

The Effects of Information Asymmetry, Accounting Information and Personal Values on Investment Satisfaction Mediating by Direct Investment Decision Makers.

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ABSTRACT:

Purpose: This research is conducted for investment decision and satisfaction with the behavioral value of an individual investor of Pakistan stock exchanges. The effect of independent variables like information asymmetry, accounting information, personal behaviors & values on dependent variable like satisfaction on investing purpose has been measured and also impact of independent variables has been measured with the mediation of investment decision on investment satisfaction.

Design / Methodology: Research questionnaire was used for data collection through purposive sampling technique and AMOS was used for the pilot testing though confirmatory factor analysis for model fitness and validity of the instrument. To test the hypothesis, multiple regression analysis has been applied to find out significant association of independent variables with dependent variable through the mediation of mediator with 95% confidence interval and 5% significant level.

Findings: In this study, we find information asymmetry has significant impact about the investment satisfaction with the partially mediation of investing decision but the impact is positive. Accounting information has no direct or indirect effect on investment satisfaction for investors belongs to Pakistani markets, So the impact is just because of the full mediation of investment decision and personal values has significant negative impact for the investment satisfaction with a partially mediation regarding investment decision making.

Keywords: Personal Value (PV), Investment Decision (ID), Investment Satisfaction (IS), Information Asymmetry (IA), Accounting Information (AI),

Introduction:

Decision of financial investment is a hard step that has to be taken for every individual investor and the response of this investment decision has vital effects on the long time investment. Investment decisions becomes more challenging task with huge hurdles (for Example: risk involved, personal values of individual person, experience earned and gathered information of the listed companies at the stock market) suffered by the investors during making financial purpose or investing decision in the stock exchange market and decision taking is a phenomenon of inquiry of new and latest information of the companies while investments determination (Culters et al., 1989). Every individual person is very different from the perspective of demographical aspects like age factor, literacy rate, earned income, obtained experience etc. Traits of Personality and the values and individual investment decision can be highly impacted by these values and demographical differences and psychological factors which can play a significant role on the stage of decision making. Investment are done by the purpose of profit, benefits for future and required to be more rational before taking any investment decision because a taken decision is not able to rely only for the fundamental analysis of the obtained information like policies used in accounting & cash flow statements etc. Disclosure of financial score by the companies is

also can be influenced with the psychological & demographical factors Hunjra, A. I., & Rehman, Z. U. (2016).

In current scenario the behavioral finance has become an important part in decision-making due to its highly influences on the behavior of investor about the decision making. Behavioral factor concentrates on the individual qualities, mentality or otherwise, that nature regular budgetary and investment practices. Few years ago, investment was focused around the financial specialist's execution, estimating about the business sector timing and so on to create extremely common results (Du, Jing-Long, 2007). Psychologist founded about decision could be impacted by unavoidable mental and enthusiastic variable. Behavioral Finance watching on the justification under the deviation by the normal decisions taken by the speculators on the grounds reality that in small reason of what impeccable world, financial specialists are founded limited for their sanity Bashir & Maqsood (2013). One Judicious leader for the more part for settlement on a decision focused about certainly rationale and systematically decision taking methodology Because of late worldwide budgetary emergency, the venture choices are considered as one of the essential assignments of the everyday life (Robbins, 2002).

Consequently, it is important to see about different variables which incite an individual financial specialist to

take the investing the decision. The destination of this study is to distinguish a percentage of the center elements which influence financial specialist's willingness to invest. To date, there has been next to no work about the impact of information asymmetry, accounting information and the personal values in the individual investor's investment decision taking and satisfaction of investor in investment. This research study intends to examine the impact of these factors on individual investor's decision taking and the investment satisfaction mediating investment decision. The research model will help to investigate the level of relationship between explained factors and short & long term investing decision taking, satisfaction of the investment.

Literature Review

Information asymmetry and investment decision

Efficient Markets are stipulating that stock value goes upward or downward as a result of latest data. Hiding the business marvel, investment decision fluctuates by the speculator desires focusing around the latest data in access (Warneryd, 2001). Before coming negative benefit astonishes, these speculators removed their property that have inside information when had a contrast with other financial analysts who have no information and new data. However also the speculators who have privately information regarding the future prospects of companies, can exchange all the more effectively when they contradicted by the financial analysts without information Baik et al., 2010;

Chhaochharia & Niessen Ruenzi 2012. Information about the organization despite of its sources that empowered a speculator for the structure feeling regarding the estimation of company (Nwezeaku and Okpara, 2010, Okpara, G. C. 2016).

The investors are not necessary to be rational and they are contained for some extent behavioral biases on them self. Because of information asymmetry, individual can act as an irrational investor to putting small amount data or irrelevant information for doing the fundamental analysis and forecasting to facing from the psychological bias in taking investment decision. For example, Bill Gates or The Microsoft Company made investment in certain stock, then individual investors will arrange their portfolio accordingly to Microsoft decision because of herd behavior in taking decision. The Herd behavior is containing of good will of a firm and informational influence leading towards an irrational decision taking & destroy the rationality, all information obtained and gathered by the investor from miscellaneous sources for decision and the investment forecasting (Hirshleifer and Teoh, 2002; Li, & Yu 2015) and also there is an experimental evidence that people showed herd behavior in the absence of required information or in matter of uncertainty (Cipriani and Guarino, 2008). Bikhchandani and Sharma's (2000). They also founded by a solid reason under herd behavior of investors is data & information irregularity in Capital & stock markets due to people think that others are able

to made better & positive forecasting on the basis of their personal information so they prefer other's decision on their own decision by neglecting their personal and inner information having in their knowledge Huynh, T. L. D., Wu, J., & Duong, A. T. (2020).

Informational asymmetry and investment satisfaction

Imperfect and inequality of stock market information cause the investment dissatisfaction due to information base forecasting by the individual investor and investor or enterprises feel dissatisfaction in investing in the market because of asymmetric information (Bellouma, 2015). Not always prices go according to the trend, in the preceding literature this is already Morellec and Schuroff (2011) discussed that sometime internal factors or any single event can change the trend of stock market and this kind of factor give advantage to one party who know the internal information of the market or about the company policies more than externals who don't possess such information.

Lee et al. (2009) explained that the Investment satisfaction is a kind of investment behavior towards risk and return of new investment or reinvestment in the stock by analyzing information publically available to the investors and many investors invest in the high reliable and benevolence companies which payout or have high dividend policy or give maximum return in high market risk. Janssen, J., Spruyt, B., & Vandenbroeck, M. (2021). Due to inadequate control and

regulation of information by the government and authorities, investors could not be satisfied with their investment in the stock market and the irrational investors who have inner source of information get incentive for investment and companies should take care of information regulation and concentrate on the policies and action to remove asymmetric information in the market (Alnajjar, 2013). Because of unawareness of the market information or price trend of the stock, some of the investors affected by the disposition effect and disposition behavior of investor caused by asymmetric information or unawareness of the market knowledge cause the investor to keep losing stock and sell out profitable stock (Strobl, 2003).

Information asymmetry and investment satisfaction mediating by investment decision

In the preceding literature, we have briefly discussed the impact of information asymmetry on investment decision and investment satisfaction separately. Now moreover, we will find out the relationship of asymmetric information with investment satisfaction either it is positive or negative with the perspective of individual investor's decision. Investment satisfaction achieved by the rational decision and rational decision based on the strategies made by the rational investor for better satisfaction and decision efficacy (Dean and Sharfman, 1996; Elbanna, S., & Child, J. 2007). Such strategies were need

perfect market information and lack of perfect information cause the investors to show cognitive biases (herd behavior) and different and inequality of information tends the decision to different results from the expectation and investors do this kind of decision and show such kind of behavior for long time period in their investment career (Zhu and Weyant, 2003; Celen and Kariv, 2004).

Investment satisfaction depend on their anticipation of decision of investing in the stock and irrational decision because of absence or less information affects investor's satisfaction which reduce the investment in the economy. They explained the empirical evidence investment in the stock market positively related and its flow can be analyzed by the movement of accurate information available in the market. Information asymmetry in the market play an important role in dissatisfaction because of arising psychological biases and it decreases the investment contribution in the domestic as well as foreign market because imperfect market information (Dziuda and Mondria 2012). To make a rational decision and to satisfy investment of investors, there is a need of corporate risk disclosure for the analysis of risk and return of past and future and also important for effective portfolio Hunjra, A. I., & Rehman, Z. U. (2016).

Accounting Information and Investment Decision

The study conducted by Mirshekary and Saudagaran (2005) analyzed that how are the financial specialists

utilized the information unveiled as a part of money regarding proclamations furthermore they examined the essentialness of miscellaneous wellsprings of data for making investing decision. Shareholders comprehend accounting data as an information for investment decision. Since the world is moving towards open and worldwide markets, access to ideal, solid and simple Information will be crucial for successful Decision making (De Zoysa & Rudkin, 2010).

Inside the frameworks methodology, individuals need to be Sensitive to the projects of other organization units (particularly of those with whom they have an immediate relationship) and the undertaking in general. Also some others researchers contend that an proficient profile for Accountant which is includes of knowledge, expert qualities, morals values , and positive mentality for Accounting and relevant tasks and assignments (Chaker and Tengku, 2011; Ngoo, Tiong, & Pok, W. F. 2015). Whitefield and Kloot (2006) inspected the writing and distinguished three principle individual aptitudes required by the Accounting experts: (i) supposing and acting morally, (ii) being adaptable in any circumstance confronted, and (iii) acting deliberately. Also the three fundamental interpersonal aptitudes: (i) listening successfully, (ii) displaying, talking about and guarding their perspectives, exchanging and getting learning Saville, H. 2007; Rahmiyanti & Pratiwi, (2020). Nonetheless, as have been specified in the recent past, those past studies have not given clear definitions. Not with standing that,

those studies have neglected those aptitudes identified with machines and innovation, without taking into consideration accounting information system, which are crucial now since we live in the informatics what's more the information society.

Accounting Information and Investment Satisfaction

As per to Simon statement (1987) clarified the fundamental part of Accounting Information as providing data as every day or week after week results & reports for execution assessment & making choice. Gelderman (1998) said that the achievement of an association is because of the choices that are taken and the level of dependability of such choices is identified with the nature of data accommodated choice making. The nature of the data is likewise identified with the accomplishment of the data system. The achievement of data framework information system is critical to associations in light of the fact that they are making colossal venture in data frameworks. Srinivasan (1985) contends that evaluating IS achievement is critical for associations and specialists Igbaria and Nachman (1990); Chen et al. (2003); Lin and Shao (2000) contend that one method of information system achievement has client processing Satisfaction.

Davis and Olson (1985) indicating out the essential and auxiliary clients of accounting information. Essential clients are dependable of entering information to the information system and working with programming, however optional clients are the

individuals who settle on choice focused around the reports given by Information system. This is particularly valid in the Accounting information system. Ilias and Abd (2011) expressed that the relationship between a business organization and measured by the level of clients' satisfaction. The need to survey the viability of the Information System coupled with the trouble in the operationalization of the money based develops have quickened the quest for those effectively measurable constructs, as is the situation of the clients' satisfaction (Delone and Mclean, 2013; Hutahayan, B. (2020: SUZAN, SUDRAJAT& DAUD. (2020). There have even been endeavors to make such measure a substitute for the IS viability. These endeavors have been truly fruitful as representative satisfaction is viewed as vital in the achievement of an organization.

Accounting information and investment satisfaction mediating by investment decision

Decisions for investment cannot be made in some vacuum by depends upon the assets of individual and models with complexity, which don't contemplate the future circumstances. By investigating of the variables of the problems in which it occurs is interceded by the cognitive research of the administration. In a circumstance need to be focused around choice making movement incorporated not only the particular hurdle confronted from the individual additionally stretches out by the nature. Decision

making can also be characterized like the methodology of choosing a certain option from different options. This is a movement which trails legitimate assessment about every last one of options (Mathews, 2015).

Although we recommend that members' ability with investment decision items and markets may rise as a huge mediator in the relationship in the middle of evaluations and item assessment. We build our speculation in light of the writing stream of investment decision education, i.e., the capacity of comprehension money. Speculation education assumes a pivotal part in investment decision choice making since it empowers customers to settle on sound investment decision choices bury along with respect to retirement arranging or other imperative investment matters (Hilgert et al., 2003). Lusardi and Mitchell (2007) stated a positive relationship among the information of accounting and investment satisfaction mediating by investment decision (or a self-appraisal of investment decision education as they call it), subsequently discovering investment decision aptitude to be a decent indicator of investment decision making.

In spite of legislative endeavors to enhance investment training, and subsequently buyer investment decision reading proficiency, studies show buyers generally remain investment uneducated, for the most part among helpless demographic gatherings (e.g., those slightest taught and minorities); most shoppers need essential speculation learning and

numeracy (see, e.g., Bernheim 2001; Hilgert and Hogarth, 2002; Lusardi and Mitchell, 2007; Mandell, 2008. On average level purchasers need although a primary understanding of speculation ideas, for example like, rates in investment, probabilities, swelling & hazard expansion (Agnew and Szykman, 2005; Khalid, B., & Hunjra, A. I. 2015); Djanegara et al 2018).

Personal Values and investment decision

Demographical characteristics has significant impact on investment decision due to these cognitive antecedents for an individual behavior affecting the rationality of investors in taking decision. The dialogue of these cognitive and psychological factors that are explaining about the behavior of individuals and its impacts on rationality of investment decision continues in this literature presented. Wong and Carducci (1991) examined that in financial matters, a few of the individuals have "sensation seeking" in their investing decisions and satisfaction. Carducci and Wong (1998) found in its study that Type A individuals are high risk taker despite others in all financial decisions and situation, nevertheless these individuals could be related to that Type A individuals that have higher income level despite Type B individuals (Thoresen and Low, 1990).

Investment behavior is also different in genders because of different values and different mental reasoning. Females are less risk taker than men. Fellner and Maciejovsky (2007) find less

trades and enquiries and small number of transactions in female investors.

Personal values and investment satisfaction

Here we discuss the relationship between individual investor's personal values and investment satisfaction and the impacts of cognitive biases on investment satisfaction. Before and during investing in any commodity or stock, investors need mental satisfaction and risk reduction under uncertainty and they try to satisfy themselves by giving preference to their personal values e.g. experience, emotions, beliefs etc. over fundamental analysis for this purpose (getting investment satisfaction before actual return). They suffered from some cognitive biases (i.e. representativeness, anchoring and adjustment) and such heuristics are cognitive biases which significantly affect the rational investment decision (Pompian, 2006). And these biases become fundamental for investment satisfaction for investing in stock market or commodities (Amir and Ganzach, 1998).

Many of the investors don't have the ability of "emotional intelligence" and they take decision on the behalf of emotions they feel. About emotional intelligence and emotions are more different about its definition. Emotions forces the investors to take decisions according to their emotions from which they are suffering on that time and intelligent investors had the ability for recognizing and manipulating their emotions according to the condition to made the investments more productive

(Ameriks et al., 2009). Personal values if not be controlled by investors than these values control the investor and these values such as emotions is opposite to the rationality of decision maker and it affect the effectiveness of management and decisions for the sake of just satisfying the investor's mentality before actual return (Ashforth & Humphrey, 1995; Pasewark, W. R., & Riley, M. E. 2010; Agyemang, & Ansong, 2016; Rahman, M., & Gan 2020).

Personal values and investment satisfaction mediating investment decision

Not all investors are rational, much of them are controlled and leaded by psychological biases. Personal values are much important factor which should considered to be controlled by investors while making investment decision to get short/long term investment satisfaction. Seo & Barrett, (2007) described that the investor who has the ability to make difference in his current and old feelings and skilled to avoid and control its feeling or such kind of biases according to situation and setting can make a rational decision and get higher investment satisfaction in his decision. Kim and Nofsinger (2002) proposed that due to different culture and satisfaction level, individuals have different emotions and feelings which affect the rationality of decision making in financial markets.

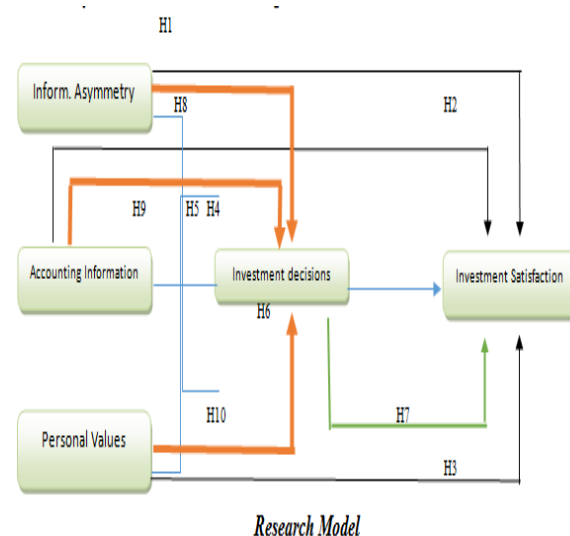
Feelings had significant effects on the short & long term investment satisfaction due to ability to change the information and evidence that could be recovered and examined by the

fundamental analysis of decision (Mayer et al., 1990). Sloan et al. (2005) described that many of the times investor fails in their investment satisfaction because of psychological biases greed, fear and emotions and they don't say welcome to new experience and attach with their beliefs and emotions. And for a short/long term investment satisfaction and better investment decision, investor should not be controlled by any situation or emotion (Creevey et al., 2004; Hu, J., Quan, L., Wu, Y., Zhu, J., Deng, M., Tang, S., & Zhang, 2021).

Investment decision and investment satisfaction

Investment decision is a process of analytical skills, experience and control on cognitive biases (emotions, feeling etc.) to make a well-organized portfolio on the base of facts and figures. These portfolios can be achieved by the individuals on the base high return and minimizing risk (Markowitz, 1952). Ton & Nguyen (2014) described that many of the factors like age, gender, marital status and experience related with investor personality at the time of investment decision and had significant impact on the decision of taking risk, young individuals are more willing to take risk as compared to the old investors and men are much over confident than women. Alam, S. S., Ali, M. H., Omar, N. A., & Hussain, W. M. H. W. (2020). After a detailed analysis of the literature and discussion about this, it is derived that there is space for future research. This research study, efforts have been made to identify the core determinants which are important for

the investment decision making of the stock market individual investors. Keeping in view the available literature i.e. international and local, the existing research studies have identified various factors which are of importance for investment decision making. This kind of work has never been initiated in Pakistan. Due to flexible nature of the stock market operations in Pakistan, there is severe need to identify the core factors which are important for taking investment decision, investment satisfaction and having intentions for investments. All these factors identified in this literature, have never been assumed as important factor which will contribute theoretically and empirically to the body of information and knowledge.



Hypotheses Statements:

On the basis of literature review, the following hypothesis has been drawn:

Hypothesis 1: Information asymmetry has negative impact on investment satisfaction.

Hypothesis 2: Accounting information has positive impact on investment satisfaction.

Hypothesis 3: Personal values has negative impact on investment satisfaction.

Hypothesis 4: Information asymmetry has negative impact on investment decision.

Hypothesis 5: Accounting information has positive impact on investment decision.

Hypothesis 6: Personal values has significant negative impact on investment decision.

Hypothesis 7: Positive Investment decision leads to positive investment satisfaction.

Hypothesis 8: Asymmetric information has significant negative impact on investment satisfaction mediating investment decision.

Hypothesis 9: Accounting information significant positive impact on investment satisfaction mediating investment decision.

Hypothesis 10: Personal values has significant negative impact on investment satisfaction mediating investment decision.

Research Methodology:

Now described part of the research dealing with the planned research methods. The population of the present study was individual investors of Lahore and Islamabad Stock Exchange. Individual brokers as well as members of the Stock Exchange were also part of the population. In the present study, the purposive probability sampling technique was

followed. The focus was individual stock market investors meeting the desired criteria. The potential respondents were well experienced stock market investors. Sample size is a set of population which consists of specific number of participants from the all population. The questionnaires were personally distributed among 200 stock market individual investors of Lahore stock exchange and Islamabad stock exchange.

Research Instrument and Measure:

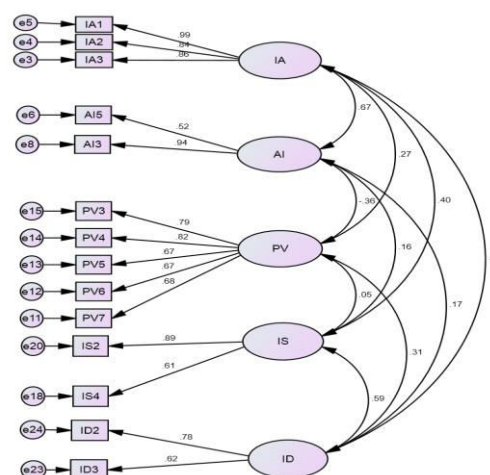
The research method and instrument was adapted the questionnaire technique relating to the research. This was distributed in two sections. The First section was consisted of demographic items like age, gender, trading experience of years and educational experience. The second section was consisted of five variables and with their items. Nominal scale was conducted to use for section one whereas in second section 5-Point Likert scale was used to conduct the study. For analysis purposes descriptive analysis, regression analysis has been applied on (SPSS) and AMOS was used for develop the validity and construct reliability of the instrument, the model and statistical data fitness with significant level of 5% and confidence interval was 95%.

Table 1: Number of items of each variable

S.No.	Variables	No. of Items	Source
02	Information Asymmetry	5	Wang et al. (2006)
04	Accounting Information	5	Ousaima Hassan (2009)
06	Personal Values	7	Mayfield et al. (2008)
07	Investment Decisions	4	Mayfield et al. (2008)
09	Investment Satisfaction	4	Wang et al. (2006)
10	Total Items	25	

Procedure and data collection:

The concerned respondents were identified through personal references, brokerage houses, telephone and email. Before distributing the questionnaires, all the items was completely explained to the respondents so that they would fill the questionnaire easily and with the relevant response. After the data collection, it was coded for data entry in SPSS Sheet for analysis. Purposive sampling technique was used for data collection which, include the brokers of the LSE and ISE.

Figure 2: Confirmatory factor analysis for model fit**Table 2: Model fitness index:**

Factors	Values	Factors	Values
CMIN	92.125	DF	67
Chi-square/DF	1.375	p-value	0.023
AGFI	0.758	GFI	0.846
TLI	0.916	CFI	0.939
RMSEA	0.08	PCLOSE	0.126

Table described the outcomes of confirmation factor analysis about the best fit of the model and statistical data. According the result of the chi-square/df value which is $1.375 < 3$, it showing that model used in research is best fitted. And also the p-value is also lower than significant level i.e. $0.023 < 0.05$ means used model is high significant and correct in measures. The root-mean-square error value is of approximation (RMSEA) is 0.08, which depicts that this model is fitted as best and the value about comparative fit index (CFI) is higher than standard value of CFI i.e. $0.939 > 0.9$ and it also depicts that model is good fit, same like other tests GFI, AGFI, TLI, PCLOSE are 0.846, 0.758, 0.916, 0.126 are respectively. PCLOSE value is higher than 0.05 and

shows model is fit and also correct. TLI value is also greater than the standard value i.e. $0.916 > 0.9$. These tests depicts that model is significant and instrument for survey is valid for also other new test in different studies.

Reliability analysis of the instrument

After Confirmatory factor analysis is final than reliability has been analyzed with Cronbach alpha for the reliability of the instrument. Reliability of each variable has been summarized in below table.

Table 3: Reliability of Instruments (N=200)

Variables	No. of Items	Cronbach's Alpha
Information asymmetry	3	0.852
Accounting information	2	0.648
Personal values	5	0.782
Investment satisfaction	2	0.793
Investment decision	2	0.643
Total	14	0.744

Table depicts the Cronbach's alpha of the used variables are higher than 0.6 and 0.7. Information asymmetry, accounting information, personal values, investment satisfaction and investment decision are 0.852, 0.648, 0.782, 0.793, and 0.643 respectively. And overall total reliability is 0.744 which is also greater than 0.7 and show the instrument is reliable.

Results, Discussion and Conclusion

Good effort has been used on this chapter for the outcomes of descriptive test, regression, correlation etc. and this chapter has a brief view of discussion of the results with the

exhibition of the results table. In this study, the main objective is to find out relationship and analyze this relationship of different variable. The variables in this study are three independent and two dependents i.e. information asymmetry, accounting information, personal values and investment decision and investment satisfaction respectively and also investment decision as a mediator for three hypothesis H8, H9, H10. Many of tests were applied to check and analyze the collected and statistical data for the model best fitness. The results of the all the variables related to this study are according to the responses of individual investors and relationship between the independent and dependent variable are accessed with the descriptive statistics and regression analysis and outcomes are summarized as below:

Correlation Analysis:

Table 4: correlation of study variables

		IA	AI	PV	IS	ID
IA	Pearson Correlation	1	.327**	.111	.285**	.213**
	Sig. (2-tailed)		.000	.117	.000	.002
	N		200	200	200	200
AI	Pearson Correlation		1	.038	.132	.101
	Sig. (2-tailed)			.595	.062	.154
	N			200	200	200
PV	Pearson Correlation			1	-.093	.200**
	Sig. (2-tailed)				.190	.004
	N				200	200
IS	Pearson Correlation				1	.251**
	Sig. (2-tailed)					.000
	N					200
ID	Pearson Correlation					1
	Sig. (2-tailed)					
	N					

** . Correlation is significant at the 0.01 level (2-tailed).

Pearson correlation test has been applied to test the relationship or any kind of association between all the variables and the results in the table interpret that the association between accounting information (AI) and information asymmetry (IA) is less than 1, so it is highly significant result of correlation of these two variables because both of these variables are independent variables and there is weak relationship among them. Information asymmetry is positively correlated with the investment satisfaction because the correlation value is 0.285. Same like personal values (PV) has correlation value with information asymmetry less than 1 i.e. $(0.111 < 1)$ and this is healthy result for further investigation and reliable result of the study and both of these are independent variable that is required correlation for significant model. Investment satisfaction (IS) is dependent variable in the model and Information asymmetry is independent variable has association investment satisfaction according the correlation result i.e. $0.285 < 1$. And also investment decision and investment satisfaction both are dependent variable and investment decision also as mediator. And association of all variables are weak on the investment decision, and personal values has weak and negative relationship with investment satisfaction -0.093 and less positive association with investment decision $r=0.200$ which is less than 1. Accounting information has weak positive association with the investment decision and investment

satisfaction according to the result summarized in table 4.3.

Regression Analysis

The best fitness of the model, we used Confirmatory factor analysis to construct validity and reliability of the instrument which has been used in the survey for the feedback from the individual investors of Stock Exchanges Pakistan. For the best fitness of our model we used the values of CFI, TLI, AGFI, GFI, PCLOSE and RMSEA in the table 3.6 of chapter 3.

Hypotheses testing based on regression weights

After the satisfactory results of these standard tests values of model fit, next the model has been estimated through regression analysis. Mediation analysis was done though the Kenny's approach for hypothesis testing through regression analysis Barron and Kenny (1986). First, the direct impacts of the independent variables on dependent variables has been measured and after the result, multiple regression with mediator has been applied for the finding of mediation between independent and dependent variable. If the results of mediation is insignificant than it means mediator completely participate and if results are significant than it means partial mediation (Prabhu, 2007).

Regression standardized coefficient (direct effect) of IA, AI, PV on IS

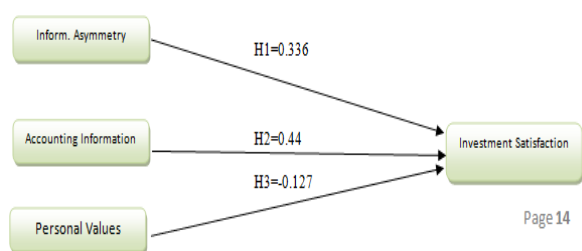


Fig: 4.1

Table 5: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics				
					R Change	Square Change	F	df1	df2
1	.314 ^a	.099	.085	1.05741	.099	7.163	3	196	.000

a. Predictors: (Constant), PV, AI, IA

Table 4.4 depicts that the model is significant because its p-value is less than significant level and F has value 7.163 which is greater than 3 and adjusted r^2 is 0.085 means model fitted the data just 8.5%.

Table 6: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	2.733	.435		6.006	.000	1.836	3.631
IA	.366	.093	.285	3.949	.000	.183	.549
AI	.055	.090	.044	.610	.543	-.123	.233
PV	-.206	.111	-.127	-1.854	.065	-.425	.013

a. Dependent Variable: IS

Table 4.5 depicts the coefficients of independent variable with dependent variable, t statistics value and the sig. value mean p-value. This is the criteria for analysis of direct relationship between dependent and independent variable of the hypothesis.

Hypothesis 1: Information asymmetry has negative impact on investment satisfaction.

According to sig. p-value which is 0.000 and less than significant level i.e.

0.000<0.05. It means hypothesis is highly significant and its t-statistic is also greater than ± 1.96 i.e. $3.94 > \pm 1.96$ also shows the null hypothesis is significant and rejected because of positive correlation. T-statistics value predict the relationship between information asymmetry and investment satisfaction and predictor has significant impact on the investment satisfaction with the coefficient of 0.285 which shows one factor increase in information asymmetry increase the positive impact of the 28.50% on the investment satisfaction.

Hypothesis 2: Accounting information has positive impact on investment satisfaction.

Accounting information has not significant positive impact on the investment satisfaction according to the result null hypothesis will be rejected because p-value is greater than 0.05 i.e. $0.543 > 0.05$. And t-statistics value is less than ± 1.96 i.e. $0.610 < \pm 1.96$.

Hypothesis 3: Personal values has negative impact on investment satisfaction.

According to the sig. value, it is greater than defined significant level ($0.065 > 0.05$) and t-statistics value is also less than ± 1.96 which don't predict relationship between personal values and investment satisfaction and its coefficient value i.e. -0.206 has negative sign which proposed inverse or negative relationship between personal values and investment satisfaction which is according to the literature of this research and null

hypothesis has been rejected because of p-value t-value.

Regression standardized coefficient (Direct effect) of IA, AI and PV on ID

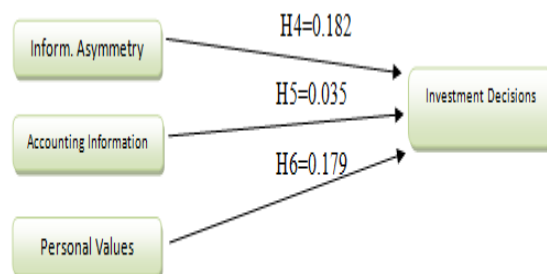


Figure 4.2

According to the test of regression analysis, first we check the impact of our three independent variable i.e. information asymmetry, accounting information and personal values on these dependent variable Investment decisions. And we used estimate of β -coefficient to find the impact either impact is positive or negative and how much this impact is on the dependent variable. Now we will interpret and discuss the results of our hypothesis which we had built for the study in the model one by one on the basis of the values of t-test value and significance level either null hypothesis is accepted or rejected

Table 7: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.280 ^a	.078	.064	.77919	.078	5.544	3	196

a. Predictors: (Constant), PV, AI, IA

According to the model summary results, the sig. F is less than 0.05 i.e. $.001 < 0.05$ which means that above model is good reliable and highly significant and F value is 5.544 which is greater than 3. And r^2 is 0.078 which

means model exhibit variation of just 7.8 percent and according to the adjusted r^2 exhibit variation in the model is just 0.064 or 6.4 percent. The value of r^2 is between the 1 to 100 percent, it assure how closely fitted data in the model. Value near to 100 percent is good for the reliable analysis and scatter will be close to the regression line.

Table 8: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	2.319	.335		6.914	.000	1.658	2.980
IA	.170	.068	.182	2.494	.013	.036	.305
AI	.032	.066	.035	.481	.631	-.099	.163
PV	.212	.082	.179	2.592	.010	.051	.374

a. Dependent Variable: ID

Hypothesis 4: Information asymmetry has significant negative impact on investment decision.

Our first hypothesis is highly significant by going through the result of t and significance level i.e. t test value is out of the range of ± 1.96 and greater than $\pm 1.96 < 2.49$ and p-value is 0.013 which is less than significance level 0.05. so we can say that the information asymmetry is related to investment decision and according to the coefficient value, one factor change in the information asymmetry will increase decision making ability of individual with 0.182 or 18.2%. But the null hypothesis is rejected here because the coefficient of the result is positive.

Hypothesis 5: Accounting information has significant positive impact on investment decision.

According to the coefficient value, predictor accounting information has a very small positive impact on the investment decision by seeing the value of coefficient and the value of sig. is more than significant level i.e. $.631 > 0.05$, and value of t is also less than ± 1.96 i.e. $0.481 < \pm 1.96$. The relationship between these two variables is insignificant. Null hypothesis has been rejected.

Hypothesis 6: Personal values has significant negative impact on investment decision.

According to the result of the coefficient, Personal values has significant positive impact on the investment decision because the p-value is less than our significance level i.e. $0.010 < 0.05$. And according to t-value $2.592 > \pm 1.96$, and assure it that relationship is highly significant and personal values has direct positive impact on investment decision and coefficient is 0.179, one factor increase in personal value increases the ability of investment decision with 17.9%. Here null hypothesis has been rejected, because the hypothesis statement is, “personal values has significant negative impact on investment decision” and literature also support in the favor of the negative impact but after getting the result of the hypothesis, we have some findings that the Pakistani investors always stick with their beliefs, emotions and past experience and these factors are

helpful in their investment decision instead of fundamental analysis.

Regression standardized coefficient (direct effect) of investment decision on investment satisfaction

Impact of mediator as an independent variable investment decision on the dependent variable investment satisfaction.

Figure 4.3

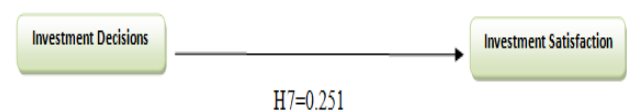


Table 9: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.251 ^a	.063	.058	1.07287	.063	13.269	1	198	.000

a. Predictors: (Constant), ID

Table explains regarding the independent variable investment decision has a relationship with the used dependent variable investment satisfaction because the sig. F change has less value than significant level i.e. 0.000 is less than 0.05 and shows model is significant. The adjusted r^2 shows the variation of the data around its mean and the adjusted r^2 of this hypothesis is just 0.058 which means 5.58% variation of the response variable in the model.

Table 10 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
1	(Constant)	1.577	.342	4.615	.000	.903	2.250
	ID	.344	.094	3.643	.000	.158	.530

a. Dependent Variable: IS

Hypothesis7: Positive Investment decision leads to positive investment satisfaction.

According to the value of sig. which lower than significant level i.e. $0.000 < 0.05$, it shows the significant relationship between investment decision and investment satisfaction. And t-statistics also predict this relationship that one-degree increase in investment decision will lead to change in investment satisfaction with 25.10% because the coefficient value is 0.251. It means null hypothesis has been accepted.

Multiple regression and mediation analysis

Mediation analysis has been analyzed according to the Baron and Kenny approach. Baron Kenny (1986) gave technique to check the relationship between independent and dependent variable through mediator by four steps of regression approach; i) check regression between independent and dependent variable ii) then check relationship between independent and mediator, iii) in third step, check relationship between mediator and dependent variable iv) check association of independent variable and mediator with the dependent variable.

Regression coefficients direct and indirect effects of IA, AI, PV, ID and IS

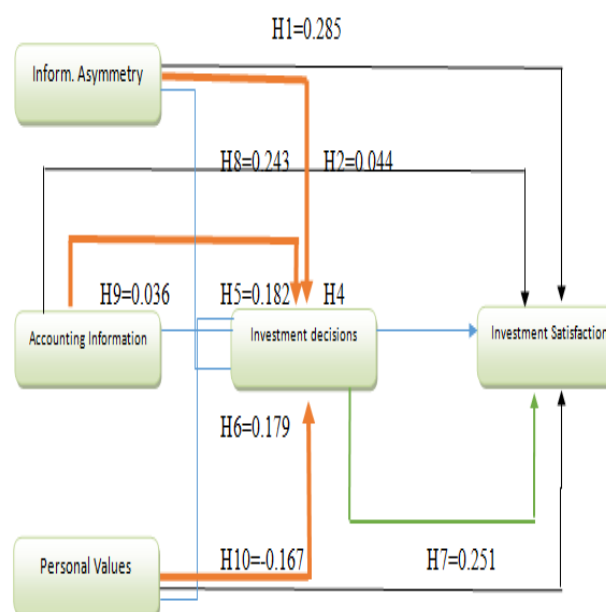


Figure 4.4

Table 11: Model Summary

R	R Square	Adjusted Square	R. Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.314	.099	.085	1.05741	.099	7.163	3	196	.000
.383	.147	.130	1.03139	.048	11.07	1	195	.001

a. Predictors: (Constant), PV, AI, IA

b. Predictors: (Constant), PV, AI, IA, ID

c. Dependent Variable: IS

Table depicts the significance level of the model which is 0.001 and less than our significant level which is 0.05 and shows that the proposed model is highly significant and value of F is 11.07. And the adjusted r^2 is 0.13 means 13% variation in the model fitted the data. According to the adjusted r^2 tells data in the model is how closely fitted to the regression line.

Table 12: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
1	(Constant)	2.733	.455	6.006	.000	1.836	3.631
	IA	.366	.093	.285	.3949	.183	.549
	AI	.055	.090	.044	.610	-.123	.233
	PV	-.206	.111	-.127	-1.854	-.425	.013
	(Constant)	2.006	.495	4.051	.000	1.029	2.982
2	IA	.313	.092	.243	3.404	.131	.494
	AI	.045	.088	.036	.511	-.128	.218
	PV	-.273	.110	-.167	-2.473	-.490	-.055
	ID	.314	.095	.229	3.319	.127	.500
	(Constant)	2.006	.495	4.051	.000	1.029	2.982

a. Dependent Variable: IS

Hypothesis 8: Asymmetric information has significant negative impact on

Investment satisfaction mediating investment decision.

According to Kenny's approach, relationship among the information asymmetry and investment satisfaction is significant and its p-value is 0.000 which is less than significant level 0.05 and t-test also predict this relationship because t-value is greater than ± 1.96 i.e. $3.94 > \pm 1.96$. And also information asymmetry has significant association with the investment decision because p and t-values are 0.013 and 2.49 respectively. Investment decision as a mediator also has significant impact on investment satisfaction because p-value is 0.000 which is less than 0.05 and t-statistic also predict this relationship. One degree change in information asymmetry has the impact of 17% on the investment decision and one degree change in the investment decision will change the investment satisfaction 25.10%. According to the Arbuckle (2007) on the basis of beta

coefficient, there is direct relationship of information asymmetry with investment decision (0.182) and the direct relationship of investment decision with investment satisfaction (0.251) and the product or multiple of two standardize beta coefficient is $0.182 \times 0.251 = 0.04568$. So we can say one degree or factor change in information asymmetry would lead to change in investment satisfaction with 4.568% through the mediation of the investment decision. So here, our null hypothesis H8 will be accepted on the base of mediation analysis that mediation occurs. Correlation of mediator is partial. According to the multiple regression analysis, its coefficient is 0.243 which means impact of information asymmetry on the investment satisfaction decreases with 0.045 or 4% due to the one degree change in variable information asymmetry because of the mediation of investment decision. The direct coefficient was 0.285 and indirect coefficient is 0.243 and the subtraction of both coefficient is 0.042 which is nearly equal to the product of the beta of information asymmetry and investment decision and investment decision with investment satisfaction. And p-value is less than significant level and t-statistics also predict this relationship. So we can say one degree increase in mediator will lead to decrease the impact of information asymmetry on the investment satisfaction. But the impact of independent variable is positive and our required impact was negative, on the base of this interpretation, null hypothesis rejected.

Hypothesis 9: Accounting information significant positive impact on investment satisfaction mediating investment decision.

For the analysis of the mediation, according to Kenny approach, we have to see the association between accounting information and investment decision. And according to the results, p-value is more than significant level i.e. $0.610 > 0.05$ and t-value is 0.543 which is less than ± 1.96 . First step of this null hypothesis is rejected. There is no significant association between accounting information and investment satisfaction. And the direct association between accounting information and investment decision which is mediator don't have or exist any relationship because the p-value is greater than 0.05 i.e. $0.610 > 0.05$. There is no significant association of accounting information and investment satisfaction through the mediation of the investment decision because accounting information has insignificant impact on the investment decision which is mediator and also insignificant impact on the investment satisfaction. The coefficient of accounting information with investment decision is 0.035 and the coefficient of accounting information and investment satisfaction which show very small impact and coefficient is 0.044 and coefficient of investment decision with investment satisfaction is 0.251. And checking the mediation effect there is a need of the product of direct coefficient of AI and ID and ID and IS are $0.035 \times 0.251 = 0.008$ which is negligible impact and steps of mediation analysis is not completed and insignificant. Null hypothesis is

rejected because according to multiple regression analysis result with mediation, its p-value is insignificant and mediator completely participate because independent variable accounting information don't has significant impact, the impact is just of the mediator i.e. investment decision on the independent variable i.e. investment satisfaction. So we defined this hypothesis is insignificant and complete or full mediation in the model.

Hypothesis 10: Personal values has significant negative impact on investment satisfaction mediating investment decision.

For the mediation analysis of hypothesis 10, it is necessary that the hypothesis H3 must be accepted and should have significant association between personal values and investment satisfaction and also association exist between personal values and investment decision means H6 must be accepted. But the H6 and H3 is rejected and H7 is accepted. So we can interpret this hypothesis that the personal values has positive impact on investment decision and one degree change in investment decision leads change in investment satisfaction. Personal values don't have direct impact on the investment satisfaction but can influence investment satisfaction through the mediator i.e. investment decision. The direct coefficient of H3, H6, and H7 are -0.127, 0.179, and 0.251 respectively. By calculating the product of coefficient of H3 and H7 is $0.251 \times 0.179 = 0.0449$. Means mediation

is of 4.49 percent between personal values and investment satisfaction. And relating to baron and Kenny approach, there is existence of full mediation of investment decision due to personal values relating to this research don't has direct impact on investment satisfaction but through the used mediation of investment decision, the personal values has significant negative impact on the investment satisfaction. And according to the multiple regression analysis personal values through the mediation of investment decision has significant negative or inverse impact with the standardized coefficient of -0.167. Mediator decreases this impact by 4.49%. Its p-value is less than 5 and t-value is greater than ± 1.96 summarized in the above table 4.12.

Table 13 Summary of indirect hypothesis

Indirect Hypothesis	Decision	Mediation of mediator	Mediation ($\beta_1 \times \beta_2$)
Investment satisfaction \leftarrow Investment decisions IA $\beta_2 = -0.251$ $\beta_1 = -0.18$	H8 Accepted \leftarrow	Partial	$0.182 \times (-0.251) = 0.04568$
Investment satisfaction \leftarrow Investment decisions AI $\beta_2 = -0.251$ $\beta_1 = -0.003$	H9 Rejected \leftarrow	Full	$0.0353 \times (-0.251) = 0.008$
Investment satisfaction \leftarrow Investment decisions PV $\beta_2 = -0.251$ $\beta_1 = -0.179$	H10 Accepted \leftarrow	Full	$0.179 \times (-0.251) = 0.0449$

Major Findings and Discussion:

This study was totally related to individual investment behavior towards investment decision and their

investment satisfaction with the used mediation of investing decision and this study was conducted in the Pakistan and the psychology related to Pakistani investor's behavior has been measured in the results of different tests through the impact of different important factors.

Investors of the Pakistan don't understand the factor 'information asymmetry' as a so much important factor which can impact the decisions and satisfactions related to investment in the stock markets. Because there is herd behavior in the Pakistani stock markets investors, they don't need information for identifying the best decision and loss occurred. They ignore this factor that this can has significant negative impact on their investment, all of this happens because of lack of rationality (Kahneman, 2003).

Investors of Pakistan enough rely on the brokers and individuals are not so much literate in accounting fields and they don't give weights to the accounting information and they don't take some stress how much important this factor is important for decision making and satisfaction for long term or short term investment in the stock markets.

Pakistani individual investors are so much attached with their beliefs and emotions and their past experiences, they give all the credit of their success of investment to their personal values and these personal values has significant importance in their life because Pakistani investors don't think

that these factors impact their investment satisfaction, their investment satisfaction derived from their personal values. That's why the many of the null hypothesis has been rejected from the Pakistani investor's feedback. To some extent personal values has significant negative impact for the investment satisfaction due to of the mediation of investing decision. The impact of same factors has different impact in the different demographical areas or in different countries Gupta, A. D., & Banik, S. (2013).

Conclusion:

This research paper explains and examines three major behavioral biases like: information asymmetry, accounts information and personal values from which individual investors about Pakistani stock exchanges are suffering. As per to the findings and outcomes of different testing, the investors from Pakistan are not more rational in taking decision and to some level suffer from the behavioral biases as well as weakness of fundamental analysis. Making a decision has rigid criteria which demand the information of firms' financial strength, yield and policies about dividend information, security and reliability of the investment in the stock market. The theoretical evidences explained due to asymmetric behavior of the stock market, information asymmetry has a significant negative effect on satisfaction and decisions of the investors. In this Pakistani Stock markets this study reveals about the individuals don't give importance to

the accounting information and information asymmetry for taking decision reasoning relying on the brokers agents for sale and purchase of the stock and acquired agents and brokers play with the wealth of the investors. Investors are commonly no more interested for the accounting information for taking decision and investment satisfaction because they don't like to enhance the load and mental anxiety for decision making and also investors showing herd behavior for the market. Current study is determining that the personal values don't has direct effect on the investment satisfaction and but has direct effect on the investment decision and from the mediation for investment decision the personal values changed the satisfaction of individuals via indirect effect. The Personal values like emotions, feelings create hurdles and contradict in the thinking of individual and had significant impact on taking decision and satisfaction (Festinger, 1957; Kahneman and Tversky, 1979; Antony, A. (2020) and the above explained emotions control the investors' rationality for making decisions.

Practical Implications:

In this study, suggestions to the Pakistani investors are given for better investment decision. If the decision is rational than satisfaction will be achieved. First of all, before investing in the stock market, try to get knowhow of stock market than identify the company in which you want to invest and try to understand the information publicly available to the

investors of this company's stock and financial position and do fundamental analysis of risk and return before every investment decision and try to regret herd behavior and control feelings and emotions and update experience related to investment for better performance of the investment decision.

Future Research

In this study, information related to our variables are collected by the two important stock exchanges of the Pakistan that is first one Lahore stock exchange and second one is Islamabad stock exchange out of three stock markets. We utilized convenient sampling measure to conduct testing for our hypothesis. To enhance the findings and results for the same hypothesis, a larger sample can be used. Due to resource and time constraint Karachi stock exchange KSE could not be covered in this study. Future research can pursue Karachi stock exchange to enhance the generalizability of the research. In future herd behavior, financial literacy and investment re-intentions can be induced in the existing model to make the model more comprehensive. So much work is required in Pakistan related to the research of behavioral finance to evaluate individual behavior and for the remedial of for better performance of the investor's decision. This work can be enhanced by the inspection of these variables by changing the demographical regions.

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