

IMPACT OF COGNITIVE FACTORS ON FINANCIAL BEHAVIOR WITH MEDIATING ROLE OF FINANCIAL ANXIETY

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ABSTRACT

In the modern business world, the financial behavior of the businessmen is what really matters. The financial behavior of the businessmen is influenced by many factors through which the position of the business could be determined. Our research work is based on the impact of financial knowledge, self-control, self-esteem and financial anxiety on financial behavior. Scholar have distributed questionnaire among 500 investors of Multan city; out of which 300 participants gave the response. Different statistical tests like Reliability Analysis, Correlation Analysis and Regression Analysis were used to draw the results. It was concluded after analysis that financial knowledge, self-control and self-esteem does affect financial behavior of investors. Similarly financial anxiety have relationship with financial behavior while financial anxiety mediates the relationship between financial knowledge, self-control, self-esteem and financial behavior. Present study is useful for investors and different businesses in order to determine how different factors can influence the financing behavior of different investors.

Keywords. Financial knowledge, Self-esteem, Self-control, Financial Anxiety

1. Introduction

If we talk about financial decisions, we have to consider the fact that they are affected by a lot of mental and psychological factors. Lack in financial understanding will result in a non-profitable situation whatever the business may be. Financial knowledge is just one of the factors affecting your profitability some others include self-esteem and financial anxiety. Researches show that people with high self-esteem have a comparatively higher chance to prevail in a high-risk situation as consistency and high self-esteem are positively related. (Klapper& Panos 2011). Making risky decisions for business propagation is inevitable but one's risk preference gives a good idea about his financial understanding and decision-making skill. Insurance being a risk transfer mechanism plays its role by avoiding or slowing down the predictable and even unforeseen risks. The higher intention of purchasing is shown by older family representatives as they set the benchmark of lifestyle for other family members. Now if we talk about people with lower self-esteem level, they have limited coping mechanisms to deal with rejection (Kaiser & Menkhoff, 2017).

Economic researchers and psychologists include impact of factors like atmosphere and human emotions on risky behavior and economic attitude as they can influence one's decision making significantly. They also work on figuring out techniques to handle and control these emotions in a way that leads to desired decisions outcomes and utilitarian benefits. Hence financial behavior is strongly influenced by human emotions and atmosphere. Control on one's emotions however the external circumstances may be, can lead to optimized decision making (Kusev et al 2017). Being in financial debt is a cause of financial stress which can result in poor decision making. Even if the debt is free from any kind of interest arrangement, still it can affect your relationship with the people you borrowed money from. (IlyahJamalludin 2015).

Statement of the Problem

Investors these days are facing hurdles regarding their financial decisions in business and other activities. Financial behavior is affected is effected by number of factors like self-control, self-esteem and financial knowledge. Due to high fluctuations in economic conditions of Pakistan, investors are suffering from financial anxiety which is also affecting the financial behavior of investors. Same is suggested by Strömbäcka, C, and Lind, T (2017) as well that financial decisions are greatly affected due to financial anxiety of investors as well. . In developing countries, the markets move rapidly and it's really tough to keep up with the speedy changes. So it is need of a hours to understand and solve such issues for better financial decisions and profits. For this reason, present study is going to examine the effect of different cognitive factors like self-control, self-esteem and financial knowledge on the financial behavior in company of financial anxiety as mediator.

2. Literature review

A person having good understanding of credit, debt administration and the essential data required to make financially accountable choices is said to have adequate financial information. Understanding the working of a checking account, ways to avoid debt and knowing the correct usage of credit cards are all attributes of financial knowledge (Brounen, Koedijk & Pownall, 2016). Some daily life scenarios that require good grip on financial knowledge when you try to buy a home, balance a budget, ensure an income at retirement, fund the children's education. Lack of financial knowledge can be alarming not only for emerging or developing economies but also for average consumers. In order to understand and sort out financial risks and avoid financial pitfalls it is required to have a strong grip on financial principles as rising or even well-established economies may face demise due to lack of proper financial understanding. (Klapper, Lusardi, 2015).

“Financial knowledge is defined by brown as skills and knowledge possessed by an individual to take effective and informed decisions at the time of need (Henchoz & Spycher 2018). Knowledge related financial situations is the most important component for the growth and enlargement of the financial steadiness in any organization (Duflo, 2018).

There are number of ways as how can self-esteem affect our lives, starting from educational and professional achievement to relations and psychological health. Ups and downs, achievements or failures, both private and professional, can perpetrate changes in our emotions related to self-confidence hence self-esteem is not an unchangeable characteristic. The intensity of this experience varies from person to person but its psychological effects seems to have systematic fluctuations across the lifespan (McNair, summers, Bruin & Ranyard, 2016).

Self-worth can be explained as “a person's complete personal expressive assessment of how he/she holds his or her own value. It is the decision made by an individual as an attitude towards themselves. Self-esteem includes opinions related to oneself, as well as emotive states” (Hewitt, 2011). People with higher self-esteem have the ability to motivate others and even influence their financial decisions (Jordan, Spencer, Zanna, 2013). According to this theory strong team players in any economy are expected to perform according to a future goal or milestone that can logically be expected to occur in future (Tang, A. Baker, and P. C. Peter, 2015). To put it simply this implies to what a person is expected to invest based on their financial understanding and what they think will happen in the future.

The self-efficacy is responsible for creating a sense of control of business environment for any organization (Johnson & Sherraden, 2015). Self-efficacy is a concept that can be implemented to

differentiate people on the basis of financial assessment and the way they are expected to work for the sake of their financial gain, (Paula & Campbell, 2015). Baumeister (2013) previous literature has proved that higher self-esteem and consistency are positively related and persons with high self-esteem are observed to be more consistent while performing difficult tasks. However, Individuals with comparatively lower self-esteem don't have good coping mechanisms to deal with rejections. Individuals with high self-esteem have a well-developed sense of intuition which helps them to analyze the situation and quit if things go south because continuing to move ahead in that situation might result in unfavorable results. (Yurchisin & Johnson, 2014) observed scholars in a Midwestern university and concluded that compulsive buying behavior has a negative relation with self-esteem. Although correlation of financial decision making and self-esteem have been supported by research studies but it's not yet completely definitive because the study was carried out on non-representative data and financial knowledge was not included in this research.

As stated above there is not a lot of work on the connection amid financial behavior and self-esteem, but there is still enough evidence to presume that self-esteem is the primary driver of responsible financial behavior. For example, finance management includes make aims and then attaining them, (Bandura, 2016). According to a previous conducted study people with higher self-confidence are susceptible of achieving more goals, they are deeply involved in the pursuit of their set goals (McNair, summers, Bruin & Ranyard, 2015).

Self-control has been investigated on this issue to find out the parameters which are responsible for making self-control inflict changes on financial wellbeing and financial behavior (Stromback et al, 2017).

Lusardi & Tufano(2015). Now this results in increased share price as short sellers induce pressure of buying to fill their positions which will eventually lead the share price to rise. This phenomenon highlighted the behavioral prejudice and financial decisions of investors as well. This research has been concluded to believe that there are 5 behavioral partialities which have a significantly positive relationship with decision making of investors in Pakistan. The 5 behavioral partialities are: risk aversion, regret aversion, representativeness anchoring and overconfidence. (Rehan&Umer, 2017). Mohiuddin, (2018) discusses influence of a certain life style upon decision making of an average consumer with the use of a case study of female consumers living in Pakistan.

Kaul (2018) explained how allotment of education expense is affected with respect to gender and future investment in common household. The results from this study were investigated using fixed effect model. The results deduced that parents are likely to pay additional on schooling of their son as they expect a better return in future in terms of financial support from him. Rha (2016) found out that households which have rules regarding saving money are likely to save comparatively more money than ones who don't observe such rules. Moreover, having a goal to save a specific amount of money increases saving probability.

Measurement of financial behavior also incorporates financial anxiety and its implications (Shapiro & Burchell, 2012). Financial anxiety is that attribute which has a direct and very strong effect on the financial decisions. Financial behavior of an investor can be assessed through incorporation of his or her financial anxiety with management skills of debt and financial literacy (Tamimi, 2014). In addition to that according to Lusardi there are five leading factors affecting investor's behavior (Lusardi & Tufano, 2015) these factors include suggestions of family members, risk minimization, inevitable losses that are expected international markets of finance

and one's gut feeling as well. Among the few mentioned before there are numerous other features that can influence behavior of an investor. Any decision related to finance is influenced by a person's psychological and emotional situation and their knowledge of financial situations as well. There are some research studies that tell us about the impact of factors like age, gender, mental condition. (Lusardi & Tufano, 2015).

Hence it can be concluded that decision making of any investor is strongly influenced by their cognitive abilities. In order to make a universal assessment of a person's financial behavior it is important to include elements like financial anxiety, mismanagement of debt and the models of financial literacy. Self-confidence is related by the choices of financial management concerning that whether there is risk involved in investing in such assets. Financial literacy is not the only factor affecting financial behavior along with it self-control and self-esteem also plays an important role. Self-esteem has a direct relation with financial decision making as stated before as well. People face anxiety on different levels at different ages which varies the nature of depression induced in them. Anxiety and depression are although different entities yet it has been observed that they have a strong correlation.

3. Conceptual Framework

Understanding and considering the aspects and circumstances regarding finance while making a calculated decision is termed as financial behavior. Like all other human behavioral aspects it can also be influenced by a number of cognitive factors where financial anxiety is one of the strongest element.

Fig 1 shows the proposed research model

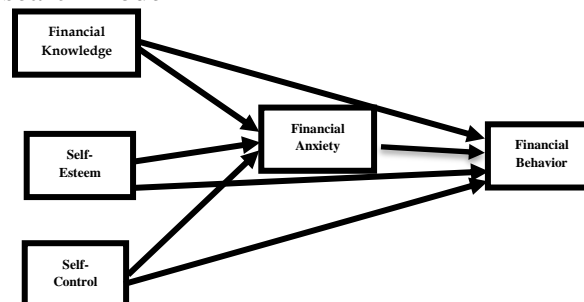
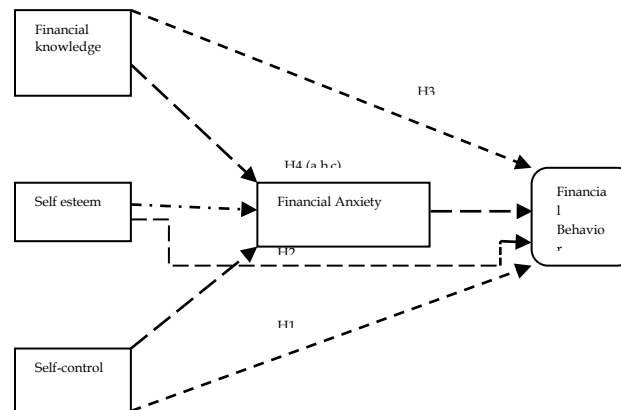


Fig: 1 Theoretical framework

Hypothesized model

The model shown below depicts the relationship among following variables; self-esteem, financial knowledge and self-control. Illustrating financial behavior where financial anxiety act as an intermediary.

**Fig 2 Hypothesized model****Hypotheses**

H1: Self Control effects positively on financial behavior.

H2: Self Esteem effects positively on financial behavior.

H3: Financial Knowledge effects positively on financial behavior.

H4 (a): Financial anxiety mediates between Self-control & Financial behavior.

H4 (b): Financial anxiety mediates between Self-esteem and Financial behavior.

H4 (c): Financial anxiety mediates between Financial knowledge and Financial behavior.

3.1 Self-Control and Financial Behavior

Financial behavior is positively influenced by self control. Saving money for future can sometimes turn out to be costly as normally people dont have a grasp about the perception and classification of money. It is a known fact that self control is an important factor in long term accomplishment. (Achtziger et al, 2015) reported it is highly likely that obsessive spenders are individuals with low self control. According to (Biljanowska&Palligkinis, 2015) individuals with absence of future planning and lack of self control had less money saved up.

H1: Self Control effects positively on Financial Behavior

3.2 Self-Esteem & Financial Behavior

Financial behavior is positively influenced by self control. Saving money for future can sometimes turn out to be costly as normally people dont have a grasp about the perception and classification of money. It is a known fact that self control is an important factor in long term accomplishment. (Achtziger et al, 2015) reported it is highly likely that obsessive spenders are individuals with low self control. According to (Biljanowska&Palligkinis, 2015) individuals with absence of future planning and lack of self control had less money saved up.

H2: Self Esteem effects positively on Financial Behavior.

3.3 Financial Knowledge and Financial behavior

It is experimentally proven that actually supports this hypothesis that objective awareness or financial situations is linked positively with the financial behavior of investors, (Lusardi and Mitchell, 2007). However it must be kept in mind that financial behavior is not influenced by only good financial awareness it is an important component but however incomplete. (Borden et al, 2008).

H3: Financial Knowledge has a positive effect on Financial Behavior.

3.4 Financial Anxiety and Financial Behavior

Financial decisions are influenced by financial anxiety to a great extent. It could be said that financial anxiety has a positive impact on financial decision making process. Authors have

concluded cognitive abilities strongly influence stock investment, through the mutual funds as well as retirement accounts for both market participation; direct and indirect (Hastings & Tejeda-Ashton, 2011).

H4 (a): Financial anxiety mediates between Self-control & Financial behavior.

H4 (b): Financial anxiety mediates between Self-esteem and Financial behavior.

H4 (c): Financial anxiety mediates between Financial knowledge and Financial behavior.

4. Research Methodology

Different techniques used for the analysis purpose for present study are;

- 1) Analysis of correlation
- 2) Demographic analysis
- 3) Analysis of reliability
- 4) Regression analysis

Results and Discussions

A detailed data analysis report which was based on the details extracted from respondents. In order to perform different analyses techniques on the provided data such as descriptive analysis, reliability regression and correlations an SPSS software version 23 was put to use.

Demographic analysis

Table 1 is a representation of data collected from 295 respondents which is classified on the basis of gender. All of these respondents are investors where 14% of them are females and 86% of them are male. The value '1' was assigned to male candidates and the female respondents were assigned value '2'.

	Frequency	Percent	Cumulative Percent
Male	255	86.4	86.4
Female	40	13.6	100.0
Total	295	100.0	

Table 1 Frequency of gender

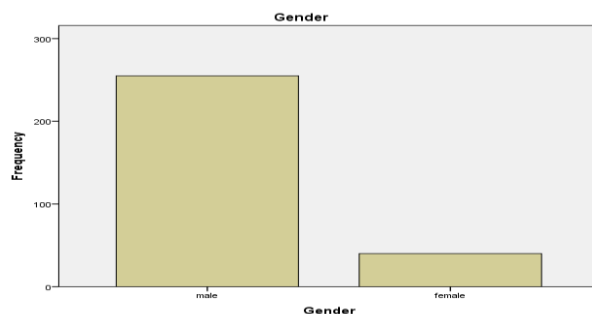


Fig 3 Graph of gender

Demographics of qualification

Table No. 2 shows the classification of respondents on the basis of their educational backgrounds starting from the lowest only 7 people are the ones with intermediates (2.4%). 9 people had completed their MS (3.1%). 73 people belonged to the post graduate category i.e. Masters (24.7). The largest group of people were the ones that had completed their graduation being 206 in number (72.2%). So as stated above Table 2 shows educational backgrounds of different respondents whereas histogram figure No. 5 shows the number of educational backgrounds among which the respondents have been distributed. If we talk about majority graduates were the leading group as they were highest in number.

	Frequency	Percent	Cumulative Percent
Intermediate	7	2.4	2.4
Bachelors	206	69.8	72.2
Masters	73	24.7	96.9
MS	9	3.1	100.0
Total	295	100.0	

Table 2 Frequency of qualification

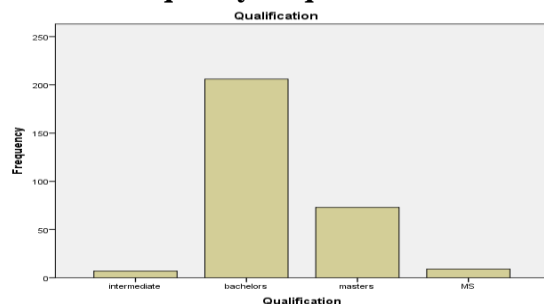


Fig 4 Graph of qualification

Demographics of Age

Table 3 is responsible for classifying people on the basis of age. It has total 5 categories which are: 26-30, 31-35, 36-40 and 40+. The leading group according to age classification is age group 21-35 with 132 people (44.1%). On second we have age group 36-40 with 82 respondents (27.8%). Third largest group ranges from 26-30 with 52 people (17.6%) and 40+ had the least number of people with only 29 respondents (9.8%). Histogram No.5 represents age groups and number of respondents belonging to them.

	Frequency	Percent	Cumulative Percent
26-30	52	17.6	17.6
31-35	132	44.1	62.4
36-40	82	27.8	90.2
Above 40	29	9.8	100.0
Total	295	100.0	

Table 3 Frequency of Age

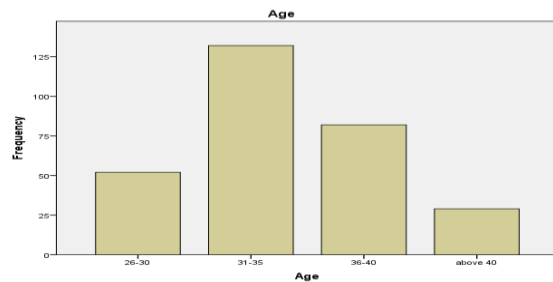


Fig 5 Table of age
Demographic of Marital Status

Table No.4 shows the number of married and unmarried respondents taking part in the study. According to this table out of a total of 295 only 21 people were unmarried (7.1%) whereas the remaining 274 candidates were married (92.9%).

	Frequency	Percent	Cumulative Percent
married	274	92.9	92.9
unmarried	21	7.1	100.0
Total	295	100.0	

Table 4 Frequency of marital status

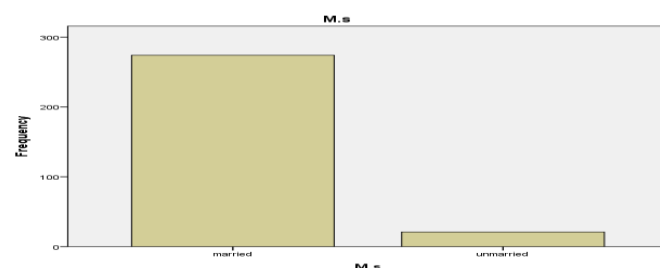


Fig 6 Graph of marital status
Reliability Analysis

Internal consistency of variable is calculated through a technique known as reliability analysis. It utilizes Cronbach's alpha and explains the extent of close relation between the variable taking part in the study. Table 5 displays the values of cronbach alpha (acceptable value = >0.6). It shows the value of self control is 0.891, the value of self-esteem is calculated to be 0.853, value of financial knowledge comes out to be 0.812 and financial anxiety is calculated to be 0.838. Now as we can see all the values are greater than 0.6 hence proved that internal consistency between the variables being considered exists.

Variables	Cronbach's Alpha
1. Self-Control	.891
2. Self-Esteem	.853
3. Financial knowledge	.812
4. Financial anxiety	.838
5. Financial behavior	.878

Table 5 Reliability measurements

Correlation Analysis

The relation among proposed variables is explained by the use of correlation analysis (Basheer et al, 2019; Basheer et al., 2018; Hafeez et al., 2018; Muneer et al., 2019). The acceptable range values of this analysis varies from -1 to+1. Any value between this range is supposed to exhibit a stron relation among variables however the relation can be negative if the value lies between - 0.01>1 and positive if its between 1>0.01. there is supposedly no relationship between the variables if the value comes out to be 0.000.

Pearson Correlation

	SC	SE	FB	FK	FA
Self control (Sc)	1	.723**	.676**	.581**	.678**
		.000	.000	.000	.000
	295	295	295	295	295
SE	.723**	1	.767**	.636**	.687**
	.000		.000	.000	.000
	295	295	295	295	295
FB	.676**	.767**	1	.678**	.729**
	.000	.000		.000	.000
	295	295	295	295	295
FK	.581**	.636**	.678**	1	.643**
	.000	.000	.000		.000
	295	295	295	295	295
FA	.678**	.687**	.729**	.643**	1
	.000	.000	.000	.000	
	295	295	295	295	295

Table 6 correlation table

Table 6 shows the number of times a correlation among variables occurred during the research. The highest value in the table is 0.767 which signifies are strong positive correlation as all values above 0.000 are positively correlated. The minimum value to occur is 0.581.

Regression analysis

The results given below show how financial behavior is affected by self-control.

	R Square	F-Value	β
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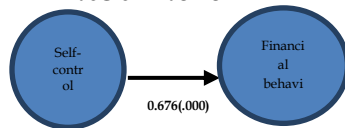
Self-Control -Financial Behavior	.457	246.888 Sig .000	.676 Sig.000
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Table 7 Relationship between self-control and financial behavior

According to the table given above a change in self-control as low as 1% can cause a 45.7% financial behavioral change in a person. If we look at Beta value (β) describes it can be observed that its significant at value of .000 and even a 1% increase in self-control will bring an increase in financial behavior by a whopping 67.6%. Similarly, the value of F has a significant value of .000 and its value is shown to 247.891, which is a clear sign of this model being a good fit.

$$Y = \alpha + \beta X + \epsilon$$

$$Y = 1.030 + .676X$$

**Fig 6 Regression analysis of Self-Control on Financial Behavior**

Regression analysis of Self-esteem on Financial behavior

The results shown below describe how financial behavior is affected by change in self-esteem.

	R Square	F-Value	β
Self-esteem -Financial Behavior	.588	417.924 Sig .000	.767 Sig .000

Table 8 Relationship between self-esteem and financial behavior

According to the table given above a change in self-esteem as low as 1% can cause a 58.8% financial behavioral change in a person. If we look at Beta value (β) describes it can be observed that its significant at value of .000 and even a 1% increase in self-esteem will bring an increase in financial behavior by a whopping 76.7%. Similarly, the value of F has a significant value of .000 and its value is shown to 417.924, which is a clear sign of this model being a good fit.

$$Y = \alpha + \beta X + \epsilon$$

$$Y = .735 + .767X$$

**Fig 8 Regression analysis of Self-esteem on financial behavior**

Regression analysis of Financial Knowledge on Financial Behavior

Researcher measured the outcomes of changes in financial behavior when affected by financial knowledge

	R Square	F-Value	β
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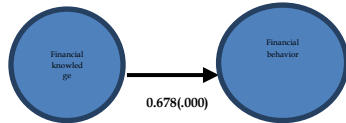
Financial knowledge - Financial Behavior	.460	249.819 Sig .000	.678 Sig .000
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Table 9 Relationship between Financial knowledge and financial behavior

According to the table given above a change in financial knowledge as low as 1% can cause a 46.0% financial behavioral change in a person. If we look at Beta value (β) describes it can be observed that its significant at value of .000 and even a 1% increase in financial knowledge will bring an increase in financial behavior by a whopping 67.8%. Similarly, the value of F has a significant value of .000 and its value is shown to 249.819, which is a clear sign of this model being a good fit.

$$Y = \alpha + \beta X + \epsilon$$

$$Y = 1.454 + .678X$$

**Fig 9 Regression analysis of Financial Knowledge on Financial Behavior****Regression analysis of Financial Anxiety on Financial Behavior**

Researcher observed and noted the impact of financial anxiety on financial behavior

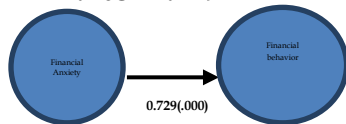
	R Square	F-Value	β
Financial anxiety - Financial Behavior	.532	332.976 Sig .000	.729 Sig .000

Table 10 Relationship between Financial anxiety and financial behavior

According to the table given above a change in financial anxiety as low as 1% can cause a 53.2% financial behavioral change in a person. If we look at Beta value (β) describes it can be observed that its significant at value of .000 and even a 1% increase in financial anxiety will bring an increase in financial behavior by a whopping 72.9%. Similarly, the value of F has a significant value of .000 and its value is shown to 332.976, which is a clear sign of this model being a good fit.

$$Y = \alpha + \beta X + \epsilon$$

$$Y = 1.103 + .729X$$

**Fig 10 Regression analysis of Financial Anxiety on Financial Behavior****Summary of Hypotheses**

Summary of Hypotheses is given below in table 11

Hypothesis		Results / Effects	Beta	Accept/ Reject
H1	Self-Control effects on financial behavior.	Direct Positive relation exists	.676 (.000)	Accepted

H2	Self Esteem effects on financial behavior	Direct positive relation exists	.767 (.000)	Accepted
H3	Financial Knowledge effects on financial behavior.	Direct positive relation exists	.678 (.000)	Accepted
H4(a)	Financial anxiety mediates between self-control & financial behavior.	Indirect positive relation exists	.337 (.000)	Accepted
H4(b)	Financial anxiety mediates between self-esteem & financial behavior.	Indirect positive relation exists	.384 (.000)	Accepted
H4(C)	Financial anxiety mediates between financial knowledge & financial behavior.	Indirect positive relation exists	.357 (.000)	Accepted

Table 11 Summary of Hypotheses

It can be clearly observed from the results deduced through rigorous implementation of methodical case studies that the proposed hypothesis stands correct as the impact of factors like self-esteem, self-control, financial knowledge is positive in nature on financial behavior. In addition to that it has been observed and proved that people with lesser financial anxiety have comparatively stable financial condition and are more confident than those who have lesser financial knowledge, shattered self-esteem and poor self-control. Moreover, financial anxiety does act as a moderator among financial behavior and cognitive factors.

5. Conclusion and Policy Implications

This study was done to examine the connotation between financial anxiety, self-esteem and self-control with financial behavior where the case study is done in the Multan city of Pakistan. With the help of this research we came to understand the behavior of various types of investors that invest in number of businesses. For determining the influence of financial anxiety and knowledge, self-esteem, self-control on financial behavior of investor's primary data was utilized. Survey was done among five hundred investors and only 295 questionnaires were found practical for the purposes of analysis. Questioners were distributed among the financial investors of Multan and most of these investors were shareholders. Questionnaire has been divided in five segments. Section one is comprised of the personal information whereas rest of the 4 segments have 46 questions about the variables of our research. With the help of our research we were able to determine that financial knowledge can help a person to take better decisions regarding financial matters hence there is a positive relationship between financial behavior and financial

knowledge. Furthermore managers having financial knowledge can lead to better decisions for their firms. It is seen that with our research that self-esteem is related to financial behavior directly the association between financial behavior and self-esteem is positive and the possible reason for this phenomenon is that people with high self-esteem tends to make better decisions keeping their benefit in their mind which is not influenced by any external factor and same phenomenon goes for the self-control the more control an investor has over himself will lead him towards better financial decisions. With our survey we were able to determine that financial anxiety, is associated positively by some investors but it is for sure that it does mediate between the cognitive factors and financial behavior.

Policy Implications

1. In this contemporary commercial domain, it is essential that one must have financial knowledge before commencing a business in order to at least keep it floating in dynamic environment.
2. Self-control is one of another major factors in the business world because one can't take rash decisions in the competitive market.
3. An investor's high or good self-esteem will help him/her to keep rational and take his business towards success.
4. Anxiety is a natural human emotion but it is better to try to keep financial anxiety minimum or under control so one won't make any irrational decisions that may be harmful for his business.

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