# Entrepreneurship boosts up when women are financially literate: A step forward in prudent investment decisions

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## ABSTRACT

*During recent years, factors affecting prospect behavior for investment decision is an attractive issue inviting the attention of financial researchers. In this paper, we investigate the significant impact of prospect behavioral factors of women entrepreneurs on their financial investment's decisions. The sample of women entrepreneurs in the province of Punjab, Pakistan is taken using the stratified sampling approach. The Structural Equation Modeling (SEM) is used to analyze the structural relationship between latent constructs and measured variables. Findings showed that loss aversion, regret aversion, mental accounting and self-control have a significant influence on financial Literacy and investment decision, whereas the no impact of regret aversion is traced to women investment decision. This study finding suggests that financial, educational programs for women entrepreneurs might lead them to take prudent investment decisions.*

***Keywords:*** Prospect behavior; women entrepreneurs; financial Literacy; investment decision

## INTRODUCTION

People's behavior related to investment decisions seems to be quite tricky in recent decades (Salim & Khan, 2020). Many of them are exceeding their anxiousness regarding the new investment plans are seriously intended towards their investments (Dang, Phan, Tran, Tran & Pham, 2019; Ghaeli, 2019) because the utilization of money with efficiency is always beneficial for the individuals (Salim, 2015). The phenomenon of investment decision is presumable interesting regarding the women entrepreneurship and readers are interested in reading about the pros and cons of women investment decisions. The reason for this is that women entrepreneurship has received an extensive acknowledgment in economic development and job creation (Sharma, 2018) and has proved to be a significant contributor to poverty alleviation (Kiss, Danis & Cavusgil, 2012; Castellanza, 2020; Rashid, & Ratten, 2020). In Pakistan women entrepreneurs are working on formal & informal basis but paucity of proper business education & financial literacy, which is only 15% (Roomi & parrot, 2008; Baporikar & Akino, 2020) not only fabricating the irrational behavior among women entrepreneurs (Kappal, & Rastogi, 2020) but also led towards biased investment decisions (Kappal, & Rastogi, 2020). Lack of financial literacy creates problem in understanding the financial issues, concepts, investment patterns, instruments, and products (Aren, & Aydemir, 2014) thus ceases the fruitful growth of business and put incongruence effect on investment decision (Baporikar & Akino, 2020; Yasin, Mahmud & Diniyya, 2020)

From Pakistan different scholars has discussed that women entrepreneurship is an emerging phenomenon, who have been proved significant contributor in the poverty alleviation (Shakeel, Yaokuang & Gohar, 2020; Rashid, & Ratten, 2020) and has substantial & positive impact on Pakistani economy (Roomi & Parrott, 2008; Rehman & Roomi, 2012; Shakeel, Yaokuang & Gohar, 2020). Due to severe economic recession in Pakistan, there is an utmost need to secure the women by making them economically empowered (Zeb & Kakakhel, 2018; Khan, Khan, Violinda, Aasir & Jian, 2020). Despite significant contributor in population by 49% in total (Ahmad, Nawab, Zaib, & Khan, 2007), this important socioeconomic segment could not get more attention of researchers owing to various limitations including the problematic access of the respondents (Ahmad, Nawab, Zaib, & Khan, 2007). Although women entrepreneurs, are facing many difficulties and hardships but their numbers are increasing to break the orthodox thoughts of the society (Siddiqui & Jan 2019). The studies regarding women entrepreneurs are few, and even no empirical research was found in the literature regarding investment behavior of women, which is highly recommended (Rasheed, Rafique, Zahid & Akhtar, 2015; Kappal & Rastogi, 2020). Women participating in investment decisions are not encouraging just because of their comparison to men and low availability of funds because 90% of capitalists are males (Ewens & Townsend, 2020; Bhavani, 2020).

The behavior of women entrepreneurs is complex and even multifaceted (Minniti, 2009). Pakistani women entrepreneurs also behave differently than men due to cultural aspect prevailing in Pakistan (Hasan, 2020). Entrepreneurship is an emerging phenomenon, and women entrepreneurship alleviates poverty and economic recession. There are wide range of obstacles which a woman has to face when she decides to be an entrepreneur, especially in an under developing country like Pakistan (Hassan, 2020). The social norms, culture, family conflicts, family responsibilities make a limited choice for a woman to be an entrepreneur in Pakistan (Hassan, 2020). Women are about 50% of the total population (Ahmad, Nawab, Zaib, & Khan, 2007), but still facing gender biases in Pakistan (Zeb & Ihsan, 2020). There is always a psychological push which makes a woman secure and helps her in investment decisions (Mohamad & Kasuma, 2016). Entrepreneurship is a male-dominated field in Pakistan; women in Pakistan need to push and pull factors of motivation to be a successful entrepreneur (Parveen, Junaid, Saleem, Hina & Ahmed, 2020). Women in Pakistan have high religious obligations, high family morals as well as responsibilities (Khan, Sohail & Abdullah, 2019) which limited her growth as an entrepreneur. No doubt when a woman becomes an entrepreneur, she contributes to economic development and poverty alleviation (Bouzekraoui & Ferhane, 2017). The success of a woman entrepreneur makes her change maker to society (Shah & Saurabh, 2015) because women entrepreneurs show high motivation towards societal issues (Rosc, Agarwal & Brem, 2020).

Even financial literacy has gained scholars' widespread attention as a critical skill for all societal sectors (Smith, Richards & Shelton, 2016). The last decade's fatal financial crisis has prompted the need to be acquainted with financial literacy because financial predators can hit hard others in case of lacking this skill (Smith, Richards & Shelton, 2016). To achieve success, enhancing cash flows, assets accumulation or diminishing of debts is essential (Richards & Thyer, 2011). In Pakistan, conversing about women entrepreneurs, they are working formally or informally, but the paucity of proper business education and financial literacy has been witnessed, which is only 15% (Roomi & parrot, 2008; Baporikar & Akino, 2020). Arguably, it causes irrational actions among women entrepreneurs and contributes to the disparity in investment decisions (Kappal & Rastogi, 2020). Recent research reveals that prospect theory can explain the irrationality in investment decision making (Wan, 2018). Arguably, this paradoxical situation of rationality or irrationality in investment decisions generates the need for financial literacy, which may influence prudent investment decision making. Due to this reason, financial literacy is of enormous significance to study in the context of women (Goyal & Kumar, 2020).

In conjunction with the discussion mentioned above, we advocate the mediating role of financial literacy between prospect behavior and women's investment decision making. This research has threefold contribution in the field of women entrepreneurship and behavioral finance. It has primarily unfolded the mechanism of financial literacy as a mediator between prospect behavior and investment decision by women entrepreneurs. Secondly, it has helped augment the understanding of the importance of financial literacy for women entrepreneurs in under-developed countries like Pakistan, where women encounter specific problems of making investment decisions. Lastly, this study has aided in bringing robustness for women in making investment decisions to contribute economically and socially in Pakistan.

# LITERATURE REVIEW

## *Concept of Behavioral Finance*

Behavioral finance is terminology which is newly introduced in finance as a paradigm which helps in assisting the economic and financial theories by considering the behavioral aspect of decision making. The two psychologists named Daniel Kahneman & Amos Tversky gave the concept of behavioral finance in 1970. Which arose out the new paradigm in 1980, they both contribute theoretically as well as experimentally a lot regarding the idea of behavioral finance, that how individuals behave in taking financial decisions. This study was especially about this concept of how psychosocial behavior affects the financial decisions of an investor. The emerging trend in enhancing the idea of behavioral finance is due to the many difficulties present in the existing economic. Kahneman & Tversky (1979) said that if the rationality term will become flexible, then it became easy to understand the financial phenomenon. To understand the individual investor's behavior, different models were developed; in some cases, investor failed to describe their behavior in different scenarios. Basically, the behavioral finance theory's purpose is not to reject other economic theories. Still, it adds a step into other theories that if they would not be able to explain this aspect, then behavioral finance will help to understand that behavioral phenomenon of the investor (Johnsson, Lindblom & Platan, 2002). In this way, the behavioral finance successfully helps in understanding the black box scenario of the investment decisions by merging with cognitive psychology. The behavioral finance focuses on that concept that why sometimes the financer behaves irrationally, which cause them to regret later. For understanding the concept of behavioral finance, the small investor tries to do investment decision own. Human beings sometimes suffered from many behavioral anomalies, which usually hinder them in earning more and more wealth through business (Iram, Iqbal, Qazi & Saleem, 2021).

## *Prospect behavior*

Prospect behavior represents the uncertain conditions that exist while taking investment decisions (Kahneman & Tversky, 1979). This behavior shows that the selections of investment choice are risky decisions. In case not many maxims – climax, transitivity, congruity, and opportunity are satisfied then we can address the craving for utility limit or something different (Barberis & Huang, 2001). According to potential examiner should pick the focusing of progress in wealth instead of mean wealth and that tendency is shaped, which address the peril tendency of monetary master (Levy and Levy 2004). The change in the estimation of wealth leads to an examiner to hardship contradicted and chance reluctant is dependent on the past presentation (Barberis, Huang, and Santos, 2001). Prospect behavior has for dimensions, Loss aversion, Regret aversion, mental accounting, and self-control. Prospect behavior not only shows uncertainty but also explain that there are many factors which might be considered while making financial decisions to avoid future loss. The dimensions of prospect behavioral factors are included, loss aversion, regret aversion, mental accounting, and self-control

## *Loss aversion prospect*

Risk is a piece of regular day to day existence. According to (Godoi, Marcon & daSilva, 2005), loss aversion behavior under psychoanalytical theory explained that it is a natural phenomenon and human subjectivity which cannot be measured empirically. Most of the investor has loss aversion behavior which means to maximum avoiding from loss, whenever any problem out of business is presented negatively, there will be more intensity of loss and individuals usually change his investment decision. Whenever there is a solution to any problem, then the loss factor becomes lower. According to (Riaz & Hunjra, 2015) if we have to check the psychological, behavioral factor on investment decision making then the risk must be the part of the decision-making model, he argued that risk is the significant factor which results in uncertainties in the business hence the investor always keep in view the risk factors in the business before starting an investment.

Loss aversion is somehow a type of mental penalty born by an investor. Theories told that most of the times, investor show more distress regarding loss as compared to the benefits (Ngoc, 2014). One of the traditional investment approaches considers that risk can be minimized by enhancing the investment based instruments without considering the relationship between the outputs of those instruments. Geetha & Vimala, (2014) also describe that the demographics also affect investment decisions; a survey was conducted in Chennai India, which was resulted in that by changing the age income education, and occupation investment decision always has a remarkable effect. Most of the people having low financial resources or small capital still resist investing due to fear of loss. When and why one has to take risk usually depends upon its goal going to be achieving (Riaz & Hunjra, 2015)

*H1- Loss Aversion has a significant impact on financial Literacy*

## *Regret Aversion prospect*

Regret is defined as a psychological feeling in which an individual feels sorry after the happening of a specific event (Zeelenberg, 1999). Sometimes an individual takes a wrong decision or feels Regret in making wrong choices (Pompian, 2011). The main disadvantage of Regret is that people usually don't cause further decisions (Baker & Nofsinger, 2002). Such feelings develop not only on taking wrong choices but also on not to take any action (Zeelenberg & Pieters, 2007).

Pompian (2011) discussed the Regret is an emotion; it is a cognitive emotion that lasts (Hampshire, 1960). Regret emotion is an energetic factor since it is totally stacked with feeling (Shefrin and Statman, 1985). The confusion develops when people don't perceive grieve related terms, for instance, (inconvenience, shares, embracement, depression, annoyance and treated this term with Regret (Bagozzi, Gopinath and Nyer, 1999) correspondingly. Regret is specific to these terms, especially when grieve is considered in the social impact on adventure decision. Different techniques are used to address the grieve emotion above philosophical approaches to manage the regret detestation; on the contrary side, most of the market experts consider a utility limit a critical plan to grow the mourn offensiveness (Bleichrodt, Cillo and Diecidue, 2010). For example, picking a particular choice among choices can enormously influence whether the decision is disillusionment (Thaler, 1980).

*H2- the Regret Aversion significantly influences Financial Literacy*

## Mental Accounting prospect

Mental Accounting is a typical strong perception in the people somehow way. Mental shows to as a scholarly procedure and Accounting are an arrangement of recording (Journal), characterizing (Ledger), condensing (Trial balance) and interpreting the money related exchanges (Khemani and Diamond, 2005). Everyone in our day-by-day life performs accounting capacity (recording, characterizing, and condensing and translation) deliberately or purposefully. An individual manages to deal with the budgetary choice or occasions and association used to deal with its accounting capacity for a money related choice. General Accounting has some standard (GAAP) and the technique that we have considered in reading material. Mental Accounting: doesn't have any content to characterize rule; it just follows the conduct and finds construing the guidelines. The procedure of a scholarly arrangement to the money related choice as per possess mental record is called mental Accounting (Barberis, Huang and Santos 2001).

In other words, mental Accounting portrays the individual tendency to codification, characterization, and investigates the financial outcomes and results by gathering their benefit into any non-fungible mental records (Pompian, 2011). Mental Accounting is the psychological procedures where people and family unit people groups portray the method for recording, outlining, and breaking down the budgetary exchanges (Thaler, 1999). In the possibility hypothesis, mental Accounting always helps in deciding to the individuals either to up or down in various records (Grinblatt and Han, 2005). Looking into the instances of a typical individual, he treated his budgetary choice in multiple perspectives as though he thinks about that his pay from compensation contrasts from the arrival on a benefit or capital gratefulness and cost on the house is unique concerning the cost of retirement pay. The individual is deciding on an alternate record for various salary and cost (Thaler, 1985). In the investigation of mental Accounting, two ideas are critical to consider.

To start with is confining, people change their point of view on cash and venture as indicated by the conditions that they face (Pompian, 2011). In conduct money, consider that how the people have confined their choice issue (Del Águila, 2009). Second, conduct life cycle speculations, in which people groups are in attempted to keep up its riches and strive to accomplish the most extreme smooth method for utilization ways of its life. Mental Accounting, for the most part, portrays the example of purchasing and selling of valuable things (Kivet, 1999). Prospect hypothesis is the compelling hypothesis in social fund; Mental Accounting intensely depends on this since it uses to make a psychological record, for example, misfortune repugnance, the worth capacity and diverse hazard inclinations on the distinctive circumstance or occasions (Langer and Weber, 2001; Grinblatt and Han, 2005).

*H3-Mental Accounting has a significant impact on financial Literacy*

## Self-Control prospect

Self-control is simply the fundamental emotion, and it is thinking about a central point in the achievement of people (Tangney, Baumeister & Boone, 2004). By and large, Self-control is a capability of an individual to alter his perspective to agree with the standard qualities, standards, and culture and seek after long haul objectives. Self-control is a progressively hot issue in the mental orders. It encourages nature to realize oneself capacity and in down to earth application. It is associated with numerous settings because as the name portrays that it is particularly identified with the enthusiastic issue (Hagger, Wood, Stiff & Chatzisarantis, 2010). Self-control is simply subparts guideline (Baumeister, Vohs & Tice, 2007). While, in the human conduct propensity Self-control is ones of the most apparent factor which lead financial specialists to confine on its feeling, feeling, disposition and certain conduct (Allport, 1937). In the cash matters, individuals are increasingly cognizant and feel the absence of Self-control to contribute, expend or spare it (Thaler & Shefrin, 1981). One of its most broad instances is charge paying; individuals are faltering or feel uncomforted to settle a duty. Self-control is alluding to the propensity that powers the speculator to expend today (Pompian, 2011).

In a person's life, sparing is one a significant issue for essential people. In the monetary speculations, the market analyst considers likewise with a particular lineup that people groups go about as the soundly to tackle its financial issue. In the existence cycle hypothesis of sparing individuals are mistaking for their pay example to mean how to put something aside for tomorrow and how is it expend today they have known not the part of sparing sum. With the individuals, here is simply the issue of need control (Shefrin & Thaler, 1988). on the other side (Thaler & Benartzi, 2004) recommended empowering program with the name of sparing more tomorrow with the essence to submit individuals to set aside some cash from his expanded compensation for retirement. In the Self-control speculations, people have various tastes, distinctive today inclinations, and future inclinations. Thaler & Benartzi (2004) propose a model for taste changing and preferences is a hypothesis of an individual between fleeting decisions by demonstrating the people as an association (Thaler & Shefrin, 1981). Self-control exists when individuals face shortage (great need and constrained sources) and for why individuals have an absence of discretion (Muraven, Tice & Baumeister, 1998).

*H4- Financial Literacy is significantly influenced by self-control*

## *Financial Literacy as mediator*

Most of the groups like government, bankers and employers, and business community have shown their interest in financial Literacy in many developed countries. This trend has been increasing due to change in the political scenario, economic developments and complexities existing in current financial markets (Tamimi, 2009). "Financial literacy is an ability to use knowledge and skills of an individual to manage financial resources efficiently and effectively for being financial well-being" (Schwab, Lannicola, Beck, Hira, Bryant, Parker, Levine & Dawson, 2008)

Financial Literacy has discussed in literature from various angles. Government departments and private organizations have directed in many developing countries to test the financial Literacy within their communities. To investigate the enthusiasm based on past investments (Volpe & Chen 1998) inspected that financial Literacy among individuals of 924 undergraduates studied in the USA. They also researched the connection between the financial education level and gender orientation, age, race, nationality, salary, occupation understanding, scholarly control, and class level. The results of the investigation showed that subgroups of educational order, class status, and long periods of work experiences were altogether distinctive as far as financial literacy level. The individuals having work experience are usually nonbusiness educates or possessing low financial literacy. Furthermore, women were less proficient in financial Literacy than men in US residents.

Nielsen (2005) surveyed the growth of financial Literacy through research in Australia, main aftereffects of this overview demonstrated that the least degrees of Financial Literacy are related with individuals who have lower training, jobless and individuals with low remuneration and single individuals. Then again, the 2005 outcomes demonstrated an improvement in the financial education of Australians. Singaporeans have a severe trend toward essential financial matters, money related arrangements, and investment matters**.** Volpe & Chen (2006) examined 212 top directors accountable for individual financial programs in the US organizations to determine significant individual's fund issues for fund raising and survey their degree of information.

*H6-Financial Literacy significantly mediates between loss aversion and investment decision*
*H7-Financial Literacy significantly mediates between regret aversion and investment decision*
*H8-Financial Literacy significantly mediates between mental accounting and investment decision*
*H9-Financial Literacy significantly mediates between mental self-control and investment decision*

### *Investment Decision*

This investment decision is also influenced by the factors that how the investor interpret the market information in his mind to take bold step regarding investment decision (Sauner Leroy, 2004). Behavioral finance is defined as fast ever-growing area that discusses the behavior of the investor while he is making investment decision (Ricciardi & Simon, 2000). Investment decision of the people also denotes the term that how he purchases and sell the shares from stock market. The behavior of the investor who newly entered the market is usually irrational (Ricciardi & Simon, 2000). It never ever matters that how much he studied about the market, how much information he perceived from the market, because the investor is afraid of loss (De Bondt, 1993). The difference in the behavior of the investor pertaining into the stock market depends upon the factors he faced into the market and even those factors which force him to behave rationally. The studies called him small investor who purchases small number of shares or securities from the market. According to the conventional financial theory, those investors are called rational who's investment decision is based upon such rules of thumb which help in wealth maximizing (Ricciardi & Simon, 2000). Such investor does investment based on high-risk consideration. The level of risk-taking consideration is not equal in all the investors; it depends upon their investment and psychological behavior. The investor investment decisions are based usually upon its internal as well as external behavioral factors. The investment decisions are usually depending upon the various factors such as market knowhow, financial literacy, individuals risk taking capacities and accounts related information. The accounting information is somehow necessary for the new information, because if the investor is unknown of accounting information he can influence by the sunk cost (Lee & Masulis, 2009). The investor behavior is mainly influenced by the wealth maximization behavior.

*H5-Investment decision is significantly influenced by the Financial Literacy*

## THEORETICAL MODEL

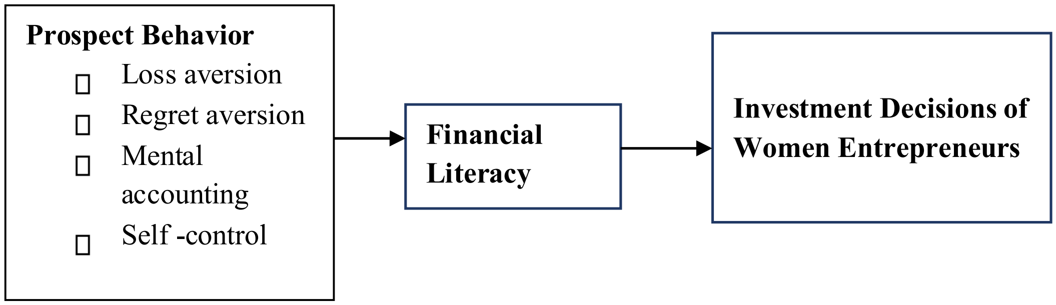


**Figure 1:** Theoretical Framework

## DATA AND METHODOLOGY

The population under this study is the *Women entrepreneurs of Punjab, Pakistan running small and medium enterprises***.** Women are 49% of the total population in Pakistan (Ahmad, Nawab, Zaib, & Khan, 2007). Women entrepreneurial statistics is not well documented in Pakistan (Goheer, 2003); however, the data are collected proportionately through random sampling. For the selection of sample size, the method of (Ruane, 2005) is followed. According to (Ruane, 2005) if the population is more than 500 and less than 1000 then the sample would be selected by taking the 30% proportion of total population. The total roughly recorded population is 1830 and for an accurate representation of the results, the data are collected from 479 women entrepreneurs

### *Measurement of variables*

The questionnaire is adapted through previous research. For this purpose of measuring the four dimensions (Loss Aversion, Regret Aversion, the mental accounting, and self-control) of prospect behavior, the questionnaire was adapted from the studies of different authors. To measure the Loss Aversion, the scale was taken from (*Babajide & Adetiloye, 2012)* similarly to measure the Regret Aversion the scale from the studies of (*Waweru, Munyoki, & Uliana, 2008*) were adapted. Mental accounting is measured by using the scale of (*Nevins, 2004*) and self-control is measure through the work of (*Ameriks, Caplin, Leahy & Tyler, 2004).* Financial Literacy is measured through the question taken from the research of *(Mandell, 2004).* The investment decision is measured through the questionnaire from the studies of (*Waweru, Munyoki, & Uliana, 2008)*. Data collection is done through a self-administrative online survey by distributing it among different women entrepreneurs residing in 9 divisions of Punjab, Pakistan.

## ANALYSIS AND RESULTS

For analysis and verification of hypotheses, the CFA-SEM is used. First, the confirmatory analysis is done to check the fitness of the model before structural measurement analysis. Construct's convergent & discriminant validity is also measured through confirmatory factor analysis. Secondly, the structural model is constructed for a path diagram to check the casual path of each construct, even the direct and indirect effects of prospect components. The final hypotheses acceptance and rejection is tested through SEM regression weights. Finally, collected data is analysed through CFA –SEM. First of all, the confirmatory factor analysis (CFA) is applied to check the reliability and validity of the data.

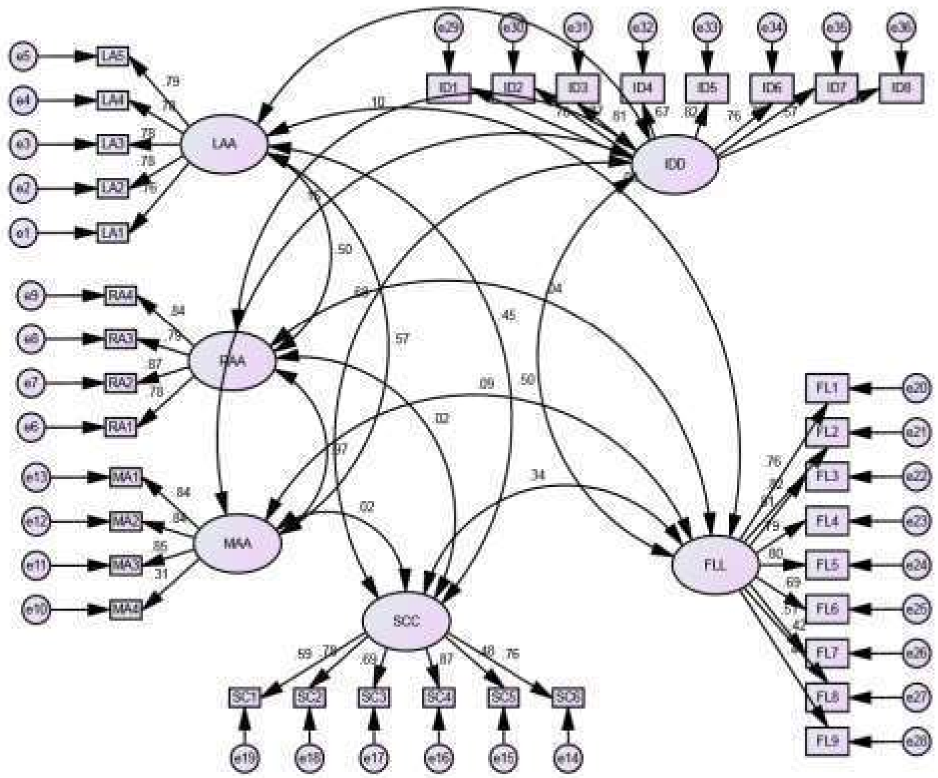


**Figure 2:** Measurement model

This Figure: 01 is showing the values of a parameter; the parameters are having a value below 0.7 have removed for good model fitness. The removed parameters are FL8 (0.55) FL 9(0.69) and SC1 (0.68) and SC5 (0.60). The resulted values are extracted as:

**Table1:** Model fit indices

| *SR#* | *Model* | *Value* | *Accepted values* |
|---|---|---|---|
| *1* | *CMIN/DF* | *5* | *5* |
| *2* | *GFI* | ***0.84*** | *Near 0.9* |
| *3* | *AGFI* | ***0.82*** | *Near .9* |
| *4* | *CFI* | ***0.88*** | *Near 0.9* |
| *5* | *RMSEA* | ***0.07*** | *Below 0.5* |

The values of Table: 01 is representing the 5 values of chi-square, which is acceptable in literature and other all values of indices are representing that model is a good fit, lying within an acceptable range (Galea, Florissi, Rojanasopondist, Connelly, Ingelsrud, Bragdon & Troelsen, 2020). For testing the reliability and validity among variables, the following table is considered.

**Table 2:** Correlation Coefficients

| | **Loss Aversion** | **Regret Aversion** | **Mental accounting** | **Selfcontrol** | **Financial Literacy** | **Investment decision** |
|---|---|---|---|---|---|---|
| **Loss Aversion** | 1 | | | | | |
| **Regret Aversion** | .442** | 1 | | | | |
| **Mental accounting** | .459** | .763** | 1 | | | |
| **Self-control** | .374** | .041 | .008 | 1 | | |
| **Financial literacy** | .058 | .041 | .088 | .300** | 1 | |
| **Investment decision** | .886** | .473** | .481** | .359** | .075 | 1 |

**Note:** Correlation coefficient is always significant at the 0.01 level (2-tailed), and *correlation is significant at the 0.05 level (2-tailed)

### *Correlation Analysis*

Spearman's correlation analysis is done to analyze the strength and direction of the variables and their relationship, which are mentioned in Table 02. For instance, the table shows that loss aversion and regret aversion are positively correlated with investment decisions with the values r=0.886 and r=0.473. Mental accounting, self-control and financial literacy are also positively correlated with investment decision having values r=0.481, r=0.359 and r=0.075 respectively

## STRUCTURAL EQUATION MODELING (SEM)

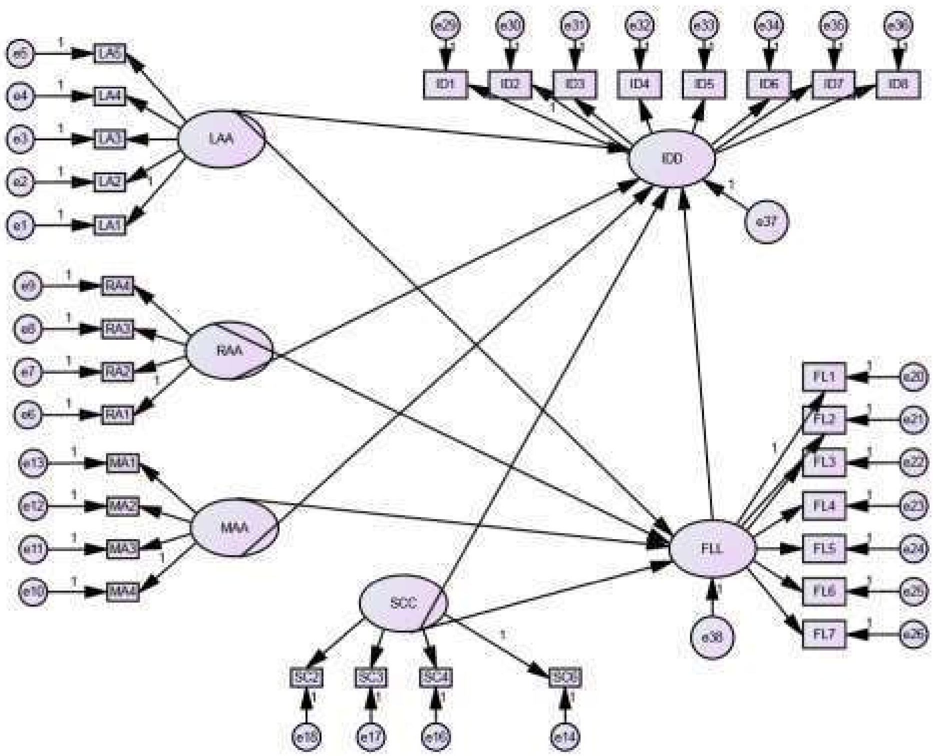


**Figure 3:** Structural model

Structural model in Fig: 03 is showing that there are four independent variables, loss aversion, regret aversion, the Mental accounting and self-control while the dependent variable is one which is an investment decision. Financial Literacy is playing the role of mediator among all. In structural diagram after drawing the parameters, the visibility of the direction of variables can be seen. The text output from the structural model is given as under:

**Table 3:** Regression Weights

| | Estimate | S.E. | C.R. | P |
|---|---|---|---|---|
| Financial Literacy <---Loss aversion | -.393 | .110 | -3.578 | .000 |
| Financial literacy <---Regret aversion | -1.043 | .515 | -2.026 | .043 |
| Financial literacy <---Mental accounting | 4.053 | 1.813 | 2.236 | .025 |
| Financial Literacy <--- Self-control | .473 | .080 | 5.936 | .000 |
| Investment decision<--- Financial literacy | .214 | .064 | 3.340 | .000 |
| Investment decision <--- Loss aversion | -.329 | .104 | -3.175 | .002 |

| | | | | |
|---|---|---|---|---|
| Investment decision <--- Regret aversion | -.723 | .451 | -1.603 | .109 |
| Investment decision <--- Mental accounting | 3.109 | 1.600 | 1.943 | .052 |
| Investment decision <--- Self control | .806 | .089 | 9.110 | .000 |

From the above Table: 03, it is clearly stated that the loss version has a significant impact on financial Literacy decision with (p-value: 0.000) thus H1 is accepted. Similarly, the regret aversion has also a significant relationship with financial Literacy with the (p-value: 0.043), which supported the H2. Furthermore, mental accounting has a significant impact on financial Literacy with (p-value: 0.025) which accepts the H3. Similarly, Self-control has a significant link with financial Literacy with (p-value: 0.000) thus H4 is accepted. The relationship between financial literacy and investment decisions is also significant with (p-value: 0.000) which supports the H5.

**Table 4:** SEM Mediation Analyses

| **Relations** | **Indirect effect** |
|---|---|
| Relationship between the regret aversion and financial literacy | 0.000 |
| Relationship between loss aversion and financial literacy | 0.000 |
| Relationship between mental accounting and financial Literacy | 0.000 |
| Relationship between self-control and financial literacy | 0.000 |
| Relationship between the regret aversion and investment decision | -0.223 |
| Relationship between loss aversion and investment decision | -.008 |
| Relationship between mental accounting& investment decision | 0.04 |
| Relationship between self-control and investment decision | 0.101 |
| Relationship between financial literacy& investment decision | 0.000 |

The above table represents that financial literacy partially mediates the relationship between loss aversion and investment decision with (p= -0.008) thus H6 is accepted. Furthermore, financial literacy fully mediates the relationship between mental accounting and investment decisions with (p=0.04) thus H8 is accepted. However, H7 and H9 are rejected.

**Table 5:** Robustness check

| **SR#** | **Model** | **Measurement model** | **Structural model** | **Accepted values** |
|---|---|---|---|---|
| **1** | CMIN/DF | 5 | 7 | 5 |
| **2** | GFI | 0.79 | 0.74 | Near 0.9 |
| **3** | AGFI | 0.75 | 0.703 | Near .9 |

| | | | | |
|---|---|---|---|---|
| **4** | CFI | 0.83 | 0.757 | Near 0.9 |
| **5** | RMSEA | 0.09 | 0.1 | Below 0.5 |

*Model fit indices

The Table: 05 represent the robustness check by comparing the fit indices of both from the measurement model and structural l. it is also visible that the near about all values fall within an acceptable range.

## DISCUSSION

In conjunction with the above results, the mediating role of financial literacy is advocated between dimensions of prospect behavior and women's investment decision making. As (Tamimi, 2009) mentioned, financial literacy has an important impact on investment decisions. This research highlighted the mediating impact of financial literacy between behavioral factors and investment decisions. This research scrutinized that loss aversion has an impact on investment decisions partially mediating through financial literacy whereas mental accounting has full mediating impact of financial literacy while having significant relationship with investment decision. Secondly, it has helped augment the understanding of the significance of financial literacy for women entrepreneurs in developing countries like Pakistan, where women encounter specific problems of making investment decisions (Iram, Iqbal, Qazi & Saleem, 2021). Lastly, this study has aided in bringing robustness for women in making investment decisions to contribute economically and socially in Pakistan.

Similarly, our results also showed that loss aversion, regret aversion, mental accounting and self-control have a significant influence on financial Literacy. Behavioral finance in research plays an essential role by providing a mechanism for the research model. The behavioral finance is based on the psychological impact of an individual in finance (Pompian, 2011). On the other hand, women psychology is different than males as well as the women status in Pakistani society plays a different role. The society does not readily accept the working women and if she is accepted, accepted along with all her household duties. To study the Women Entrepreneurs has impulse importance because the professional women always uncover stress identified with their situation 'between two universes' (Dinnerstein, 2010), their grownup way of living has not acclimated with most of the unprofessional ladies who discussed their social history and socialization encounters. Be that as it may, it is similarly apparent that working women by and by in their 50s must keep on arrange the impacts of support and social imperatives which have described quite a bit of their working lives (Still & Timms, 1997)

## CONCLUSION

Individual investors use to show irregular behavior as compared to the institutional investor (ul Abdin, Farooq, Sultana & Farooq, 2017), so it is equally important to empirically study the behavior of women investors. According to entrepreneurship's literature, women show less risk-taking propensity (Brindley, 2005; Kappal & Rastogi, 2020) but high confidence (Rudhumbu, du Plessis, & Maphosa, 2020; Abd Rani, & Hashim, 2017). Women entrepreneurs as good investor are those who believe in long term investment plans with an aversion to loss and risk aversion. Women usually avoid taking risk in their own investments although she is risk taker (Kappal & Rastogi, 2020). Women usually use to invest in those segments where they don't have to regret later and to whom they completely understand. Women take slow startup but wait till its profitability they usually don't quit earlier despite her investment is going under loss. They usually believe in mental accounting and prefer to look on her business rather than deep details.

***Table: 06 Results***

| | **Hypotheses** | **Accepted /Rejected** |
|---|---|---|
| *H1* | *Loss aversion has a significant influence on financial Literacy* | Accepted |
| *H2* | *Regret aversion has a significant influence on financial Literacy* | Accepted |
| *H3* | *Mental accounting has a significant influence on financial Literacy* | Accepted |
| *H4* | *Self-control has a significant influence on financial Literacy* | Accepted |
| *H5* | *Financial Literacy has a significant influence on Investment decision* | Accepted |
| *H6* | *Financial literacy mediates between loss aversion and Investment decision* | Accepted |
| *H7* | *Financial literacy mediates between regret aversion and Investment decision* | Rejected |
| *H8* | *Financial literacy mediates the relationship between mental accounting and Investment decision* | Accepted |
| *H9* | *Financial literacy mediates the relationship between self-control and Investment decision* | Rejected |

From the above Table: 06, it is clearly stated that the loss version, regret aversion, mental accounting and self-control prospect has a significant relationship with financial Literacy thus H1, H2, H3, H4 are accepted. Furthermore, financial literacy has significant relationship with investment decision which urges to accept H5. While testing the mediation relationships loss aversion has significant relationship with investment decisions which means financial literacy partially mediates between loss aversion and investment decisions which supports the H6. In case of mental accounting's relationship with investment decision, financial literacy plays the role of full mediator, thus accept the H8. Whereas H7 and H9 are rejected in case of mediation

## PRACTICAL AND THEORETICAL CONTRIBUTION

Researchers around the world have been studying women's entrepreneurship for approximately 25 years, but there are still many questions unanswered (Greene, Hart, Gatewood, Brush & Carter, 2003). So, this is one of the first efforts to empirically examine the prospect behavior of Pakistani female investors and contribution in filling the gap in the behavioral finance literature.

Practically this research would help government officials to must act and develop policies in alleviating the poverty elimination programs by boosting up the entrepreneurship among women (AdeelAnjum, Khan, Raza & Fatima, 2012) through business management awareness programs (Al-Kwifi, Khoa, Ongsakul & Ahmed, 2020). Funds allocation system should also be improved regarding women entrepreneurship (Niethammer, Saeed, Mohamed & Charafi, 2007). Based on women psychology regarding investment decision, the government can plan the women related venture programs, loaning schemes and tax reliefs. This could be possible through proper financial Literacy regarding tax and audit training to the women entrepreneurs (Baporikar & Akino, 2020).

## LIMITATION AND FUTURE DIRECTION

Only the women entrepreneurs from Punjab, Pakistan are taken for study. Future researchers can be done by considering the other behavior factor's impact on women entrepreneurs. Further a comparative study could be done by considering both male and female entrepreneurs

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