

## The influence of financial technology, personality traits, and financial literacy on financial attitude, personal saving orientation, and family financial planning, moderated by financial quotient among naval families. “A study of Hera naval base, Timor-Leste”

Duarte Borges Loe<sup>1\*</sup>, Tri Ratnawati<sup>2</sup>, Ulfi Pristiana<sup>3</sup>

<sup>1,2,3</sup>Faculty of Economics and Business, 17 August 1945 University of Surabaya, Indonesia; duarte1272200001@surel.untag-sby.ac.id (D.B.L.) Triratnawati@untag-sby.ac.id (T.R.) ulfi@untag-sby.ac.id (U.P.).

**Abstract:** Family financial planning is becoming more and more crucial, particularly in military environments where certain challenges can affect financial habits. The study looks at moderating role of financial quotient on the correlation between financial technology, personality traits, and financial literacy and family financial planning of naval families at Naval Base Hera. Although certain factors of financial behaviour have been studied before, how these factors are interrelated within military families is still unclear. This research seeks to fill this gap by employing a causal explanatory research method that analyze sources from 248 married Navy personnel through using a structural equation modeling (SEM) approach with Smart PLS. The findings paint a picture that where Fintech influences the financial behaviours of individuals and families, such traits for personality and financial literacy inform their attitudes and ever financial planning. Posted here, it is revealed that financial quotients have a moderate influence on the results of family financial planning. Thus, this research highlights the need to design and implement financial education interventions that incorporate technology support and improve the financial literacy of naval officers with policy implication for the authorities as well as other denominations in the teaching of financial education. This research fills this gap making a positive contribution in the understanding of financial management in military environment hence contributing to the informing of policies that foster better financial stability and well-being of families of soldiers serving in the navy.

**Keywords:** *Financial literacy, Financial planning, Financial quotient, Financial technology, Military families, Personality traits.*

### 1. Introduction

In a time when the notions of fintech is significantly shifting the approach to personal finance, it is important to consider its impacts to financial literacy and planning (Li & Xu, 2021), (Harsono & Suprapti, 2024). It has been seen that not only has the financing been changed with the help of digital Media and applications but also the attitudes and beliefs towards financing (Héroux-Vaillancourt et al., 2020). This especially holds for families as the competent utilization of the available products is critical in sustaining adequate financial performances and creating the proper conditions for a stable financial future (Zhang et al., 2022). The understanding of such factor of financial risks and opportunities in relation naval personnel and their families like those in Hera Naval Base point to the necessity of special focus towards these issues.

The particular concern of this study is to focus on defining the key factors that shape the financial attitudes of naval personnel attached to the Hera Naval Base which allege to the financial technology, personal traits, and the financial literacy on their case as a potential instrument to assess the

contribution of the above factors to the processes of the family financial planning. These families are known to have specific financial stressors most of which arise from the nature of the military life such as change of station and or unpredictability of income. Thus, knowing how these factors are interrelated to affect financial behaviour is crucial for designing proper financial literacy and intervention strategies.

In yaklaşıkation, even though there are increasingly numerous scholarly studies that examined the phenomenon of financial technology and its impact on financial behaviors, there is still a research gap on the subject of family financial planning especially for the military families (*Military & Veteran Family Financial Readiness*, 2023);(Bi et al., 2021);(Tarawneh et al., 2024).

Earlier works have centered on analyzing single person's behaviour without taking time to consider the dynamics of family's financial behaviours. Also, there is an issue of the moderating effect of financial quotient in this relationship that has not been well investigated. To this end, this research seeks to find out the following: The role of financial technology, personal trait, and financial literacy while developing the manner in which individuals and families approach their financial plans with context to the moderating role of financial quotient.

The contribution of this research is that it is among the first to take a multi-faceted perspective on financial behavior and planning within a particular population group. Therefore, this study will be helpful to decipher the complicated relationship between financial technology, personality trait and financial literacy and its impact on the financial planning of naval families. Moreover, it also discusses the significance of the financial quotient as a moderating factor, provided practical contributions with the latest knowledge on how families can handle their financial environments more effectively.

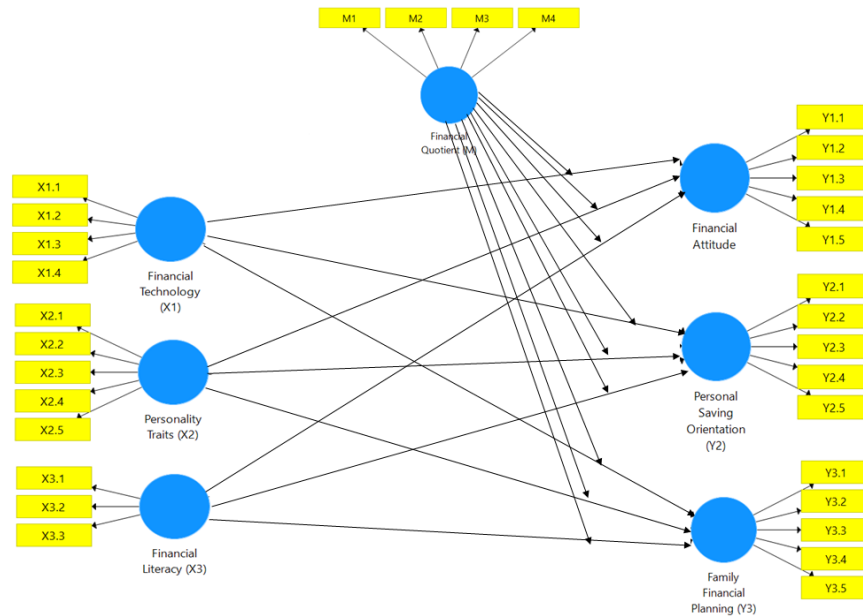
The main purpose of this paper is to examine the interaction between financial technology, personality trait, financial literacy, and their outcomes on naval families' financial perceptions and their financial planning in the Hera Naval Base. To achieve this, the research poses several key questions: Even though it is difficult to show the definite impact, we need to find out how financial technology affects financial attitudes. Finally, what part does it play to personal characteristics regarding these attitudes? In what way is financial literacy influential to family decision on how to manage their finances? Also, how does this concept of financial quotient interact with these relationships?

The remaining parts of this article will review the theoretical basis of the work under consideration, the methodology section that will describe the overall research paradigm and the data collection techniques. These results will be further described and explained analyzing the literature and applying the conclusions to the field of financial literacy and policy. Last of all, the article will give an overview on suggestions for future research and practical implementation of new strategies that may help improve the financial situation of naval families.

## 2. Literature Review

### 2.1. Theoretical Framework

This research examines the relationship between financial technology, personality and financial literacy and its impact on financial beliefs and family financial planning of naval families stationed at Hera Naval Base. This framework is based on the assumption that financial decision is a product of both internal and external factors since Military families are constrained by some demands that influence their daily decision making in terms of use of money.



**Figure 1.**  
Theoretical framework.

This theoretical framework and the associated hypotheses aim to fill existing gaps in the literature regarding financial behaviors in military families, particularly in the context of the unique challenges they face. By exploring these relationships, the study seeks to provide valuable insights for policymakers and financial educators to enhance financial stability and well-being among naval families.

## 2.2. Hypothesis Development

Based on the theoretical framework, the following hypotheses are:

### 2.2.1. The Influence of Financial Technology on Financial Attitudes

In the contemporary society, advanced technologies have particularly impacted the use of money and added on the ways of managing money (Broby, 2021). This technology has also impacted on the increase in the level of difficulty in accessing financial information. Social utility technologies present on the Internet have simplified the handling of different issues concerning spending and money (Basdekis et al., 2022). Hence, it will help people to gain more insight into their financial situation and, therefore, make improved financial decisions. Also, advances in technology have complemented business processes especially through improving on the methods of making financial transactions. With the mobile banking, e-wallets, online payments and other related products, the transaction process has been made easier and one is not required to carry cash or credit cards (Yang et al., 2021). Regarding this aspect, the feature can assist individuals to know how they have been spending their money, and where they should avoid being / spending money. The study carried out by (Amnas et al., 2024) shows how technology can help change people's perspective towards finance. In another study, Li & Xu, 2021 Li & Xu 2021 also claims that technology is a key determinants of people's financial perception. Therefore, we can suggest the following hypothesis:

*H<sub>1</sub>: Financial technology has a significant influence on financial attitudes among naval families at Hera Naval Base, Timor-Leste.*

### 2.2.2. *The Influence of Financial Technology on Personal Saving Orientation*

Financial technology commonly known as Fintech, therefore can be defined as the intersection between technology and financial services. Widarwati et al., (2024) sourced another research to affirm that tested financial technology has positive saving behavior effect at a significantly level. This finding supports a study conducted by S. Ouma, (2020) which noted that mobile financial service can increase the ability to save among individuals who can access the services rather than those who cannot since majority of our respondents fall in the latter category. AlMomani and Alomari, (2021) noted that the use of financial technology can help people: Efficiently utilise their available financial capital, adjust their spending behaviour if necessary and Make sure there is always an income received before any expenses are made. In addition, widely used Internet banks help to organize easy creation of digital savings accounts without visiting branches of traditional banks (S. A. Ouma et al., 2017). This indeed enables the millennials start structured saving by adopting progressive technology. Therefore, we can suggest the following hypothesis:

*H<sub>2</sub>: Financial technology has a significant influence on personal saving orientation among naval families at Hera Naval Base, Timor-Leste.*

### 2.2.3. *The Influence of Financial Technology on Family Financial Planning*

In this way, new technologies influence the financial management and the process of setting and achieving families' goals and financial tasks. Besides, there is an increase in information and applications for handling personal finance (Wanof, 2023). For instance, tools in family planning for financial means enable the family to set medium and long-term financial goals, balance expenditures and earnings. Furthermore, technology helps families to diversify their investments into the various products such as stocks, mutual funds and monitor performance of the investment in real time (Rodríguez de las Heras Ballell, 2023). Therefore, it is wise that families apply correct usage of technologies in achieving more of their financial planning goals. Consumers need to pick apps or platforms that will not compromise security while also fitting the consumer's budget and financially appropriate. AI technology is seen to significantly help in the process of planning as stated by Kunnathuvalappil Hariharan, (2018). Due to the current technological enhancement in the area of finance, members of the family are in a better position than before to make better and improved financial decisions. Warchlewska et al., (2021) concluded that technology helps the customers in their ability to master the personal finance especially in cash and non-cash assets. Hence, we propose the following hypothesis:

*H<sub>3</sub>: Financial technology has a significant influence on family financial planning among naval families at Hera Naval Base, Timor-Leste.*

### 2.2.4. *The Influence of Personality Traits on Financial Attitude*

Financial attitude refers to the stand that an individual takes as well as the beliefs that the same person holds concerning finances and finance. They also found out that personality factors are factors that determine the financial behavior of an individual (Brooks & Williams, 2021). For example, individuals, who may be labelled as neurotic or anxious, are much more pessimistic when it comes to their financial situation and use much more caution when it comes to their money matters (Darnida et al., 2024). Other variable is that people with such traits give more priority to minimize the risks. Rather than spending money they have on something to make it a worth spending money for, they opt to save their money in an account. Conversely, those people who have the personality of extraversion/extrovert personality type are associated with a higher risk taking tendency in terms of money and therefore they are likely to dare to invest (Ishfaq et al., 2020). Concisely, personality plays a central role in the financial attitude that may help define a person and his or her reactions to financial problems or choices (Sesini & Lozza, 2023);(Bhargava et al., 2022). That is why it is important to know how personality affects the observed financial behavior. Therefore, it can be stated that people's personality characteristics define the nature of their financial behavior. Appreciating such a relationship helps people to point to actions that are in line with their financial objectives, as well as noble demeanors towards the issue of money.

According to Brooks & Williams (2021), the aspects of personality profiles bear more importance as compared to the feelings. Golestan et al., (2014) have concluded that personality traits involving extraversion, agreeableness, openness and conscientiousness results in a positive attitude towards people. In addition, when considering the financial factor, the personality has been synthesized with attitudes and behaviors in broad terms (Aziz & Zoraya, 2024). Therefore, we hypothesize the following:

*H<sub>3</sub>: Personality traits have a significant influence on financial attitudes among naval families at Hera Naval Base, Timor-Leste.*

#### *2.2.5. The Influence of Personality Traits on Personal Saving Orientation*

Personal Saving Orientation, (PSO) means how people perceive saving their money or providing funds for certain objectives within stipulated time horizons (Price, 2020). Some of the factors, which can influence a particular person with regard to the idea of saving one of them, are personality. Examining personal attributes which are characteristics that define a person and predispose him to certain behavior may offer an understanding on money-saving orientation. According to the past studies it has been seen that attitude can affect the money saving orientation (Sesini & Lozza, 2023). For instance, it has been realised that there is a correlation between money saving orientation and neuroticism or anxiety (Sesini & Lozza, 2023). On the other hand, people with personality characteristics, which could be related to extrovert or extravert personality have low money saving style. Another personality type that has been found anticipate a person's money-saving orientation is conscientiousness, which may be described as responsibility and orderliness. As a result, such people will save more money as compared to the other people due to their well – organized and matured money saving planning (Greene et al., 2023). In Brannon & Manshad, (2022), Personal Saving Orientation (PSO) was proved to be a strong personality characteristic that affects the financial results because there is a direct relation between this aspect and savings. According to the research done by Gerhard et al., (2018), attitudes of the people towards saving are determined by their personality in a very clear and direct way. Therefore, the following hypothesis can be proposed:

*H<sub>4</sub>: Personality traits have a significant influence on personal saving orientation among naval families at Hera Naval Base, Timor- Leste.*

#### *2.2.6. The Influence of Personality Traits on Family Financial Planning*

It involves planning and managing a family's finances for the future, where the family makes money decisions to achieve its goals. There is the need to understand that personality factors or personality factors of family members play an important role in the process of making a financial plan and the financial outcomes of the family (Wicaksono et al., 2022). For instance, individuals with neurotic or anxious traits often make cautious and conservative choices about family finances. It is more comfortable for them to keep their money in savings than use it to invest – even if family does not get biggest benefits (Mutlu & Ozer, 2019). On the other hand, the subjects who possess the type of personality that has a tendency towards extraversion or extroverted type make decisions which are more coercive towards family expenditure as well as they are more willing to take risks in investments( Ishfaq et al., 2020). Essentially, personality traits have a significant impact on family financial planning and all financial decisions within the family. Hence, Families must recognize and consider personality factors when engaging in family financial planning (Wann & Burke-Smalley, 2023). In this regard, Wicaksono et al. (2022) for instance (K H K Yeo et al., 2023) highlighted that personality acts financial behavior. Likewise, Permana & Lutfi, (2022) pointed out that traits like Agreeableness, Conscientiousness, Body Focus, Materialism, and need for arousal can influence family financial planning. Thus, connecting family financial planning with personality traits can enhance families' financial decision-making in line with their financial goals (Gudmunson, 2011). In line with these findings, the following hypothesis we proposed:

*H<sub>5</sub>: Personal traits have a significant influence on family financial planning among naval families at Hera Naval Base, Timor-Leste.*

### 2.2.7. *The Influence of Financial Literacy on Financial Attitude*

According to Theory of Planned Behaviors, which is common in explaining financial behaviour, it is argued that level of attitude, subjective norms and perceived behavioural control over intentions and subsequent behaviour (Buess, 2012). Financial literacy determines a person's financial attitude in financial behaviours and intents (Lusardi & Messy, 2023). From the current literature it can be deduced that people with higher levels of financial literacy, act more positively towards money management, investments, and savings. However, financial education programs may also exhibit varying levels of performance in developing and inculcating knowledge into people's financial literacy and management of the available financial resources (Lusardi & Messy, 2023). Lusardi, (2019) defined financial literacy as an ability of a person to understand ideas concerning money, investment, credit and other financial categories. The overall financial knowledge enables such a person to make correct decisions regarding their financial future (Lusardi, 2019). Therefore, financial literacy also affects attitude towards managing risks that involves money like insurance and retirement plans (Pham & Le, 2023). This may be because people with more information on money related concerns may perhaps understand the function of finance insurance and have a better disposition towards planning for the future. A current article by Hodge (2020) affirm that financial literacy has a positive impact on women's healthy financial behavior by an investment motivation. Besides, the knowledge of finance is a work in progress towards developing good financial practices in women specifically in investment motivation. Likewise, in another study, Callis et al., (2023) has a similar conclusion to suggesting that money intelligence leads to enhanced money decision making. As a whole, one may conclude that theoretical background and empirical evidence confirm the importance of financial literacy for its impact on people's attitudes. What we must also understand is the fact that consumers with a certain level of financial literacy are more likely to have a favorable attitude to money management and protection. Therefore, the hypothesis built is:

*H<sub>1</sub>: Financial literacy has a significant effect on financial attitudes among naval families at Hera Naval Base, Timor-Leste.*

### 2.2.8. *The Influence of Financial Literacy on Personal Saving Orientation*

Alshebami and Marri (2022) stated that financial literacy and various financial practices have a significant impact on individuals' saving habits. Improving financial management practices is associated with fewer financial problems and increased savings (Alshebami & Marri, 2022). Nevertheless, their study did not identify a direct correlation between financial literacy and financial issues, highlighting the intricate nature of the connection between financial literacy and saving behaviors. Additionally, Delafrooz and Paim (2011) found no association between financial literacy and saving behavior. These results suggest a complex interplay between financial literacy, financial problems, and saving habits, contradicting prior beliefs. In a nutshell, financial literacy can affect an individual's personal saving orientation and enhance their knowledge on the aspect of self-financial management, the tools which are available to them and the overall value of savings in order to drive and accomplish the necessary monetary goals in the future (Lusardi & Messy, 2023); (Rokhman, 2021). Higher levels of financial literacy are likely to motivate individuals to actively participate in saving and managing finances effectively. Furthermore, a study by Rasool and Ullah (2020) revealed that individual financial literacy reduces cognitive biases and heuristics, leading to improved investor behavior in the financial market. Additionally, individuals with financial literacy tend to make well-informed and logical investment choices, as evidenced by research. Referring to these findings, the following hypothesis is proposed:

*H<sub>2</sub>: Financial Literacy has a significant effect on personal saving orientation among naval families at Hera Naval Base, Timor-Leste.*

### 2.2.9. *The Influence of Financial Literacy on Family Financial Planning*

Evidence obtained from general understanding indicates that financial literacy or knowledge about finance is important in managing personal financial and family financial planning (Lusardi & Tufano,

2015); (Lusardi, 2019). It is postulated that subjects with high levels of financial literacy will have more knowledge about Financial Management and be able to apply Financial Planning better. Several previous studies have also found that financial literacy level is positively related to the financial behaviour of a person (Lusardi & Messy, 2023); (Stolper & Walter, 2017) Hung et al., 2009). Generally, those with better financial literacy will also be in a position to carry out better financial management including saving, investing and or planning to in future events including instance retirement (Stolper & Walter, 2017); (Alessie et al., 2011). It thus can be seen that Family Financial Planning is an element of family financial process (Legenzova & Leckè, 2024). This aspect comprises the following operations: Creating a financial budget, accumulation for some certain purpose, insurance of the family and accumulation for financial objectives (K H K Yeo et al., 2023); (Owusu, 2023). Although financial literacy is acknowledged globally as vital, there is a still high incidence of low levels of financial literacy in a number of societies (Świecka, 2019). People and households are not always well informed about the appropriate ways of handling their money which leads to inefficient financial decisions (Toffel, 2016). In this context, previous findings showing a positive relationship between financial literacy and family financial planning (Mireku et al., 2023); (Dogra et al., 2023); (Augustin & Martin, 2022) support the following hypothesis: In this context, previous findings showing a positive relationship between financial literacy and family financial planning support the following hypothesis:

*H<sub>5</sub>: Financial Literacy has a significant influence on family financial planning among naval families at Hera Naval Base, Timor Leste.*

#### *2.2.10. Financial Quotient Moderates the Influence of Financial Technology on Financial Attitude*

Financial Technology (FinTech) is technology applied to the provision of a financial service; including banking software, apps, marketplace loans, and financial advice (AlMomani & Alomari, 2021). FinTech can also shape the financial perceptions of people by enhancing the acquirement of certain innovative financial products, also disclosing information about the available options, as well as enhance efficient management of the personal finances (Li & Xu, 2021). Financial attitude encompasses a person's disposition and emotions towards the financial management and planning processes, and his or her psychological stance toward the described processes. This attitude includes affective, cognitive and conative factors that define people's reactions and appraisals of financial actions (Sesini & Lozza, 2023); (Ardradhika et al., 2023). It shows that people's financial attitude can be changed by convenience and efficiency of FinTech, therefore, the change in the type of the attitude towards FinTech influences the frequency of financial management actions (Hwang & Lee, 2019); (Almashhadani et al., 2023). The Financial literacy index or Financial Quotient (FQ) refers to the level of knowledge or proficiency with regard to financial matters with is expressed as the ability to reason through information and make sound financial decisions (Lusardi, 2019); (Lusardi & Mitchell 2014). Under this circumstance, FQ serves as a moderator that moderates the interaction between FinTech usage and financial attitude. Thus, high FQ people may be in a better position to capture effective utility (features and benefits) of FinTech applications, which in turn, may build higher and positive self-attitude towards efficient financial management. Hence, the proposed hypothesis is:

*H<sub>6</sub>: Financial Quotient moderates the influence of financial technology on financial attitude among naval families at Hera Naval Base, Timor-Leste.*

#### *2.2.11. Financial Quotient as a Moderator of the Effect of Financial Technology on Personal Saving Orientation*

The Financial Literacy is defined by the Financial Quotient (FQ) — a measure reflecting a person's capability of applying financial knowledge and information (Lusardi & Mitchell, 2013); (Lusardi & Mitchell, 2014). In this regard, FQ assumes the role of a moderator that mediates the connection between FinTech and Personal Saving Orientation (PSO). Therefore, defines Personal Saving Orientation (PSO) as "the set of activities that a person undertakes in saving including hankering or habitual and volitional, intentional or sporadic but are part of one's life". PSO encompasses two primary dimensions: long-term saving disposition and saving actions that are a consistent and conscious element

of individual's current/present lifestyle (Price, 2020); (Shockey & Seiling, 2004); (Nenkov et al., 2009). It is worth assuming that people with a higher FQ are capable of using FinTech tools to strengthen the saving attitudes, and thereby increase the positive influence of FinTech solutions. Thus, the proposed hypothesis is:

*H<sub>11</sub>: Financial Quotient moderates the effect of financial technology on personal saving orientation among naval families at Hera Naval Base, Timor-Leste.*

### *2.2.12. Financial Quotient as a Moderator in the Influence of Financial Technology on Family Financial Planning*

FinTech is defined as the use of technology solutions in the provision of financial services with an aim of making the processes more efficient and accessible. These are for instance mobile banking apps, online investment portals and other Fintech solutions for managing money (Liu et al., 2024); (Suryono et al., 2020). Financial planning means anticipating, analyzing and planning the financial resources of a family for the achievement of a certain family goal and objectives such as retirement, children's education expenses and paying off bills. Economic planning in a family entails designing methods of how one should spend, invest and save money in order to have sustainable income in the future (Kingsley Hung Khai Yeo et al., 2023a); (Miller et al., 2014). Several objectives may impact the effectiveness of the financial planning for instance convenience and their openness brought by FinTech (Amnas et al., 2023). The usage of FinTech can positively influence the family's financial planning practices; thus, the FQ may be viewed as a moderator in this relationship. Based on the concepts of the above theory, it can be hypothesized that, individuals with more financial literacy are probably more capable of using more FinTech tools for efficient family financial planning and thereby increasing the planning efficiency (Nenkov et al., 2009); (Kodama et al., 2024); (McGill and Giovanni, 2017). Therefore, the proposed hypothesis is:

*H<sub>12</sub>: Financial Quotient moderates the effect of financial technology on family financial planning among naval families at Hera Naval Base, Timor-Leste.*

### *2.2.13. Financial Quotient Moderates the Influence of Personality Traits on Financial Attitude*

Personality traits refers to the behavioral, emotional and thought patterns that are displayed by people in a predictable and consistent manner. Attitudes that define personality include openness to experience, conscientiousness, extraversion, agreeableness and neuroticism which depict the character of a person and how he would react to issues to do with finance. These traits tend to affect a person's financial attitude since some of these traits may cause people to have either a positive or negative attitude towards various financial activities (Baker & Nofsinger, 2010). Financial attitude relates to a person's beliefs and emotions on the financial activities and decisions which he or she goes through. This attitude entails how people approach and handle particular facets of manage including, saving, investing and or budgeting. This is in the view that financial attitudes are partially determined by personality factors, which may change the perspectives that people have, as well as the ways in which they approach, and respond to, fiscal matters (K H K Yeo et al., 2023); (Sesini & Lozza, 2023); (Fishbein and Ajzen, 1975). According to Nesbitt (2017), if certain traits influence an individual's attitude towards money and ways of using it, such a person will lean towards being either more liberal or more traditional. Financial Literacy is the ability to recognise financial information and to make sound financial decisions based on such information (Lusardi & Mitchell 2014). In this regard, FQ can be regarded as a moderator that can affect the interaction between the personality traits as well as financial attitude. People with better financial literacy could presumably manage their personalities at a higher level in order to develop better and more efficient financial perceptions. That is why it is possible to claim that the enhancement of understanding different financial aspects may help individuals make better financial decisions (Lusardi & Messy, 2023); (Gerrans et al., 2017). Based on this, the hypothesis proposed is:



*H<sub>13</sub>: Financial Quotient moderates the influence of personality traits on financial attitude among naval families at Hera Naval Base, Timor Leste.*

#### *2.2.14. Financial Quotient Moderates the Effect of Personality Traits on Financial Attitude*

Attaining goals and savings thus have a positive effect on the pattern that people adopt toward and plans for the personal savings (Ülkümen & Cheema, 2011). These characteristics can define to what extent one is willing to invest time and money on organizing for the future. Personal Saving Orientation (PSO) relates to the values as well as behavior in terms of savings, and this behavior may be of different factors such as the personality characteristic that an individual has that defines their manner of savings (Price, 2020); (Dholakia et al., 2016). Those with a personality that has a predisposition to proper financial management in their case have a much higher propensity to save and this leads to better saving characteristics as evidenced by the proper management of their savings (Nauman Sadiq & Ased Azad Khan, 2019). In such a situation, Financial Quotient can also contribute towards optimising or modifying the influence that personality traits have on Personal Saving Orientation (PSO). Individuals with a greater Financial Quotient may manage to transform their personality traits into meaningful saving strategies meaning that personality trait influence how they save (Dholakia et al., 2016); (Mutlu & Ozer, 2019). The proposed hypothesis is:

*H<sub>14</sub>: Financial Quotient moderates the influence of personality traits on personal saving orientation among naval families at Hera Naval Base, Timor Leste.*

#### *2.2.15. Financial Quotient Moderates the Influence of Personality Traits on Family Financial Planning*

Family Financial Planning (FFP) therefore refers to processes and practices through which planning of family finances with a view of attaining financial sustainability and prosperity occurs. These include how to balance the expenditures, how to save for the rainy day especially for issues like retirement, and how adequately to handle with debts. As it has been found in De Massis et al., (2021) (Kingsley Hung Khai Yeo et al., (2023), family financial planning has been found to be associated with planning personality trait. It implies that FQ may mediate the effect of personality characteristics on FFP through enhancing an individual's capacity in managing and planning family budgets. (Greene et al., 2023); (Weisser & Renzulli, 2017); (Lusardi & Mitchell 2017) found that, knowledge of finances dramatically increases the efficiency of the financial planning by the better use of personality traits in personal financial decision. The proposed hypothesis is:

*H<sub>15</sub>: Financial Quotient moderates the influence of personality traits on family financial planning among naval families at Hera Naval Base, Timor Leste.*

#### *2.2.16. Financial Quotient Moderates the Effect of Financial Literacy on Family Financial Planning*

Appropriate understanding of financial literacy fosters awareness and enables people to take wiser packing decisions regarding the financial matters, thus influences their perceptions on the financial management (Lusardi & Streeter, 2023). The attitude towards money is the perception that a client has towards the financial activity that include saving, investment and or budgeting. It enables people to understand how such attitude influences their behaviour or the decisions they take over their financial resources (Sesini & Lozza, 2023). Research reveals that people with the positive money mind-sets also possess the better financial literacy since they understand the prospects of their financial decisions for and against (Lusardi & Messy, 2023); (Lusardi & Streeter, 2023). Financial Quotient (FQ) measure the level of financial literacy and finance related knowledge of an individual and acted as a moderator variable in financial literacy and financial attitude relationship (Lusardi & Streeter, 2023). FQ can either build upon or modify a person's money mindset by providing a firmer ground towards making appropriate decisions in terms of finance. A study conducted by Lusardi and Mitchell (2017) reveal that the mean financial literacy can help to enhance positive or favorable attitude since the human beings has increased positive feelings regarding on the financial controlling. The hypothesis proposed is:

*H<sub>16</sub>: Financial Quotient moderates the influence of financial literacy on financial attitudes among Navy families at Hera Naval Base, Timor Leste.*

### 2.2.17. The Financial Quotient Moderates How Financial Literacy Influences Personal Saving Habits

A good financial literacy can therefore influence how an individual approaches and executes his/her saving strategy (Lusardi & Messy, 2023). Savings orientation: the predisposition of people to saving in their daily activities. This entails numerous behaviours that focus on saving with focuses on the regular patterns of saving and selective saving behaviours (Price, 2020). As this study has demonstrated, FQ can play an intermediary role to either enhance or reduce the flow between financial literacy and PSO. Literature proves that financial literates as well as those who possess a high level off-class, or better to say, financial quotient are capable of achieving higher results when it comes to saving and planning for the future (Lusardi & Mitchell, 2011); (Lusardi & Mitchell, 2017). Therefore, the proposed hypothesis is: *H<sub>17</sub>: The Financial Quotient moderates the influence of financial literacy on personal saving orientation among naval families at Hera Naval Base, Timor Leste.*

### 2.2.18. Financial Quotient Moderates the Effect of Financial Literacy on Family Financial Planning

Huston (2010) established that information skills are important in family financial planning as they assist individuals, in making more effective and sustainable financial plans. Personal Financial Planning is the process of coordinating family resources in order to achieve aims and objectives for instance education expenses, retirement expenses, and debt (CFP Board, 2022). Hilgert and his colleagues discovered that those who are financially literate in the management of family assets are able to plan on education and retirement among other objectives effectively (M.Hogarth & Hilgert, 2002). This knowledge is very important especially when it concerns rational allocation of financial resources through a given period of time, which individuals with high level of financial literacy always appreciate because it helps them to set aside special kitty to cater for any form of emergency that may occur during the same financial period (Lusardi, 2019).

Financial Quotient (FQ) on the other hand assesses a person's capability of using actual financial information in his/her decision making. High FQ will allow a person improve utilization of financial literacy especially in family financing. Analysing the results in the light of the Hypotheses under all the three Models, higher FQ improves the ability of financial literacy to positively influence family financial planning that as a result individual is able to make very careful and constructive financial decisions (Huston & Lusardi, 2010). The proposed hypothesis is:

*H<sub>18</sub>: Financial Quotient moderates the effect of financial literacy on family financial planning among Naval families at Hera Naval Base, Timor Leste.*

## 3. Methodology

### 3.1. Research Design

The research utilizes a quantitative design with a Causal Explanatory Research approach to explore relationships and causal influences among variables.

### 3.2. Population and Sample

The target population of the study were 700 naval personnel selected from Hera Naval Base. A stratified random sampling technique were employed so that, respondents from various ranks of the Navy personnel and financial status could be included in the study. For this study, sample size was therefore established using Krejcie dan Morgan formula (1970) as shown below:

$$n = 1 + N \cdot e^2 N$$

Where:

N = total population size (700)

e = margin of error (0.05)

$$n = \frac{\chi^2 \cdot N \cdot P(1-P)}{(N-1) \cdot d^2 + \chi^2 \cdot P(1-P)}$$

According to the formula the sample size of 248 Navy personal at Hera Naval Base, Timor-Leste were taken for the study. This was the totality of the participants which formed the entire sample size of the study.

### 3.3. Variables

- a) Exogenous Variables (X): Financial technology, personality traits, and financial literacy.
- b) Endogenous Variable (Y): Financial attitude, personal saving orientation and Family financial planning.
- c) Moderating Variable (M): Financial quotient.

### 3.4. Data Collection

Data Collection was done through an online survey which was conducted using google forms and a closed questionnaire was used to increase credibility. For research Methods and Tests the researcher using a structural equation modeling (SEM) approach with Smart PLS to analysis the casual relationships between latent and manifest variables.

Table 1.

No	Hypothesis	Result	Explanation
1	H1: Financial technology positively affects financial attitude in military families at Hera Naval Base, Timor Leste.	Positive not significant	Accepted
2	H2: Financial technology positively affects personal saving orientation in military families at Hera Naval Base, Timor Leste.	Negative not significant	Rejected
3	H3: Financial technology positively affects family financial planning in military families at Hera Naval Base, Timor Leste.	Positive significant	Accepted
4	H4: Personality traits positively affect financial attitude in military families at Hera Naval Base, Timor Leste.	Positive significant	Accepted
5	H5: Personality traits positively affect personal saving orientation in military families at Hera Naval Base, Timor Leste.	Negative not significant	Rejected
6	H6: Personality traits positively affect family financial planning in military families at Hera Naval Base, Timor Leste.	Positive significant	Accepted
7	H7: Financial literacy positively affects financial attitude in military families at Hera Naval Base, Timor Leste.	Positive significant	Accepted
8	H8: Financial literacy positively affects personal saving orientation in military families.	Positive not significant	Accepted

## 4. Findings and Discussions Findings

### 4.1. Hypothesis Testing Results

From the findings it was evident that financial technology (H3) influenced family financial planning positively while the influence of financial attitude and influence on personal saving orientation was found be insignificant (H1 & H2). This shows that whilst financial technology could be useful in the context of family financial planning, it need not therefore always enhance their financial disposition or saving. It can be noted that personality traits influence financial attitude (H4) and the creation of the framework for the family financial planning (H6). From the evidence it is evident that financial literacy has a large impact on financial attitude [H7] and is consequently more proof to the theory that it affects their perspective on matters to do with personal finance.

**Table 2.**  
T-values & p-values.

Variable	Coefficient	T-statistic	P-value	Significance
Financial technology → Financial attitude (Y1)	0.010	0.389	0.349	Positive but not significant
Financial technology → Personal saving orientation (Y2)	-0.094	1.206	0.114	Negative but not significant
Financial Technology → Family financial planning (Y3)	0.306	2.101	0.036	Positive and significant
Personality traits → Financial attitude (Y1)	0.306	3.730	0.000	Positive and significant
Personality traits → Family financial planning (Y3)	0.294	3.730	0.000	Positive and significant
Financial literacy → Financial attitude (Y1)	0.682	20.345	0.000	Positive and significant
Financial literacy → Family financial planning (Y3)	0.340	4.274	0.000	Positive and significant
Financial quotient moderation (X3)	Not significant	-	-	Negative moderation effect

#### 4.2. Analysis of Hypothesis Variables

The path coefficients established in this study show that the impact of financial technology is near-zero on financial attitude (.010) and weak/insignificant negative on personal saving orientation (-.094) although statistically insignificant ( $p > 0.05$ ). Although it has a moderate degree of importance, it has a near meaningful and highly significant positive impact of on family financial planning having a coefficient of 0.125 and  $p < 0.05$ . Personality traits therefore positively affect financial attitude ( $t = 3.205$ ,  $p < 0.001$ ) and family financial planning ( $t = 3.111$ ,  $p < 0.001$ ) though they were found to negatively affect self-savings orientation but insignificantly so ( $t = -1.676$ ,  $p > 0.05$ ). On the other hand, the results show that financial literacy has a strong and positive relationship and influence on financial attitude ( $r = 0.682$   $p < 0.001$ ) as well as family financial planning ( $r = 0.340$   $p < 0.001$ ), reinforcement of its importance in improving financial decisions. The result shows that there is a positive but insignificant impact on personal saving orientation (Mean = 0.106, and  $p > 0.05$ ).

**Table 3.**  
Analisis variabel moderasi

Variabel	Original-sample (O)	T-statistics	P-values
X1 -> Financial attitude (Y1)	-0,041	1,040	0,149
X1 -> Personal saving orientation (Y2)	-0,159	0,883	0,189
X1 -> Family financial planning (Y3)	-0,107	0,937	0,175
X2 -> Financial attitude (Y1)	-0,002	0,039	0,484
X2 -> Personal saving orientation (Y2)	-0,106	1,019	0,154
X2 -> Family financial planning (Y3)	-0,088	0,814	0,208
X3 -> Financial attitude (Y1)	0,016	0,395	0,347
X3 -> Personal saving orientation (Y2)	-0,157	1,046	0,148
X3 -> Family financial planning (Y3)	-0,049	0,556	0,289

#### 4.3. Financial Quotient as a Moderator

According to the moderation analysis, it is realised that the "Moderation" does not influence the associations between financial technology and financial attitude, personal saving orientation, and the

family financial planning as the p-values above 0.05. Accordingly, this implies that though financial quotient may moderate the results, it does not come as a dominant factor to improve the impact of financial technology, personality and financial literacy on financial performance.

#### *4.4. Discussion of Key Findings*

##### *4.4.1. Influence of Financial Technology*

The results showed that financial technology has a statistically insignificant positive effect on financial attitudes (coefficient = 0.010). This means that even though financial technology may offer some methods of effective utilization of money, it does not actually make any changes in the overall perceptions of members of naval forces on finances. This result differs from other investigations that revealed that the level of associability between technologized usage and financial attitudes is higher, which means that other factors can be considered to be dominant in this case.

##### *4.4.2. Impact on Personal Saving Orientation*

The result with a negative sign (-0.094) also supports the hypothesis that the impact of financial technology on personal saving orientation is weak and in the negative direction. This finding suggests that the increased use of financial technology may not enhance effective saving habits in naval personnel as it may create the impression that they are able to spend more with easy access to financial services.

##### *4.4.3. Significant Role in Family Financial Planning*

Financial technology also revealed positive and substantial impact on the family's financial planning where the coefficient was 0.306. This means that, although technology does not impact on attitudes, it helps families to improve the planning of their finances. This assertion holds with the truth that financial technology can improve the way people make decisions and financially plan.

##### *4.4.4. Personality Traits and Financial Attitude*

Overall, the analysis shows the presence of positive and moderate correlation between the dependent variable and personality traits, more specifically, the impact of the given personality characteristics on financial attitudes (coefficient = 0.306) demonstrates that individual personality plays an important role in the sphere of financial decision making. This indicates that there is need to gain knowledge and understand the personality traits of the naval personnel in the development of proper financial education programs for them.

##### *4.4.5. Financial Literacy as a Key Factor*

Strong and positive significant relationship was found between financial literacy and financial attitude where the coefficient was 0.682 which signifies that education plays an important role in the formation of financial behaviours. Hence, the need for stakeholders with an intention to bring positive changes to the financial attitudes and financial behaviors of naval personnel should place much emphasis on financial literacy.

##### *4.4.6. Moderating Effects of Financial Quotient*

The results showed that the moderating impact of the financial quotient on the relationships under consideration was negative, yet insignificant. This means that, albeit based on financial quotient, there is no substantial modification to the discretionary effect of financial technology or personality characteristics on financial thinking as well as planning.

## 5. Conclusion and Recommendations

### 5.1. Empirical Results

The research revealed a number of correlations between the indicated technological solutions, personality traits, and financial literacy concerning financial perceptions and the family's financial planning among the Navy personnel of the Hera Naval Base.

- This study affirmed that financial technology significantly affected family financial planning (coefficient = 0.306; T-statistic = 2.101; P = 0.036) suggesting on the capacities of the tool in improving on directions of choice.
- Perceived financial attitude and family financial planning were findings to be significantly affected by Personality traits with the coefficient value of 0.306 for perceived financial attitude, 0.294 for family financial planning, T-statistic = 3.730 and P = 0.000 respectively.
- Results also revealed that financial literacy had positive influence on financial attitudes (coefficient= 0.682; T-statistic = 20.345; P = 0.000) and family financial planning (coefficient= 0.340; T-statistic= 4.274; P = 0.000) that confirmed the importance of financial literacy to financial behaviour.

The preliminary analysis of the results indicated that financial quotient has a negative but non-significant moderating effect, that is, it does not qualify the relationships examined in the research.

### 5.2. Implications for Policymakers

- By drawing conclusions from the research, it is recommended that authors give focus to increase the training of financial literacy among naval personnel and related party to better their financial thinking skills.
- Addressed measures to increase the relevance of financial technology contribute to onset targeted strategies aimed at learning how naval personnel can use these tools and resources for improving the choices.
- It is recommended that personality assessments be included as part of the steering means for financial education because of the variability of financial behaviour and financial personalities among the naval personnel.

### 5.3. Research Limitations

- It should be noted that the study was done in a particular setting (Hera Naval Base), thus the results of the study may not be generalizable to other military or civilian samples.
- The use of self-reported data may bias the results since participants might not represent the actual financial behaviour or financial personality.
- The threats and limitations of the study include the failure to establish the impact of environmental factors including economic factors or family on people's financial behavior and planning.

### 5.4. Suggestions for Future Research

- Future research should look at the evolution of effect of financial technology and literacy on financial behavior of naval personnel in the long-run.
- Using a broader sample which includes different branches of the military or other civilian populations might improve the external validity of the results.
- Examining other factors that may influence the financial decisions including socio-economic status and culture would help to fill this gap in understanding some of the possible forces that are at work.
- Thus, the further study of the moderating effects of Financial Quotient in various settings might help to reveal its possible impact on financial decisions made.

## Acknowledgements:

This research was supported by Timor-Leste National Defence Institute (NDI)

## Copyright:

© 2024 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## References

- [1] Alessie, R., Van Rooij, M., & Lusardi, A. (2011). Financial literacy and retirement preparation in the Netherlands. *Journal of Pension Economics and Finance*, 10(4), 527–545. <https://doi.org/10.1017/S1474747211000461>
- [2] Almashhadani, I. S., Abuhashesh, M., Bany Mohammad, A., Masa'deh, R., & Al-Khasawneh, M. (2023). Exploring the determinants of FinTech adoption and intention to use in Jordan: The impact of COVID-19. *Cogent Social Sciences*, 9(2), 1–18. <https://doi.org/10.1080/23311886.2023.2256536>
- [3] AlMomani, A. A., & Alomari, K. F. (2021). Financial Technology (FinTech) and its Role in Supporting the Financial and Banking Services Sector. *International Journal of Academic Research in Business and Social Sciences*, 11(8), 1793–1802. <https://doi.org/10.6007/ijarbss/v11-i8/10625>
- [4] Alshebami, A. S., & Marri, S. H. Al. (2022). The impact of financial literacy on entrepreneurial intention: The mediating role of saving behavior. In *Frontiers in Psychology*. frontiersin.org. <https://doi.org/10.3389/fpsyg.2022.911605>
- [5] Amnas, M. B., Selvam, M., & Parayitam, S. (2024). FinTech and Financial Inclusion: Exploring the Mediating Role of Digital Financial Literacy and the Moderating Influence of Perceived Regulatory Support. *Journal of Risk and Financial Management*, 17(3). <https://doi.org/10.3390/jrfm17030108>
- [5] Amnas, M. B., Selvam, M., Raja, M., Santhoshkumar, S., & Parayitam, S. (2023). Understanding the Determinants of FinTech Adoption: Integrating UTAUT2 with Trust Theoretic Model. *Journal of Risk and Financial Management*, 16(12). <https://doi.org/10.3390/jrfm16120505>
- [6] Ardradhika, A. N., Roslia, A., & Putri, A. (2023). The Influence Of Money Attitude On Financial Well-Being On Married Workers. *Jurnal Ilmiah Ekonomi ....* <https://ejournal.gunadarma.ac.id/index.php/ekbis/article/view/6763>
- [7] Augustin, L. A. V., & Martin, T. K. (2022). Financial literacy and the level of financial planning individuals use. *Financial Services Review*. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=10570810&AN=163770548&h=HHJDCPFqVoaBVP9EiFCKltyLXYdtNLsTijPu4HCxvoG%2BDmCEvwGAs%2BSJFX6uxZtkjWI36uw3Qe3jPXNsiHZ%2Fw%3D%3D&crl=c>
- [8] Aziz, D. A., & Zoraya, I. (2024). How Financial Literacy, Financial Attitudes and Personality Affect MSM Management Behavior? Case in Bengkulu. *Hasanuddin Economics and Business Review*, 7(3), 113. <https://doi.org/10.26487/hebr.v7i3.5126>
- [9] Basdekis, C., Christopoulos, A., Katsampoxakis, I., & Vlachou, A. (2022). FinTech's rapid growth and its effect on the banking sector. *Journal of Banking and Financial Technology*, 6(2), 159–176. <https://doi.org/10.1007/s42786-022-00045-w>
- [10] Bhargava, M., Sharma, A., Mohanty, B., & Lahiri, M. M. (2022). Moderating Role of Personality in Relationship to Financial Attitude, Financial Behaviour, Financial Knowledge and Financial Capability. *International Journal of Sustainable Development and Planning*, 17(6), 1997–2006. <https://doi.org/10.18280/ijstdp.170635>
- [11] Bi, Q., Dean, L. R., Guo, T., & Sun, X. (2021). The impact of using financial technology on positive financial behaviors. *Financial Services Review*. <https://search.proquest.com/openview/42db29ea7a34bd5fd374b200fca7f43e/1?pq-origsite=gscholar&cbl=31458>
- [12] Brannon, D. C., & Manshad, M. S. (2022). Personal saving orientation is associated with higher likelihood of paying with cash versus credit: The role of financial power signaling. *Personality and Individual Differences*. <https://www.sciencedirect.com/science/article/pii/S0191886922000502>
- [13] Broby, D. (2021). Financial technology and the future of banking. In *Financial Innovation*. jfin-swufe.springeropen.com. <https://doi.org/10.1186/s40854-021-00264-y>
- [14] Brooks, C., & Williams, L. (2021). The impact of personality traits on attitude to financial risk. *Research in International Business and Finance*, 58(July). <https://doi.org/10.1016/j.ribaf.2021.101501>
- [15] Buess, M. (2012). Metastasiertes nierenzellkarzinom: Heutige therapeutische optionen. *Tagliche Praxis*, 53(1), 51–58.
- [16] Callis, Z., Gerrans, P., Walker, D. L., & Gignac, G. E. (2023). The association between intelligence and financial literacy: A conceptual and meta-analytic review. *Intelligence*, 100(July), 101781. <https://doi.org/10.1016/j.intell.2023.101781>
- [17] CFP Board. (2022). *Guide to the 7-Step Financial Planning Process*. January. <https://www.cfp.net/-/media/files/cfp-board/standards-and-ethics/compliance-resources/guide-to-financial-planning-process.pdf?la=en&hash=A8F02CC2451BE07E4FB05DE009A64>
- [18] Darnida, Y. C., Haryono, A., & Nurriqli, A. (2024). *The Role of Financial Technology in Increasing Financial Access*. 3(2), 474–493.



- [19] De Massis, A., Kotlar, J., & Manelli, L. (2021). Family Firms, Family Boundary Organizations, and the Family-Related Organizational Ecosystem. *Family Business Review*, 34(4), 350–364. <https://doi.org/10.1177/089448652111052195>
- [20] Delafrooz, N., & Paim, L. (2011). Personal Saving Behavior among Malaysian Employees: Socio Demographic Comparison. *International Conference on Social and Humanity*, 5(July), 361–363. <http://www.ipedr.com/vol5/no2/79-H10207.pdf>
- [21] Dholakia, U., Tam, L., Yoon, S., & Wong, N. (2016). The ant and the grasshopper: Understanding personal saving orientation of consumers. *Journal of Consumer Research*, 43(1), 134–155. <https://doi.org/10.1093/jcr/ucw004>
- [22] Dogra, P., Kaushal, A., & Sharma, R. R. (2023). Antecedents of the Youngster's Awareness About Financial Literacy: A Structure Equation Modelling Approach. *Vision*, 27(1), 48–62. <https://doi.org/10.1177/0972262921996560>
- [23] Gerhard, P., Gladstone, J. J., & Hoffmann, A. O. I. (2018). Psychological characteristics and household savings behavior: The importance of accounting for latent heterogeneity. *Journal of Economic Behavior and Organization*, 148, 66–82. <https://doi.org/10.1016/j.jebo.2018.02.013>
- [24] Golestan, S., H. Hamsan, H., & Binti Abdullah, H. (2014). The Moderating Effects of Self-Efficacy on the Relationship Between Personality Traits (Extraversion, Neuroticism, Agreeableness, Openness, and Conscientiousness) and Cigarette Smoking Behavior Among Adolescents in Kerman, Iran. *Asian Culture and History*, 7(1). <https://doi.org/10.5539/ach.v7n1p187>
- [25] Greene, C., Shy, O., & Stavins, J. (2023). Personality Traits and Financial Outcomes. *Working Paper Series (Federal Reserve Bank of Boston)*, 23(4), 1–31. <https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=163682568&site=ehost-live>
- [26] Gudmunson, C. G. (2011). Researcher Profile: An Interview With Clinton G. Gudmunson, Ph.D. *Journal of Financial Therapy*, 2(2). <https://doi.org/10.4148/jft.v2i2.1557>
- [27] Harsono, I., & Suprapti, I. A. P. (2024). The Role of Fintech in Transforming Traditional Financial Services. *Accounting Studies and Tax Journal (COUNT)*, 1(1), 81–91. <https://doi.org/10.62207/gfzvtd24>
- [28] Hodge, L. (2020). Financial technology: Opportunities and challenges to law and regulation. *Artificial Intelligence and the Law*. <https://doi.org/10.4324/9780429344015-2>
- [29] Huston, S. J. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs*, 44(2), 296–316. <https://doi.org/10.1111/j.1745-6606.2010.01170.x>
- [30] Ishfaq, M., Nazir, M. S., Qamar, M. A. J., & Usman, M. (2020). Cognitive Bias and the Extraversion Personality Shaping the Behavior of Investors. *Frontiers in Psychology*, 11(October), 1–11. <https://doi.org/10.3389/fpsyg.2020.556506>
- [31] Kodama, W., Morgan, P., Azhgaliyeva, D., & Trinh, L. (2024). Financial Literacy and Fintech Use in Family Business. 1440. <https://www.adb.org/publications/financial-literacy-and-fintech-use-in-family-business>
- [32] Kunnathuvalappil Hariharan, N. (2018). Artificial Intelligence and human collaboration in financial planning. *Journal of Emerging Technologies and Innovative Research*, 5(7), 1348–1355.
- [33] Legenzova, R., & Lecké, G. (2024). The Link between Family Financial Socialization in Adulthood and Investment Literacy of P2P Investors. *Journal of Family and Economic Issues*. <https://doi.org/10.1007/s10834-024-09962-y>
- [34] Li, B., & Xu, Z. (2021). Insights into financial technology (FinTech): a bibliometric and visual study. In *Financial innovation*. Springer. <https://doi.org/10.1186/s40854-021-00285-7>
- [35] Liu, Q., Chan, K. C., & Chihundu, R. (2024). Fintech research: systematic mapping, classification, and future directions. *Financial Innovation*, 10(1). <https://doi.org/10.1186/s40854-023-00524-z>
- [36] Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1), 1–8. <https://doi.org/10.1186/s41937-019-0027-5>
- [37] Lusardi, A., & Messy, F.-A. (2023). The importance of financial literacy and its impact on financial wellbeing. *Journal of Financial Literacy and Wellbeing*, 1(1), 1–11. <https://doi.org/10.1017/flw.2023.8>
- [38] Lusardi, A., & Mitchell, O. S. (2011). Financial Literacy: Implication for Retirement Wellbeing. *National Bureau of Economic Research*, 17–39.
- [39] Lusardi, A., & Mitchell, O. S. (2013). The economic importance of financial literacy. *Journal of Economic Literature*, 52(1), 65.
- [40] Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- [41] Lusardi, A., & Streeter, J. L. (2023). Financial literacy and financial well-being: Evidence from the US. *Journal of Financial Literacy and Wellbeing*, 1(2), 169–198. <https://doi.org/10.1017/flw.2023.13>
- [42] Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance*, 14(4), 332–368. <https://doi.org/10.1017/S1474747215000232>
- [43] M.Hogarth, J., & Hilgert, M. A. (2002). Financial Knowledge, Experience and Learning Preferences: Preliminary Results from a New Survey on Financial Literacy. *Consumer Interest Annual*, 48(1), 1–7.
- [44] *Military & Veteran Family Financial Readiness*. (2023). January.
- [45] Mireku, K., Appiah, F., & Agana, J. A. (2023). Is there a link between financial literacy and financial behaviour? *Cogent Economics and Finance*, 11(1), 1–25. <https://doi.org/10.1080/23322039.2023.2188712>
- [46] Mutlu, U., & Ozer, G. (2019). The effects of personality traits on financial behaviour. *Pressacademia*, 8(3), 155–164. <https://doi.org/10.17261/pressacademia.2019.1122>



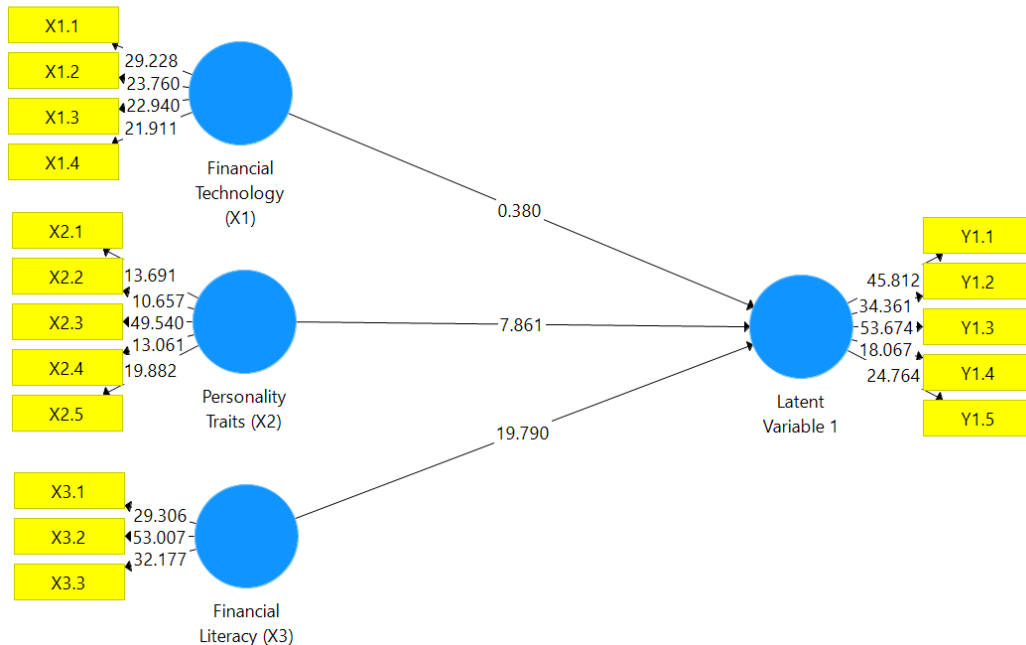
- [47] Nauman Sadiq, M., & Ased Azad Khan, R. (2019). Impact of Personality Traits on Investment Intention: The Mediating Role of Risk Behaviour and the Moderating Role of Financial Literacy. *Journal of Finance & Economics Research*, 4(1), 1–18. <https://doi.org/10.20547/jfer1904101>
- [48] Nenkov, G. Y., Inman, J. J., Hulland, J., & Morrin, M. (2009). The impact of outcome elaboration on susceptibility to contextual and presentation biases. *Journal of Marketing Research*, 46(6), 764–776. <https://doi.org/10.1509/jmkr.46.6.764>
- [49] Ouma, S. (2020). This can(t) be an asset class: The world of money management, “society”, and the contested morality of farmland investments. *Environment and Planning A*, 52(1), 66–87. <https://doi.org/10.1177/0308518X18790051>
- [50] Ouma, S. A., Odongo, T. M., & Were, M. (2017). Mobile financial services and financial inclusion: Is it a boon for savings mobilization? *Review of Development Finance*, 7(1), 29–35. <https://doi.org/10.1016/j.rdf.2017.01.001>
- [51] Owusu, G. M. Y. (2023). Predictors of financial satisfaction and its impact on psychological wellbeing of individuals. *Journal of Humanities and Applied Social Sciences*, 5(1), 59–76. <https://doi.org/10.1108/jhass-05-2021-0101>
- [52] Permana, J. Z., & Lutfi, L. (2022). Financial Literacy, Financial Attitude, and Household Financial Behavior. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, 12(1), 273. <https://doi.org/10.30588/jmp.v12i1.1094>
- [53] Pham, K. D., & Le, V. L. T. (2023). Nexus between Financial Education, Literacy, and Financial Behavior: Insights from Vietnamese Young Generations. *Sustainability*, 15(20), 14854. <https://www.mdpi.com/2071-1050/15/20/14854>
- [54] Price, P. C. (2020). *Understanding Personal Saving Orientation What is Personal*. 1–5.
- [55] Rasool, N., & Ullah, S. (2020). Financial literacy and behavioural biases of individual investors: empirical evidence of Pakistan stock exchange. In *Journal of Economics, Finance and .... emerald.com*. <https://doi.org/10.1108/JEFAS-03-2019-0031>
- [56] Rodríguez de las Heras Ballell, T. (2023). AI in the Financial Sector. Money, Power, and AI, *MI*, 9–28. <https://doi.org/10.1017/9781009334297.004>
- [57] Rokhman, M. A. (2021). *THE EFFECT OF FINANCIAL LITERATURE AND FUTURE ORIENTATION WITH MEDIATING ROLE OF SAVING ATTITUDE*. 5(09), 207–226.
- [58] Sesini, G., & Lozza, E. (2023). Understanding Individual Attitude to Money: A Systematic Scoping Review and Research Agenda. *Collabra: Psychology*, 9(1), 1–25. <https://doi.org/10.1525/collabra.77305>
- [59] Shockey, S. S., & Seiling, S. B. (2004). Moving into action: Application of the transtheoretical model of behavior change to financial education. *Journal of Financial Counseling and Planning*, 15(1), 41–52.
- [60] Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*, 87(5), 581–643. <https://doi.org/10.1007/s11573-017-0853-9>
- [61] Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and trends of financial technology (Fintech): a systematic literature review. *Information*. <https://www.mdpi.com/2078-2489/11/12/590>
- [62] Świecka, B. (2019). Financial literacy and financial education in Poland. An overview. *Financial Literacy and Financial Education: Theory and Survey, April*, 30–52. <https://doi.org/10.1515/9783110636956-003>
- [63] Tarawneh, A., Abdul-Rahman, A., Mohd Amin, S. I., & Ghazali, M. F. (2024). A Systematic Review of Fintech and Banking Profitability. *International Journal of Financial Studies*, 12(1), 1–21. <https://doi.org/10.3390/ijfs12010003>
- [64] Toffel, M. W. (2016). Enhancing the Practical Relevance of Research. *Production and Operations Management*, 25(9), 1493–1505. <https://doi.org/10.1111/poms.12558>
- [65] Ülkuimen, G., & Cheema, A. (2011). Framing goals to influence personal savings: The role of specificity and construal level. *Journal of Marketing Research*, 48(6), 958–969. <https://doi.org/10.1509/jmr.09.0516>
- [66] Wann, C. R., & Burke-Smalley, L. A. (2023). Attributes of Households that Engage in Higher Levels of Family Financial Planning. *Journal of Family and Economic Issues*. <https://doi.org/10.1007/s10834-021-09805-0>
- [67] Wanof, M. I. (2023). Digital Technology Innovation in Improving Financial Access for Low-Income Communities. *Technology and Society Perspectives (TACIT)*, 1(1), 26–34. <https://doi.org/10.61100/tacit.v1i1.35>
- [68] Warchlewska, A. J., Janc, A., & Iwański, R. (2021). Personal Finances in the Era of Modern Technological Solutions. *Finanse i Prawo Finansowe*, 1(29), 155–174. <https://doi.org/10.18778/2391-6478.1.29.09>
- [69] Weisser, C., & Renzulli, K. A. (2017). *Financial Planning for the Modern Family*.
- [70] Wicaksono, S., Subyantoro, E., Zuhroh, D., Werdiningsih, S., & Sarasmita, C. (2022). the Effect of Personality Traits on Financial Behavior and the Use of E-Wallet As Intervening Variable. *ICGSS: Sustainable Innovation Legal Policy, Alternative Technology and Green Economy*, 93–106.
- [71] Widarwati, E., Nurmalarani, N., & Hamizar, A. (2024). *Financial Behavior and Financial Technology: A Case Study of Peer-To-Peer Lending Financial Behavior and Financial Technology: A Case Study of Peer-to-Peer Lending*. August.
- [72] Yang, M., Al Mamun, A., Mohiuddin, M., Nawi, N. C., & Zainol, N. R. (2021). Cashless transactions: A study on intention and adoption of e-wallets. *Sustainability (Switzerland)*, 13(2), 1–18. <https://doi.org/10.3390/su13020831>
- [73] Yeo, K H K, Lim, W. M., & Yii, K. J. (2023). Financial planning behaviour: a systematic literature review and new theory development. In *Journal of Financial Services Marketing*. Springer. <https://doi.org/10.1057/s41264-023-00249-1>
- [74] Yeo, Kingsley Hung Khai, Lim, W. M., & Yii, K. J. (2023a). Financial planning behaviour: a systematic literature review and new theory development. *Journal of Financial Services Marketing*, 0123456789. <https://doi.org/10.1057/s41264-023-00249-1>

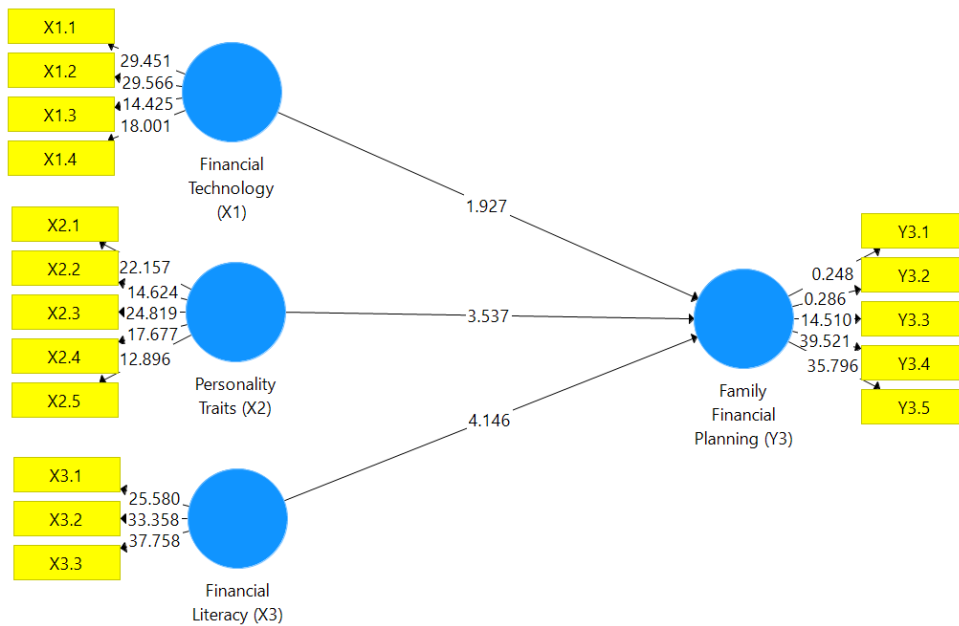
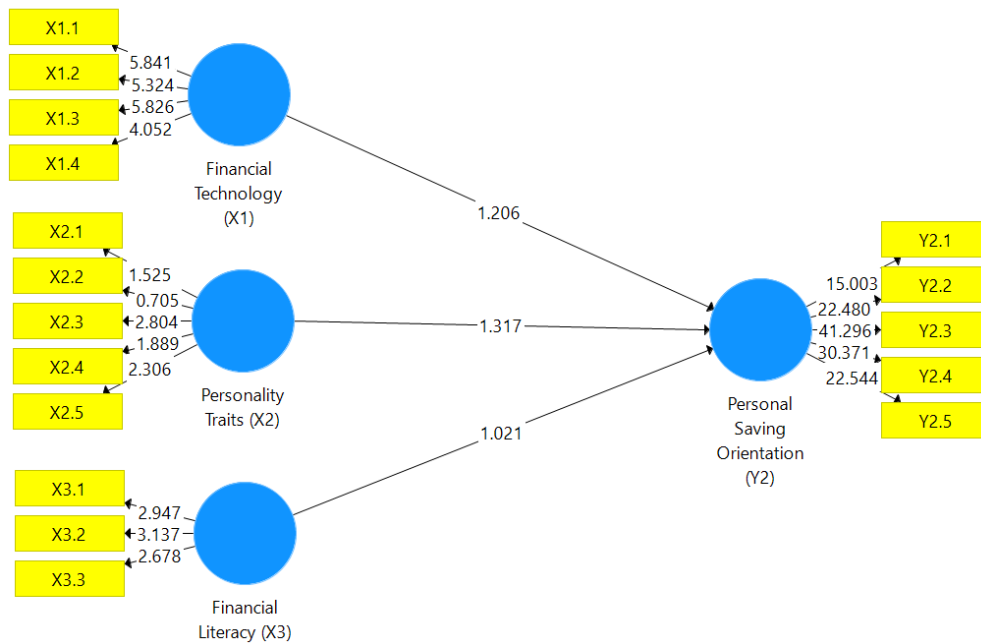
[75] Yeo, Kingsley Hung Khai, Lim, W. M., & Yii, K. J. (2023b). Financial planning behaviour: a systematic literature review and new theory development. *Journal of Financial Services Marketing*, 29(3), 979–1001. <https://doi.org/10.1057/s41264-023-00249-1>

[76] Zhang, X. H., Chang, B. G., & Wu, K. S. (2022). COVID-19 Shock, Financial Flexibility, and Hotels' Performance Nexus. *Frontiers in Public Health*, 10(April), 1–12. <https://doi.org/10.3389/fpubh.2022.792946>

## Appendix Hypothesis Testing

Latent variable test





### Hypothesis Testing of Moderating Variables

