While literature has supported the moderating effect of financial knowledge on financial behaviors, such as stock market participation (Morrin et al., 2012; Aren & Aydemir, 2015; Hayat & Anwar, 2016; Aydemir & Aren, 2017; Hadi, 2017; Shusha, 2017). Ajayi et al (2022) investigated financial literacy by utilizing a coaching program for pupils based on rational behavior, so training will provide students with a greater understanding of their finances as well as the processes or responses to money, and knowledge will help them comprehend the nature of their money attitude. Therefore, hypothesis describes relation among money attitude, financial satisfaction and financial knowledge can be formulated as follows:

H4. There is a significant effect of financial knowledge on the relationship Between money attitudes and financial satisfaction.

In conclusion, before starting to present the definition and measurement methods used in measuring variables of the study based on literature that have been reviewed and presented in the previous section. It should be noted that the current study came up with some reasons that formed the current study's motive and can be concluded as follows. It has been noted that there is a lack of researches dealt with relationship under study through a behavioral aspect. Moreover, this study can be considered as an attempt of researchers to clarify the reasons or factors that may explain this relationship, in addition to the lack of studies that explain this relationship using a mediator variable.

c) Definitions and Measurement of Variables:

1. Money Attitude (MA):

The first measure was created by Yamauchi and Templer in 1982 and called the Money Attitude Scale (MAS). This study focused on the crucial idea of money attitude that emphasized money and its uses. Study of money attitude focused on consumer financial habits like saving, borrowing, using credit cards, and obsessive shopping (Norvilitis et al. 2003).

The questionnaire conducted in current study assesses four dimensions of attitudes toward money: (1) money avoidance, (2) money worship, (3) money status, and (4) money vigilance (klontz et al., 2011).

(1) **Money Avoidance:** represented by Individuals who do not care about money or who have this trait believe that those who are wealthy are selfish and undeserving of their wealth. Even for crucial expenditures, people may choose to save their money. The money avoidance scale consists of fifteen items from 1 to 15.

(2) **Money Worship:** refers to Those that have this trait tend to be very fond of money or are convinced that having more money will cure most of their problems, that it will never be enough, and that that having more money will solve most of their problems. Finally, owing money gives them power and happiness (Klontz et al., 2008). It measured by ten items from 16 to 25.

(3) **Money Status:** According this attitude People believe that money represents status. Those who believe that wealth represents status perceive a stark division between socioeconomic classes. In the status

seekers' point of view, status could be represented by ownership of the best and newest items. Items illustrates Money status were 12 items ranged from 26 to 37.

(4) **Money Vigilance:** Regardless of how much or how little someone possesses; people believe that money is a profound source of mystery and guilt. The factor of monetary vigilance seems to be associated with attention, readiness, watchfulness, and concern for money as well as the conviction that one must be aware of impending annoyance or threat (Klontz & Klontz, 2009). Vigilance is represented by 12 items from 38 to 49.

2. Financial Knowledge (FK)

Understanding financial knowledge concepts and terminologies is necessary to carry out day-to-day societal functions (Bowen, 2002). Financial literacy, knowledge, and education are frequently used interchangeably (Huston, 2010). Concerning financial knowledge, questionnaire contains items ranging in difficulty from 50 to 55. Testing different financial knowledge and belief patterns including credit, saving, and mortgage.

3. Financial satisfaction (FS)

Financial satisfaction can be represented as a measure or reflection of one's satisfaction with his /her own financial situation (Hira & Mugenda, 1998), (Joo, 2008). According to the idea of Andani (2018), the level of happiness with one's financial situation is measured. Other elements that contribute to financial satisfaction include the fulfillment of each person's personal financial needs, which they obtain to meet their daily needs.

Financial satisfaction can be gauged by many factors, according to Hira and Mugenda (1998): (1) total income received; (2) total savings; (3) monthly expenses; and (4) fulfillment of wanted products. (Joo & Grable, 2004; Vera-Toscano et al., 2006; Xiao et al., 2014) use the question How pleased are you with your current financial condition to gauge financial satisfaction. The current study uses seven items from 56 to 62.

Therefore, measures of items used in the questionnaire can be summarized in the following table:

Variables	Measurement
1- Money Attitude: ▪ Money Avoidance. ▪ Money Worship. ▪ Money Status. ▪ Money Vigilance.	(klontz et al., 2011). (Klontz et al., 2008) (Klontz & Klontz, 2009)
2- Financial Knowledge.	(Brown, 2002) (Huston, 2010)
3- Financial Satisfaction.	(Hira & Mugenda, 1998)

3- Methods

3.1 Data and Measurement Techniques

Partial Least Square Modeling (Smart-PLS) version 3.0 software is used for data analysis. PLS is designed for use in causal-predictive analysis in scenarios with high levels of complexity but no theoretical underpinning (Ghozali & Latan, 2014). Using financial knowledge as a mediator variable, it shows the relationship between money attitude and financial satisfaction.

The goal of the outer model test is to evaluate the reliability and validity of variables. Convergent and discriminant validity are used in the validity test .s When these two analytical tools are combined, they demonstrate the validity of both indications. The composite reliability value and Cronbach's alpha are used in the instrument reliability test. The test results demonstrate that every variable is trustworthy because all of its values are greater than 0.70. (Ghozali & Latan, 2014).

Population of this study consists of all individual investors 57,381 represented by (Egyptians, Arabs, and foreigners) who were registered with the Egyptian Stock Exchange for the year 2022. Given the size of the sample, the size of the sample will be determined using the following equation (Krejcie & Morgan, 1970):

$$n = \frac{X^2 \, N \, P \, (1 - P)}{D^2 \, (N - 1) + X^2 \, P \, (1 - P)}$$

$$= \frac{(1.96)^2 \, X \, 57.381 \, X \, 0.5 \, X \, (1 - 0.5)}{(0.05)^2 \, X \, (57.381 - 1) + (1.96)^2 \, X \, 0.5 \, (1 - 0.5)} = 382$$

Valid four hundred questionnaires were collected by using Google forms. PLS V-3.0, structural equation modeling (SEM) and confirmation factor analysis (CFA) were employed to confirm the correlations between the constructs as well as their validity. The questionnaire contained 49 items that fell into the categories of money (avoidance, worship, status, and vigilance), using Klontz and Britt's (2012) scales of money attitude. While financial knowledge consists of six items adapted from the study of (Perry & Morris, 2005). Finally, items described financial satisfaction scale were adapted from the study of (Adiputra, 2021). A five-point Likert scale ranging from “strongly disagree” to “strongly agree” used to measure all variables.

3.2 Reliability Analysis

The data is shown in table 1. Indicated that values of the Cronbach’s alpha range between 0.841 and 0.862, and the value of Cronbach's alpha of each variable in the study has a value greater than 0.6. So, variables used in this study can be described as reliable.

Table 1. Reliability Analysis and Loading Factor Results

Indicator	Cronbach’s Alpha	Average Variance Extracted (AVE)	Money Attitude
Money Attitude	**0.841**	**0.557**	
Money avoidance (MA)			**0.841**
1- I do not deserve a lot of money when others have less than me.			**0.848**
2- Rich people are greedy			**0.836**

Indicator	Cronbach's Alpha	Average Variance Extracted (AVE)	Money Attitude
3- It is not okay to have more than you need			**0.796**
4- People get rich by taking advantage of others.			**0.795**
5- I do not deserve the money.			**0.796**
6- Good people should not care about money.			**0.828**
7- It is hard to be rich and be a good person.			**0.820**
8- Most rich people do not deserve their money.			**0.719**
9- There is a virtue in living with less money.			**0.804**
10- The less money you have, the better life is.			**0.742**
11- Money corrupts people.			**0.782**
12- Being rich means you no longer fit in with old friends and family.			**0.806**
13- The rich take their money for granted			**0.838**
14- You cannot be rich and trust what people want from you.			**0.810**
15- It is hard to accept financial gifts from others.			**0.766**
Money worship (MW)			**0.882**
16- Things would get better if I had more money.			**0.680**
17- More money will make you happier			**0.797**
18- There will never be enough money.			**0.762**
19- It is hard to be poor and happy.			**0.819**
20- You can never have enough money.			**0.792**
21- Money is power.			**0.784**
22- I will never be able to afford the things I really want in life.			**0.825**
23- The money would solve all my problems			**0.763**
24- If you have money, someone will try to take it away from you.			**0.822**

Indicator	Cronbach's Alpha	Average Variance Extracted (AVE)	Money Attitude
25- You can't trust people around money.			**0.819**
Money status (MS)			**0.727**
26- Most poor people do not deserve to have money.			**0.753**
27- You can have love or money, but not both.			**0.717**
28- I will not buy something unless it is new (e.g., car, house).			**0.720**
29- Money is what gives life meaning.			**0.778**
30- Your self-worth equals your net worth.			**0.733**
31- If something is not considered the "best," it is not worth buying			**0.722**
32- People are only as successful as the amount of money they earn.			**0.813**
33- It is okay to keep secrets from your partner around money.			**0.561**
34- As long as you live a good life you will always have enough money			**0.802**
35- Rich people have no reason to be unhappy.			**0.782**
36- If you are good, your financial needs will be taken care of.			**0.762**
37- If someone asked me how much I earned, I would probably tell them I earn more than I actually do.			**0.739**
Money vigilance (MV)			**0.853**
38- You should not tell others how much money you have or make.			**0.751**
39- It is wrong to ask others how much money they have or make.			**0.850**
40- Money should be saved not spent			**0.558**
41- It is important to save for a rainy day.			**0.690**
42- People should work for their money and not be given financial handouts.			**0.683**

Indicator	Cronbach's Alpha	Average Variance Extracted (AVE)	Money Attitude
43- If someone asked me how much I earned, I would probably tell them I earn less than I actually do.			**0.683**
44- You should always look for the best deal before buying something, even if it takes more time.			**0,681**
45- If you cannot pay cash for something, you should not buy it.			**0.789**
46- It is not polite to talk about money.			**0.801**
47- I would be a nervous wreck if I did not have money saved for an emergency.			**0.757**
48- It is extravagant to spend money on oneself.			**0.766**
49- I would be embarrassed to tell someone how much money I make.			**0.810**
Financial Knowledge	**0.862**	**0.554**	
50- The finance charge on your credit card statement is what you pay to use credit.			**0.825**
51- Your credit report includes employment data, your payment history, any inquiries made by creditors, and any public record information.			**0.838**
52- The earlier you start saving for retirement, the more money you will have because the effects of compounding interest increase over time.			**0.759**
53- Repeatedly refinancing your home mortgage over a short period of time results in added fees and points that further increase your debt.			**0.704**
54- Your bank will usually call to warn you if you write a check that would overdraw your account.			**0.729**
55- The cash value of a life insurance policy is the amount available if you			**0.787**

Indicator	Cronbach's Alpha	Average Variance Extracted (AVE)	Money Attitude
surrender your life insurance policy while you're still alive.			
Financial Satisfaction	**0.855**	**0.720**	
56- I feel satisfied because the amount of income that I received can meet my needs.			**0.775**
57- I feel satisfied because I am able to manage the current income and expenditure budget			**0.771**
58- I feel satisfied because the amount of savings that I have now can meet my needs.			**0.787**
59- I feel satisfied with my current financial condition.			**0.778**
60- I feel satisfied because I can have some valuable assets.			**0.797**
61- I feel satisfied because I can buy the things I want.			**0.775**
62- I feel satisfied because I can pay my bills on time every month.			**0.770**

Questions No. (33), (40) were excluded due to the low factor loading in confirmation factor analysis (CFA) (measurement model).

3.3 Validity Analysis

Turning to validity tests, the validity in this study can be ensured by looking at the values of convergent and discriminant validity. Convergent validity is the extent to which indicators in the same construct are positively correlated. It can be reached by calculating the value of the outer loading factor for each indicator and the average variance extracted (AVE) value. Table 1. shows the AVE value of each variable that is greater than 0.5, which means it meets one of the criteria of convergent validity.

Table 2. shows the results of the validity analysis of each variable in the study.

Table 2. validity analysis results

Variable	Money Attitude	Financial Knowledge	Financial Satisfaction
Money Attitude	**0.828**		
Financial Knowledge	**0.582**	**0.746**	
Financial Satisfaction	**0.405**	**0.583**	**0.744**

Table 2. Shows the value of the square root of the AVE for each variable, which is greater than the correlation between variables. The loading factor value for each indicator of variables. The loading factor value obtained shows a value above 0.7 which means it meets the criteria of convergent validity.

3.3 Description of the study variables

In this part, some personal interviews were conducted with individual investors listed in the Egyptian Stock Exchange to identify the extent of the difference between the characters of investors about each dimension of the study according to their demographic variables. In addition, the respondents fill out the survey list to measure the effect of money attitude on financial satisfaction in the presence of financial knowledge as a mediator variable.

Table 3. shows these dimensions as well as mean and standard deviation for each dimension.

Table 3. Description of variables

Variable	Mean	St, deviation	Difference Coefficient
Money Attitude	4.0656	0.7456	18.3
Financial Knowledge	3.9788	0.8454	21.2
Financial Satisfaction	3.9868	0.7843	19.6

Table 3. Shows the following results:

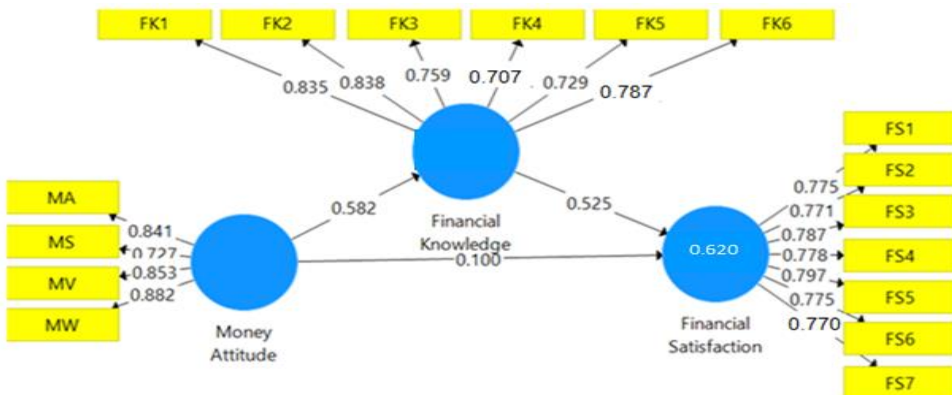
- The description of concepts related to the variables, and the values of those averages lay between 3.9788 and 4.0656.
- The standard deviation of the variables and reached that the values of St. Deviations ranged between 0.7456 and 0.8454. These values indicated

that different opinions of the investors participating in the study were relatively limited.

3.4 Hypothesis Test

The study model was tested using Partial Least Square Modeling (Smart-PLS) version 3.0 software is used for data analysis. Figure 1. Shows the results of the structural model (path Coefficient).

Figure 1. Convergent Validity Results



An instrument is considered valid with the Fornell-Larcker method if the AVE square root value of each construct is greater than the correlation with other latent variables. Likewise with the cross loadings value approach. The value of the loadings of each of these indicators in other constructs. Table 4. Shows the results of the cross loadings of each indicator.

Table 4. Cross loading value results

Indicator	Money Attitude	Financial Knowledge	Financial Satisfaction
MA	0.841	0.572	0.378
MS	0.727	0.217	0.571
MV	0.853	0.525	0.422
MW	0.882	0.459	0.308
FK1	0.522	0.835	0.432
FK2	0.407	0.838	0.543
FK3	0.379	0.759	0.389
FK4	0.331	0.707	0.155

Indicator	Money Attitude	Financial Knowledge	Financial Satisfaction
FK5	0.412	0.729	0.377
FK6	0.504	0.787	0.564
FS1`	0.388	0.548	0.775
FS2	0.247	0.393	0.771
FS3	0.335	0.520	0.787
FS4	0.368	0.438	0.778
FS5	0.276	0.402	0.797
FS6	0.267	0.316	0.775
FS7	0.148	0.319	0.770

Table 4. Shows the cross-loading value of each indicator used in this study. The value of the cross loading of each indicator shows a higher value than the value of the cross loadings of the indicator in the other constructs. Then the criteria of discriminant validity with the cross-loading value approach have been met.

The coefficient of determination (R^2) is a measure of the prediction accuracy of a model. The coefficient of determination represents the combined effect of exogenous variables on endogenous variables, in other words the coefficient of determination aims to see the contribution of exogenous variables to predict endogenous variables. The results of the coefficient of determination will be shown in table 5.

Table 5. Coefficient of Determination Test Results (R^2)

Variable	R- Square	Result
Financial Satisfaction	0.620	Moderate

Table 5. shows the results of the coefficient of determination of 0.620, which means that 62% of the dependent variable, namely financial satisfaction, can be explained by the independent variable in this study and the remaining 38% can be explained by other variables not included in current study. The value of the coefficient of determination obtained is moderate. As Chin (1998), Suggested that the values of R^2 that above 0.67 considered high, while values ranging from 0.33 to 0.67 are moderate, whereas values between 0.19 to 0.33 are weak and any R^2 values less than 0.19 are unacceptable.

Table 6. Bootstrapping Results

Variable	Path Coefficient	P-Value
Money Attitude ⟶ Financial Satisfaction	0.100	0.000
Money Attitude ⟶ Financial Knowledge	0.582	0.000
Financial Knowledge ⟶ Financial Satisfaction	0.525	0.000

Based on table 6. The equation obtained in this study, namely FS = 0.100 MA + 0.525 FK. The path coefficient value shows that the predictive value of the money attitude variable on financial satisfaction has a positive direction with a value of 0.100; the predictive value of financial knowledge towards financial satisfaction has a positive direction with a value of 0.525.

Hypothesis test. Based on table 6. It can be seen that the p-value of money attitude on financial satisfaction 0.000, which is smaller than the significant value set at 0.05, so that it can concluded that the first hypothesis is accepted, the p-value of money attitude towards financial knowledge is 0.000 that it can be concluded that the second hypothesis was accepted. Also, p-value of financial knowledge on financial satisfaction is 0.000, so the third hypothesis is not rejected (accepted).

Table 6 shows the path coefficient values between MA to FS with FK as the mediator variable parameter generating an indirect relationship coefficient (MA → FK → FS) of 52.308 (8.149 × 6.419). This value is greater than the direct relationship between MA and FS being 5.014. Accordingly, it can be concluded that FK (financial Knowledge) is a mediator variable of the relationship between MA (Money attitude) and FS (financial satisfaction), so the second hypothesis is accepted.

4- Discussion

This study demonstrated that there is a significant and positive influence of money attitude on financial satisfaction. This is demonstrated by the t-statistic value of money attitude on financial satisfaction, which is 5.014 and is higher than the minimum value specified at 1.96, and the value of the p-value, which is less than the maximum value set at 0.05. This implied that a person's degree of financial pleasure increases in proportion to how well or positively they see money. Which reflected the need for responsible financial management and a thoughtful spending strategy.

Study showed that one's attitude toward money has a considerable and positive effect on one's financial understanding. Evidence for this may be seen in the fact that the money attitude toward financial knowledge has a t-statistic value of 8.149, which is higher than the minimum value of 1.96, and a p-value of 0.003, which is lower than the maximum value of 0.05. It implied a better and higher one's money attitude, the greater one's financial comprehension. The most important indicator is that people have appreciated money; they preferred investing their money rather than wasting it.

Current study implied that financial knowledge had a strong and positive effect on financial satisfaction. Looking at the t-statistic value, which is 6.419, higher than the minimum value provided at 1.96, and the p-value, which is 0.000, lower than the maximum value specified at 0.05, showed the association between financial knowledge and financial satisfaction. This showed that financial satisfaction of investors is rising up with their level of financial education. The most of what was observed is that customers do not have problems with their spending or paying their bills on time.

Finally, the study showed that financial knowledge had a positive effect as a mediator variable on the relationship between money attitude with financial satisfaction. And the most significant indicator of money attitude is saving behavior. Hence, encouraging saving is a good way to boost financial satisfaction and planning. in addition, that will help in increase one's level of financial satisfaction consequently.

5- Conclusion:

This study highlighted that there is a significant effect of money attitude on financial satisfaction, also it reached that financial satisfaction is significantly affected by financial knowledge, regarding to the mediating effect. concluded that there is a significant effect of financial knowledge on the relationship between investors' attitude toward money and their level of financial satisfaction revealed that individuals have a strong inclination toward saving and prefer paying bills on time. However, more research is needed to understand other factors that might affect one's satisfaction, as current study mainly focused on money attitude. So, researchers recommend conducting studies and researches in the field of behavioral finance, especially in recent period in which crises have become active. Which may be translated as a reason for creation or changing one's attitude, thus can be extended to influence one's satisfaction somehow and stock markets consequently. While many variables could be employed to explain satisfaction such as financial "capability, stress, solvency, socialization, and literacy ", also demographic factors such as gender, age, years of experience, income, investor's classification, and nationality must be taken into consideration in further researches because it may lead to clear and deep interpretation of differences of those studied factors based on physiological differences and some other factors. Moreover, there is a need for increasing sample size which may come up with more precise and pertinent outcomes.

References:

Adiputra, I. G. (2021). The influence of financial literacy, financial attitude and locus of control on financial satisfaction: Evidence from the community in Jakarta. *KnE Social Sciences*, 636-654.

Ahmad, M., & Wu, Q. (2022). Does herding behavior matter in investment management and perceived market efficiency? Evidence from an emerging market. *Management Decision*, (ahead-of-print).

Ajayi, T. A., Ugwoke, O. V., Onyeanu, E. O., Ugwoke, R. O., & Onuorah, A. R. (2022). Investigation of Financial Literacy and Money Attitudes Among First-Year Undergraduate Accounting Students: A Rational Emotive Behavior Therapy-Based Coaching Intervention. *SAGE Open*, 12(3).

Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior*. In Action control. Springer, Berlin, Heidelberg. (pp. 11-39).

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. *Englewood Cliffs*, NJ: Prentice Hall.

Ali, A., Rahman, M. S. A., & Bakar, A. (2015). Financial satisfaction and the influence of financial literacy in Malaysia. *Social Indicators Research*, 120(1), 137-156.

AL-MANSOUR, B. Y. (2020). Cryptocurrency market: Behavioral finance perspective. *The Journal of Asian Finance, Economics and Business*, *7*(12), 159-168.

Al-Tamimi, Hussein, A. H., & Bin Kalli, Al A. (2009). Financial literacy and investment decisions of UAEminvestors. *Journal of Risk Finance*, 10(5), 500-516.

Andani, N. D. (2018). *Pengaruh Income, Financial Knowledge, Financial Behavior dan Childhood Consumer Experience Terhadap Financial Satisfaction Pada Pegawai PT. Perusahaan Listrik Negara (Persero) Wilayah Sumatera Utara* (Doctoral dissertation, Universitas Sumatera Utara).

Aren, S., & Aydemir, S. D. (2015). The moderation of financial literacy on the relationship between individual factors and risky investment intention. *International Business Research*, 8(6), 17.

Arifin, A. Z. (2018). Influence factors toward financial satisfaction with financial behavior as intervening variable on Jakarta area workforce.

Aydemir, S., & Aren, S. (2017). Do the effects of individual factors on financial risk-taking behavior diversify with financial literacy?. *Kybernetes*, 46(10), 1706-1734.

Aydin, A. E., & Selcuk, E. A. (2019). An investigation of financial literacy, money ethics and time preferences among college students: A structural equation model. *International Journal of Bank Marketing.*

Aydin, S. (2019). Political socialization processes of return migrants. The case of Turkish returnees from Germany.

Bapat, D. (2020). Antecedents to responsible financial management behavior among young adults: moderating role of financial risk tolerance. *International Journal of Bank Marketing*, 38(5), 1177-1194.

Borden, L. M., Lee, S. A., Serido, J., & Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of family and economic issues*, 29(1), 23-40.

Bowen, C. F. (2002). Financial knowledge of teens and their parents. *Financial counseling and planning*, 13(2), 93-102.

Budiarso, N. S., Hasyim, A. W., Soleman, R., Zam, I. Z., & Pontoh, W. J. I. (2020). *Investor Behavior Under The Covid-19 Pandemic: The Case Of Indonesia*. *17*(3), 308-318.

Chandra, J. W., & Memarista, G. (2015). Faktor-Faktor yang Mempengaruhi Financial Satisfaction pada Mahasiswa Universitas Kristen Petra. *Finesta*, 3(2), 1-6.

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial services review*, 7(2), 107-128.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

Cole S, Zia B, Abel M, Crowley L, Pauliac CS, & Postal V (2014). Evaluation of Old Mutual‘s on The Money Program: Financial Literacy in South Africa, *Enhancing Financial Capability and Behavior in Low and Middle-Income Countries*, pp.151-494.

Culbertson, J. M. (1968). Macroeconomic theory and stabilization policy.

Dai, R. M., Kostini, N., & Tresna, P. W. (2021). The influence of financial attitude and financial literacy on behavioral finance: A study on leading small and medium enterprises in Cimahi City, Indonesia. *Review of Integrative Business and Economics Research*, 10, 322-329.

Danes, S. M., Huddleston-Casas, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact evaluation. *Journal of Financial Counseling and Planning*, 10(1), 26.

De Almeida, F., Ferreira, M. B., Soro, J. C., & Silva, C. S. (2021). Attitudes Toward Money and Control Strategies of Financial Behavior: A Comparison Between Overindebted and Non-overindebted Consumers. *Frontiers in psychology*, 12.

Deng, S., Zhang, N., Zhang, W., Chen, J., Pan, J. Z., & Chen, H. (2019, May). Knowledge-driven stock trend prediction and explanation via temporal convolutional network. In *Companion Proceedings of The 2019 World Wide Web Conference* (pp. 678-685).

Devi, K., Kartawinata, B. R., Wijayangka, C., & Nugraha, D. W. (2021). Financial knowledge and financial behavior to financial satisfaction to the millennial generation in the city of Bandung. *In Proceedings of the International Conference on Industrial Engineering and Operations Management* pp. 5530-5539.

Dowling, N., Tim, C., & Hoiles, L. (2009). Financial management practices and money attitudes as determinants of financial problems and dissatisfaction in young male Australian workers. *Journal of financial counseling and planning*, 20(2).

Falahati, L, Sabri, M.F. & Paim, L.H.J. (2012). Assessment a Model of Financial Satisfaction Predictors: Examining the Mediate Effect of Financial Behavior and Financial Strain. *World applied Sciences Journal*, 20(2), 190-197.

Falahati, L., & Sabri, M. F. (2015). An exploratory study of personal financial wellbeing determinants: examining the moderating effect of gender. *Asian Social Science*, 11(4), 33.

Fei, C. K., Sabri, M. F., Mohamed, N. A., Wijekoon, R., & Majid, A. Z. A. (2020). Determinants of financial vulnerability among young employees in Malaysia. *Journal of Critical Reviews*, 7(15), 3097-3107.

Fessler, P., Silgoner, M., & Weber, R. (2020). Financial knowledge, attitude and behavior: evidence from the Austrian Survey of Financial Literacy. *Empirica*, 47(4), 929-947.

Fox, J., Bartholomae, S., & Lee, J. (2005). Building the case for financial education. *Journal of consumer affairs*, 39(1), 195-214.

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and individual Differences*, 5(5), 501-509.

Furnham, A., & Horne, G. (2021). A facet measure of money madness: A preliminary analyses of a new questionnaire. *Financial Planning Review*, 4(3), e1131.

Furnham, A., & Okamura, R. (1999). Your money or your life: Behavioral and emotional predictors of money pathology. *Human relations*, 52(9), 1157-1177.

Furnham, A., Wilson, E., & Telford, K. (2012). The meaning of money: The validation of a short money-types measure. *Personality and Individual Differences*, 52(6), 707-711.

Gąsiorowska, A. (2008). The Relationship of Income And Money Attitudes To Subjective Assessment of Financial Situation.

Ghozali, I, & Latan, H (2014) Partial least squares (smartPLS 3.0). Universitas diponegoro. Semarang.

Godwin, D. (1994). Antecedents adn consequences of newlyweds's cash flow managment. *Financial counseling and planning*, 5 .

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning*, 3(1), 17-42.

Grable, J. E., Park, J. Y., & Joo, S. H. (2009). Explaining financial management behavior for Koreans living in the United States. *Journal of consumer affairs*, 43(1), 80-107.

Grable, J., & Lytton, R. H. (1999). Financial risk tolerance revisited: the development of a risk assessment instrument. *Financial services review*, 8(3), 163-181.

Hadi, F. (2017). Effect of emotional intelligence on investment decision making with a moderating role of financial literacy. *China-USA Business Review*, 16(2), 53-62.

Halim, Y. K. E., & Astuti, D. (2015). Financial Stressors, Financial Behavior, Risk Tolerance, Financial Solvency, Financial Knowledge, dan Kepuasan Finansial. *Jurnal Finesta*, 3(1), 19-23.

Hayat, A., & Anwar, M. (2016). Impact of behavioral biases on investment decision; moderating role of financial literacy. *Moderating Role of Financial Literacy* (September 23, 2016).

Hilgert, M.A., Hogarth, J.M. & Beverly, S.G. (2003). Household financial management: The connection between knowledge and behaviour. *Federal Reserve Bulletin*, 309-322.

Hira, T. K., & Mugenda, O. M. (1998). Predictors of financial satisfaction: Differences between retirees and non-retirees. *Journal of Financial Counseling and Planning*, 9(2), 75.

Howlett, E., Kees, J., & Kemp, E. (2008). The role of self-regulation, future orientation, and financial knowledge in long-term financial decisions. *Journal of Consumer Affairs*, *42*(2), 223-242.

Huston, S. J. (2010). Measuring financial literacy. *Journal of consumer affairs*, 44(2), 296-316.

Ida, I. D. A., & Dwinta, C. Y. (2010). Pengaruh Locus Of Control, financial knowledge, income terhadap financial management behavior. *Jurnal Bisnis dan Akuntansi*, 12(3), 131-144.

Jain, N., & Kesari, B. (2021). Sharing the Economic Torment due to COVID–19 and Pertinent Behavioural Biases on Financial Risk Resilience Ability of

Security Market Investors. *PSYCHOLOGY AND EDUCATION*, 58(2), 1073-1091.

Jia, S., Zhang, W., Li, P., Feng, T., & Li, H. (2013). Attitude toward money modulates outcome processing: An ERP study. *Social neuroscience*, 8(1), 43-51.

Johan, I., Rowlingson, K., & Appleyard, L. (2021). The effect of personal finance education on the financial knowledge, attitudes and behaviour of university students in Indonesia. *Journal of Family and Economic Issues*, *42*(2), 351-367.

Joo, S. (2008). *Personal financial wellness. In Handbook of consumer finance research. Springer*, New York, NY, (pp. 21-33) .

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.

Jorgensen, B. L., Foster, D., Jensen, J. F., & Vieira, E. (2017). Financial attitudes and responsible spending behavior of emerging adults: Does geographic location matter?. *Journal of family and economic issues*, 38(1), 70-83.

Keller, K. L. (1987). Memory factors in advertising: The effect of advertising retrieval cues on brand evaluations. *Journal of Consumer Research*, 14(3), 316-333.

Klontz, B, T., & Britt S. L. (2012) How clienta money scripts predict their financial behaviors. *Journal of financial planning*, 25(11), 33-43.

Klontz, B. T., Bivens, A., Klontz, P. T., Wada, J., & Kahler, R. (2008). The treatment of disordered money behaviors: Results of an open clinical trial. *Psychological Services*, 5(3), 295.

Klontz, B., & Klontz, T. (2009). *Mind over money: Overcoming the money disorders that threaten our financial health*. Currency.

Klontz, B., Britt, S. L., & Mentzer, J. (2011). Money beliefs and financial behaviors: Development of the Klontz Money Script Inventory. *Journal of Financial Therapy*, *2*(1), 1-22.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.

Li, Y., Burr, J. A., & Miller, E. A. (2019). Pension plan types and financial literacy in later life. *The Gerontologist*, *59*(2), 260-270.

Luna-Arocas, R., & Tang, T. L. P. (2004). The love of money, satisfaction, and the protestant work ethic: Money profiles among univesity professors in the USA and Spain. *Journal of business Ethics*, 50(4), 329-354.

Lusardi, A., & Mitchell, O. S. (2008). Planning and financial literacy: How do women fare?. *American economic review*, 98(2), 413-17.

Mandell, L. (2008). The Financial Literacy Among of Young American Adult. Result of 2008 National Jumpstart Coalition Survey of High school Seniors and College Students .

Morrin, M., Broniarczyk, S. M., & Inman, J. J. (2012). Plan format and participation in 401 (k) plans: The moderating role of investor knowledge. *Journal of Public Policy & Marketing*, 31(2), 254-268.

Nadeem, M. A., Qamar, M. A. J., Nazir, M. S., Ahmad, I., Timoshin, A., & Shehzad, K. (2020). How investors attitudes shape stock market participation in the presence of financial self-efficacy. *Frontiers in Psychology*, 11.

Nga, K. H., & Yeoh, K. K. (2015). Affective, social and cognitive antecedents of attitude towards money among undergraduate students: A Malaysian study. *Pertanika Journal of Social Sciences & Humanities*, 23(1), 161-180.

Ningsi, E. H., & Manurung, L. (2021). The Influence of Financial Attitude and Financial Knowledge on Saving Interest (Case Study on Students of Brigjend Katamso I Vocational High School Medan). *Jurnal Mantik*, 5(3), 1873-1882.

Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students 1. *Journal of applied social psychology*, 36(6), 1395-1413.

Norvilitis, J. M., Szablicki, P. B., & Wilson, S. D. (2003), Factors influencing levels of credit-card debt in college students. *Journal of Applied Social Psychology*, 33(5), 935–947.

OECD.StatExtracts, OECD, 2015, http://stats.oecd.org/.

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Journal of Financial Counseling and Planning*, 9(2), 59.#

Perry, V. G., & Morris, M. D. (2005). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *Journal of consumer affairs*, 39(2), 299.

Qamar, M. A. J., Khemta, M. A. N., & Jamil, H. (2016). How knowledge and financial self-efficacy moderate the relationship between money attitudes and personal financial management behavior. *European Online Journal of Natural and Social Sciences*, 5(2), 296.

Rai, K., Dua, S., & Yadav, M. (2019). Association of financial attitude, financial behaviour and financial knowledge towards financial literacy: A structural equation modeling approach. *FIIB Business Review*, 8(1), 51-60.

Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets.*

Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of consumer affairs*, 44(2), 276-295.

Robb, C. A., & Woodyard, A. (2011). Financial knowledge and best practice behavior. *Journal of financial counseling and planning*, 22(1).

Rose, G. M., Bakir, A., & Gentina, E. (2016). Money meanings among French and American adolescents. *Journal of Consumer Marketing*, 33(5), 364-375.

Sabri, M. F., Wijekoon, R., Abd Rahim, H., Ahmad, N., Burhan, S., Madon, Z., & Hamsan, H. H. (2022). Financial Literacy, Financial Behavior, Self-Efficacy, and Financial Health among Malaysian Households: The Mediating Role of Money Attitudes.

Sabri, M., Wijekoon, R., & Rahim, H. (2020). The influence of money attitude, financial practices, self-efficacy and emotion coping on employees' financial well-being. *Management Science Letters*, 10(4), 889-900.

Sachdeva, M., Lehal, R., Gupta, S., & Gupta, S. (2022). Influence of contextual factors on investment decision-making: a fuzzy-AHP approach. *Journal of Asia Business Studies*.

Sahi, S. K. (2013). Demographic and socio-economic determinants of financial satisfaction: A study of SEC-A segment of individual investors in India. *International Journal of Social Economics*., 40(2), 127-150.

Sattar, M. A., Toseef, M., & Sattar, M. F. (2020). Behavioral finance biases in investment decision making. International Journal of Accounting, *Finance and Risk Management*, 5(2), 69.

Schaeffel, F., Wilhelm, H., & Zrenner, E. (1993). Inter-individual variability in the dynamics of natural accommodation in humans: relation to age and refractive errors. *The Journal of Physiology*, 461(1), 301-320.

Schewe, C. D., & Meredith, G. E. (1994). Digging deep to delight the mature adult consumer. *Marketing Management*, 3(3), 20.

Schmeiser, M. D., & Seligman, J. S. (2013). Using the right yardstick: Assessing financial literacy measures by way of financial well-being. *Journal of Consumer Affairs*, 47(2), 243-262.

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30(6), 708-723.

Shusha, A. A. (2017). Does financial literacy moderate the relationship among demographic characteristics and financial risk tolerance? Evidence from

Egypt. *Australasian Accounting, Business and Finance Journal,* 11(3), 67-86.

Sorongan, F. A. (2022). The Influence of Behavior Financial and Financial Attitude on Investment Decisions With Financial Literature as Moderating Variable. *European Journal of Business and Management Research*, *7*(1), 265-268.

Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (2021). Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic?. *Journal of Retailing and Consumer Services*, 58.

Tang, T. L. P. (1992). The meaning of money revisited. *Journal of organizational behavior*, 197-202.

Tang, T. L. P. (1995). The development of a short money ethic scale: Attitudes toward money and pay satisfaction revisited. *Personality and individual differences*, 19(6), 809-816.

Tang, T. L. P. (2007). Income and quality of life: Does the love of money make a difference?. *Journal of Business Ethics*, 72(4), 375-393.

Tang, T. L. P. (2016). Theory of monetary intelligence: Money attitudes—religious values, making money, making ethical decisions, and making the grade. *Journal of business Ethics*, 133(3), 583-603.

Tang, T. L. P., & Chiu, R. K. (2003). Income, money ethic, pay satisfaction, commitment, and unethical behavior: Is the love of money the root of evil for Hong Kong employees?. *Journal of business ethics*, 46(1), 13-30.

Tang, T. L. P., Sutarso, T., Ansari, M. A., Lim, V. K., Teo, T. S., Arias-Galicia, F., & Adewuyi, M. F. (2018). Monetary Intelligence and Behavioral Economics: The Enron Effect—Love of money, corporate ethical values, Corruption Perceptions Index (CPI), and dishonesty across 31 geopolitical entities. *Journal of Business Ethics*, 148(4), 919-937.

Urban, C., Schmeiser, M., Collins, J. M., & Brown, A. (2015). State financial education mandates: It's all in the implementation. *Washington, DC: FINRA Investor Education Foundation.*

Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial economics*, 101(2), 449-472.

Vera-Toscano, E., Ateca-Amestoy, V., & Serrano-Del-Rosal, R. (2006). Building financial satisfaction. *Social Indicators Research*, 77(2), 211-243.

Von Stumm, S., O'Creevy, M. F., & Furnham, A. (2013). Financial capability, money attitudes and socioeconomic status: Risks for experiencing adverse financial events. *Personality and Individual Differences*, 54(3), 344-349.

Wangi, L., & Baskara, I. (2021). The Effect of Financial Attitude, Financial Behavior, Financial Knowledge, And Sociodemographic Factors On Individual Investment Decision Behavior. *American Journal of Humanities and Social Sciences Research* (AJHSSR), 519-527.

Warmath, D., Espey Newmeyer, C., O'Connor, G. E., & Wong, N. (2018). Toward a Holistic Measure of Financial Wellness: The Relationship between Perceived Financial Well-Being and Financial Vulnerability. Paper presented at the 2019 *Academic Research Colloquium for Financial Planning and Related Disciplines.*

Weisfeld-Spolter, S., Sussan, F., Rippé, C., & Gould, S. (2018). Integrating affect, cognition, and culture in Hispanic financial planning. *International Journal of Bank Marketing.*

Wilhelm, M. S., Varcoe, K., & Fridrich, A. H. (1993). Financial satisfaction and assessment of financial progress: Importance of money attitudes. *Financial Counseling and Planning*, 4(1), 181-198.

Xiao, J. J. (2015). *Consumer economic wellbeing. In Consumer economic wellbeing. Springer,* New York, NY, (pp. 3-21).

Xiao, J. J., Chen, C., & Chen, F. (2014). Consumer financial capability and financial satisfaction. *Social indicators research*, 118(1), 415-432

Xiao, J.J., Sorhaindo &, B. Garman, E.T. (2006). Financial behavior of consumers in credit counseling. *International Journal of Consumer Studies*, 30(2), 108-121.

Yamauchi, K. T., & Templer, D. J. (1982). The development of a money attitude scale. *Journal of personality assessment*, 46(5), 522-528.

YILDIRIM, D., & ÖZBEK, A. (2022). The Relationship between Prevention Focus, Money Attitude and Financial Behavior. *Anadolu Üniversitesi Sosyal Bilimler* Dergisi, 22(1), 385-404.

Yoong, F. J., See, B. L., & Baronovich, D. L. (2012). Financial literacy key to retirement planning in Malaysia. *J. Mgmt. & Sustainability*, 2, 75.

Zimmerman, S. L. (1995). *Understanding family policy: Theories and applications (2nded). Thousand Oaks, CA*: Sage.