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# Chapter # 1

## INTRODUCTION

### 1.1 Background

Today markets are growing day by day due to increasing demands and the increasing need of financial resources for people (Taft, 2013). For this reason financial expenses have grown to a high level due to increasing financial needs of people (Lusardi, 2007). Financial requirement is growing due to lots of consumer products have evolved that are taking financial expenses at another level. To keep a balance expenses and financial savings, financial investors have started considering financial saving plans and investing plans for their retirement (Jappeli, 2013). But the problem lies with the investment decisions that investors make. Not all the investors today are literate enough in financial services to understand the ups and downs of stock markets and there infesting behavior not reliable to some extent (Li, 2005). So it's a risk that how much their financial self-efficacy and their financial literacy will lead their individual investor's investment behaviors (Atkinson & Messy, 2011).

As the time passes, with the growing financial markets the financial needs of individuals are increasing affecting the financial expenses (Campbell, & Schnabel, 2008). The increasing monetary expenses have marked a warning sign for spenders as in future they may lack their financial stability (Taft, 2013). Now people are becoming more focused towards keeping a balance in their financial wealth so that they can secure their future financially and this conscious behavior have lead them towards saving more finance for their retirement and now they are also considering making investments in the profitable stock markets (Lusardi & Mitchell, 2007; Weaver, Sanders, Campbell, & Schnabel, 2008). Increase

in financial requirements is reasoned due to variety of products in financial markets which has impacted the fiscal balance all around the world (Taft, 2013). At the same time, the complexity in monetary services plus unpredictable fiscal units has thrived thought-provoking the money investors into the decisions of investment wisely (Lusardi & Mitchell, 2011a, 2011b). The investment decision by investors is a very risky step; it may be a loss of one's economy or again of profits in one's wealth. So it is suggested for financial investors that they must have management talents especially for controlling their fiscal systems should be advanced with the changing fiscal trends (Taft, 2013).

Another reason for considering the investment decision more risky is due to unpredictable rise and fall of economy in stock markets which have made the investors more conscious regarding their monetary speculation and future savings (Jappeli, 2013). A financial investor is always considered to be hopeful regarding gaining maximum profits as well as maintaining lifetime investment profits and for maintaining that profit level they should be able to recognize the opportunities that help them to seek optimal profit level as well as help them in maintaining their fiscal cycle. There are innumerable dynamic features that influence the money investors while making choices for the investment. But the issue with financial investors is that they don't have enough knowledge and awareness regarding the financial system, financial ups and downs in fiscal markets, global economic variations and the scope of several stocks in markets (Taft, 2013). Irrespective of the concept of maturity of knowledge investors or immature literacy in finance the financial decisions of financiers are affected in variety of ways (Lusardi and Mitchell, 2007).

The decision making skills of human beings are proved to act differently in different situations depending upon different experiences and different influencing elements.

Specifically in case of financial investors, the investment decisions are an outcome of many influencing powers, including their knowledge, analyzing expertise, financial status, observed experiences, self-experiences as well as economic upturn and downturn all around the world (Li, 2005). It has also experienced that among different types of financial investors there are some investors who make choices by self-concluding the incidents while the other investors may act in a different manner depending upon the other aspects that they may consider important.

For mature financial investors having know-how and know-why regarding financial system and regulations, it always becomes easier for the investors to decide either they are going to invest or not when they are well aware with all complexities and variations that may be coming their way. These measures of variations and complexities' guide them while making profitable decisions to secure their future (Lusardi, 2007). Previous studies reveal that numerous financial lenders are deficient in their level of fiscal literateness (Lusardi & Mitchell, 2007), so they get victimized by their behavioral biases (Kahneman, Knetsch, & Thaler, 1991) plus they make consequently unreasonable transactions and exchange (Barber & Odean, 2001), and so ultimately their such unreasonable fiscal exchange effects towards an unsophisticated business decisions (Goetzmann & Kumar, 2008; Polkovnichenko, 2005; Weaver et al., 2008). So, we can summarize in particular, that for all the financial lenders there lack of fiscal knowledge results in poor business and investment decisions and subsequently affects the economic status of individuals. Such type of fiscal depressions in one's wealth sometimes help them to act wisely while making investment decision in future and it also add up some insight to their experiential knowledge.

Although, from other studies conducted to understand the behavior of financial investors for investment decisions; it is in a very broad-spectrum interpreted that an investors level of fiscal knowledge guides him/her with financial system and procedures, furthermore it is also suggested for financial investors that they must seek enough knowledge and intellectual abilities to grasp with the financial system and deal with monetary issues maturely, but it is moreover revealed that including fiscal knowledge there are also other factors ,as well, that play an important role in financial decisions (Atkinson & Messy, 2011). Keeping a balance in financial procedures is considered an individual investor's skill of sensibility as well as a quality of an individual's mental approach; especially in dealing one's personal financial system. Profitable financial trading choices are considered as financiers' strong strategic receptivity and good forecasting skills that are helpful in securing personal financial status (Van Rooij, 2011).

From previous researches, it is concluded that for an investor it is important to make active and profitably effective choices and for dealing effectively in financial sectors one must be enthusiastic enough to deeply understand the fiscal procedures and knowledge and most importantly there should be an emotional balance while making financial decisions and self-confidence in the decision maker regarding his capabilities in managing financial matters (Atkinson & Messy, 2011; Cloninger, Svrakic, & Przybeck, 1993). So, here for having skills of financial decision making if we relate the idea of one's financial efficacy to the idea of managing one's own personal finance, it can assumed that if an individual has capabilities to manage self-financial issues then definitely he/she would assure to be capable enough to handle variations in financial matters and would be having administrative as well as business skills to maturely deal with any sort of financial matters

(Zimmerman, Bandura, & Martinez-Pons, 1992). We can conclude here, this positive approach of one's own self-reliance on choices and self-confidence brings more stable financial achievements as well as helps to achieve balanced and desired financial systems. Self-efficacy in financial matters makes the financiers more passionate in their dealings and decisions and this self-efficacy is a result of their financial management skills.

For making financial investment decisions the most important aspect lies within the investment behaviors of an investor. The investor's behaviors vary from person to person. Different personalities have different perspective regarding the investment decisions. In discipline of Psychology, there is a branch that deals with human characters, verities of natures and behaviors commonly known as Personality Psychology. This branch of psychology dealing in human nature is considered to be an important description of an individual's conduct of manners and actions in routine. An individual's manner of actions can be reasoned through the knowledge of their psychology. In previous studies regarding investors financial decisions the factors that were commonly and repeatedly emphasized due to their strong influencing power for persuading towards the decision making process in individual investors are the influencing qualities and characteristics build up in investors mind that guide them regarding constructing financial choices for selecting the appropriate approaches. There were other several dimensions also, but the studies showing this specific state of financier's personality characteristics is very occasional.

Likewise, in the study of finance with the behavioral aspects of investor's decisions, there are some other researches that have modeled tradeoff decisions of financiers depending on intuitions derived commencing psychological studies. Psychological aspects show more clear results for understanding the financier's behavioral gestures in making

investment choices. For understanding the financial investors behavioral decisions approaches the theory implied to his study is Behavioral Decision Theory. Behavioral Decision Theory incorporates the commonly found deviations from rationality in decisions models. This theory states that people are driven by variety of emotions at time of decision making. In behavioral finance another dimension that strongly claims to influence an individual investor's decision are the psychological aspects that continuously effect financier's choices. In this context, Big Five Personality theory was suggested by (Costa & MCrae, 1992). This theory explains the disparity in the decisions of individuals in context of big five personal traits of individuals. This theory proved to be helpful in predicting the different trading behaviors of individual investors in markets. The results of previous studies shows there are irrational financiers incline to more intentional tradeoffs so that there will be a decrease in undesired sentiments (Durand, Newby, & Sanghani, 2008). These irrational financiers are considered to resemble the Big Five theory's Neurotic personality that is perceived with their irrational behaviors. Similarly, (Barber & Odean, 2001; Pompian & Longo, 2004) in their studies of financial investments argue that people having extravert personality are inclined to trade more. On the other hand, (M. Tauni, Rao, Fang, & Gao, 2017) discussed that individuals with open-minded approach trade less. There were few who suggested that cooperative behaviors towards the frequency of tradeoffs never showed positive (Durand et al., 2008). In cooperative behaviors the most important element was the agreeable behavior which was found to have strong adverse connections with financial decisions.

From the concept of five human behavioral characteristics derived from the theory of Big Five (Goldberg, 1993), the extroverts and obsessive personalities such as neurotics are considered to be very affective in an individual specifically those who are



financers, these characteristics are found to be common and dominant while making their choices (Eysenck and Eysenck 1969; Costa and McCrae 1980). The reason for their effectiveness is that, these extroverts and neurotic behaviors are considered to be more linked with humans' feelings and they are also associated with controlled behaviors that majorly impact the attitude of an investor (McInish, 1980; Lo, Repin, and Steenbarger, 2005). In a tentative quality marketplace, the extroverts and the obsessive natures greatly impact the individual attitudes. It can be explained with behavior scenarios where if an investor is extrovert in nature, then he will be perceived to spend high expenses for his economic possessions and there expenditures on assets will be more. In case of introverts or neurotic personalities, due to their introverted nature they are perceived for avoiding in spending high prices for their economic possessions. For neurotic personalities, there are 2 types one who are highly neurotic in nature and the other which are less neurotic in nature. In case of highly obsessive neurotic investors, there investment profile consists of assets with fewer prices as compared to low obsessive neurotic financial investors, whose financial profile shows their high spending for possessions (Andreas Oehler, Stefan Wendt, Florian Wedlich & Matthias Horn, 2017).

This study assesses that level of literateness and level of efficacy of financiers while making investments in Stock Exchange of Pakistan. This study also measures the moderating role of Extraversion and Neuroticism personality traits among financial literacy, financial self-efficacy and financial decision of financial individual investors. In addition, this study examines relationship between financial literacy, financial self-efficacy and financial decisions of financiers. So, conclusively, this respective research project is purely an effort towards exploring influential impacts of the variable financial literacy and

self-efficacy on decisions of individual financial investors with the framework including the Personality Traits as moderator.

## **1.2 Problem Statement**

OECD (2005) has conducted a research for measuring the financial literacy rate in 12 different countries together with USA, UKA, Australia, Japan and the European Countries. It was observed that in all the investigations that answer for financial literacy was low enough for majority of the responses which means there is considerably low level of financial literacy in the financial investors which is also an alarming situation. This study emphasized on need of increasing literacy level of financial investors so that their financial decisions will be profitable.

Another study was conducted by ACNielsen Research (2005) in Australia on the financial literacy rate in adults in which the study outcomes indicated a very low level of literacy rate regarding financial knowledge. The outcomes of study showed a very negative response for financial literacy by stating that folks of Australia, specifically the financial investors lack in their knowledge regarding finance. The low literacy was mainly found in people who were less educated, untrained employees, jobless people, low earners, single individuals, and very young and old ones of the society.

In consideration of viewing financial management skills to assess the financial investment behaviors of financial investors a study was conducted in Singapore. In Singapore, financial literacy was first time studied on the inhabitants by a committee established by government in 2005. This committee was named as Money Sense Financial Education Steering Committee in 2005. This study included the exploration of aspects such as the investigation of level of knowledge of Singapore inhabitants, regarding their most widely

used fiscal products and services and do they have efficient skills for finance management. The inhabitants approached were mainly those who were having great impact of financial trading of the country. From this research, positive outcomes of study were achieved which showed that Singaporean inhabitants are skilled enough for finance management and planning as well as they have positive behavior towards financial investments and so there investments positively impact financial status of country? It was also observed in studies that Singaporean population is good at financial savings, making controlled expenditures and good at future fiscal planning's.

From above stated surveys it is envisioned that there is low financial literacy regarding financial investments is seen in most countries all over the world. These surveys are also highlighting the importance of high literacy rate in field of finance for the economic growth in countries and the people.

On other hand, from individuals' point of view, by rapid advancement in the field of science and technology, living standard of the people is rising day by day. And resultantly, with these rapid advancements their financial needs are also growing with same pace. This tendency has created the ultimate requirement of enhancement in income level of consumers and spenders as well as it requires better financial management of earners. That is the reason for rapid development of trend of individuals' investment in financial market is escalating rapidly. But another aspect of attention is the uncertainty of financial market and growing complexity of financial products are the key threats to their investment. On other hand, poor financial management skills are parallel threat to financial well-being of the individuals, which is ultimate goal.

Pakistan is one of the countries, which are facing financial crisis since their creation. With other poor economic indicators, it's giving per capita income \$ 1,357 in 2019, which ranks 154th in the world. The reason for financial crisis lies in the lack of financial literacy among investors. There is an increase in tendency for investing in the stock exchange of Pakistan for the sake of rise in level of personal income. But, for accomplishment of ultimate objective, the most important thing is improvement in the financial management skills of financiers, who are capitalizing in the stock exchange of Pakistan. Unfortunately, there are less individual investors who possess the knowledge regarding the financial aspects. Another issue is the behavioral approach of investors; due to lack in financial literacy the individual financier's decisions may not be considered effective in making profitable investments. For this purpose, the most necessary action is to find out those elements that greatly impact the decision making process in financiers of Pakistan stock exchange.

Another important thing is that there is a need to know that how personality traits of individuals having financial literacy and financial self-efficacy would impact their decisions of making investments.

So, that's why our research emphasizes on discovering the financial literacy level in individual investors of Pakistan stock exchange, role of financial literacy and financial self-efficacy of individual investors on their financial decisions. As well as the research will discover the role of moderator personality traits in predicting their financial decisions.

### **1.3 Research Gap**

As stated earlier, tendency of all individual investors to make investment in stock exchange of Pakistan is rising with the course of time, so it is important to study the

influencing dimensions that become prominent in decision making process of making investment by the individual investors. Originally, from previous literature there are no evident studies found in which the investment behaviors while investing in stock markets based on the financial literacy and financial self-efficacy level of individual investors has been studied with the moderating effect of personality traits. It provides us with evidence that this study fills the study gap as there are no other previous frameworks developed with any such linkage.

#### **1.4 Research Objective**

As there is no previous literature found which shows financial illiteracy of Pakistan individual's investors, so this study is based on exploring the individual investors in Pakistan based on their financial literacy level and observe impact of level of financial literacy and self-efficacy on financial decisions of the individual Pakistani investors grounded upon Big Five Personality Traits theory. The main objectives of study include:

- To investigate the financial literacy level of the Pakistani individual investors who invest in the local Stock Exchange.
- To investigate relation of level of financial literacy and personality traits influencing factors which are influencing Pakistani's individual level investment decisions.
- To investigate the level of financial literacy of individual speculators in Pakistan
- To investigate the effect of budgetary proficiency and money related self-efficacy on budgetary choices of the individual Pakistani financial specialists in Stock Exchange with moderating role of personality traits.

## **1.5 Research Questions**

In this research following questions will be answered:

RQ1. Does financial literacy of Pakistani-National investors lays within acceptable level?

RQ2. Does level of Financial Literacy affect the individual investors Financial Decisions in Pakistan?

RQ3. Does an individual's financial self-efficacy influence the Financial Decisions of Pakistani Investors?

RQ4. Do Extraversion and Neuroticism personality traits of the Pakistani investors are moderating relation among level of financial literacy, financial self-efficacy including investor decision or behavior for financial expenses?

## **1.6 Significance of Study**

The study shall demonstrate quite significant especially to listed companies in stock exchange of Pakistan. The results of the study will guide us in assessing financial behavior regarding individual investors including financial literacy levels with financial self-efficacy. Thus, management of companies can better plan their stock floatation. The results of this study will be helpful in better prediction of Market Trends. Improved prediction of Market value of their shares will lead towards better Financial Management for them. From the investor's perspective this study can play significant role in understanding their financial literacy levels including financial self-efficacy plus their Personality Traits. Better Understanding, of one's personal capabilities and personality characteristics, not only impedes towards improvement but also helps in making better decisions. It is supposed in the study that financial literacy level in the individual investors in Pakistan stock exchange will be discovered by the answer of the first question. While, the answer of the second question

explores impact of financial literacy level on financial decisions that individual financiers make in Pakistan Stock Exchange. Similarly, answering the third question will help in exploring ones' financial self-efficacy on individuals financial investment decisions in Stock Exchange of Pakistan. After analyzing answer of third question we will also discover the roles in acted by financiers with the association of personality traits, in Pakistan Stock Exchange, on their financial decisions.

### **1.7 Definitions of Terms**

- *Financial Literacy*

It is defined as an ability of an individual to accurately understand, readout, conduct analysis, professionally manage and make a strong communication regarding an individual's personal financial status that affects his economic wellbeing (Chen & Volpe 1998; Vitt et al., 2000; Cude et al., 2006; Huston, 2010; Cude, 2010). It is also considered as a base of knowledge which is extremely essential for an individual to make his survival in the era of this socially modernized era" (Kim et al., 2001). It is defined as an individual's knowledge related to financial concepts and techniques related to financial management and personal financial assets of an individual" (Santini, 2019). It is demonstrated as an individual's collection of information and awareness that guides him regarding the financial aspects and financial concepts" (Zou, 2019). It is related to deep understanding regarding the fundamental concepts of finance, financial matters and skills that help a financier to take effective decisions" (Lusardi, 2007). It is demonstrated as a learning mechanism for a financier regarding the financial markets, financial assets, financial issues, utilization of finances which help and guide an individual in financial decisions and make them capable enough to make participations in investment" (Vanrooij, 2011). It has also been described as a major

conceptual guide line to fiscal considerations, limitations, measures and characteristics that an individual faces while handling financial tasks” (Jappeli, 2013). It has also been defined as a knowledge route towards guiding an individual regarding economic structures, credits, financial costs and uses which guide them regarding making financial decisions” (Disney, 2013). It can also be defined as an individual’s practical exposures and proficiency with a mixture of learned experiences that helps an individual or financial investor in handling the financial matters effectively and maturely (Nejad, 2017). It can also be defined as a path way of knowledge that guides the fundamental concepts of finance that helps an individual to understand the base of finance, measures of finance, its uses and utilization on workplaces and in stock markets and develops an ability in an individual regarding financial saving behaviors and investment decision behaviors.

- *Financial Self-Efficacy*

Financial self-efficacy is defined as an individual’s perception regarding his possession of capabilities that help him to professionally and personally handle the financial issues (Lapp 2010). Another way of defining is by showing its relation to one’s confidence of handling matters associated with management of finance (Lown, 2011) as well as one can also implement his/her skills of managing finance. Lapp (2010) from EARN institute in his recent research, indicated that an individual’s self-efficacy in financial knowledge is an important misplaced connection that binds financial knowledge and individual’s actual strokes. It can be defined as an individual’s forecasting of his/her decisions on their estimations and perceptions regarding their level of financial stability in current and future scenarios, their ability to manage financial strains and abilities to manage the their personal and professional financial short falls (Otalora, 2019). In simple terms it is defined as



one's trust on their capabilities and skills for performing routine activities and in terms of financial decisions and investments it is defined as an individual's estimation of his decision outcomes specifically related to the investment decisions and investment management (Amatucci, 2011). Financial self efficacy is also demonstrated as a measure of one's confidence and belief in their own decisions and specifically to the decisions that are related to the financial well-being of their own (Aumeboonsuke, 2017). It can also be defined as a measure of level of confidence that influences an investors decision making skills and his definite capabilities for making financial trading choices and grabbing the beneficial options at the right time and at the right target from the monetary prospects. We can conclude that an individual's self-efficacy towards financial handling is an outcome of his abilities in dealing financial management programs that could help his skills development for long achievements in his behavior changes.

- *Financial Decisions*

It is an individual's mental psychology to process and perceive knowledge that is essential for making effective and efficient decisions regarding financial management (García, 2013). It is defined as a responsive and developmental apprehensions and perceived thoughts of an investor regarding the possibilities, profits and earnings that he could achieve by making specific fiscal choices (Zahera, 2018). From the perspective of a financial institution, it is defined as an act of making economic decisions for the sake of progression and expansion of economic worth of the institution or organization, as well as bringing extended growth of assets and making effective choices for the increase in monetary funds of the organization (Kuzma, 2017). It is also defined as intention of choosing an economic opportunity with relevant fiscal approaches that are considered to be helpful in adding fiscal

worth to the organization (Boateng, 2019). It is also defined as a behavioral approach that initiates in the mind of an individual while choosing best suitable investment options for the firm with an expectation of maximum economic gains in current scenario and securing the future economic requirements (Erkut, 2018). It is defined as an economic decision that one takes after perceived analysis of costs and returns, inexpensiveness and future usefulness related an investment decision (Nejad, 2018). It is related to the financial information which shows ups and downs, economic estimations, risks and benefits related to a financial service which helps an individual investor to decide either he/she is initiating the financial investment or not (Nogueira, 2017). It is also defined as making strategic economic actions for assisting an organization in increasing their economic worth by grasping certain financial options (Mccuddy, 2007). Form the above literature demonstrations of financial decisions, we can also conclude this term by considering it as an action, choice or initiative with careful perceived analysis of all the possibilities of benefits or costs, perceived measurement of all positive and negative after affects and careful logical perceived calculation of economic worth that one economic choice will have on an organization or to personal financial status of an individual.

- *Investment Behavior*

This long deep analysis method is defined as an individual investor's 'Investment behavior' (Slovic, 1972; Alfredo and Vicente, 2010). It is also related to the theory of planned behavior where it is considered as an intention which can be measured with the influencing forces such as obliged norms and values, attitudes, perceived intentions and enthusiastic approaches which help to initiate the act of investment (Akhtar, 2018). The investment behavior can also be defined as a manner presented by an investor which

represents his upcoming actions regarding the investment decisions (Tubetov, 2013). An investment behavior in simple words can be described as an act of willingness to invest or not an investors mind setting towards an opportunity which is influenced by many motivational elements such as their perceived norms and values, societal pressures, their observations relevant to the investment actions they are going to perform.

- *Personality Traits*

The attainment of the particular information an investor can proceed in making his financial decisions” (Bashir et al., 2013, p.279). Personality traits are the important elements of an individual characteristics as well as functioning considerations that depict the nature residing in a person (Rezaei, 2019). Personality trait is also defined as dimensions of actions that resides in a human and according to which he/she perform certain actions (Esmaelinezhad, 2018). It is also defined as patterns of conduct that describes the image of nature of an individual (Kim, 2016). In a research by Pompian and Longo (2004) personality traits of an investor is defined as ability to grasp information regarding the particulars that perform a crucial part in financial investment decisions. In simple terms we can conclude the description of personality traits as the necessary psychological behavioral characteristics that impact the nature of human performances in their daily life.

## Chapter # 2

### LITERATURE REVIEW

#### 2.1 Financial Literacy and Financial Decisions

It is a literacy which defines an individual's knowledge regarding the financial system followed by the community (Zou, 2019). It is a main component which is needed for a financial professional workers to deal with finance; financial literacy is a knowledge of financial circle as well as it is important with aspects of dealing finances of personal and professional fiscal matters (Cude, 2010). One's level of financial literacy shows their level of financial management and handling of finances in daily life (Huston, 2010). financial management deals with the skill of handling finances and handling finances is related to one's level of literacy regarding financial knowledge (Zou, 2019). Financial literacy relates to one knowledge, that helps him/her to deal with financial matters (Sanitini, 2019).

Financial literacy impacts money related basic leadership (Brown, 2009; Katarachia and Konstantinidis, 2014; Lusardi, 2010, 2011; Lusardi and Mitchell, 2013, 2014). A few examinations analyzed the connection between monetary instruction and budgetary basic leadership (Eugster, 2013; Lusardi and Mitchell, 2007, 2011c; Lusardi and Tufano, 2008, 2009; Lusardi and Scheresberg, 2013; Moore, 2003; van Rooij, Lusardi and Alessie 2011). With investigations recorded there is solid association among the two factors. In an instance, Eugster (2013) find that there is positively progressive relationship among money related proficiency and people's availability to take an interest in a hazardous resource advertise. Likewise, Moore (2003) archived that, monetarily proficient people and family units will probably settle on educated choices to maintain a strategic distance from weighty ruthless loaning hones than the fiscally ignorant. Moore studied two participatory gatherings amid the investigation, the "casualty pool" and the center gathering, and built up that the

casualty pool will probably display a higher rate of hazardous, positive, and ineffective practices than the center gathering. The casualty pool was viewed as the less monetarily instructed gathering. The choice to make riches through securities exchange cooperation and retirement commitments is all around recorded as an element of budgetary illumination (Lusardi and Mitchell, 2007, 2011c; van Rooij et al., 2011).

Financial literacy level in previous researches was explored from different dimensions. The studies conducted previously on the financial literacy level were accomplished by countries governing bodies and the different organization working privately with an aim of measuring the literacy level of population of developed nations in the field of finance. OECD (2005) has conducted a review of financial literacy level in 12 different countries together with USA, UK, Japan, Australia and the European Countries, which showed them negative results from respondents comprising low literacy rate in fiscal knowledge. With an aim of extending knowledge of financial literacy level, Chen and Volpe (1998) took 294 students of college from 13 different campuses of USA and investigated students' personal knowledge related to financial literacy. They also examined the linkage of variable of financial literacy level with the demographic factors such as students' nationality, age, gender and race, level of incomes, their job capabilities, academic knowledge and rankings and the results showed clear differences of financial literacy rate with academic knowledge, rankings in class and their work experiences. Low financial literacy rate was more evident in students who were having low rankings in class, lesser working experience and the students with non-business courses in major. Another level difference seen among genders were U.S women were less aware with financial knowledge then men and the US citizen were having more grip on their financial knowledge then the foreigner students. There

was an argument initiated by Volpe et al. (2002) which stated that there will be mishandling and economic misrepresentation in online markets, if virtual financiers will be lacking in their financial knowledge then the normal financiers as virtual investors need more secure systems to progress financially. For this purpose, an investigation was made on the investment knowledge of the online financiers consisting of 530 virtual investors. The investigation proceeded with linking group participant's financial literacy level with their level of academic knowledge, level of income, genders and their prior experience in online tradeoffs. The results of study showed that level of financial literacy differed for all different factors of knowledge, age, income, gender and experience. The study showed us that women and old aged respondents were less literate in financial knowledge as compared to the men, young respondents and especially the online investors.

Furthermore, the financiers having high income level were more literate of investments than the low earners and especially the respondents from the colleges and higher degree holders showed better responses than the low educated respondents. ACNielsen Research (2005) directed nationwide study of financial literacy level for the adults of Australia. The outcomes of the study showed us that individuals with low academic qualification, lack of labor skills and experience, low earners and both very young and the oldies were at the lowest level of financial literacy. And in the same year 2005, there were improvements in the financial literacy rates in Australian public.

In 2005 another research was conducted by Money sense Financial Education Steering Committee which was established by the government of Singapore, conducted the very first research on the level of financial literacy, which examined Singapore's population financial knowledge together with the knowledge of the most widely

used financial services and products and in this way they checked their population's skills of decision making for finance management. And the research provided positive results showing Singapore inhabitants efficient fiscal management skills including positive attitudes towards financial planning and investment decisions in addition they were seem to be smart financial savers together with controlled spending of financial expenses with effective fiscal planning. Volpe and Chen (2006) made another survey in US companies on their adult workers where they choose 212 benefit administrators. Theses administrators were in charge of personal finance programs. The research was conducted to assess the issues related to adult's personal finance and their level of literacy. The knowledge assessment of adults included literacy in mutual fund prospectus, mutual fund fees and expense ratios. The analysis showed them that the adults whom they survey lack the knowledge of the specific topic they were examining and considering important. The outcomes of research indicated that the level of literacy rate of benefit administrators was extremely low. Al-Tamimi (2006) conducted his study in UAE where he examined the factors that were considered to be least and most important influencing behaviors with respect to view of investors. The survey conducted included 343 individual investors. The research showed corporate earnings results in becoming rich quickly, past results of firm stock performance, government holdings and the creation of organized financial markets were the most important and influencing factors. There were two other additional factors were found to be creating an unexpected influence were the religious issues as well as family member opinions. But the two factors studied in this study were not studied, financial literacy rate and investment decisions. To be monetarily educated is to know how to deal with your cash. This implies figuring out how to pay your bills, how to obtain and

set aside extra cash capably, and how and for what reason to contribute and plan for retirement.

Step up with regards to self-teach and develop your monetary learning, by starting with the fundamentals of cash administration and developing into a keen high-roller. Investing energy into your money related advancement enhances sparing and contributing choices. By utilizing assets—like age, ability, cash and the capacity to set up great propensities—you can fabricate an enduring savings. Monetary proficiency differs broadly among instruction gatherings. Just 50% of respondents with not as much as a secondary school effectively answer the inquiry requiring a straightforward count of financing costs, and near 20 percent state they don't have a clue about the response to this inquiry. The vast greater part of those without an advanced education does not know or answer inaccurately the inquiry regarding hazard broadening. Likewise, there are significant contrasts in money related education crosswise over racial gatherings, with African Americans and Hispanics showing much lower levels of monetary proficiency than whites. Roughly 50% of African-Americans accurately answer the inquiry regarding financing cost counts, and the extent of right answers is considerably littler among Hispanics. Lusardi and Mitchell (2007a) record comparable discoveries when utilizing distinctive proportions of education among an example of Early Baby Boomers.

These outcomes are not particular to the age bunches canvassed in the HRS, however are normal to numerous different studies on money related literacy.<sup>11</sup> Moreover, the discoveries illustrated above are as of now exhibit among youthful respondents. For instance, Mandell (2008) concentrated on a little gathering of understudies who are characterized as being monetarily educated (all had gotten a score of 75 percent or more on a



money related proficiency test) in the 2006 Jumpstart Coalition review. Note that this gathering speaks to a small part of the entire example: just 7 percent. The fiscally educated understudies are overwhelmingly white, male, and the offspring of school graduates. In this way, the connection amongst's proficiency and sexual orientation, race, and training is available at beginning times of the existence cycle. At long last, section 4 will depict in more detail the connection between these independents factors and ward variable when the picked strategies are given. Maditinos et al. (2007) studied the different techniques and methods that were widely used by the 6 Greek investors including Official Stock Exchange members of Athens, mutual fund management companies, portfolios investment companies, brokers, listed companies and individual investors. The study outcomes showed that the participants involved in the study considered their experience ranking as an important factor for the fundamental analysis and for the association of foreign financial markets and the markets clatters and portfolio analysis were the least important factors. The conclusion of this literature review developed five arrangements. The first arrangement among five was the low financial literacy rate in the country regardless of the country's economic development.

The next and the second arrangement of the study showed the relationship between the variables financial literacy level and demographic factors. There was strong relationship found between the variable financial literacy rate and the demographic factors such as gender of the respondent, level of education and income and their level of experience. Evidence found in this study was that women are less literate as compared to men, respondents with low level of education and income were also less financial literate. The third set of arrangement found in the study was the link of level of financial literacy and the investment decision. The study provided us with the knowledge that financial investors having

higher degrees of knowledge always opted and adopted different choices such as financial publications in investment decisions as compare to investors having less knowledge who prefer advices of their family, friends and stock brokers. Then the next and fourth set of arrangement developed from the study was the relationship between the factors of investment decisions and the type of investors, including the size of portfolios and the strategies applied for investment. The study concluded that the individual investment bodies always preferred their family advices, friend suggestions, stock brokers, their personal experiences, rumors and the news from print papers and media. Last and the fifth arrangement of set conclude that there is existence of gaps in previous works in variables relationships such as financial literacy level and decisions of investment Past writing uncovers the significance of monetary proficiency has gotten the consideration of analysts, yet at the same time it should be investigated more(Lusardi and Mitchell, 2007, 2011a).

Past investigations exhibit the huge connection between monetary proficiency and venture choices of individual financial specialists which is additionally directed by some statistic factors like instruction, age, sexual orientation and experience(Agnew and Szykman, 2005; Lusardi and Mitchell, 2007). There are a wide range of definitions which are clarified by various researchers and concentrates for budgetary education however the suitable definition that operationally characterizes my variable is "the capacity to conjecture the compelling choices made about the execution of monetary assets or cash (Schagen& Lines, 1996).

Money related Literacy is mix of mindfulness, information, aptitude, state of mind and conduct important to settle on sound monetary choices and at last accomplish budgetary wellbeing"(Atkinson and Messy, 2011). Budgetary proficiency includes two kind

of viewpoints i.e. budgetary and behavioral and when it is given to people it influences the capacity of individual to conjecture about the use of cash (Huston, 2010), definitively, it very well may be determined that the monetary proficiency impacts the inclination of a person to use the cash. Budgetary proficiency has very critical connection with venture choices on financial specialists. (Bailey et al, 2003).

The venture choices of individual speculators are needy upon encounter and monetary education of financial specialists. Chen and Volpe (1998) disclosed in his study that investors working on the web are more fruitful than other customary speculators of securities advertise because of reason that they have better access to money related information while the other conventional financial specialists are at heap of larger amount deception and manipulation. Money related proficiency makes more secure venture in spite of vulnerability factor (Butzen, Fuss, Vermeulen, Butzen, and Fuss, 2003).

Definitively, it is discussed that money related proficiency has prodigious significance in the budgetary basic leadership of people and assumes fundamental part in making more secure interest in abnormal state of vulnerability involved. Financial education helps in better perspective of market investigation where great level of vulnerability is included and helps speculator in improving more prominent and monetary investment. Degree of hazard required because of vulnerability factor can be limited by expanding level of monetary literacy. Financial proficiency is of crucial significance in generally speaking money related conduct of individual financial specialists.

The literature review of previous studies has shown clear results which concluded that the variable financial literacy level can also be considered as mathematical capability and the knowledge of financial expressions. According to the literature the level of

financial literacy was recorded high for the people ranging in age of 50-60 years, professional entities, business and farm owners and the graduates from college and universities (Worthington, 2001). The variable financial education literacy rate can also be considered as an individual investor's capability of making financial decisions in interest of their long and short term plans (Mandell, 2008). Another point that was highlighted from the research was an individual's financial experience improves an individual investor's financial knowledge and also improves his awareness regarding self-knowledge to make programs of financial literacy more significant. The stock markets games also helped the investors to gain maximum exposure and experience from the opportunities provided (Frijns et al., 2014).

Literature has also added to our knowledge through the people who are enriched in resources and are utilizing their resources to gain maximum financial knowledge so that good opportunities can be grasped from the investment decisions. It has also been reviewed in literature that families who are rich enough have excess to more financial knowledge and by utilizing this knowledge they are aware of the risks that can be faced through using particular assets and they can gain maximum financial market knowledge. With the increase in wealth of investor his risk tolerance equally increases as he has all know-how of utilizing his money effectively and scenario is opposite for the investors with less knowledge (Makarov and Schornick, 2010). It has also been made evident in the study that financial education and the monetary accumulations have a significant relationship as investors are literate enough to gain maximum benefits from the opportunity of equity investment through premium stock. It has also been studied through literature that the variable financial literacy level and behavior associated with retired planning of income have a positive relation (Lusardi, et al., 2007; Lusardi and Mitchell, 2009; 2011a). Experimental

outcomes have put forward the idea that investors who have more financial literacy level have a high degree investment plan. From the previous literature it was studied that the variable financial literacy is found to be high in people of specific age, gender, a specific level of income and qualification (Lusardi and Mitchell, 2007b; 2008). The study respondents who were less in age number marked in study as less in education as well as financial superiority. It has also proved through studies that the level of financial literacy has significant influences; those investors who do not have enough financial knowledge will lack in skills of financial retirement planning (Lusardi and Mitchell, 2006; 2007a; 2007c), consequently they would lack in wealth at the time and near the time of their retirement and they will ultimately lack in their ability to make investments in stock shares (Vaan Rooij, et al., 2007; Kimball and Shumway, 2006; Yoong, 2007), as a result they will left with the only option to borrow investments with high rates of interests (Lusardi and Tufano, 2009). The individuals who think about financial literacy by and large concur that many, if not most, buyers do not have the money related proficiency important to settle on imperative monetary decisions that suits them best in providing benefits (Perry 2008; Braunstein and Welch 2002). Specialists equally consider that financial information seems, by entire accounts, to be directly linked to the self-advantageous budgetary behavior (Hilgert, Hogarth, and Beverly, 2003). In all the situations, problems occur in concern with efficacy to monetary training with increasing monetary education (Lyons, Palmer, Jayaratne, and Scherpf, 2006). In this manner, there exists a Catch 22 among variables efficacy for improving the financial expertise as well as training effects on monetary gaining actions for short term or long term. How the budgetary increasing actions can be taken within the guidelines provided through the monetary knowledge unless the financial expertise is yet not improved?

Lusardi and Mitchell's (2007, 2011c) and van Rooij et al. (2011) contemplates affirmed there are monetarily illuminated people watch out for not just expand their cooperation in the share trading system, yet additionally accomplish an abnormal state of riches aggregation at retirement through retirement arranging. In any case, the connection between budgetary proficiency and money related conduct and basic leadership has been debated by a few researchers. Different factors impact the capacity to settle on money related choices (Huston, 2010; Massimo and Ornella 2011). As indicated by Massimo and Ornella (2011), past examinations neglected to set up a solid relationship among budgetary education and money related basic leadership. Massimo and Ornella contended that, elements, for example, socio statistic highlights, budgetary development, down to earth encounter got from day by day utilization of money related items, and the sum and nature of data accessible at the season of basic leadership, settle on monetary basic leadership practical. Monetary proficiency and conduct as positive connects have likewise been addressed. Huston (2010), for instance, fought that, while money related proficiency can be a decent quality for anticipating monetary conduct result, such type of options are not available for everyone. Huston facilitate contended with conduct propensities, for example, imprudence, social inclinations, strange inclinations, and unforeseen conditions may suppose poor in association with monetary basic leadership or conduct. Moreover, prove shows that however monetary expertise level has a tendency which differ with training plus wages (Lusardi, Michaud, and Mitchell, 2011), a few shoppers having higher instruction and pay charges have a tendency to act insensible in relation to monetary problems in lesser taught and less-pay customers (OECD, 2006). By and by, different investigations contend for monetary proficiency and its effect on basic leadership and conduct. Past investigations reported that, monetary education impacts the manner in

which people and family units carry on with regards to money related issues and basic leadership (Brown, 2009; Chang and Lyons, 2008; Kiviat and Morduch, 2012; Mandell and Klein 2009). Dark colored (2009) revealed, money related proficiency impacts monetary basic leadership. Dark colored researched the degree that training in close to home fund affected money related basic leadership among graduate level wellbeing experts. The examination demonstrated huge among the two develops when members of the investigation revealed social change including attentive thought of spending, limiting understudy advance getting, and dodging MasterCard's to keep away from pointless installments. In comparative investigations, Harnisch (2010) and Norman (2010) placed that monetary instruction is progressively applicable, for financial specialists as well as for normal people, families, and networks, in empowering them to choose how to adjust their financial plans, purchase a home, support their kids' trainings, and spare toward retirement. Investment funds are critical in a person's life. As Elliot and Beverly, (2011) set, funds not just prompt expanded venture for business, they likewise increment youth instructive desires and the capacity to manage the cost of school charges, and additional necessities related to school. Elliot and Beverly uncovered adolescent which elevated requirements by move towards the school from 4 years programs, so that young generation will probably go to school and there will be no need of reserve funds. Elliot and Beverly trusted that desire to go to school not long after graduating secondary school and in the end going to school is somewhat affected by investment funds.

Serenade Link and Associates (2004) distinguished monetary proficiency as a supporter of money related prohibition through access rejection ("instruction and data" hindrances). A few creators have put money related education for gathering the factors as individual with assuming to be predecessor's part in absence of admittance. Study

recommends, "Items absence for comprehension claimed, or else items accessible, previously viewed because of consequent weak instruction or broader coming up short of the training framework, regularly exacerbated by absence of business and social rejection because of destitution. Budgetary proficiency was viewed as a supporter of, and to some extent a consequence of money related avoidance; anyway this factor was not more essential for motivating rejection for less pay, less reserve funds, over the top obligation (casual and official) or cash manhandle" (Chant Link and Associates, 2004, p. 88). Money related education is anything but another point. In the course of recent years, a considerable group of monetary education investigate has created far and wide. A lot of the enthusiasm for the money related education of people depends on a worry about their absence of budgetary proficiency and powerlessness to settle on successful choices (Schagen and Lines, 1996). The worry, that is global, can be demonstrated with various overviews regarding money related education. An organization which is working for Economic Co-task and Development (OECD) had extensive effect due to historic point think about (Organization for Economic Co-activity and Development, 2005) which condensed the accessible study aftereffects directed in Countries such as Australia, Japan, Korea, the United Kingdom, and the United States. Reviews collected, outlined utilized 2 unique ways for dealing with money related proficiency and its estimation.

The studies directed in the U.S. also, Korea utilized primary methods, trying information with comprehension of budgetary expressions with 4 territories: salary, cash administration, reserve funds and ventures (Mandell, 2008). The overviews in the two nations focused on the personal financial literacy plans designed by Jump \$tart Coalition for secondary school understudies 6 times in USA (somewhere in the range of 1997 and 2008)



one time (2003) in Korea. Most recently study utilized national Jump \$tart review of 2008 of seniors of secondary school, demonstrated scores of monetary education in US secondary institute understudies tumbled the ever most reduced score (48.3%) (Mandell, 2009). Korean Financial Supervisory Service (FSS) indicated by an overview that scores of money related proficiency scores in Korea understudies primary to secondary institute are around 40.1%. Understudies' of Korea show moderately less money scores related information contrasted with their partners in Britain, the United States, and different nations (Youngsook, 2008). Overviews led in the United Kingdom, Japan, and Australia speaks for another way deal with estimating money related proficiency. These overviews approached respondents for self appraisals and about their states of mind toward various monetary administrations, choices, and data. For instance, in Japan the survey was conducted for financial survey which uncovered huge extent for customers conceded constrained comprehension of loan fees, dangers identified with venture, and shopper insurance directions (Organization for Economics Co-task and Development, 2005).

One of the challenges with money related training was absence of customary meaning of monetary proficiency (Hastings, Madrian, and Skimmyhorn, 2013; Remund, 2010; Huston, 2010; McCormick, 2009; Fox and Bartholomae, 2008). In numerous investigations money related proficiency, learning, and instruction might be utilized reciprocally (Huston, 2010). Descriptions utilized by Lusardi and Mitchell (2014) and Remund (2010) nearly coordinate thoughts existing for monetarily educated for exploration. The two descriptions incorporate considerate budgetary ideas as well as utilizing that learning to settle on sound money related choices. Remund (2010) additionally fuses a period measurement in his meaning of money related proficiency, expressing that both here and now

and long haul choices are essential. Other research has referred to in their surveys of the writing that choices—both long haul and here and now—are an essential part of money related proficiency (Fernandes, Lynch, and Netemeyer, 2014; Carlin and Robinson, 2012).

Research centers on that monetary training increments budgetary information and the probability of participating in various money related practices. This investigation additionally fuses the time measurement from past examinations by contemplating practices that are viewed as here and now and long haul. Another issue in the examination writing is the absence of a standard instrument for estimating money related education (Hung, Parker, and Yoong, 2009). Table 2 records the estimation values through diverse investigations. A considerable lot of the investigations utilize distinctive kinds of instruments to quantify money related education. For instance, a few examinations incorporate a basic three inquiry numerous decision examination (Lusardi, Mitchell, and Curto, 2010) whereas different investigations incorporate 48 genuine dishonest inquiries (Zhan, Anderson, and Scott, 2006). This investigation embraces broadly utilized proportion of monetary proficiency in view of 5 examination interrogations casing diverse subjects (Lusardi and Mitchell, 2014; Bumcrot, Lin, and Lusardi, 2013; Allgood and Walstad, 2013; Allgood and Walstad, 2012). More prominent levels of money related proficiency that was searched in highly qualified people with additional prominent entrance towards the monetary information. Along these lines, Amadeu (2009) suggested that more focus should be given to specific courses and subjects containing financial knowledge and have more practicing aspects related to monetary issues.

Understudies of fields of Economics, Administration, and Accounting have experience high level of budgetary learning. Substantiating this evidence, Lusardi and

Mitchell (2011) have experienced responses of people to be less instructive due to their inclined nature towards resolving the queries and act clueless for giving proper answers. Nonetheless, Chen and Volpe (1998), during surveying understudies' knowledge for close to home back, understudies that focusing less heed to their informative unit, lacks in levels of learning, particularly for suppositions. Likewise, writing proposes which guardians consider remarkable impacting kids shopper behavior. Researches have confirmed that mostly individuals focus more towards the administrative steps for cash handling with their folks (Pinto, Parente, and Mansfield, 2005; Clarke, Heaton, Israelsen, and Eggett, 2005). Thusly, Jorgensen (2007) suggested guardians fundamentally influence kids' information, states of mind, as well as budgetary conduct and Mandell (2008) suggested that money related expertise in people can be seen with level of instructions provided by folks. Consequently, parent teaching is considered noteworthy for kids' proficiency. As to, Atkinson and Messy (2012) studied less wage levels is associated with lower level money related expertise. Monticone (2010) studied positive impact of riches on money related proficiency. Thus, Hastings and Mitchell (2011) provide trial confirmation describing monetary expertise linked with riches. Studies on budgetary proficiency, understudies from high earning households had high practicing levels than understudies from low-wage families (Johnson and Sherraden, 2007). Also, less earners if are the school dropouts then results would add up to their monetary absence of education (Calamato, 2010).

Money related proficiency is picking up the consideration of different partners including monetary foundation, government offices, customers, global bodies, for example, Organization for Economic Co-activity and Development (OECD), World Bank and different associations. In such manner, different definitions exist in literary works in

connection goes to the significance of money related education. Essentially, the term monetary education alludes to the capacity of a person resolving knowledge judgments and decisions with use of cash and administration of cash (Australian Securities and Investment Commission (ASIC), 2003; Noctor et al, 1992; Godsted and McCormick, 2007). This inclines for a reached out by way of "authorizing entities for resolving educational and particular other aspects associated with covering each area for preparation, spending reserving funds and for using money related items then administrations through ordinary handling of accounts acquiring, contributing and getting ready for the future" (Ray Morgan Research, 2003). As indicated by Worthington (2006) budgetary education can be characterized comprehensively or barely. An expansive meaning of money related proficiency receives an understanding of economics" and the way fiscal conditions impact household choices. A more classified sense of monetary knowledge circulates nearby money administration devices such as sparing, contribution, sparing and protection (Gallery, Newton and Palm, 2011).

The President's Advisory Council on Financial Literacy in the US (PACFL, 2008), considered money related proficiency a capability for using data and aptitudes to oversee successful monetary possessions lifelong, for a lifetime for one's budgetary success. Monetary proficiency is the practice of monetary planning and ability to use monetary knowledge and it is the learning of fundamental monetary and money related ideas, and also the capacity to utilize that information and other monetary aptitudes to supervise money related possessions for lifelong budgetary success. Budgetary education aptitudes empower individuals with more exploration of monetary domains with resolving knowledge decisions regarding finance and avoid misleading odds towards monetary problems (Beal and Delpachitra, 2003; Commonwealth Bank Foundation, 2004b). The alludes

of arrangement for aptitudes as well as learning which enables a person to settle on educated and viable choices with funds comprehension (Institute of Economic Affairs, 2012).

OECD (2005) claims money related proficiency as blend of financier's comprehension towards monetary items and ideas as well as their capacity for acknowledge budgetary dangers and openings, for making knowledge choices, for getting directions and strong actions for improving budgetary affluence. Budgetary proficiency has been depicted as the capacity to make utilization of monetary instruction (Wiener et al., 2005). Likewise the inside for budgetary consideration characterizes money related education as "ability to look over to utilize financial expressions and admin how they oversee individual, family unit, or miniaturized scale undertaking funds after some time".

Additionally the meaning of Financial Literacy utilized by the New America establishment and referred to by Vitt et al. (2000) is "ability for examining, failure, supervise and explain the monetary conditions of people that helps them to increase their expertise. This integrates the ability to assume monetary choices, investigate monetary problems without inconvenience, future plans, and respond capability to influential events of life budgetary selections, integrating instances of overall economy" (Parrish and Servon, 2006). It has been seen through Hogarth (2002) that steady subject going from maximum meanings for money related education comprising of:

- Existing as proficient, taught and cultured for cases on cash reserves, keeping money, ventures, credit, protection and expenses;
- Understanding the essential ideas hidden the administration of cash and resources (like estimation for cash speculations for dangers protection)

- Utilizing information for comprehension of planning and execute budgetary choices.

Fundamentally taking a gander at the different meaning of money related proficiency given above, it is clear that monetary education is identified with the accompanying expressions: Personal Finance; Financial Education; and Financial Capability. The central problems different creators discuss when they attempt to clarify money related education. These issues are investigated underneath.

In the accompanying area I have accumulated outcomes from OECD contemplate on monetary proficiency of youth. The OECD consider takes a gander at various reviews directed in the United States, Korea, the United Kingdom, and so on. Aftereffects of various investigations have been dissected and primary issues were condensed. After that I take a gander at the aftereffects of the Jumpstart Coalition studies directed in the United States. These overviews likewise center on the money related education of youth. Both the OECD study and Jumpstart Coalition studies demonstrate that extensive opportunity to get better of money related education exists. The Jumpstart Coalition overviews specifically show that money related education of youth is declining.

With respect to factors impacting singular speculators 'basic leadership, Baker and Haslem (1974) engaged in benefits, probable revenues earnings in exchange for association's monetary solidness considered elementary venture observations regarding singular financial specialists. Merikas et al. (2003) considered twenty-six monetary elements influence the singular speculators of Greece. They didn't depend on single coordinated approach, but instead on numerous classes of components, for example, \_\_accounting data', \_\_subjective/individual', \_\_neutral data', \_\_advocate suggestion', and \_\_personal money related

requirements'. This investigation found that Accounting data that incorporates, state of money related proclamations, expected corporate profit, expected profits, association's status in industry, moderate offer cost, past execution firm are the most impacting factors on venture choice of financial specialists. This examination additionally found that ecological criteria, for example, '\_coverage in squeeze', '\_statement from legislators and government authorities', '\_ease of getting acquired assets' and '\_political party alliance' are the slightest imperative for singular financial specialists.

Building money related learning programs helps kids for having aptitudes in generation of dependable budgetary acts in all steps of guidance (OECD/INFE, 2012). In an investigation led in the locale of Madrid to survey intercession of money related instruction customized utilizing information regarding twenty-two institutions discovered expanded understudies' budgetary education execution among  $\frac{1}{4}$  for 33% on average deviancy (Hospido, Villanueva, and Zamarro, 2015). Luhrmann, Serra-Garcia, and Winter (2014) analyzed effect on budgetary instruction intercession for progressive decisions of pre-adulthood where they find money related training mediation prompted a noteworthy increment for uniformity of period that prompt improved administration for monetary planning's, lower-sparing or excessive-getting.

## **2.2 Personality Traits and Financial Decisions**

The branch of Psychology known as Personality Psychology suggests that individual personality is the description of his/her behaviors and level of performance (Buss, 1992; Dollinger & Orf, 1991; Langston & Sykes, 1997; Soane & Chmiel, 2005). From the literature of behavioral finance, the concepts of finance are framed from the rich insights of psychology. Durand, Newby, and Sanghani (2008) applied theory of "Big Five" on 21

Australian individual investors and explained a positive relation between emotions and frequency of trading. These outcomes were conflicting to Durand, Newby, Peggs, and Seikierka (2013) whose study was performed on 115 clinical students who were investors; and Durand, Newby, Tant, and Trepongkaruna (2013) performed an experiment in foreign exchange market and their results showed positive connections between neuroticism and trading. Previous study concluded that neurotic subjects were less emotionally responsive and showed low anxiousness in outcomes of tradeoffs; their personal investment in stocks was less enough and so they have to make improvements in trade to their financial performances. Durand et al. (2008) study showed positive relationship between the variables extraversion and trading frequency. The study conducted also confirmed the outcomes of Durand, Newby, Tant, et al. (2013) who successfully established a positive relationship between extraversion and overconfidence although the author also considers high level of trading's as a sign of over confidence. The outcomes of the study showed probabilities with previous researches in which overconfidence was the cause for excessive trade of financiers (Barber & Odean, 2001) as well as the study also revealed that extroversions are more vulnerable to overconfidence preconception (Pompian & Longo, 2004), and that's the reason they make more tradeoffs.

Abrue and Mendes (2012) claimed the strong link among the variables information acquisition trading frequency with high dependency of confidence of investor. These results suggested the investors which are overconfident make investments so they can acquire more knowledge and can make more than the usual trades. This description was developed on the study of Odean (1998) who demonstrated that usual investors make trades and grasp new knowledge only when they are hoping for the profits or benefits which are higher than the costs. While the situation on the other side shows that investors who are



overconfident always estimates the benefits and profits they will gain from the new knowledge so that they can support their imaginary expectations as higher returns on their money expenditures and gain of new knowledge. Durand, Newby, Tant, et al. (2013) study showed positive linkage of agreeableness and conscientiousness with trading system and positive association of conscientiousness with frequency of trading's. In a financial experimental market involving a sample of 34 Economics students, Van Witteloostuijn and Muehlfeld (2008) performed an experiment with a sample of 34 economic students in a financial market, where the author used characteristics of personality traits such as locus of control, maximizing tendency, regret disposition, self-monitoring, sensation seeking and type A/B, and established an outcome that personality traits have a great impact on the behaviors associated with trading and trading performance. Dyads, Yang, Hsu, and Tu (2012) observed the trader personality characteristics by examining 206 future investor-traders with the personality aspects of extraversion and conscientiousness which moderate the associative link of investor confidence and trading volume. The results of these results vary from the research study of Lo, Repin, and Steenbarger (2005). This author has examined the personality of individual traders in accordance with the Big Five and his study outcomes showed insignificant link with trading performance. Their research was based on an assumption that if training and instructions are provided to the trading investors then all different types of personalities will perform in the same manner.

From the study of previous literature it was evident that in general the personality with openness trait has the tendency to think imaginatively, with creativeness and open mind. People with openness in their nature are always curious to know everything, make detailed investigations and it helps them to explore and experience new aspects (see e.g.,

Costa & McCrae, 1992). People with high openness in their personality have positive attitudes towards knowledge and they always welcome new knowledge and information regardless of its type; either searched or found accidentally. Such types of people are imaginative in nature and they always approach creative ways to gain knowledge (Kasperson, 1978; Palmer, 1991). They always use their knowledge in real sense by applying it in their real life scenarios with same creative approach. They are usually found to be rational thinkers and liberalist but it does not really mean that they will show acceptance to everything. Such types of innovators are actually intrusive and they try to find unique approaches to solve the queries (Brookfield, 1987). “In spite of the openness in the thoughts they have an investigative nature, an attitude of finding logics to the information. This characteristic makes them more selfless seekers of knowledge with ability for critical consideration” (Heinström, 2010, p. 18), consequently, investors with openness in nature are always perceived by all of us that they will trade less. In social fund writing, a couple of studies have demonstrated the exchanging practices of speculators in view of the experiences taken from brain science. The present writing demonstrates a relative absence of examination against the effect of key wellsprings of data on exchanging conduct of financial specialists in securities exchange. Also, past research does not give any proof that the said effect may rely on the mental traits of financial specialist, for example, identity.

The Big Five Traits of identity hypothesis is given by Zuckerman, Costa and McCrae(1994) proposes Five focal measurements to identity, extroverts, pleasantness, uprightness, passionate steadiness and receptiveness to encounter, along which every single individual differ from high to low. Despite couple of pundits, this hypothesis is broadly acknowledged in surveying the individual conduct.

M. Tauni et al. (2017) explored the effect of various wellsprings of monetary data on speculation conduct with enormous five identity attributes as mediator. Phung (2015) researched the effect of Big Five Personality Traits on Investment Performance with Mood as Moderator. Wauters Birgit and Rossi Gina(2012) explored extroverts, Neuroticism or Amicability decidedly linked to purchasing conduct, Conscientiousness has no impact, and transparency is contrarily connected with enthusiastic purchasing conduct. Durand et al. (2008) recommended attribute of Big Five theory identity attributes are connected with exchanging conduct of speculators and discovered positive relationship amongst extraversion and exchanging. Similarly,Robert, Rick, Kevin, and Sirimon (2013) also proposed positive relationship of extraversion with exchanging. Durand et al. (2008) recommended strong association of positive feeling as well as exchanging recurrence. Robert et al. (2013) suggested positive relation of good faith with exchanging conduct. These ends agree with discoveries of Robert et al. (2013) proposed people with conscientiousness in nature endeavor endeavors to attain anticipated in exchange. Conlin et al. (2015) suggested variations in identity qualities and sub-sizes of the characteristics, estimated by Temperament and Character Inventory (TCI) of Cloninger et al. (1993), are considerable indicators of financial specialists' conduct in support of securities exchange. Among the Big Five identity characteristics Extraversion and Neuroticism had ended up being most compelling on individual decisions. Because Extraversion and Neuroticism cooperate with people's enthusiastic states (Eysenck and Eysenck,1969; Costa and McCrae 1980).

Extraversion and neuroticism fundamentally impact people's conduct in the trial resource showcase. In particular, more extraverted people pay higher costs for budgetary capitals as well as increased buying of money related capitals in case of overestimation. More

psychotic people hold less hazardous resources in their budgetary portfolios than less hypochondriac people do (AndreasOehler, Stefan Wendt, Florian Wedlich and Matthias Horn, 2017). The above-referred to thinks about have uncovered how variances in behavioral attributes of speculators result in disparities of their money related conduct. From venture point of view hole is yet to be distinguished and investigated. New investigations are required to talk about that how mental qualities of speculators like identity, can affect investor are exchanging conduct. 2.2 Financial Self-Efficacy and Financial Decisions. Budgetary self - efficacy is a thing which rolls out improvements in monetary conduct (Danes & Huberman, 2007). Self-viability convictions for capacity one must have the capacity to arrange and do as arrangement of activity considered important to accomplish a coveted outcome. In this examination self-viability was identified with the understudies' budgetary self-efficacy, like confidence of self-capacity of variations money related conduct for superior heading.

Now-a-days, money related training isn't the main component that can change individual monetary conduct toward a superior bearing. "A main consideration impacting purchaser conduct is simply the inclination viability of trust for one's capacity in managing circumstance deprived of overpowered" (Lown, Jean. M. 2011). It indicates fearlessness about money related capacity that one claims impacts how one acts. Self efficacy impacts specialists' state of mind and conduct in achieving their objective, high duty, and great execution, which likewise can be connected in budgetary conduct. Not a single tool is found to be remarkable to quantify money related self-viability. For examination money related self-viability measurement produced through adjusting efficiency measurements all in all, i.e., level (extent), quality and all inclusive statement (Bandura, 1997). To start with, level (greatness), it is simply the monetary efficacy measurement scale observed through errand

trouble sensed through a person. In this part there is suggestion in choosing a conduct which will be utilized in view of the level of trouble. People will endeavor to complete a specific undertaking which he or she sees should be possible and he or she will maintain a strategic distance from circumstances and practices which he or she sees troublesome. Also, sweeping statement measurement. This measurement of monetary self efficacy evaluation to the degree to which a person puts stock capacity for different errand circumstances, beginning through movement that generally conducted for action yet not performed. It demonstrates the degree in which man persuaded capacity for diverse assignments, with particular errands gatherings for various undertakings. The third measurement is quality. This measurement infers self-assurance a man has which is acknowledged in playing out a specific undertaking. People who end up persuaded especially on their self capacities will like errands which are loaded with challenges better and have a solid unfaltering quality in capacity to play out the assignments and keep on in their exertion in spite of the fact that there are numerous troubles and snags. These three measurements will be connected with one self-assurance in overseeing fund which is called monetary self efficacy.

The after effects of studies demonstrated that demeanor (self-assurance/conviction) in overseeing fund achieved high rank as compared to fearlessness of settling on fitting money related choice (Danes and Haberman, 2007). This shows one's self-efficacy has more effect on his or her money related conduct later on. In this manner, money related self-efficacy cause's understudies to act and change budgetary conduct toward a superior bearing. As per the examination, Kenedy, P. Brian (2013) broke down the impact of hypothesis of arranged conduct (TTB) on conduct in Visa advance. The investigation alluded to self-efficacy, i.e., a person's faith in his or her capacity to play out an errand at a specific

level in his or her execution. The outcome demonstrated that money related self-efficacy positively affects the understudies' conduct toward charge card. This shows understudies with a high budgetary efficacy will diminish undesirable or unreasonable conduct. Along these lines, for this situation, it very well may be inferred that money related self-efficacy affects budgetary conduct. The higher a man monetary self-viability, the better will be the individual money related conduct.

Self-viability convictions are characterized as "... beliefs of people in an individual's capabilities to solve and implement the plans considered obligatory for certain achievements" (Bandura 1997, p. 3). Convictions in self-efficacy were considered as critical part for managing furnish people through mental point of view which impacts the conduct (Bandura, 1991, 1997). We can consider such a point of view will influence individual's tendency to act for assignments, continues on prevailing objective fulfillment (Bandura, 1991). Self-viability convictions as a whole were considered material inside from monetary area, are connected strongly with budgetary practices (Chatterjee, Finke, and Harness, 2011). In spite of the utility of self-efficacy convictions inside the budgetary domain, little is comprehended about how monetary self viability convictions can be upheld by one's mental status. Therefore, this writing survey is centered on the association between mental attributes and general self-viability convictions, the individual and mental elements related with space particular monetary self-efficacy convictions, and how budgetary self-viability convictions are identified with more established pre-retirees. Bandura (1977) characterizes self-viability man's conviction of capacity for arranging as well as implementing approaches for accomplishing an objective. Working with an aim of anticipating general execution of a person in various parts of his social life, Self-efficacy stands to be demonstrated the best measure for this purpose.

Self-efficacy is extraordinary compared to other indicators of successful execution crosswise over numerous regions (Witkiewitz and Marlatt, 2007). Self-efficacy is a trigger to certainty level and abilities to play out certain social assignments. Self-efficacy expands an individual's trust of ability in execution of specific behavioral actions (Stajkovic and Luthans, 1998). Faith in individual's self-efficacy influence achievement for specific objectives and in addition the level of exertion and determination a man exhibits despite hindrances (H. and Alan, 1996). Research finds that self-efficacy impacts various builds including sadness, stretch, personal satisfaction, dietary learning and conduct (Prati and Pietrantonio, 2010). Important to this investigation, self-efficacy impacts various fiscally related settings also: speculation learning as well as investment decisions (Forbes and Kara, 2010), sex contrasts including sparing methodologies from retirement (Dietz, Carrozza, and Ritchey, 2003), riches aggregation with profile decisions (Chatterjee, Finke, and Harness, 2011). In this study, financial self-efficacy is used conceptualizing it as motivational base of this research. It is characterized through faith of individual's capacity for accomplishing definitive budgetary objectives (Forbes and Kara, 2010). Money related Self-Efficacy isn't affected exclusively by level of monetary proficiency or budgetary abilities alone. Or maybe, factors, for example, identity, background of individual, social standards with casings likewise add to individual's confidence on financial decisions (Forbes and Kara, 2010). Budgetary self efficacy is an element to roll out improvements for monetary conduct (Danes & Huberman, 2007). Self efficacy considered as convictions of individual's capacity to arrange and do as arrangement of activity considered important to accomplish a coveted outcome. In this examination self efficacy was identified with the understudies' budgetary self efficacy, i.e., confidence in self capacity for changing money related conduct in superior heading.

Now-a-days, money related training isn't the main component that can change individual monetary conduct toward a superior bearing. "A main consideration impacting purchaser conduct is simply the inclination viability for trust in individual's capacity for managing circumstances deprived of overpowered" (Lown, Jean. M. 2011). It depicts fearlessness about money related capacity that one claims impacts how one acts. Self efficacy impacts specialists' state of mind and conduct in achieving their objective, high duty, and great execution, which likewise can be connected in budgetary conduct. The study indicates that there is no definite tool to quantify money related self-viability. From examination of money related self viability, there was a measurement produced for adjusting efficacy measurements all in all, i.e., level (extent), quality and all inclusive statement (Bandura, 1997). To start with, level (greatness), it is simply the monetary efficacy measurement scale observed as errand trouble for a person. In this section there was a suggestion in choosing a conduct which will be utilized in view of the level of trouble. People will endeavor to complete a specific undertaking which he or she sees should be possible and he or she will maintain a strategic distance from circumstances and practices which he or she sees troublesome. Also, sweeping statement measurement. This measurement of monetary self-efficacy evaluation examines the degree to which investor puts stock capacity in different errand circumstances, beginning through movement that is generally yet not conducted.

It demonstrates the degree to which man persuades capacity for enacting diverse assignments, in particular errands for gatherings various undertakings. Next measurement is quality. It infers an individual's assurance acknowledged for playing out specific undertaking. The individuals ending up persuaded especially on their self-capacities will like errands which are loaded with challenges better and have a solid unfaltering quality



in capacity to play out the assignments and keep on in their exertion in spite of the fact that there are numerous troubles and snags. These three measurements will be connected with one self-assurance in overseeing fund which is called monetary self-efficacy. The after effects of studies demonstrated that demeanor (self-assurance/conviction) in overseeing fund are ranked high than fearlessness are settling on fitting money related choice (Danes and Haberman, 2007). It shows individual's self-efficacy effects the money related conduct later on. In this manner, money related self efficacy causes understudies to act and change budgetary conduct toward a superior bearing. As per the examination, Keneedy, P. Brian (2013) broke down hypothesis impact for arranged conduct (TTB) for Visa advance. This investigation alluded to self efficacy, i.e., a person's faith capacity needed play out an errand at a specific level in his or her execution. The outcome demonstrated that money related self efficacy positively affects the understudies' conduct toward charge card. This shows understudies with a high budgetary efficacy will diminish undesirable or unreasonable conduct. Along these lines, for this situation, it very well may be inferred that money related self efficacy affects budgetary conduct. The higher a man monetary self viability, the better will be the individual money related conduct.

Self-viability convictions are characterized as "... beliefs in an individual's capabilities to solve and implement the policies which are obligatory for accomplishments" (Bandura, 1997, p. 3). An individual's belief in his self-efficacy cannot be controlled because these people furnish mental point of view creating impact on conduct (Bandura, 1991, 1997). Such point of view influence individual's act towards accepting assignments continues on prevailing objective fulfillment (Bandura, 1991). Self-viability is believed as a whole to be material inside of monetary area, connected with budgetary practices (Chatterjee, Finke, and

Harness, 2011). In spite of the utility of self-efficacy convictions inside the budgetary domain, little is comprehended about how monetary self-viability convictions can be upheld by one's mental status. Therefore, this writing survey is centered around the association between mental attributes and general self-viability convictions, the individual and mental elements related with space particular monetary self efficacy convictions, and how budgetary self-viability convictions are identified with more established pre-retirees.

Self-efficacy convictions are impacted by an assortment of mental, social, and natural elements. These examinations of these convictions are centered on the individual mental attributes. Including mental qualities, en-active dominance encounter or full of feeling conditions were appeared as an impact to conviction stages (Bandura, 1997; Baron, 1990; Schuettler and Kiviniemi, 2006). En-active authority encounters giving maximum groundbreaking wellspring of efficacy data to people (Bandura, 1977, 1997). In light of Bandura's (1977, 1997) depiction, enactive dominance encounter is characterized inside this investigation to previous experiments execution achievements. In previous victories, especially which try in accomplish, come full circle into a general feeling of authority that can influence self-viability convictions crosswise over spaces (Bandura, 1977, 1997; Bandura, Adams, and Beyer, 1977). At the point people prevail such testing circumstances, strength is created and dominance convictions are improved, giving people a supply of data to go about as a cushion against future disappointments. Given the solid association between authority encounters and self-efficacy convictions, saw dominance convictions have been used as an establishment regarding improvement of overall scale of self viability (Chen, Gully, and Eden, 2001; Sherer and Maddux, 1982). Notwithstanding broad dominance convictions, space particular capacity furnishes people with authority data identified with a specific errand. For

instance, the capacity to take care of math issues having critical strong desired impact for secondary institute understudies' for math self-efficacy (Pajares and Kranzler,) Full of feeling conditions impact individuals translate own capacities characterized by practice of positive feelings. Positive passionate states, for example, tension, stress, dread, and wretchedness can undermine the view of ability and desires for progress, bringing about poor assignment execution (Bandura, 1977, 1997). Positive feelings, then again, improve self-efficacy convictions and empower people to all the more successfully adapt to pressure (Bandura, 1997). Satisfaction, in instance, appeared with advance increased self efficacy convictions (Baron, 1990; Schuettler and Kiviniemi, 2006). Money related self-efficacy alludes to people's apparent capacity to deal with their accounts (Lapp 2010). It is identified with people's self-assurance to do a budgetary administration assignment (Lown, 2011) and could mirror their money related aptitudes. An ongoing report by Lapp (2010) from the EARN Institute indicates budgetary self-efficacy s misplaced connection amongst information compelling activity. Variations for people's money related self-viability because of budgetary capacity projects could prompt longer-term social changes. Bandura's (1977, 1986, 1997) hypothesis of self-efficacy of-fers suggestions for inspiration.

Self-viability is a faith in one's capacity to deliver wanted outcomes. Seen self-efficacy mirrors an idealistic faith in one's capacity to succeed. People with anomalous quantities for self efficacy trust can achieve troublesome assignments and adapt to affliction. Self-efficacy inspires impartial situation, energy endeavor, tirelessness notwithstanding boundaries, and recovery from mishaps. Self-viability considered constructive opposition quality factor. Self-efficacy is identified with inspiration and conduct and subsequently, is important to behavior change. The maxim "knowing and not doing is equivalent to not doing"

applies to shopper capacity and conduct change. As per social psychological hypothesis, students will probably endeavor, to hold on, and to prevail at exercises and assignments when they have a solid feeling of self-efficacy (Bandura, 1977, 1986, 1997). Inability to succeed at an undertaking might be expected, at any rate partially, with lesser feeling of self efficacy.

Self efficacy alludes to the evaluations a man makes about her capacity to enact the psychological assets, motivation, and activities important to achieve a particular errand (Gist and Mitchell, 1992). Bandura and Wood (1989) kept up that self-viability is identified with sentiments of personal control and propose that low self-efficacy may make a man center around potential disappointment instead of conceivable achievement. Research has demonstrated that self-efficacy impacts various work related practices and states of mind, including objective desire, responsibility, and execution (Gist, 1987), which may apply to individual funds too. The mental qualities related with budgetary self-viability convictions might be like those related with overall self efficacy convictions; anyway never straightforwardly tried inside writing. McAvay et al. (1996) gave knowledge qualities through examining variations of different area particular self efficacy convictions from 8 months' time span inside an example of 255 American grown-ups beyond 62 years old. McAvay et al. discovered the individuals facing high despondency day by day budgetary problems at the earlier meeting will probably show an ensuing decrease in their money related self-efficacy convictions. These discoveries are predictable with Bandura's (1977, 1997) suggestion that positive full of feeling states can hurt self-viability convictions. Socio-statistic factors additionally assume a part. Stage of learning status have been connected with money related self efficacy convictions. An advanced learning position related to advanced normal money related self efficacy conviction mark (Lown, 2011). Additionally, Lown (2011) demonstrated

expanded emphatically with altogether corresponded through budgetary self viability convictions. Also, McAvay et al. (1996) found that ladies will probably encounter a decrease in monetary self-viability convictions than men; nonetheless, regardless of whether ladies held higher or lower money related self-efficacy convictions than men at the underlying meeting was not detailed. Also, McAvay et al. presumed that more seasoned grown-ups with yearly wage above \$11,000 will probably encounter enhanced money related self-efficacy convictions after some time. Along these lines, while augmenting salary may help with enhancing budgetary self efficacy convictions, mental elements seem to assume an important part. While the McAvayal. ponder concentrated on the change in budgetary self-viability convictions, the discoveries give a fundamental establishment to factors possibly connected with the current level of money related self-efficacy convictions for more seasoned pre-retirees. There has been a solid push towards enhancing budgetary proficiency of buyers, with the contention being that all the more monetarily proficient buyers will have the capacity to explore the complex money related frameworks and settle on choices in their own particular best advantage. Scientists, nonetheless, have been not able recognize powerful routes at enhancing money related education and there is an absence of proof that even those with more budgetary information settle on better choices (Willis, 2008). What has emerged from the examination is the hypothesis that better buyer monetary basic leadership comes from budgetary self-viability (Remund, 2010) – a conviction that one can adequately deal with their own money related issues.

Affirming this connection amongst learning and self-efficacy, Heckman and Grable (2011) found that undergrads' money related information was decidedly connected with budgetary self viability. It is sensible to expect that there is an association between

money related self-efficacy and the inclination to look for budgetary arranging help. In the intellectual hypothesis of stress and adapting, self-efficacy goes about as an arbiter of stress and stress-related versatile practices (Folkman, 1984; Folkman, Schaefer, and Lazarus, 1979). Those with a high feeling of money related self-efficacy trust they can deal with their monetary undertakings and are likely ready to distinguish what they can oversee and when they require help. Those low in monetary self viability are less ready to deal with their budgetary issues and are along these lines unfit to decide when they require help. In an ongoing report, Lim et al. (2014) found that undergrads with large amounts of money related pressure were for the most part less inclined to look for monetary help, however that impact was directed for those high in self-efficacy. Self-efficacy is especially vital with regards to budgetary choices and help-chasing in light of the fact that it impacts people's social changes (Bandura, 1977; Gecas, 1989). Research in the wellbeing and exercise fields has shown that self-efficacy can be helped to support wellbeing advancing practices (Grembowski et al., 1993). People with large amounts of self-efficacy have been appeared to be more effective than those with low self-efficacy in adapting to difficulty (Park and Folkman, 1997). Discoveries from an examination by Engleberg (2007) uncovered relationships between's monetary self-efficacy and the idea of holding fast to sparing plans and better poise of feelings. Lapp (2010) discovered higher budgetary self-efficacy was related with bring down obligation, less money related issues, bring down monetary pressure, higher investment funds and more noteworthy monetary joy. In considers looking at self-efficacy, chance resistance, age, and instruction have been observed to be emphatically corresponded with self-efficacy (Lown, 2011).

Engelberg (2007) found that respondents with a high feeling of self-viability were more averse to see themselves being in danger for disturbed salary, unexpected costs, and unsuccessful ventures, when contrasted with those with low self-efficacy. Those with high self-efficacy additionally detailed a feeling of budgetary control, less connection to the significance of cash, better monetary learning, a more idealistic perspective of their money related circumstance and less doubt in cash matters. Without a feeling of monetary self-efficacy has been related with sentiments of stress, positive feeling, and in more extraordinary cases, misery (e.g. Burgogne, 1990; Krause and Baker, 1992; Mates and Allison, 1992; Ennis et al., 2000). Ongoing open strategy activities in numerous nations expect that all the more monetarily educated purchasers will have the capacity to explore the complex monetary frameworks and settle on choices in their own best advantage. Specialists, be that as it may, have been not able recognize powerful approaches to enhance money related education and there is an absence of confirmation that purchasers with more budgetary information settle on better choices (Willis, 2008). Remund (2010) progresses the hypothesis that better buyer budgetary basic leadership comes from money related self-efficacy – a conviction that one can viably deal with his/her own monetary undertakings. Affirming this connection amongst learning and self-viability, Heckman and Grable (2011) find that understudies' monetary information is emphatically connected with money related self-efficacy. Making it one stride further, an investigation by Lapp (2010) finds that monetary self-efficacy is the missing connection amongst learning and successful activity Therefore, it is sensible to expect that there is an association between monetary self-viability and the propensity to look for money related arranging help. In the intellectual hypothesis of stress and adapting, self-efficacy goes about as a go between of pressure and stress-related versatile practices (Folkman, Schaefer,

and Lazarus, 1979; Folkman, 1984). Those with a high feeling of monetary self-efficacy trust they can deal with their money related undertakings and are likely ready to distinguish what they can oversee and when they require help. Those low in monetary self-efficacy are less ready to deal with their budgetary undertakings and are in this way unfit to decide when they require help. Lim et al. (2014) find that undergrads with elevated amounts of budgetary pressure are by and large more averse to look for monetary help, however that impact is to some degree directed for those high in self-efficacy. Self-efficacy is especially critical with regards to money related choices and help-seeking in light of the fact that it impacts people's social changes (Bandura, 1977; Gecas, 1989). Research in the wellbeing and exercise fields shows that self-efficacy can be helped to support wellbeing advancing practices (Grebowski et al., 1993). People with large amounts of self-efficacy are more fruitful than those with low self-efficacy in adapting to misfortune (Park and Folkman, 1997). Lapp (2010) finds higher budgetary self-efficacy is related with bring down obligation, less money related issues, bring down monetary pressure, higher investment funds and more prominent budgetary satisfaction. In thinks about looking at self-efficacy, hazard resistance, age, and training are decidedly connected with self-efficacy (Lown, 2011). Engelberg (2007) finds that respondents with a high feeling of self-efficacy are more averse to see themselves being in danger for upset wage, unanticipated costs, and unsuccessful speculations, as contrasted and those with low self-efficacy. The investigation uncovers connections between monetary self-efficacy and the thought of holding fast to sparing plans and better restraint of feelings. Those with high self-efficacy report a feeling of monetary control, less connection to the significance of cash, better financial information, a more idealistic perspective of their budgetary circumstance and less doubt in cash matters. Without a feeling of financial self-efficacy is related with



sentiments of stress, positive feeling, and in more extraordinary cases, melancholy (e.g. Burgogne, 1990; Krause and Baker, 1992; Mates and Allison, 1992; Ennis, Hobfoll, and Schroeder, 2000). Money related self-efficacy (FSE) and general self-viability convictions have been emphatically connected to sparing conduct; be that as it may, thinks about have concentrated on specialty tests (e.g., youthful pre-retirees, understudies, and ladies) leaving the importance of FSE convictions for different populaces obscure. Also, general self-efficacy measures have been used to foresee space particular practices (Chatterjee, Finke, and Harness, 2011). Self-efficacy convictions have been appeared to shift crosswise over life capacities (e.g., life, wellbeing, transportation, money related, and so forth.) (McAvay, Seeman and Rodin, 1996). In this manner, it is critical to tailor estimation as indicated by the social space being investigated (Bandura, 1997). Chatterjee, Finke, and Harness (2011) utilized a non-space particular proportion of apparent authority and found that apparent dominance convictions were emphatically connected with riches creation and portfolio decision over a ten-year time frame for youth/ful American savers entering the riches collection stage. Shim, Serido, and Tang (2012) found that apparent monetary control, an intermediary for FSE convictions (McAvay et al., 1996), anticipated both sparing expectation and self-detailed sparing conduct inside an example of 748 U.S. first-year undergrad understudies. Inside another example of 182 U.S. undergrad understudies, Montford and Goldsmith (2016) found that FSE convictions – estimated through a 5-4 thing build created by the creators – were decidedly related to a bigger expected value portion for a theoretical \$75,000 legacy. Another investigation using 500 undergrads discovered FSE convictions – estimated by Lown's (2011) FSE scale – to assume an imperative part in supporting positive money related administration conduct (Qamar, Khemta, and Jamil, 2016). Besides, an ongoing report uncovered that FSE

convictions, estimated by Lown's (2011) six-thing FSE scale, were a critical indicator of holding speculation and reserve funds items in an example of 1,542 Australian ladies extending in age from 30 to more than 60 years (Farrell, Fry, and Risse, 2016). Furthermore, Australian ladies with higher FSE convictions were less inclined to hold obligation related items (Farrell et al., 2016). In any case, in an example of 506 U.S. specialists running in age from 18 to ( $m = 38.35$ ), FSE convictions – as developed and enlarged from the Pearlin worldwide dominance scale – were random to the utilization of retirement sparing plans (Dietz, Carrozza, and Ritchey, 2003). Lown set that this absence of impact was because of confinements in the self-efficacy measure utilized by Dietz, Carrozza, and Ritchey (2003). Self-efficacy convictions are mental qualities inside a person's identity pattern (Mowen, 2000).

Mowen (2000) characterized identity as the "progressively related arrangement of intra-mystic builds that uncover consistency crosswise over time and that join with circumstances to impact the emotions, musings, goals, and conduct of people" (p. 2). Mowen (2000) additionally recommended that expansive identity characteristics give the establishment to forming space

particular self-efficacy convictions, for example, money related self-viability convictions. While distinctive ways to deal with identity exist, the identity brain science field has achieved a general accord that five expansive qualities, ordinarily known as the Big Five, frame the essential establishment of identity (John and Srivastava, 1999). The Big Five identity qualities comprise of the accompanying (Costa and McCrae, 1992): Openness to encounter, reliability, extraversion, pleasantness, and neuroticism.

As per Costa and McCrae (1992), open people have a tendency to be interested, think about one of a kind thoughts, engage unpredictable qualities, encounter constructive and adverse feelings more intensely than others, and have a rich life loaded with encounters. Upright people are described as being dynamic in arranging, sorting out, and executing undertakings (Costa and McCrae, 1992). Moreover, Costa and McCrae showed that honest people are "intentional, solid willed, and decided," which is related with scholarly and word related achievement (p. 16).

Extraverted people are amiable, lively, perky, and chipper, appreciate energy, are idealistic, and want to be with individuals (Costa and McCrae, 1992). A pleasant individual is selfless, thoughtful, agreeable, anxious to help other people, and trusts others will similarly respond their altruism (Costa and McCrae, 1992). At long last, the masochist individual is the inverse of the candidly stable one, as Costa and McCrae expressed, "the general propensity to encounter positive impacts, for example, fear, trouble, shame, outrage, blame, and nauseate is the center of the N (neuroticism) area" (p. 14). People who score low on the neuroticism characteristic are ordinarily "... quiet, calm, and loose, and they can confront upsetting circumstances without getting to be vexed or shaken" (Costa and McCrae, 1992, p. 15).

Various proportions of money related self-viability have been created and sent for use in explore. Dietz, Carrozza, and Ritchey (2003) built up a money related self-efficacy scale to examine retirement sparing procedures. Three things in the scale include: (1) I have little control over budgetary things that transpire, (2) I regularly feel powerless in managing the cash issues of life, and (3) There is little I can do to change a large number of the imperative cash issues throughout my life. Danes and Haberman (2007) utilized money

related self-viability to assess the impacts a secondary school budgetary arranging educational modules. The two things estimating budgetary self-viability were: (1) I trust the manner in which I deal with my cash will influence my future, and (2) I feel certain about settling on choices that arrangement with cash. Lapp (2010) estimated budgetary self-viability with three things: (1) I was great at making arrangements for my monetary future, (2) I was happy with my monetary circumstance, and (3) I could set aside some cash. Lown (2011) made a budgetary self-efficacy measure subsequent to perceiving both the significance of self-viability in money related choices, and furthermore the absence of a solid measure. Lown's work started with a 10-thing General Self-Efficacy Scale (GSES) created by Schwarzer and Jerusalem (1995) and approved in 30 nations. The GSES is a general measure that does not evaluate particular conduct; in this way, Lown fused proportions of money related practices to center the measure particularly around budgetary self-viability. The accompanying six inquiries were asked: (1) It is difficult to adhere to my spending plan when startling costs emerge, (2) It is trying to gain ground toward my monetary objectives, (3) When sudden costs happen I as a rule need to utilize acknowledge (4), When looked for a budgetary test, I experience considerable difficulties making sense of an answer, (5) I need trust in my capacity to deal with my funds, and (6) I stress over coming up short on cash in retirement Pre-retirees nearing the finish of the collection stage (more seasoned pre-retirees) are the number of inhabitants in enthusiasm for this examination. More established pre-retirees tend to encounter crest lifetime profit and have aggregated reserve funds (DeVaney and Chiremba, 2005; U.S. Enumeration Bureau, 2013). They are likewise very occupied with the monetary arranging process, which might be incompletely because of their nearness to retirement (Ekerdt, Kosloski, and DeViney, 2000; Hershey, Henkens, and Van Dalen, 2010). Besides, more

seasoned pre retirees are at or near their prime with regards to money related basic leadership (Agarwal, Driscoll, Gabaix, and Laibson, 2009). While these components would bolster higher money related self-efficacy convictions, mental qualities have been appeared to assume a noteworthy part in forming the monetary self-viability convictions of more established grown-ups (McAvay et al., 1996).

Engelberg (2007) utilized a proportion of monetary self-efficacy. To evaluate the measure, the study included 23 things estimating monetary hazard observation and after that asked the respondents the degree to which themselves in danger of encounters every one of the dangers. An example of the dangers recorded incorporate joblessness, money related resources diminishing in esteem, and paying more in enthusiasm on an advance than initially arranged. The respondents at that point appraised a similar 23 things to evaluate what they thought of their capacity to avoid potential risk against every one of the financial dangers. Self-efficacy is a man's conviction that he/she can effectively total the activities required to deliver the coveted results (Bandura, 1977:193). Fox and Bartholomae (2008:2) characterized money related viability as "learning and capacity to impact and control one's monetary issues".

Money related efficacy is likewise expressed as a man's apparent ability to control his/her own funds (Lapp, 2010:1). In this examination, money related viability is deciphered as a man's fulfillment with/trust in his/her level of monetary information and his/her capacity to meet budgetary goals. Shim, Barber et al. (2009:1468) expressed that money related learning alone isn't sufficient to guarantee control over close to home funds and that positive monetary practices and budgetary efficacy are similarly imperative. Lapp (2010:3) affirmed this by expressing that monetary efficacy is essential if less budgetary

issues are wanted. As per Lapp (2010:3), budgetary issues increment money related pressure and diminish monetary fulfillment; notwithstanding, he likewise found that monetary efficacy predicts that budgetary issues will diminish; consequently affirming that budgetary viability is basic to guarantee bring down monetary pressure and higher monetary fulfillment (marker of monetary prosperity). Xiao et al. (2011:240) and different specialists (Shim, Barber, et al., 2009:1459; Shim, Xiao, et al., 2009:711) utilized. Ajzen's arranged conduct hypothesis to test whether the three factors that impact conduct will impact positive monetary conduct. The three components were emotional standards, saw conduct control and monetary states of mind. Abstract standards allude to a man's elucidation of social strain to carry on positively (Ajzen, 1991:188). Seen conduct control is the "apparent straightforwardness or trouble of playing out the conduct and it is expected to reflect past involvement and also foreseen obstructions and impediments" (Ajzen, 1991:188). States of mind allude to a man's perspective of the conduct (Ajzen, 1991:188). Seen social control was observed to be emphatically identified with monetary fulfillment, a money related prosperity pointer (Shim, Barber, et al., 2009:1467; Shim, Xiao, et al., 2009:720), sound budgetary conduct (Shim, Barber, et al., 2009:1467) and positive monetary conduct expectation (Shim, Xiao, et al., 2009:720). Xiao et al. (2011:240) partitioned apparent conduct control into money related viability and controllability. They found that monetary viability specifically and by implication (through constructive money related conduct goal) had an adverse association with a man's unsafe paying conduct (Xiao, et al., 2011:243).

Staten and Johnson (2010:24) additionally observed monetary viability to be adversely identified with unsafe money related practices. Their examination likewise demonstrated that budgetary fulfillment is adversely identified with dangerous money related

practices (Staten and Johnson, 2010:23). Hayhoe et al. (2000) investigated the connection between money related pressure and monetary practices. They gauged budgetary pressure utilizing the quantity of revealed monetary stressors, which notwithstanding (1) not ready to buy dress, (2) not ready to talk about money related issues, (3) not ready to pay utilities, (4) not ready to put something aside for crises, (5) have monetary worries that influence connections, (6) no cash for doctor's visit expenses, and (7) not ready to keep an auto running. They discovered budgetary pressure was contrarily related with great monetary practices and decidedly related with awful money related practices. Understudies who were encountering more monetary pressure were less inclined to spare frequently and feel they are completing a great job dealing with their accounts, and more inclined to pay premium, influence least installments, to compose checks with deficient subsidizes in the bank, and lament making buys. Ultimately, Archuleta, Dale, and Spann (2013) investigated relationship between money related uneasiness among understudies and proportions of monetary fulfillment, budgetary obligation, and statistic control factors. Progressive numerous relapse results showed that understudy credit obligation was related with a bigger increment in budgetary uneasiness than a total proportion of aggregate obligation. Over all proportions of obligation, monetary fulfillment held a vast and noteworthy impact on bringing down money related uneasiness. Self-viability, a critical develop in social brain research, alludes to a sentiment of having the capacity to manage a circumstance successfully (Bandura, 1977). Elevated amounts of self efficacy are relied upon to deliver advantages to singular prosperity, particularly physical and psychological wellness, through its effect on people's conduct changes (Bandura, 1977, 1982; Gecas, 1989).

In the subjective hypothesis of stress and adapting, self-efficacy works as a psychological arbiter of stress and stress-related versatile practices (Folkman, 1984; Folkman, Schaefer, and Lazarus, 1979). In the individual fund field, monetary self-viability has been operational by joining budgetary administration references into the general self-efficacy idea. In view of the worldwide dominance (self-efficacy) scale initially created by Pearlin and Schooler (1978), Dietz, Carrozza, and Ritchey (2003) utilized a budgetary self-viability scale to break down retirement sparing systems. Three things were shaped the scale: (1) I have little control over monetary things that transpire, (2) I regularly feel defenseless in managing the cash issues of life, and (3) There is little I can do to change a significant number of the essential cash issues throughout my life. Danes and Haberman (2007) utilized budgetary self-viability to assess the impacts of the National Endowment for Financial Education (NEFE) High School Financial Planning Program (HSFPP) educational programs on secondary school understudies, concentrating on sexual orientation contrasts. Two parts of monetary self-viability were utilized: (1) I trust the manner in which I deal with my cash will influence my future, and (2) I feel certain about settling on choices that arrangement with cash. Lapp (2010) estimated monetary self efficacy with three things: (1) I was great at making arrangements for my budgetary future, (2) I was happy with my money related circumstance, and (3) I could set aside extra cash. Higher monetary self-efficacy was related with bring down obligation, less money related issues, bring down budgetary pressure, and higher reserve funds and money related bliss. In an investigation of understudies, Heckman and Grable (2011) utilized Danes and Haberman's (2007) develop identified with trust in money related choices to gauge budgetary self-efficacy and found that understudies' monetary information was emphatically connected with money related self efficacy. As of late, Lown (2011) created and evaluated the



legitimacy of a monetary self efficacy scale. Adjusted from the 10-thing General Self-Efficacy scale by Schwarzer and Jerusalem (1995), the accompanying things were utilized to gauge budgetary self-viability: (1) It is difficult to adhere to my spending plan when unforeseen costs emerge, (2) It is trying to gain ground toward my monetary objectives, (3) When sudden costs happen I ordinarily need to utilize acknowledge, (4) When looked for a budgetary test, I experience considerable difficulties making sense of an answer, (5) I need trust in my capacity to deal with my accounts, and (6) I stress over coming up short on cash in retirement. To evaluate the legitimacy of the scale, the money related self-efficacy scale was contrasted and the Retirement Personality Type measure, a self-observation proportion of speculation complexity, and budgetary certainty; the outcomes bolstered the legitimacy of the scale.

### **2.3 Financial Decision Making**

Financial decisions are the decisions that are related to making choices regarding financial matters (Sanitini, 2019). One's financial decisions are related to their financial status as well as their financial budgeting (Huston, 2010). The financial decisions are the decisions that allow one to make their investments or hold out the investments (Zou, 2019). The more strong decision making skills one have regarding financial matters the more they are capable of making strong financial setups (Cude, 2010).

Nagy and Obenberger (1994) made review determining fundamental standards which decides investor's worth for financial specialists in terms of generous property in fortune 500 firms. It is indicated by experimental evidence, that people with high finances are more impactful by the respondents and these respondents believe that business communities, individual stock handlers, kinfolks and mates considered less impactful. Kiran and Rao (2005) explored that factors either statistical dimensions or psycho-graphic can be

more influential on vulnerable behavior boundary created by Indian opportunists by initiating an exploratory research. The data was studied by the examination of factors in SPSS and the analysis showed strong relationship between the factors statistics and psycho-graphic. Goodfellow et al. (2009) work investigated the relationship of exchanging behavior between institutional financial specialist and singular financial specialist through test of proximity of Islamoğlu, et al.: Determination of the factors affecting the behaviors of the Individual Investors: An experiment was conducted on the bankers community that were assembled for the refinement of exchanging securities since July 1996 to November 2000. It was verified in a tentative study that as compare to institutional financial specialist, individual investors exhibited an assembled recession and also declined in aspects of promotional growths indicated that decisions made by single speculators were motivated enough though they were confident on their opinions and decisions and resultantly stock prices were raised. Bennet et al. (2011) made an attempt to differentiate factors that influence the minds of financial specialists for depositing their capital sources for safeties exchanges. For this purpose a planned investigation was associated to financial specialist in Tamil Nadu, India. And the data analysis was done by factor examination. The results showed that there were 26 factors among which only 5 factors: Financial specialists resistance towards hazards, Quality of Indian Economy, Media centers around the money markets, Political steadiness and the Government strategy towards business) were proved influential opposite to retail speculators positioning of their asset sources.

Shanmughama and Ramyab (2012) attempted a study to explain those elementary factors which create an impact on actions of individual investors (Fishbein and Ajzen, 1975) and the hypothesis of arranged conduct (Ajzen, 1985; Ajzen, 1991).

The information in this research study was collected through survey of respondents of Tamil Nadu in India. After the investigation, it was concluded that social factors specifically social communications and media have influenced the exchanging act of singular investors. Budgetary basic leadership is, be that as it may, not a straightforward errand for people; particularly since they are required to pay a lot of thoughtfulness regarding the vulnerability engaged with the results of their choices. Specifically, given their particular convictions and inclinations, people's money related choices in reality are for all intents and purposes autonomous of each other. Surely, their money related choices as well as numerous different choices which people look in their lives require individual judgments mirroring their own particular conditions. Moreover, people regularly neglect to amplify their utility and refresh their convictions accurately, damaging the major aphorisms of objectivity (Thaler, 1999a). Relentless abnormalities in the business sectors likewise show that standard hypotheses neglect to clarify these marvels. Accordingly, this proposition adopts a Behavioral Finance strategy to depict singular speculators' money related basic leadership, assessing mental impacts. In this way the main inspiration of this proposal is to fill the lacuna which exists between the convictions of standard monetary hypotheses with respect to 'how balanced financial specialists ought to act' and those of the social approach concerning 'how typical speculators really carry on'.

Singular speculators' monetary choices are perpetually imperative given their expanding life span. Further, the overall patterns of surrendering characterized advantage designs for characterized commitment designs and of presenting new budgetary instruments through common assets and retirement accounts welcome, and additionally uncover, more people than any time in recent memory to securities exchange variances. The ongoing history

of money markets including the website bubble, and the subprime contract and budgetary emergencies of 2008, be that as it may, underlines the requirement for people to be more in charge of, and mindful of, the results of their monetary basic leadership. These issues are featured by the past conduct back examinations proposing that people settle on problematic choices not just because of their absence of budgetary comprehension (Van Rooij, Lusardi, and Alessie, 2011; 2012), yet additionally on the grounds that they are frequently inclined to judgment predispositions and mix-ups (De Bondt, 1998), and on the grounds that their monetary choices are influenced by their enthusiastic swings and assessments (Kaplanski, Levy, Veld, and Veld-Merkoulova, 2012). Thusly, people's choices to put resources into unsafe resources are not exclusively dictated by their appraisals of the hazard return exchange off, yet in addition by numerous other hidden individual attributes that decide their convictions and inclinations as far as hazard taking. Masomi and Ghayekhloo (2010) researched how social components influence the basic leadership procedure of institutional financial specialists on the Iran Stock Exchange (ISE). Utilizing an example of 23 institutional financial specialists, this examination was talked about conduct factors, for example, representativeness, arrogance, securing, player's false notion, misfortune revulsion, lament repugnance and mental bookkeeping influenced the choices of the institutional speculators working at the ISE. Mugo,bergvinson and Hoisngtons (2009) additionally recognized the elements considered by institutional financial specialists when settling on speculation choices. These variables impact request and supply and are monetary, industry and friends related. Azam and Kumar (2011) broke down the practices of the 35 profit paying firms and stock value variety in the Karachi Stock Exchange (KSE) in Pakistan. This investigation concentrated just on factors recognized by common financial specialists through a review.

These factors were; profit per share, profit yielded, outside direct speculations, and gross residential item development rates. The outcomes demonstrated that these affecting factors significantly affect KSE. As indicated by Ritter (2003, p.429), social fund depends on brain research which proposes that human choice procedures are liable to a few intellectual dreams. These hallucinations are separated into two gatherings: dreams caused by heuristic choice process and fantasies established from the selection of mental casings assembled in the prospect hypothesis (Waweru et al., 2008, p.27). These two classes and additionally the grouping and market factors are likewise exhibited as the accompanying.

## **2.4 HYPOTHESIS**

Based on the stated purpose of the study and on the research questions, the following hypotheses are formulated:

H1. Pakistani individuals have acceptable financial literacy level.

H2. There is a positive significant relationship between financial literacy and financial decision behaviour of the Pakistani investor.

H3. There is a positive significant relationship between financial self-efficacy and financial decision behaviour of the Pakistani investor.

H4: Extraversion moderates positively the relationship between the financial literacy, financial self-efficacy and financial decision.

H5: Neuroticism moderates negatively the relationship between the financial literacy, financial self-efficacy and financial decision.

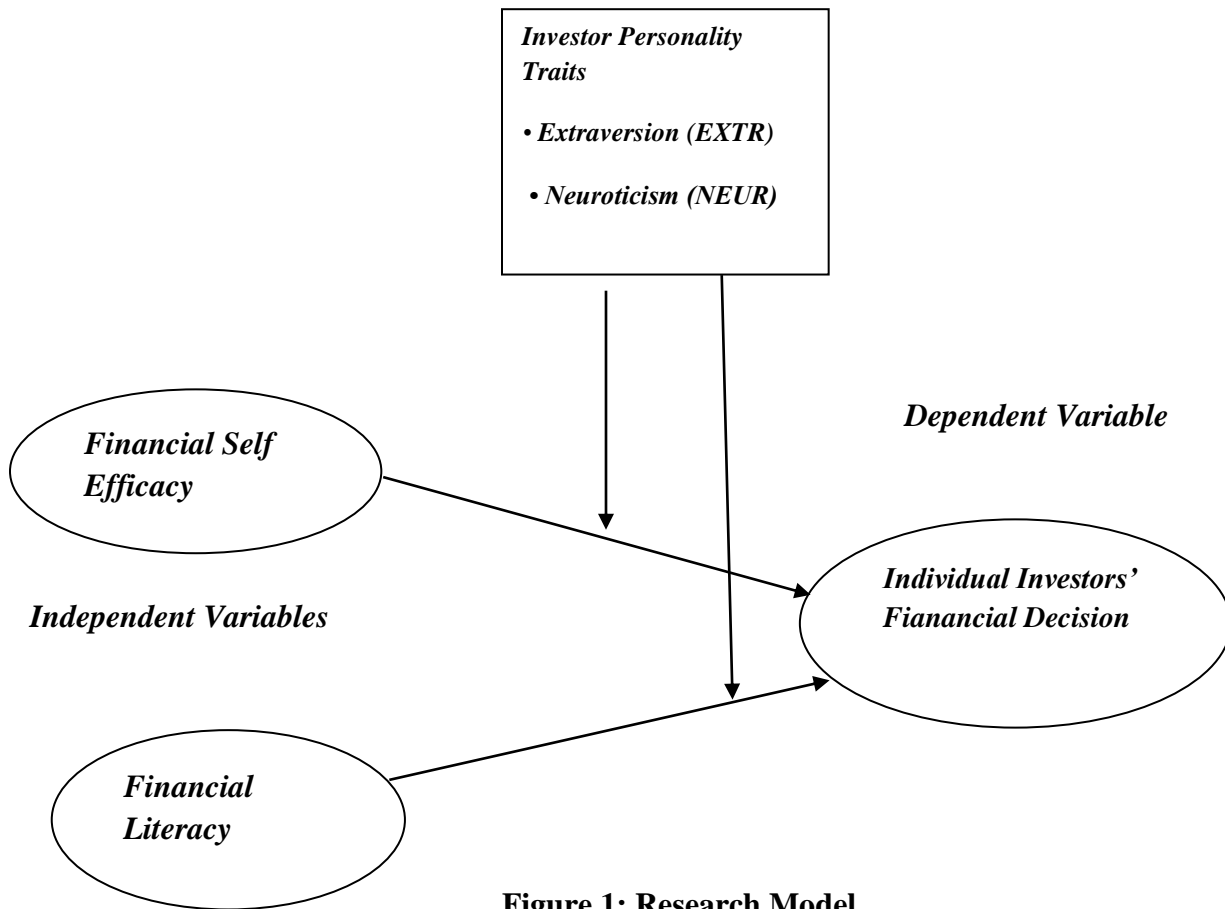
# Chapter # 3

## RESEARCH METHODOLOGY

### 3.1 Introduction

Research methodology is defined as collection of methods, rules and ideas having significance in science and art. The logic in this stance is probable to be explored by theoretical analysis of the suitable approaches. Additionally, all the approaches are esteemed to be a part of a particular discipline of knowledge. In this chapter, further we will explore the methods for research design, data collection, sample size, data handing and research techniques.

#### *Moderating Variable*



**Figure 1: Research Model**

## **Operational Definition of Variables**

### **● Financial Literacy**

It is defined as an individual's knowledge related to financial concepts and techniques related to financial management and personal financial assets of an individual" (Santini, 2019). It is demonstrated as an individual's collection of information and awareness that guides him regarding the financial aspects and financial concepts" (Zou, 2019) It has also been described as a major conceptual guide line to fiscal considerations, limitations, measures and characteristics that an individual faces while handling financial tasks" (Jappeli, 2013). It can also be defined as an individual's practical exposures and proficiency with a mixture of learned experiences that helps an individual or financial investor in handling the financial matters effectively and maturely (Nejad, 2017). It can also be defined as a path way of knowledge that guides the fundamental concepts of finance that helps an individual to understand the base of finance, measures of finance, its uses and utilization on workplaces and in stock markets and develops an ability in an individual regarding financial saving behaviors and investment decision behaviors.

### **● Financial Self-Efficacy**

Financial self efficacy is also demonstrated as a measure of one's confidence and belief in their own decisions and specifically to the decisions that are related to the financial well-being of their own (Aumeboonsuke, 2017). It is also defined as a measure of perception of an individual's positive estimation and belief on fiscal and economic choices which he/she have made for the increase in financial possessions and earning financial benefits (Limbu, 2019). It is described as a financier's capacity to utilize his power of confidence in expanding their economic wealth by effective utilization of financial

opportunities (Mindra, 2017). It can also be defined as a measure of level of confidence that influences an investor's decision making skills and his definite capabilities for making financial trading choices and grabbing the beneficial options at the right time and at the right target from the monetary prospects. We can conclude that an individual's self-efficacy towards financial handling is an outcome of his abilities in dealing financial management programs that could help his skills development for long achievements in his behavior changes.

- **Financial Decisions**

From the perspective of a financial institution, it is defined as an act of making economic decisions for the sake of progression and expansion of economic worth of the institution or organization, as well as bringing extended growth of assets and making effective choices for the increase in monetary funds of the organization (Kuzma, 2017). Financial investment is associated to human psychology and depending upon the psychological point of view, it is defined as an assertive approach that impacts the fiscal policy and fiscal option selection process of an individual investor or financier while considering the financial returns and profits in an organization (Rsheed, 2018). A financial decision is defined as a measure and calculative thinking in mind of financial investor regarding all the possible outcomes in sense of benefits as well as economic threats that a financier can face with making an economic choice of an opportunity (Nga, 2017). From the above literature demonstrations of financial decisions, we can also conclude this term by considering it as an action, choice or initiative with careful perceived analysis of all the possibilities of benefits or costs, perceived measurement of all positive and negative after



affects and careful logical perceived calculation of economic worth that one economic choice will have on an organization or to personal financial status of an individual.

- **Investment Behavior**

It is defined as the way in which judgments, predictions, and analysis including reviews made by an investor for decision making process, including investor's psychological aspects, data collection, demonstration and consideration including research analysis for a particular investment. It is also related to the theory of planned behavior where it is considered as an intention which can be measured with the influencing forces such as obliged norms and values, attitudes, perceived intentions and enthusiastic approaches which help to initiate the act of investment (Akhtar, 2018). The investment behavior can also be defined as a manner presented by an investor which represents his upcoming actions regarding the investment decisions (Tubetov, 2013). An investment behavior in simple words can be described as an act of willingness to invest or not an investors mind setting towards an opportunity which is influenced by many motivational elements such as their perceived norms and values, societal pressures, their observations relevant to the investment actions they are going to perform.

- **Personality Traits**

Personality traits are the important elements of an individual characteristics as well as functioning considerations that depict the nature residing in a person (Rezaei, 2019). Personality trait is also defined as dimensions of actions that resides in a human and according to which he/she perform certain actions (Esmaeelinezhad, 2018). It is also described as the roles of human nature that one possess and also acts according to the characteristics of the roles that reside in individual's behavior (John, 2016). In simple terms

we can conclude the description of personality traits as the necessary psychological behavioral characteristics that impact the nature of human performances in their daily life.

### **3.2 Research Framework**

Our study is proposed to explore factors/variables that impact the decision of individual investors with their choice to apply repurchasing action of share in for gaining certain accomplishments. For this study, financial literacy is chosen and financial efficacy as our independent research variables and to find out how these variables act in our dependent variable is decision making of our individual investor's. Furthermore, Investor's personality traits including Extraversion and Neuroticism as Moderating variables are also analyzed.

### **3.3 Research Design**

The research design will be preceded according to Saunders et al (2009), Onion of research. This is the 1st layer of research methodology. Research design tells us the techniques and methods that will be followed in this research. In research design the research chooses the philosophies and approaches that will be used to conduct the research.

### **3.4 Research Philosophy**

In research philosophy the researcher make choices regarding the philosophy according to which the research will proceed. As in this research, the research aims to find the relationship between independent and dependent variables so the philosophy applied to this research is positivism.

### **3.5 Research Approach**

In researcher approach, the selection is regarding the two approaches; inductive and deductive. This study is based on quantitative survey measures, so deductive technique is applied to this study.

### **3.6 Research Strategy**

In research strategy the choices are made regarding the three strategies; descriptive, explanatory or exploratory. In this current study, explanatory study is applied as it is concerned with measuring the relationship of variables. It is also called causal experiment study because it also checks the cause and effect of variables.

### **3.7 Time Horizon**

For conducting this study, the researcher has chosen cross-sectional technique in which the questionnaire data was provided to the respondents and they were given a limited duration to submit their responses.

### **3.8 Research Method**

This research is conducted on the basis of quantitative research method. For conducting quantitative research method we use fact and figures, specific time and specific population on which study is conducted. This study is conducted on the basis of quantitative technique as it is based on measuring the relationship between variables.

### **3.9 Population**

Our population is the individual investors who trade in Pakistan stock exchanges. 50 respondents are chosen from the stock exchange to conduct the study.

### **3.10 Instrument for Data Collection**

As the questionnaire consists of 50 Questions, so a sample size of (50 x 5 = 250) is selected for analysis (Bentler &Chou, 1987). Osborne (2004) submitted his outcomes which showed no single and particular standard in defining sample size of behavioral studies. Keeping in view, poor response level in Pakistan, 350 questionnaires were delivered to the investors in Pakistan stock exchange.

Initially, few individual investors were approached personally and after getting their feedback on questionnaire, they were requested to refer ahead to further respondents. So it can be justified that technique Purposive sampling and Snowball Sampling techniques is applied to collect data from respondents through delivered questionnaire.

### **3.11 Data Collection, Measurement and Analysis.**

Data is collected using a self-administered questionnaire. Questionnaire consists of 50 different questions for collecting data from respondents. Survey form has five parts.

First part is related to the demographic information of respondent i.e. age, gender and qualification. Second part of the questionnaire consists of five multiple choice questions on interest rate and compounding, inflation, risk diversification, mortgages and bond pricing to measure the financial literacy of individual investors in the Pakistan stock exchange. Third part consists of 6 questions about spending plan, financial goals, use of credit, financial challenges, and lack of confidence and fear of running out money to measure the financial self efficacy of individual investors in Pakistan stock exchange. Fourth part consists of measuring the dependent variable i.e. financial decisions. This is measured by 19 questions on different financial behaviors of daily life. Fifth part consists of 18 questions regarding personality traits of the individual investors to measure the neuroticism and extraversion traits.

### **3.12 Measurement of Financial Literacy.**

First part is formulated to measure financial literacy which consists of five multiple choice questions on interest rate and compounding, inflation, risk diversification, mortgages and bond pricing(Lusardi & Mitchell, 2007). The responses from each participant

are used to calculate the mean percentages of correct scores for each question, section and the entire survey. Consistent with the existing literature (Chen and Volpe – 1998), and adopted by (Lusardi & Mitchell, 2007), the mean percentages of correct scores is grouped into three categories;

(1) More than 80% Refers to High Level of Financial Literacy

(2) 60% to 79% Refers to Average i.e. Acceptable Level of Financial Literacy

(3) Below 60% Low Level of Financial Literacy

### **3.13. MEASUREMENT OF FINANCIAL SELF-EFFICACY.**

Second part is formulated to measure the financial self-efficacy which consists of 6 questions about spending plan, financial goals, use of credit, financial challenges, and lack of confidence and fear of running out money as adopted by Lown and Jung (2011). Answers are to be coded at 5 point scale where 1=Strongly Disagreed, 2=Disagreed, 3= Neutral, 4 =Agreed, 5= strongly agreed.

### **3.14. MEASUREMENT OF FINANCIAL DECISIONS.**

Third part consists of measuring the dependent variable i.e. financial decisions which is measured by 19 questions on different financial behaviors of daily life? The responses are measured on 5 point scale. The scale is developed by Jacob & Katty, (2009).

### **3.15 MEASUREMENT OF PERSONALITY TRAITS.**

The last part of questionnaire is about measurement of two variables which were extracted from 5 personality traits: Extroverts and Neurotics which were initially introduced in Big Five Theory. These variables are taken as moderators in this study. This study has used the framework of Big Five personality so that we can investigate the

dimensions of personalities of the future financial investors. Big Five personality traits are used in this because they are most recognized and acknowledged in research specifically in applied research studies (Barrick & Mount, 1991). In this framework of study there is no emphasized forced on any specific gender (Lippa, 1991), also it shows continuous strength as well as constancy in diverse lingoes and humanities for assessing the outcomes (Roberts & Robins). Furthermore, this framework of five personality traits shows relationships among different personality aspects with a constant existence and functional existence (Revelle & Loftus, 1992).

**Table 1** shows brief description of the unique Big Five traits.

Personality dimension	High level	Low level
Neuroticism thoughtful	anxious protected	self-assured
Extraversion outward	enthusiastic reluctant	reserved

Note: Adapted from Costa & McCrae (1992)

For the future investors the chosen personality traits were examined through NEO-Five Factor Inventory (Costa & McCrae, 1985) that is considered to be summarized description of Revised

NEO Personality Inventory (NEO PI-R) of the Big Five model (Costa & McCrae, 1992). The variable together selected from personality traits for the study was examined through 18 items and all the items were measured through five-point Likert scale (1= “Strongly Disagree”, 2 = “Disagree”, 3 = “Neutral”, 4 = “Agree” and 5=” Strongly Agree”). Developed by Costa and Maecrs adopted by Tauni 2015. Statistical data is gathered from Pakistani investors of stock exchange. For further investigation, data gathered through respondents is processed using SPSS V20.

## **Chapter # 4**

### **4.1 DATA ANALYSIS AND RESULTS**

In this section field data is examined which are described according to objectives discussed in detail in chapter 1 of this study. This is an investigation into estimates obtained through primary and secondary data collected in this study. It addresses socio-demographic data on research topics, the factors that motivate individual investors, their financial ability and their economic efficiency, which have led individual investors to use the Pakistani stock market sector in Pakistan.

For the sake of clarity in the research, structure of chapter is structured in accordance with objectives of this research described in the first chapter. It starts with a detailed explanation regarding demographics of the respondents (eg age, gender, and education level) and a presentation and analysis of the results associated with the goal.

As already discussed, that the questionnaire consists of 50 Questions, so a sample size of  $(50 \times 5 = 250)$  is selected for analysis (Bentler &Chou, 1987). Osborne (2004) proposed that in behavioral studies there are no definite standards for measuring of sample size. Keeping in view, low response rate in Pakistan, an aggregated sample of 350 forms were distributed in Pakistan Stock Exchange investors. However, 331 respondents responded to our survey. The analysis was therefore based on 331 questionnaires responded by respondents.

### **4.2 Analysis and Results**

The frequency distribution of the independent variables and other important variables was determined using a bar graph showing the percentage of the four variables considered in this study. Using the statistical software SPSS v.20, the data received

from respondents was analyzed. A total of 350 respondents were interviewed, but 331 took part in our survey.

**Reliability Statistics Table 2:**

Reliability statistics (Cronbach’s alpha)

Variables	Cronbach's Alpha	N of Items
Extraversion	.702	13
Neuroticism	.780	5
Financial Literacy	.712	5
Financial Self Efficacy	.703	6
Individual Investors’ Financial Decision	.706	19
Overall Variables	.826	48

Results of table 1 clearly represent the reliability of the scales as cronbach,s alphas value of all the variables is above 0.70.

Structural equation modeling is applied in this research to analyze suppositions as well as the supposed framework of this study. It will display the model’s goodness of fit and measure the relation of variables.

**4.3 Descriptive Analyses**

**Table 3: Statistics of the Participants**

	N	Minimum	Maximum	Mean	Std. Deviation
Age	331	1.00	4.00	2.3601	.66345
Gender	331	1.00	2.00	1.3040	.46091
Education	331	1.00	2.00	1.8160	.57224
Marital Status	331	1.00	2.00	1.6200	.54108



Table 2 shows that there are 4 age groups in this study. Most people were between 36 and 40 years old (2.3601), while the standard deviation (0.63455) showed the age difference of respondents. The average number of male respondents was the majority (1.3), while the average number of women (0.696) was involved in the study. According to the average score for education (1.8160), qualified respondents (Business Graduate) are higher than other candidates. The marital status indicates that the average number of married persons is higher (1.62).

Gender As shown in Table 4, the survey included 331 respondents. These respondents make up 271 (81.9%) of men, and 60 (18.1%) of women.

**Table 4: Profile of Respondents with respect to Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	271	81.9	81.9	81.9
Valid Female	60	18.1	18.1	100.0
Total	331	100.0	100.0	

Age Table 5 demonstrates the age of the respondents which constitute, 25-30 years are 84 or 25.4%,

31-35 years are 102 or 30.8%, 36-40 years are 124 or 37.5% and more than 40 years are 21 or 6.3%

**Table 5: Demographic Profile of Respondents with respect to Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
25-30	84	25.4	25.4	25.4
31-35	102	30.8	30.7	56.1
36-40	124	37.5	37.6	93.7
More than 40	21	6.3	6.3	100.0
Total	331	100.0	100.0	

#### 4.4 Financial Literacy Each participant’s responses were used in analysis to measure the percentage mean for correct

Scoring of all questions, including all sections and the whole survey.

Extracting from the previous literature (Chen and Volpe – 1998), and adopted by (Lusardi & Mitchell, 2007), the mean percentages of correct scores is grouped into three categories;

- (1) More than 80% Refers to High Level of Financial Literacy
- (2) 60% to 79% Refers to Average i.e. Acceptable Level of Financial Literacy
- (3) Below 60% Low Level of Financial Literacy

Table 6 demonstrates the statistics of right answers of the respondents.

The results show that 66 respondents have answered only 1 question correctly out of 5, 51 respondents have answered only 2 questions correctly out of 5, 84 respondents have answered 3 questions correctly out of 5, 79 respondents have answered 4 questions correctly out of 5 and 51 respondents have answered 5 questions correctly out of 5. Hence conclusively results show that Financial literacy level of 35 percent respondents is below acceptable level. Financial literacy level of 49 percent respondents have shown acceptable level. Financial literacy level of 16 percent respondents have shown high level. **Table 6.A** is evident that financial literacy level of individual investors in Pakistan Stock exchange is within acceptable level. As the mean value of variable financial literacy variable is 3.07 showing average more than 60%.

**TABLE 6: Descriptive Statistics FINANCIAL LITERACY**

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
FL	331	1	5	3.07	.073	1.327
Valid N (listwise)	331					

**Table 6A: Financial Literacy Data Descriptive Statistics Analysis**

**FINANCIAL LITERACY**

No. of Correct Answers by Respondents	Frequency	Percent	Valid Percent	Cumulative Percent
1	66	19.9	20.0	20.0
2	51	15.3	15.3	35.3
3	84	25.4	25.4	60.7
4	79	23.9	24.0	84.7
5	51	15.3	15.3	100.0
Total	331	99.8	100.0	
Total	331	100.0		

#### **4.5 Assumptions of Regression**

##### **Normality**

The normal distribution of the errors is another hypothesis to be considered in the regression analysis. If the error is not distributed normally, the T-value cannot be calculated correctly. One of the most important factors that causes an abnormality at an abnormal value (extreme value).

Outliers can influence the results of the analysis. Therefore, these factors should be carefully considered in the regression analysis by E. Mooi & M. Sarstedt (2011) and Andy Field (2009). In analysis bad distribution is can be expressed with 2 methods. One goes through tests and the other draws. Drawing methods are chosen due to their easiness in understanding and describing details. They indicate an abnormal cause and the test does not indicate an abnormal cause. For ascertaining normal data, Kolmogorov Sminrov and Sharipo-Wilk tests are also performed in research. Where the sample size exceeds 50, Kolmogorov test is suitable to be applied and for a sample size lesser than 50 Sharipo-Wilk test is suitable to be applied, E.Mooi & M. Sarstedt (2011).

Figure 3 shows histogram's error and the bell-shaped curve for the normality of data used in this study

**Table 7: Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Individual Investors' Financial Decision	.099	330	.000	.974	330	.000

a. Lilliefors Significance Correction

#### 4.6 Skewness and Kurtosis

One of the fundamental tasks of many statistical analyzes is the characterization of the position and variation of datasets. Additional classifications of statistical information add up asymmetry and kurtosis. Asymmetry is an extent of measurement of regularity or more accurately an extent. of measurement of absence of regularity. Record of data is considered symmetrical in case of its equal size from right to left of the center.

As a general rule of thumb: When the value of Skewness is less from 1 or it is greater from 1 then data is not normal it is considered to be highly skewed, if Skewness value is in range of -1 to-0.5 or 0.5-1 the distribution is moderate and from -0.5 to 0.5 the distribution is symmetrical. If values of skewness and kurtosis fall between -2 to +2 normality of data is acceptable (George & Mallery, 2010; Khan, 2015). Use the kurtosis so that the kurtosis is zero at normal distribution. In the second definition, positive kurtosis represents a "superior" distribution and positive kurtosis represents a "flat" distribution. The results show that there are no serious problems with data anomalies.

## 4.7 Descriptive Statistics

**Table 8: Descriptive Statistics**

	N	Min	Max	Mean	Skewness	Kurtosis			
Extraversion	331	1.00	5.00	2.6002	.52057	.422	.134	.346	.267
Neuroticism	331	1.00	5.00	2.4924	.67733	.144	.134	1.831	.267
Financial Efficacy	Self 331	1.00	5.00	2.4461	.66568	.402	.134	.404	.267
Financial Literacy	331	1.00	5.00	2.5540	.58881	.120	.134	.133	.268
Individual Investors' Financial Decision	331	1.00	5.00	2.6747	.61750	.082	.134	.127	.267

## 4.8 Multi-collinearity

Another data requirement is that the multi-collinearity of the predictors should be as low as possible. The method to study multi-collinearity is to study correlation matrices and collinearity diagnostics. The correlation above 0.70 is based on a previous study, but according to Andy Field (2009), the problem only occurs when the multi-collinearity exceeds 0.8 or 0.9. 0.10 indicates that multi-collinearity is a problem.

#### 4.9 Tolerance and VIF Table (Coefficients)

**Table 9: Tolerance and VIF Table (Coefficients)**

(Constant)	Tolerance	VIF
Zscore(Extraversion)	.653	1.532
Zscore(Neuroticism)	.793	1.261
Zscore(Financial Self Efficacy)	.674	1.483
Zscore(Financial Literacy)	.647	1.526

a. Dependent Variable; Zscore(Individual Investors' Financial Decision)

#### 4.10 Analysis and Findings

Examination of a single predictor uses a simple regression analysis. However, as we were involved in several predictors, some regressions were made according to Andy Field (2009). Several regression models were applied for standard relations among variables i.e. investors' financial decision and predictors.

#### 4.11 Distribution of Errors

The maximum and minimum values of abnormal residuals in the dataset are shown in Figure 3. The figure shows that the data we can use for analysis is normally distributed. As shown in the figure, the error has a normal curve.

Table 8 shows that the measure of VIF in the current analysis of study is lesser to 10 and value of variable for tolerance is greater than 0.1. As a result, there is no multi-collinearity E. Mooi & M. Sarstedt (2011) and Andy Field (2009). The values in Table VIF / Tolerance show that multicollinearity is not a problem in this study.

## Histogram of Error with a Standard Normal Curve

Dependent Variable: Financial Decisions of Individual Investors

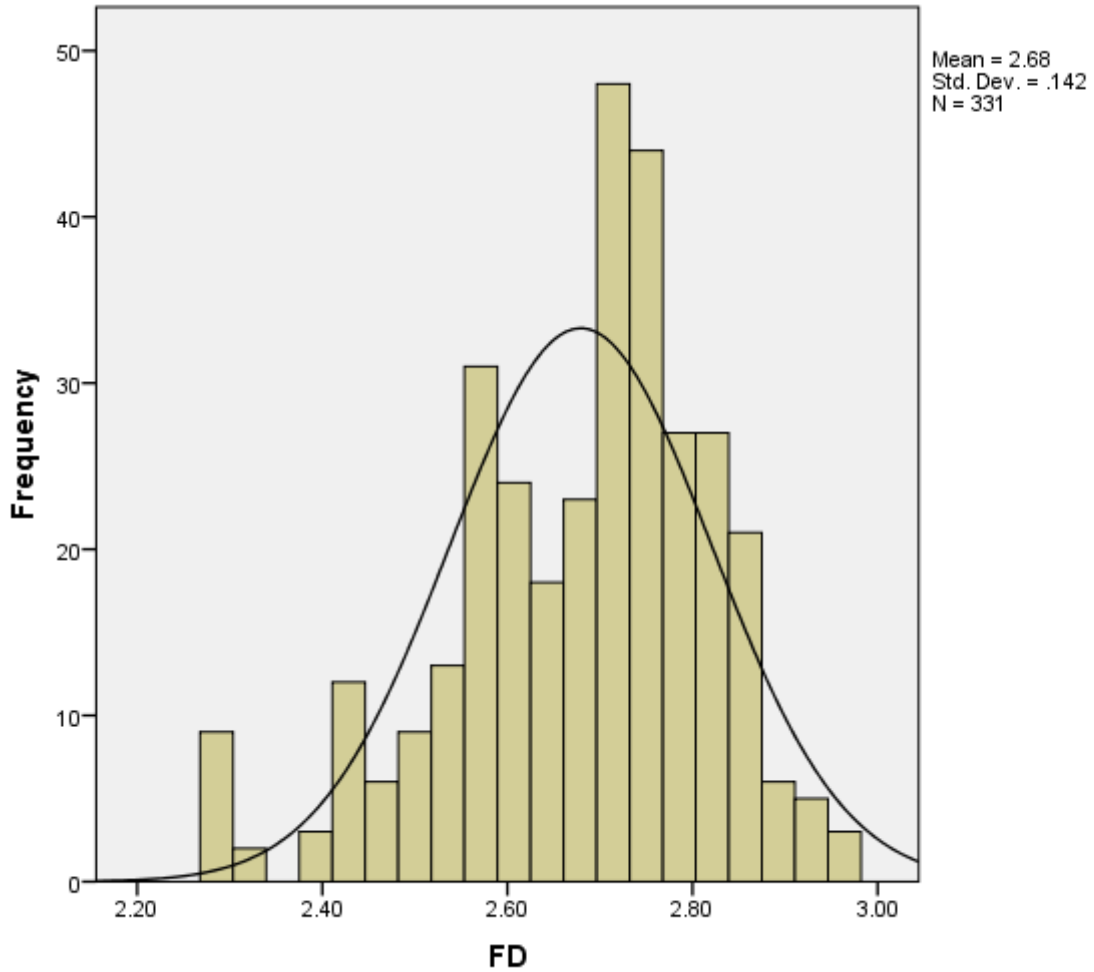


Figure 2: Histogram of Error with a Standard Normal Curve

Dependent Variable: Financial Decisions of Individual Investor

#### 4.12 Correlation Matrix Analysis

Correlation refers to one of many statistical relationships that involve dependencies.

**Table 10: Correlation Matrix Analysis**

##### Correlations

	Extraversion	Neuroticism	Financial Literacy	Financial Self Efficacy	Individual Investors' Financial Decision
Extraversion	1				
Neuroticism	.324**	1			
Financial Literacy	.419**	.403**	1		
Financial Self Efficacy	.533**	.213**	.457**	1	
Individual Investors' Financial Decision	.452**	-.235**	.396**	.466**	1

**Correlation refers to one of many statistical relationships that involve dependencies.**

**Table 10: Correlation Matrix Analysis**

\*\* . Correlation is significant at the 0.01 level (2-tailed). In this study, the variable, extraversion, shows positive and strong relationships with the financial decisions of individual investors. The next value is neuroticism, which also shows a negative relation to the standard variable. Therefore, personality traits of investors were both positively and



negative correlated with the financial decisions of individual investors with a reading of .452 (Extraversion) and negative relation -.235 (Neuroticism). Other all variables have positive relation with individual Investors Financial Decision as Financial literacy shows .396 and financial self-efficacy shows .466, which are positive.

#### **4.13 Estimation of the Regression Model**

According to E. Mooi and M. Sarstedt (2011), statisticians use a linear regression model, which is often used as the standard method for predictable variable analysis and the creation of variables calculated on a metric scale. In estimating the model, the coefficient of determination  $R^2$  is generally used to check the usefulness of the model, so that it is checked whether the model matches the descriptive model. The reason why the coefficient of empirical research can generate huge profits is that this is the fairest and fairest method. In the model selection process, especially in the model selection process. The results of the analysis may be of little value (Mayer, 1975).  $R^2$  is not considered an absolute indicator of the reasonableness of the quality in the regression model. The variance of all predictors with respect to the total variance in the standard variables is explained only by the measure. Table 10 confirms the applicability of the model because the variables are related. The determination of the coefficient is the degree of deviation in the economic decision of each decision. In our study, the  $R^2$  value was 0.193, which is about 0.2 for cross-sectional studies (Mooi & M. Sarstedt, 2011).

#### **4.14 Values of Regression Model are Reported Ahead Regression Model with Interaction Terms**

The statistical analysis shows that there is a significant positive correlation between the Financial Self-Efficacy and the dependent variables (financial decision of

investor) ( $p < .05$ , Beta = 0.165) and a significant positive correlation between the Financial Literacy and the dependent variables (financial decision of investor) ( $p < 0.05$ ,  $p = 0.151$ ).

Extraversion personality trait moderates positively the relationship between Financial Literacy and financial decisions for individual investors ( $p < 0.05$ , Beta = 0.048). Extraversion personality trait moderates positively the relationship between Financial Self-Efficacy and financial decisions for individual investors ( $p < 0.05$ , Beta = 0.032). Neuroticism personality trait moderates negatively the relationship between Financial Literacy and financial decisions for individual investors ( $p < 0.05$ , Beta = -0.045). Neuroticism personality trait moderates negatively the relationship between Financial Self-Efficacy and financial decisions for individual investors ( $p < 0.05$ , Beta = -0.037).

**Table 11: Model Summary with moderator (Extraversion)**

R	Square	Adjusted R Square	F
.562 <sup>a</sup>	.315	.306	8.645

**Table 11-A: Model Summary with moderator (Neuroticism)**

R	Square	Adjusted R Square	F
.519 <sup>a</sup>	.269	.256	8.032

**Table 11-B: Model Summary without moderation**

R	Square	Adjusted R Square	F
.658 <sup>a</sup>	.432	.421	9.505

**Dependent Variable: Individual Investors' Financial Decision.**

**Table 12: Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.18	.053		.333	.041
FSE_Comp	.165	.061	.165	2.122	.007
FL_Comp	.151	.062	.151	2.076	.011
EXTR_Comp	.091	.062	.092	1.476	.039
NEUR_Comp	-.172	.056	-.172	-3.077	.002

a. Dependent Variable: Zscore(Individual Investors' Financial Decision)

**Table 13: Regression Coefficients with interaction term**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.18	.053		.333	.041
FSE_Comp	.165	.061	.165	2.122	.007
FL_Comp	.151	.062	.151	2.076	.011
ZEXTRXZFL	.048	.047	.048	2.941	.047
ZEXTRXZFSE	.032	.062	.032	2.879	.015
ZNEURXZFL	-.045	.056	-.045	-2.977	.002
ZNEURXZFSE	-.037	.072	-.037	-2.865	.012

a. Dependent Variable: Zscore(Individual Investors' Financial Decision)

#### 4.15 Testing of Hypothesis

According to Murphy Kevin R. (1998), an assumption is a verifiable statement that represents a specific statement about the identity or characteristics of the observed population. Assumptions must be of public interest and can be properly reviewed. Invalid assumptions are specific hypothetical statements to be audited and generally use the words "no influence" or "no difference". Neglecting the null hypothesis is an alternative hypothesis. Researchers often expect the results to support other hypotheses. Suppose it can be bilateral or unilateral. The two-sided test takes into account the two extremes of the probability distribution (left and right). For the hypothesis to be tested successfully, it must be specific enough to be faked. The hypothesis test is a scientific study to test rationality or other aspects of a hypothesis. In general, the hypothesis test consists of the following five steps:

- i. The null hypothesis and the alternative hypothesis must be clearly stated
- ii. Determine the degree of trust or importance. Determine if the test is one-way or two sided to get the right threshold and rejection range.
- iii. Consider the test method, calculate the test statistic and p-value, or create a confidence interval.
- iv. The initial hypothesis is rejected or accepted by comparing the subjective criteria.
- v. Re-calculate the objective test statistic or p-value.
- vi. Receive conclusions and provide sound explanations.

The regression analysis used shows the consequences of the association between predictor and standard variable.

Financial Literacy Level of Individual Investors in Pakistan Stock exchange HI: The financial literacy level of Pakistani individual investors meets the acceptable level.

From results it is evident that hypothesis 1 is accepted and only 35% respondents have shown that level of financial literacy is below from acceptable level i.e 60%. While 49% and 16% percent respondents have shown acceptable and high level of financial literacy respectively.

#### **4.16 Financial Literacy and Individual Investors' Financial Decision**

H2: There is a positive significant relationship between financial literacy and financial decision behavior in Pakistani investor.

This hypothesis is accepted as it is evident from the results there is significant positive relation among the financial literacy and the financial decisions of each investor. Standardized estimates of financial literacy and financial decision-making between individual investors yield significant values ( $p < 0.05$ , (Beta = 0.151).

#### **Financial Self Efficacy and Individual Investors' Financial Decision**

H3: There is a positive significant relationship between financial self-efficacy and financial decision behavior of the Pakistani investor.

Hypothesis 3:

is not rejected because the results show a significant positive relationship between the financial self-efficacy and the financial decisions of each investor. Standardized estimates of financial self-efficacy and financial decision-making between individual investors yield significant values ( $p < 0.05$ , Beta = 0.165)

## Moderating Effect of Personality Traits On Financial Literacy, Financial Self Efficacy and Individual Investors' Financial Decision

H4:

Extraversion moderates positively the relationship between the financial literacy, financial self-efficacy and financial decision.

Hypothesis 4

is not rejected because the results indicate the Extraversion's positive moderating effect on relationship between financial literacy, financial self-efficacy and the financial decisions of individual investors. The standardized estimate of relationship between financial literacy, financial self-efficacy and the financial decisions of individual investors yields significant results ( $p < 0.05$ , Beta = .048) and ( $p < 0.05$ , Beta = .032).

H5: Neuroticism moderates negatively the relationship between the financial literacy, financial self-efficacy and financial decision.

Hypothesis 5

is not rejected because the results indicate a negative moderating effect on relationship between financial literacy, financial self-efficacy and the financial decisions of individual investors. The standardized estimate of relationship between financial literacy, financial self-efficacy and the financial decisions of individual investors yields significant results ( $p < 0.05$ , Beta = -.045) and ( $p < 0.05$ , Beta = -.037).

For checking the moderation of variables the CF analysis has been done through which the value for significance relationship were found. The relationships outcomes of moderation effect show us that positive significant values for extroversion are found and negative significant values for neuroticism. It means that a literate financial individual

investor will always have a fee of self efficacy while making investment decisions and his financial decisions will be smooth and frequent while in case of neuroticism the case will be opposite. Despite of having all kind of financial literacy and financial self efficacy their decision regarding financial investments will be rigid and less frequent as compared to extroversions. So from this study, we can conclude that personalities have great impact on actions and decisions related to financial investments. Despite of having all financial know-how and know-why the decision made for financial investments will not be frequent. For neurotics self efficacy in financial investments is also seen to be motivating enough, they will always be very much conscious and reluctant towards making financial decisions.

#### **4.17 Chapter Summary**

This chapter provides an overview of the topics covered in this chapter, including test hypotheses for regression analysis. Dispersion diagram, interactive expressions; Line test; Error distribution; Estimation of regression models; Hypothesis test and model validation (through joint sample validation). Therefore, this chapter analyzes the data with appropriate statistical techniques and tries to draw valid conclusions.

## Chapter # 5

### DISCUSSION, FINDINGS AND RECOMMENDATIONS

#### 5.1 Discussion

The key factor in selecting this study was to explore the predictive role of investor personality traits i.e. extraversion, neuroticism and financial literacy, financial self-efficacy in individual investor financial decisions. The results obtained confirm that all the variables have significant effect on the financial decisions of individual investors. The following studies on these variables confirmed this hypothesis.

It has been clearly proved through this study that financial literacy is an important element required while considering the investment decisions. With financial literacy the investment decisions can be easily analyzed of individual investors and it can also assumed that with proper knowledge of finance the individual investors can make a profitable decision (Teft, 2013). It has also been studies in this research that personality is an important element which influence the decision making process of an individual. So while making a financial decision ithe influence of individual personality can be seen more prominently affecting the decisions of investors (Japelli, 2013). The impact of personality traits can be described as, an extrovert will be more associated and interested in investments based on their nature and while neurotic personalities will be more conscious regarding the risk factors and ay be their interest for investment cannot be seen more frequently (Prati & Pietrantoni, 2010). Another important thing that was studied in this research was the impact of financial self efficacy on financial decisions and it was seen that financial efficacy is also related to the type of personality. In case of an extrovert the efficacy may be at a very high level and decisions for investment will be more frequent while same in case of neurotics there financial efficacy



will be dependent upon their level of knowledge, interest and their satisfaction for a particular aspect. Including these and other factors their decisions for financial investments can be assumed Birgit and Rossi Gina (2012) but still their decision for investment will be less as compare to extroverts.

However, according to Bansal and Taylor (1999), few studies have examined in detail the relationship between investor personality traits and the financial decisions of individual investors. On this basis, Bansal and Taylor (1999) argue that investor personality traits have significant impact on financial decisions. In addition, financial literacy is considered a key factor in predicting financial decision of the individual investor (Bansal and Taylor, 1999). This is confirmed by consistent evidence in many different situations (eg Ajzen, 2002, Bagozzi, Wong and Bergami, 2000, Bansal and Taylor, 1999).

Numerous studies have shown that extroversion as an independent variable positively affects the financial decision of the individual investor (Burnham et al., 2003, Jones, Mothersbaugh and Beatty, 2000, Shanna and Patterson, 2000). Wauters Birgit and Rossi Gina (2012) found that Extraversion is positively correlated with buying behavior of individual investors Neuroticism seals key factors in securing the financial decisions of individual investors (Weiss et al., 1999, Slusarczyk de Chebat 2005, DeWitt et al., 2008, Jang and Namkung, 2010). Weiss et al., 1999, argue that neuroticism can harm adversely the financial decisions of individual investors. Slusarczyk and Chebat (2005) suggest that the perception of justice affects emotional responses and DER Med influences the loyalty. The results suggest that neuroticism is inversely related to the financial decisions of individual investors. Wauters Birgit and Rossi Gina (2012) found that neuroticism is negatively correlated with buying behavior of individual investors.

Previous literature reveals the importance of financial literacy has fetched the attention of researchers, but still it needs to be explored more (Lusardi & Mitchell, 2007, 2011a). Previous studies demonstrate the significant relationship between financial literacy and investment decisions of individual investors which is further moderated by some demographic factors like education, age, gender and experience (Agnew & Szykman, 2005; Lusardi & Mitchell, 2007) .

Financial literacy has quite significant correlation with investment decisions on investors. (Bailey et al, 2003). The investment decisions of individual investors are dependent upon experience and financial literacy of investors. Chen and Volpe (1998) disclosed in his study that investors working online are more successful than other traditional investors of securities market due to reason that they have better access to financial knowledge while the other traditional investors are at stack of higher level misinformation and manipulation. Financial literacy helps to make safer investment despite of uncertainty factor (Butzen, Fuss, Vermeulen, Butzen, & Fuss, 2003).

Conclusively, it is debated that financial literacy has prodigious significance in the financial decision making of individuals and plays vital role in making safer investment in high level of uncertainty involved. Financial literacy helps in better view of market analysis where great degree of uncertainty is involved and helps investor in making greater and better financial investment. Degree of risk involved due to uncertainty factor can be minimized by increasing financial literacy level. Financial literacy has vital importance for overall financial behavior of individual investors. Financial literacy helps the individual investors to have know-how and know-why knowledge regarding their financial actions. It helps the financiers in avoiding making wrong investment decisions. Just not on professional

basis, in fact in personal financial matters, one's knowledge regarding financial literacy plays an important role in managing the financial expenditures, financial status of life as well as keeping a balance of domestic economic system.

Self-efficacy influences the emotional response and thinking of the individual. Self-efficacy may also be described as one part of the person's confidence to accomplish specific job (Bandura, 1986). Financial self-efficacy affects positively the financial decisions made by neurotic and individual investors. It also motivates an individual to actively participate in investment decisions and improve their skills for making quick and analytical financial decisions. It also provides financiers with a learning opportunity regarding making successful and profitable decision in financial matters.

The financial self-efficacy is considered to be an ultimate forecaster for efficient and effective enactment in many aspects (Witkiewitz & Marlatt, 2007). It is a stimulator for level of confidence and capabilities to perform certain behavioral tasks. Financial Self-efficacy boosts an individual's self-assurance to implement definite elements of behavioral aspects (Stajkovic & Luthans, 1998). If an individual is confident for his self-efficacy then his confidence will definitely influence the level of achievements in regard of the specific goals as well as boost the level of efforts and consistency to face the hurdles (H. & Alan, 1996). It motivates an individual to take effective economic decisions that would be proved helpful for their economic uplift of their community. Financial self-efficacy comes with financial literacy; the more literate an individual will be in financial matters more capable he will be in making financial decisions. The more enhanced self efficacy of an individual in financial matters helps him/her to develop their analytical skills and get more exposure of financial mannerisms.

From previous researches it was concluded that individual's financial self-efficacy reflects great impact on factors such as depression, mental stress, life quality, behavioral aspects and knowledge (Prati & Pietrantonio, 2010). Financial self-efficacy of an investor helps in making wise investment decisions; with weak efficacy skills the investment returns are at a risk of loss while strong and effective efficacy skills bring benefits with economic profits to one's personal wealth as well as one's professional assets. Likewise this study, financial self-efficacy also impact the financial aspects such as knowledge of investment and influencing factors for making investment (Forbes & Kara, 2010), differences in genders and retirement plans (Dietz, Carrozza, & Ritchey, 2003), including accretion of wealth and choices of profiles (Chatterjee, Finke, & Harness, 2011). Financial self-efficacy is also described as an individual's faith in his/her abilities for accomplishing their financial goals (Forbes & Kara, 2010), it is not exclusively inclined through financial literacy level alone, in fact, personality traits, individuals family background and history, societal and cultural norms contributes in developing an individual's financial self-efficacy (Forbes & Kara, 2010). It is a confidence of an investor that his decisions will bring positive outcomes towards their fulfillment of economic needs.

## **5.2 Findings**

Table 2 shows that there are 4 age groups in this study. Most Pakistani investors of Stock Exchange of Pakistan are between 36 and 40 years old (2.3601), while the standard deviation (0.63455) showed the age difference of respondents. Another fact revealed in this study shown in table 2 is that the majority of investors are male in the Pakistan Stock Exchange while women investors are found rare in this business comparatively. Average

number of male respondents was found (1.3), while the average number of women (0.696) were involved in the study.

Mean value as shown in table 2 for the qualification was found 1.8160. So, another interesting and encouraging fact, exposed through outcomes of this particular research, was majority financiers who surveyed in this study were business graduate. According to the average score for education (1.8160), qualified respondents (Business Graduate) are higher than other candidates. The marital status indicates that the average number of married persons is higher (1.62). This result is evident that most stock financiers of Pakistan Stock Exchange are married. Table 5 demonstrates that level of financial literacy rate of singular financiers investing in Pakistan Stock Exchange is at acceptable level. Results show that only 35% investors showed the literacy level below acceptable level. While 65% respondents have shown acceptable and increasing financial literacy level.

Table 11 is the crux of his study. Hypothesis, which were developed on the basis of previous studies about our independent, moderating and dependent variables, were proven to be accepted. The results in table 11 clearly reflect significant relation among factors level of financial literacy and financial decision behavioral aspects in Pakistani investor. Standardized estimates of level of financial literacy and financial decision-making yield substantial values ( $p < 0.05$ ,  $\text{Beta} = 0.151$ ). Results of table no 11 are also evident that there is a positive significant relationship between financial self-efficacy and financial decision behavior of the Pakistani investor. Standardized estimates about relationship of financial self-efficacy and financial decision-making yield significant values ( $p < 0.05$ ,  $\text{Beta} = 0.165$ ) The results of table no 11 reveal that Extraversion moderates positively the relationship between the financial literacy, financial self-efficacy and financial decision. The standardized estimate

of moderating effect of Extraversion on relationship between financial literacy, financial self efficacy and the financial decisions of individual investors yields significant results ( $p < 0.05$ , Beta = .048) and ( $p < 0.05$ , Beta = .032). Finally the results in said table no.11 confirm that Neuroticism moderates negatively the relationship between the financial literacy, financial self-efficacy and financial decision. The standardized estimate of moderating effect of Neuroticism on relationship between financial literacy, financial self-efficacy and the financial decisions of individual investors yields significant results ( $p < 0.05$ , Beta = -.045) and ( $p < 0.05$ , Beta = -.037).

### **5.3 Conclusion**

This research paper attempts to create a theoretical model that is useful for the listed companies of stock exchange to study the demographic profile of the investors, their financial literacy level, their financial self-efficacy, their personality traits and their effect on the investment decisions. It also helps in determining the further level of needs related to financial knowledge, level of confidence that is still needed in personalities of investors, type of personality traits that best suit the financiers and the impact of each influencing factor on the financier's investment decisions. After examining their demographics, behaviors, and personality traits, the companies can plan better about floating of their shares etc. The management of the companies will become in a better position to understand and forecast the market trends. It will help them to maximize their profits and minimize their losses by better financial planning. This study shows there is still a need for the individual investors and all type of financiers to improve their financial knowledge before making their decisions of investment in stock markets. Without proper knowledge, instead of generating revenues they may lose their financial savings also. The financial companies can conduct training programs

which provide basic and necessary training regarding the financial knowledge that can be provided to the workers and the skills for analytical thinking can be boosted among the other financial workers. This research will also help the management to develop their financial education setups that will not be implemented on the unskilled or untrained financial dealers but it will also improve the skills of the experts. It will be a good opportunity for them to boost their performance, test their knowledge and revise their experiences. It will be a mix opportunity for all in a company the experts will be able to share their experiences and the unskilled trainers will be able to get knowledge and learn through others practical experiences.

On the other hand, investors can get a better sight into their own financial decision making process as well as evaluate their personal skills, their financial knowledge, their confidence level and their personality traits. By self-evaluation of these factors, they can better understand the deficiencies in their decision making and can plan well to overcome these shortcomings. Thus, better decision making will lead them towards the higher profits and lower losses. The self-evaluation can also lead towards exploring the new dimensions that will help them to explore, improve, learn and achieve more effectively and efficiently. Investors' decisions can also be impacted through the exchange interaction of people that will help them to identify further the type of investment attitude and behaviors that are required to be developed among the financial investors.

The study of investment behaviors will also be helpful in guiding the new financiers and investors in the market regarding their decision making skills and the effective strategies that could help them to gain more. But for this purpose, they should be given proper financial knowledge including a guide way to investment decisions and the planned behaviors which they always have to follow. Planned behaviors will help the investors to control their

bias emotions and think critically while making a decision of investment. If an investment decision goes wrong it should have a constructive impact on the investment behaviors and the investors should be conscious enough to learn through their previous behaviors and try not to perform certain behaviors which became case of their loss in their investment. Overall, better financial management at the part of the companies and the investors in Pakistan stock exchange will result in the growth of business as well as improvement in the living standards of the investors.

#### **5.4 Recommendations for Future Research**

This study has been conducted on a very small size, so in future research it is recommended to increase the sample size for the study. There are many other factors that could be used to study the financial investment decisions. In future researcher can add other factors for study also. This study have shown that neuroticism has negative relation as a moderator, in future studies it is recommended to study other traits as moderator or mediator to check their effect on financial investment decisions. The relationship of these variables with same mode should be studied in other fields also. Combined with risk factors and other factors, this study proved to be an important step for future researchers. In addition, they are ready to manage risky investments. Financial understanding has proven to be an important factor and further research is needed. Fields of investment experience with inherent or positive or positive impacts require further exploration.

As with previous studies, the use of questionnaires as an aid will certainly become more and more authentic. Due to the economic and political turmoil in Pakistan, the results may vary in other economies. Qualitative research involves interviewing investors to better understand the implications of these and many other factors.



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