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MEASURING THE VALIDITY OF THE INSTRUMENT OF INFORMATION ASYMMETRY, ACCOUNTING INFORMATION, PERSONAL VALUES, INVESTMENT SATISFACTION AND INVESTOR DECISION: AN EMPIRICAL ANALYSIS OF PAKISTANI STOCK EXCHANGES

Babar Khalid[1] Ahmed Imran Hunjra[2]

Abstract

This study deals with the investment decision and investment satisfaction from the behavioral perspective of individual investors of Pakistani Stock Exchanges. The factors those adversely affect the trading attitude and activities of the stock market investors in Pakistan are the area of concern. In this study, we have constructed a model to measure the validity and reliability of adopted instrument of information asymmetry, accounting information, personal values, investment satisfaction and investment decision. The population of this study was the individual investors of Pakistani stock exchanges. The sample size was 100 investors of Lahore Stock Exchange and Islamabad Stock Exchange to measure the validity of the instrument. Convergent validity was checked through confirmatory factor analysis. Average variance extracted value of each variable is greater than 0.5 and construct reliability is also greater than 0.7 which is finestfor the validity of the adopted instrument.

Keywords: Information Asymmetry, Accounting Information, Personal Values, Investment Satisfaction, Investment Decision, Pakistani Stock Exchanges, Confirmatory Factor Analysis, Convergent Validity.

1 Introduction

Behavioral Finance makes alliances between the behavioral and psychological theories with the economics and finance and explores the rationales of the irrational decision-making by the investors and how their behavior satisfied with the investment (Chira and Adams, 2008). Financial decision is a difficult task, which has to be made by every individual, and the return of this decision has great impacts on the long-term behavior towards investment satisfaction (Shefrin, 2002; Shiller, 2003). Investment satisfaction is the outcome which resulted from investment decision and turnover from the investment (Khim, 2008). Investment decisions are challenging task with high difficulties (e.g. personal values of individual, experience, and information of the listed companies of the stock market) faced by the investors while making financial or investment decision in the stock exchange markets and decision-making is a phenomenon of inquiring new and updated information of the companies while investing (Culters et al., 1989). A judicious leader for the most part settles on a decision focused around certain rationale and systematic decision methodology (Robbins, 2002).

[1] MBA Student, UIMS-PMAS-Arid Agriculture University Rawalpindi, Pakistan
babar_changwani@outlook.com
[2] Lecturer, UIMS-PMAS-Arid Agriculture University Rawalpindi, Pakistan and PhD Scholar, Iqra University Islamabad, Pakistan Email: ahmedhunjra@gmail.com

The present research study extends the body of knowledge by uncovering the rarely researched determinants of individual investor's investment decision-making (information asymmetry, accounting information, and personal values) proposed by various researchers. kreps (1990) described that the most favorable and best agreements can be productive for the entrepreneurs and investors and it is possible by the reducing asymmetric information and misevaluation. Wang et al. (2006) found that the information asymmetry means a condition in which information is available to specific investors but not to all individual investors of the stock market. Sufi (2007) found evidence on the information asymmetry that has strong impacts on thefinancing agreements and the group of the investors who take finance and also affects the institute reputation. Singer & Cacia (2009) described that the value of the firm performance and stock liquidity just base on the updated information provided by the regulation commission of the stock market and financial institutes through which information irregularity could be removed. Lei et al. (2012) point out that it is need to explore the effects of information asymmetry, corporate disclosures on investment decision making.

This research work also endeavors to take into account the recommendation to conduct the research on predictive function of accounting information and its implications on decision- making (Socea, 2012). Hassan and Marston (2010) described that the accounting information is a strong determinant which must be analyzed and measured by the investors in a specific and systematic way. Demski and Feltham (1976) found accounting information can perform twoparts inside decision making. i) The pre-decision instability of the leader ii) and upgrade the likelihood to settle on better choices as for the fancied goals.

Demographical factors play important role from the perspective of the investor's behaviortowards rational choices and to some extent every investor is controlled by the bounded rationality. Personal values are the beliefs, emotions, past experiences and cognitive biases which determine the behavior of individual investor towards choices and the investors are restricted by their thoughts, emotions and values (Festinger, 1957). Fernando et al. (2013) also pointed out that it is required to address the precise mechanism by which mental health is related to financial outcome. Serfas (2011) reviewed the impact of cognitive biases on capital investment. Patterson & Daigler (2013) examined the mental health characteristics.

In Pakistan, due to unreliable nature of the trading activities, lack of education and training about the stock market activities and functions, lack of awareness about the operations of the trading of shares and stocks in the market, most of the individual investors face a lot of problems at the time of buying & selling of the shares being traded in the market. The existing literature investigates the relation of above-mentioned variables on investment decision making and investment satisfaction. The factors that adversely affect the trading attitude and activities of the stock market investors in Pakistan are the area of concern for the researchers. The extent to which the stock market investors are incorporating these factors and personality traits while trading for their shares is need to be investigated, especially in the era of globalization where the competitions are growing among the multinational companies operating in various countries/regions of the globe. To what extent the impact of information asymmetry, accounting

information, and personal values on investment decisions and investment satisfaction. The significance of the study has critical commitment in the zone of finance, which investigates the relationship between different components that can influence the general investment decision and investment satisfaction of the financial specialists. It will be useful in investigating thepower of quality and shortcomings of these variables, which thusly will help us to decide the amount of weight is connected to every variable by the investor when they settle on their decision. This study will provide the understanding of decision making of investment andpromote awareness on the issue of related biases and performance, prompting them to helpreduce these biases to improve profitability. The global investors of the stock market are largely following the application of the rational theories and behavioral finance concepts.

The objective of this study intends to check the validity of the adopted instrument of the concerned variables. Further, this study purposes to examine the effect of information asymmetry, accounting information and personal values on investor's decision making andinvestment satisfaction and also examines the mediation of investment decisions between independent variables i.e. information asymmetry, accounting information, personal values and dependent variable i.e. investment satisfaction.

2 Literature Review

Previous research revealed that the investors of the stock markets behave irrationally during the investment decision because of the bounded rationality (Simon, 1991) and explanation of these kind of investor's behavior comprised of cognitive limitations (Kahneman & Tversky, 1979) and affective personality (Forgas and George, 2001). The Efficient-Markets hypothesis stipulates that stock value climbs or down because of new data. Hidden this business marvel, investment decision fluctuate with speculator desires focused around new data accessible (Warneryd, 2001). Before negative income astonishes, those speculators diminish their property that have insider information when contrasted with those financial specialists who do not have the data. Additionally speculators, who have private data about the future prospects of firms, exchange more effectively when contrasted with the financial specialists without information (Baik et al., 2010). Information about the organizations regardless of its sources empowers the speculators to structure feeling about the estimation of firm (Nwezeaku and Okpara, 2010). Cheng (2003) defined that asymmetric information is a trait of Stock exchange markets because of the lack of information revelation in the market to the investors. Taking into account its potential impact on irrational investment decision, it is included as another independent variable in this study.Individual or small investors (who think that information release from regulators are equal to all investors) always get hurt in their investment from asymmetry regulation system of information maintain by the stock exchange commission because of some implicit interests of the managers and more or less analysts get benefits because of having inner information of markets and good analytical skills (Liu, 2008). Maximum investment in the domestic and international stockexchange markets can be obtained from the individual investor's satisfaction by the intentional policies with the help of strict actions of stock exchange commission and regulatory bodies and for reducing information asymmetry by giving assess of information to all investors (Clarkson et

al., 2007). Portes et al. (2001) presented empirical evidence investment in the market positively related and its flow can be confirmed by the movement of perfect information in the market.

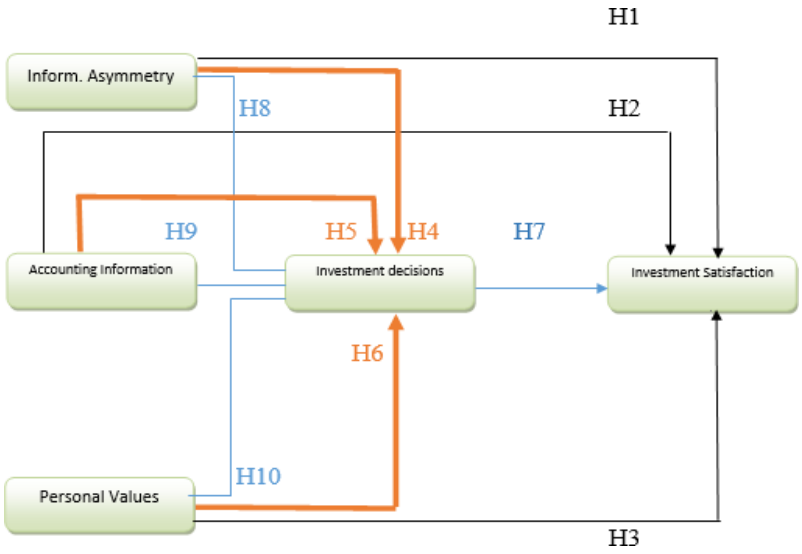
This study also led by Mirshekary and Saudagaran (2005) inspected how financial specialists utilize the information unveiled as a part of money related proclamations furthermore they analyzed the essentialness of different wellsprings of data on investment decision making. As indicated by Demski and Feltham (1976) accounting information can perform two parts inside decision making. Decision encouraging information is planned to decrease the pre-decision instability of the leader and, subsequently, upgrade the likelihood to settle on better choices as for the fancied goals. Along these lines, decision encouraging information is a direct include in decision making and should enhance the information and prospects for deciding. Particularly, decision encouraging data serves for conviction amendment inside the course of a decision (Baiman, 1982). The thinking behind this contention is that decision making is a characteristic iterative procedure which requires the ceaseless reusing of the accounting information. A few others contend that a proficient profile for accountants is that which includes knowledge, expert qualities, morals, and positive mentality towards accounting and related assignments (Chaker and Tengku, 2011). Lusardi and Mitchell (2007) demonstrate a positive relationship between accounting information and investment satisfaction. According to Simon et al. (1987) clarifies the principle part of Accounting Information as giving data as every day or week after week reports for choice making and execution assessment. Watts and Zimmerman (1986) characterized two primary drives that focus firms accounting information method data. In the first place, certain accounting information strategies (the acknowledged set) advance throughtime and develop as best practice these are the accounting information methods that cost-effectively resolve the organizations issues. Second, on the grounds that it is unreasonable to limit managerial investment satisfaction completely, chiefs pick specific accounting information strategies from among the acknowledged after the agreement are set up. Average purchasers need even a fundamental understanding of speculation ideas, for example, investment rates, probabilities, hazard expansion (Hancock, 2002; Agnew and Szykman, 2005).

Demographical characteristics has significant role in determining and constructing behaviortoward choices because these cognitive antecedents in individual behavior affect the rationality of investors. The discussion of these cognitive and psychological factors which describes the behavior of individuals and its effects on rationality of investment decision continues in the literature. Wong and Carducci (1991) described that in financial matters, some of the individuals have “sensation seeking” in their investment decisions. Carducci and Wong (1998) find in its research that Type A individuals are more risk taker than others in all financial situation, nevertheless these individuals may be related to that Type A individuals who have greater income level than Type B individuals (Thoresen and Low, 1990).

Past studies give introductory understanding in regards to this phenomenon when speculator classes are characterized extensively and speculators are watched altogether. Be that as it may, a more exhaustive understanding of this relationship may be picked up by watching the level of consistency between singular's close to home estimations and their investment decisions in a

controlled domain. Individual's investment decision and decisions normally rely on the personal values such like experiences, emotions and social influences. Festinger (1957) in its theory of cognitive dissonance described that investors are bounded with their thoughts, beliefs and emotions. Same like (Kahneman and Tversky, 1972) described once investors are committed and experienced that particular stock performed well in past and also will perform in future than investors will accord their beliefs with this information and will be attached with that stock without doing rational act or analysis for a worthy investment decision. This type of investors make unsuitable or sometime wrong decision because of not doing analysis of new information and just relying on their confidence (Shefrin and Statman, 1994). And these behavioral biases becomes base for investment satisfaction for investing in stock or commodities (Amir andGanzach, 1998). Most of the investors do not have the skill of "emotional intelligence" and they make decision on the behalf of their emotions. An emotional intelligence and emotion is much different in its definition. Emotions force the investor to make decision according to his emotion from which he is suffering at that time and intelligent investor has the skills to identify and manipulate his emotions according to the situation to make the investment productive (Amerikset al., 2009). Feelings has significant impact on the short/long term individual behavior towardsinvestment because it can change the information and evidence which could be recovered by the fundamental analysis (Mayer et al., 1990). When investors portfolio performed well in the past it satisfy the investors in their investment decision and increase the intentions of investors to purchase or re-invest in this stock (Nurbaity et al., 2014).

Figure 1: Theoretical Framework



3 Methodology

This part of the study deals with the planned research methodology and the concerned rationalization to measure the validity of the Instrument of information asymmetry, accounting information, personal values, investment satisfaction and investor decision along with the

information regarding the population, sampling techniques, research instrument for data analysis and selected procedure.

Due to the lack of research work on the concerned variables, there is a need to explore the information asymmetry effects (Lei et al., 2012) and also Mirshekary and Saudagaran (2005) inspected that the financial specialists utilize the information unveiled as a part of money related proclamations and also they had analyzed the essentialness of different sources of data on investment decision making and (Socea, 2012) made recommendation to find predictive function of accounting information and its implication and Fernando et al. (2013) also pointed out that it is required to address the precise mechanism by which mental health is related to financial outcome and also need to construct validity and construct reliability of the instrument which usedin the study.

The research instrument was adopted questionnaire according to the study. It was divided into two sections. First section was comprised of demographic items age, gender, trading experience in years and educational qualification. The other section was comprised of 5 variables and their items. Nominal scale was used in first section whereas in second section 5-Point Likert scale wasused.

Table-1 Number of items of each variable

Variables	No. of Items	Source
Information Asymmetry	5	Wang et al. (2006)
Accounting Information	5	Omaima Hassan (2009)
Personal Values	7	Mayfield et al. (2008)
Investment Decisions	4	Mayfield et al. (2008)
Investment Satisfaction	4	Wang et al. (2006)
Total Items	25	

To check the validity and reliability of the instrument of concerned variables, population was designed with the sample size of 100 questionnaire surveyed by Pakistani stock market individual investors of Lahore Stock Exchange and Islamabad Stock Exchange.

AMOS was used to check the construct validity and construct reliability of the instrument and model and statistically data fitness through the confirmatory factor analysis at 5% significant level with 95% confidence interval. The criteria for variable model and data fitness is comparative fit index (CFI), the goodness-of- fit index (GFI), the chi- square goodness-of-fit (CMIN/DF), the adjusted goodness-of-fit index (AGFI), the root-mean-square error ofapproximation (RMSEA) and Tucker-Lewis coefficient (TLI). According to the different literature of Structural Equation Modeling (SEM) and researchers if model has the value of CFI, GFI and TLI equal to 0.90 or more than this value i.e. 0.95, than it mean it is the best fitness of the model. And the criteria of the chi-square goodness-of-fit and degree of freedom (CMIN/DF) is 3 to 5 or less than this value for model fitness. RMSEA value must be 0.08 or less than this

value and following values were many time discussed by the Hair, Anderson, Tatham and Black (1995); McAulay, Zeitz and Blau (2006); Roh, Ahn and Han (2005).

Convergent validity was done that how much items of latent variables are correlated and predicting each other through factor loading on Confirmatory factor analysis to find construct validity of the instrument. Average variance extracted is calculated on the MS excel because it is not calculated on the AMOS. This is the next step of convergent validity and its standard value is 0.5 and used to construct validity of the instrument. Its formula is;

$$AVE = \frac{\sum_{i=1}^{n} \lambda_i^2}{n}$$

For the purpose of model fit, standardized residual covariance were checked out and it was found that which data of the items decreasing the model fitness and that items were excluded for the best fitness of data and model instrument. After the construct validity of the instrument, next stepis to construct reliability which is used to measure the construct validity. And it is also calculatedon the MS Excel, it cannot be calculated on the AMOS.
Its formula is;

$$CR = \frac{(\sum_{i=1}^{n} \lambda_i)^2}{(\sum_{i=1}^{n} \lambda_i)^2 + (\sum_{i=1}^{n} \delta_i)}$$

In construct reliabilty formula, (λ) is factor loading, (λ^2) is the reliability and δi is the error variances (δ=1- Item Reliability). If calculated value of construct reliability is greater than 0.7 than construct validity of the model is best.

4 Analysis and Discussion

Great effort has been made on this part for the results of convergent validity of the adopted instrument used in the constructed model. Factor loading was done for the decision of including and excluding of the items of information asymmetry, accounting information, personal values, investment satisfaction and investment decision. After factor loading in confirmatory factor analysis, average variance extracted was used to construct the validity of the instrument and to measure the construct validity of the adopted instrument, construct reliability was calculated through MS excel. The results of the all the techniques used in constructing the validity of the instrument are summarized below:

Figure 2: Confirmatory factor analysis for model fit (Actual)

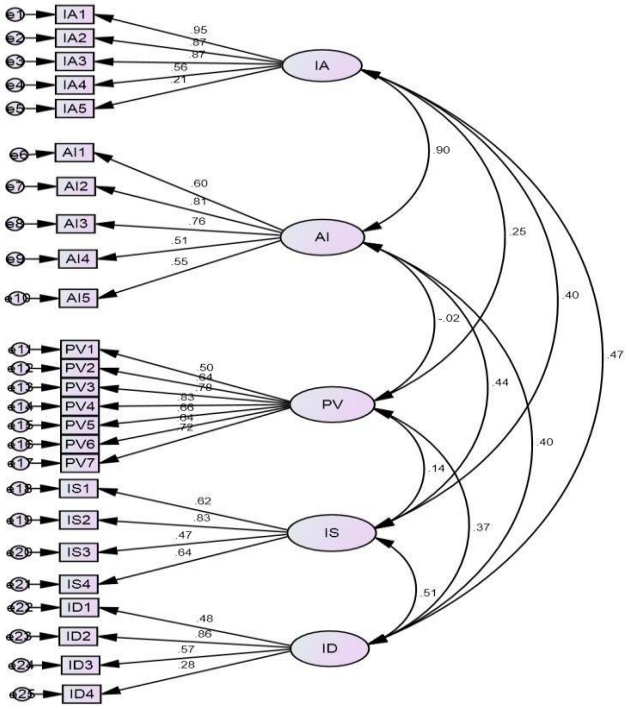


Table-2: Factor Loading of the Overall Construct (Actual)

Symbols	Items	Standard Estimate/Factor Loadings (≥0.5)	Decision
Information asymmetry (IS)			
IA1	Information asymmetry does not exist in stock markets.	0.95	Included
IA2	Information asymmetry is just heard of but is not supported by any evidence.	0.87	Included
IA3	Information asymmetry indeed exists in stock market but does not have any impact on investment decision.	0.87	Included
IA4	Information asymmetry frequently happens in stock market and has little impact your investment decision.	0.56	Included
IA5	Information asymmetry has great impact on your investment decision.	0.21	Excluded
Accounting information (AI)			
AI1	Balance Sheet	0.60	Included
AI2	Income Statement	0.81	Included
AI3	Cash Flow Statement	0.76	Included

AI4	Share Holders Information	0.51	Included
AI5	Accounting Policies	0.55	Included
Personal values (PV)			
PV1	Personal values influence investment decisions.	0.50	Included
PV2	Personal values interact with financial opportunities when individuals make investment decisions.	0.64	Included
PV3	I have a lot of intellectual curiosity.	0.78	Included
PV4	I generally try to be thoughtful and considerate.	0.83	Included
PV5	I never seem to be able to get organized.	0.66	Included
PV6	I am not willing to take risk when choosing a stock or investment.	0.64	Included
PV7	I often feel tense and jittery.	0.72	Included
Investment satisfaction (IS)			
IS1	How satisfied are you with your investment in stock market?	0.62	Included
IS2	How satisfied are you with overall stock market?	0.83	Included
IS3	How satisfied are you with the information disclosure about listed Companies?	0.47	Excluded
IS4	How satisfied are you with the yield of listed companies?	0.64	Included
Investment decision (ID)			
ID1	Your investment reports better results than expected.	0.48	Excluded
ID2	Your investment has a lower risk compared to the market in general.	0.86	Included
ID3	Your investment repays the principal at maturity.	0.57	Included
ID4	Your investment in stocks has a high degree of safety.	0.28	Excluded

Table 2 depicts that the result of load factoring and standard value of loading factor is 0.5 and the items having value less than 0.5 are excluded for the best fitness of the model.

Table-3 Model fitness index (Actual) (N=100)

Factors	Values	Factors	Values
CMIN	620.722	Df	265
Chi-square/df	2.342	p-value	0.000
AGFI	0.481	GFI	0.577
TLI	0.551	CFI	0.604
RMSEA	0.151	PCLOSE	0.000

Table 3 depicts results of the good and best fitness of model. There were values different tests was measured to check the fitness and goodness and according to the standard criteria, chi- square/df is less than 3 it means model is perfect and best fit and the p-value is 0.000 which is less than our significant level 0.05, which shows model is highly significant. The values of other

tests for variable model and data fitness is comparative fit index (CFI), the goodness-of- fit index (GFI), the adjusted goodness-of-fit index (AGFI), the root-mean-square error of approximation (RMSEA), PCLOSE and Tucker-Lewis coefficient (TLI) are 0.604, 0.577, 0.481, 0.151, 0.000 and 0.551 respectively. These model fit values are not in the range of standard values of the defined model fit i.e. CFI should be ≥.90, RMSEA must be ≤.08, AGFI, and GFI should be near to or ≥.90, TLI≥0.90 and PCLOSE should be >0.5. Results of table 3 predicted that there is somediscrepancy in the data of model variable.

Table-4: Standard Residual Covariance

	ID4	ID3	IS4	PV7	AI5	AI4	IA5	IA4	ID1	ID2	IS1	IS2	IS3	PV1	PV2	PV3	PV4	PV5	PV6	AI3	AI2	AI1	IA1	IA2	IA3
ID4	0																								
ID3	-0.1	0																							
IS4	0.43	0.031	0																						
PV7	-0.1	0.158	0.21	0																					
AI5	2.01	0.051	-0.11	0.61	0																				
AI4	0.92	-0.46	1.84	-2.4	-1.8	0																			
IA5	2.74	0.045	1.15	-1.3	-2.23	1.843	0																		
IA4	1.59	0.092	1.83	0.25	-0.27	0.729	-0.75	0																	
ID1	-0.9	-0.36	-1.26	1.58	-1.72	-1.236	1.327	-1.11	0																
ID2	-0.4	-0.04	0.2	-1.1	-1.19	0.571	1.008	0.91	0.423	0															
IS1	-0.1	0.096	-0.08	0.12	-2.97	1.167	2.307	0.78	-0.39	-0.7	0														
IS2	0.55	0.887	0.08	-0.4	-0.88	0.316	1.414	1.35	-1.88	0.14	0.099	0													
IS3	1.25	1.188	-0.93	-0.3	0.243	0.781	2.132	0.65	1.473	0.25	0.833	-0.21	0												
PV1	-0.2	1.874	1.32	0.85	-0.49	-0.265	0.768	-1.08	1.728	-0.11	3.214	1.27	3.034	0											
PV2	0.55	0.252	0.94	0.15	-0.61	0.24	1.11	0.29	2.719	1.34	0.262	0.1	2.65	1.468	0										
PV3	0.24	0.27	0.27	-0.4	2.03	-1.106	-1.43	1.37	0.625	-1.12	-0.58	-0.42	1.135	-0.24	-0.07	0									
PV4	0.32	0.562	0.34	0.05	2.174	-1.513	-1.86	0.89	1.441	0.26	-0.46	-1.11	1.316	-0.07	-0.37	0.083	0								
PV5	0.91	-0.18	0.02	0.05	1.043	-0.746	-0.88	1.45	0.104	-0.22	-0.62	0.12	0.687	-0.87	0.47	0.618	-0.4	0							
PV6	-0.9	-0.24	0.24	0.12	1.657	-0.949	-3.57	0.76	0.117	-1.04	-0.93	-0.2	-0.31	-0.73	-0.6	-0.06	0.526	-0.52	0						
AI3	2.37	-1.02	-0.76	-2.7	0.544	-0.605	1.124	-0.54	-2.99	-0.78	-2	-1.08	-0.42	-2.77	-2.6	-2.33	-1.6	-2.09	-2.08	0					
AI2	2.63	-0.4	1.71	0.75	-0.07	0.05	1.511	1.11	-1.08	0.78	-0.36	-0.1	0.698	-0.55	1.41	1.366	1.872	1.123	0.32	0.33	0				
AI1	2.81	0.439	2.05	-0.5	-0.68	1.927	2.885	0.44	0.976	1.11	1.949	0.89	3.345	2.384	2.484	1.354	0.946	1.629	-0.21	-1	0.175	0			
IA1	3.39	-0.16	0.35	-1.1	1.056	-0.625	-0.71	-0.21	-1.81	0.22	-2.49	0.1	0.443	-2.18	-0.79	0.145	0.457	0.616	0.399	-0.27	0.047	-0.16	0		
IA2	2.47	-0.71	0.62	-1.1	0.237	0.092	0.655	0.32	-0.73	-0	-1.59	0.37	0.945	-1.09	-0.33	0.659	0.056	0.483	-0.25	-0.45	0.398	0.643	-0.01	0	
IA3	3.18	-0.22	0.45	-0.6	0.399	-0.269	0.512	-0.32	-1.21	-0.64	-0.88	0.43	1.764	-0.71	0.057	0.676	0.857	0.909	0.653	-1.03	-0.13	0.545	0.134	-0.2	0

Table-4 depicts the much discrepancies between the items IA4, IA5, AI1, AI2, AI4, PV1, PV2, IS1, IS3, ID1, ID4 and these are the items which effect the model and data fitness. So these items has been excluded from the instrument and final tests for best fitness of the statistical data and model fitness.

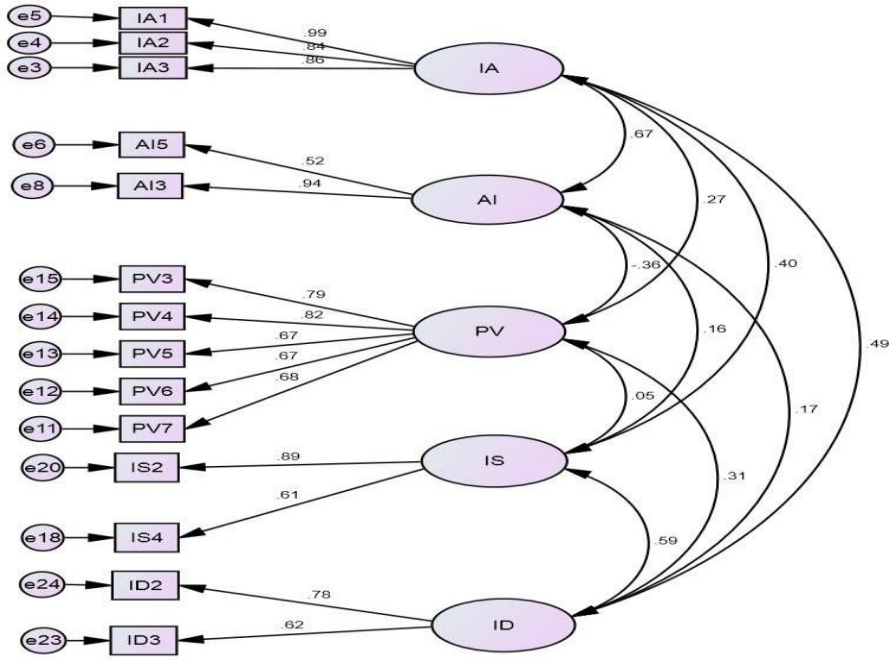


Figure 3: Confirmatory factor analysis for model fit (After Excluding the Highly Discrepancies Items)

Table-5 Factor loading of study variables After Excluding the Highly DiscrepanciesItems)

Symbols	Items	Standard Estimate/Factor Loadings (≥0.5)	Decision
Information asymmetry (IA)			
IA1	Information asymmetry does not exist in stock markets.	0.99	Included
IA2	Information asymmetry is just heard of but is not supported by any evidence.	0.84	Included
IA3	Information asymmetry indeed exists in stock market but does not have any impact on investment decision.	0.86	Included
Accounting information (AI)			
AI1	Cash Flow Statement	0.94	Included
AI2	Accounting Policies	0.52	Included
Personal values (PV)			
PV1	I have a lot of intellectual curiosity.	0.79	Included
PV2	I generally try to be thoughtful and considerate.	0.82	Included
PV3	I never seem to be able to get organized.	0.67	Included
PV4	I am not willing to take risk when choosing a stock or	0.68	Included
	investment.		
PV5	I often feel tense and jittery.	0.72	Included
Investment satisfaction (IS)			
IS1	How satisfied are you with overall stock market?	0.89	Included
IS2	How satisfied are you with the yield of listed companies?	0.61	Included
Investment decision (ID)			
ID1	Your investment has a lower risk compared to the market in general.	0.78	Included
ID2	Your investment repays the principal at maturity.	0.62	Included

Table-5 depicts the results of loading factor of fourteen items through confirmation factoranalysis which are included for final instrument, and this is the initial step of the convergent validity and because of the standardize estimation of these factors are more than 0.5, thus these results are highly significant for the convergent validity of the instrument (Paswan, 2009).

Table-6: Model fitness index After Excluding the Highly Discrepancies Items) (N=100)

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 6 depicts the results of confirmation factor analysis for the best fit of the model and statistical data. According to the chi-square/df value which is 1.375<3, it shows model is best fitted. And the p-value is also less than significant level i.e. 0.023<0.05 means model is highly significant and correct. The value of root-mean-square error of approximation (RMSEA) is 0.08, which shows

model is best fitted and the value of comparative fit index (CFI) is more than standard value of CFI i.e. 0.939>0.9 and it also shows 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 greater than 0.05 and shows model is fit and correct. TLI value is also greater than standard value i.e. 0.916>0.9. These tests shows model is significant and instrument for survey is valid forother test.

Table-7: Average Variance Extracted (AVE)

Item	Items	Factor Loadings (λ)	Reliability (λ^2)
	Information Asymmetry		
IA1	Information asymmetry does not exist in stock markets.	0.99	0.9801
IA2	Information asymmetry is just heard of but is not supported by any evidence.	0.84	0.7056
IA3	Information asymmetry indeed exists in stock market but does not have any impact on investment decision.	0.86	0.7396
	AVE of Information Asymmetry		***=0.81***
	Accounting Information		
AI1	Cash Flow Statement	0.94	0.8836
AI2	Accounting Policies	0.52	0.2704
	AVE of Accounting Information		***=0.58***
	Personal Values		
PV1	I have a lot of intellectual curiosity.	0.79	0.6241
PV2	I generally try to be thoughtful and considerate.	0.82	0.6724
PV3	I never seem to be able to get organized.	0.67	0.4489
PV4	I am not willing to take risk when choosing a stock or investment.	0.68	0.4624
PV5	I often feel tense and jittery.	0.72	0.5184
	AVE of Personal Values		***=0.55***
	Investment satisfaction		
IS1	How satisfied are you with overall stock market?	0.89	0.7921
IS2	How satisfied are you with the yield of listed companies?	0.61	0.3721
	AVE of Investment Satisfaction		***=0.58***
	Investment Decision		
ID1	Your investment has a lower risk compared to the market in general.	0.78	0.6084
ID2	Your investment repays the principal at maturity.	0.62	0.3844
	AVE of Investment Decision		***=0.50***

Because the average variance of all the variables are greater than 0.5, so validity of the instrument has been constructed. Average variance extracted of the information asymmetry, accounting information, personal values, investment satisfaction and investment decision are 0.81, 0.58, 0.55, 0.58 and 0.50 respectively which shows that the validity of the items of each variable in the instrument has been constructed (Paswan, 2009).

Table-8 Construct reliability

items	Items detail	Factor Loadings (λ)	Reliability (λ^2)	δ=1- Item Reliability
	Information Asymmetry			
IA1	Information asymmetry does not exist in stock markets.	0.99	0.9801	0.0199
IA2	Information asymmetry is just heard of but is	0.84	0.7056	0.2944
	not supported by any evidence.			
IA3	Information asymmetry indeed exists in stock market but does not have any impact on investment decision.	0.86	0.7396	0.2604
	Total	$\sum\lambda$=2.69	$\sum\lambda^2$=2.425	$\sum\delta_1$=0.575
	CR of Information Asymmetry		***=0.926422***	
	Accounting Information			
AI1	Cash Flow Statement	0.94	0.8836	0.1164
AI2	Accounting Policies	0.52	0.2704	0.7296
	Total	$\sum\lambda$=1.46	$\sum\lambda^2$=1.154	$\sum\delta_1$=0.846
	CR of Accounting Information		***=0.715879***	
	Personal Values			
PV1	I have a lot of intellectual curiosity.	0.79	0.6241	0.3759
PV2	I generally try to be thoughtful and considerate.	0.82	0.6724	0.3276
PV3	I never seem to be able to get organized.	0.67	0.4489	0.5511
PV4	I am not willing to take risk when choosing a stock or investment.	0.68	0.4624	0.5376
PV5	I often feel tense and jittery.	0.72	0.5184	0.4816
	Total	$\sum\lambda$=3.68	$\sum\lambda^2$=2.726	$\sum\delta_1$=2.274
	CR of Personal Values		***=0.856236***	
	Investment Satisfaction			
IS1	How satisfied are you with overall stock market?	0.89	0.7921	0.2079
IS2	How satisfied are you with the yield of listed companies?	0.61	0.3721	0.6279
	Total	$\sum\lambda$=1.5	$\sum\lambda^2$=1.164	$\sum\delta_1$=0.836
	CR of Investment Satisfaction		***=0.729146***	
	Investment Decision			
ID1	Your investment has a lower risk compared to the market in general.	0.78	0.6084	0.3916
ID2	Your investment repays the principal at maturity.	0.62	0.3844	0.6156
	Total	$\sum\lambda$=1.4	$\sum\lambda^2$=0.993	$\sum\delta_1$=1.007
	CR of Investment Decision		***=0.792279***	

Table-8 depicts that the construct validity of the variables (i.e. information asymmetry, accounting information, personal values, investment satisfaction and investment decision) in the instrument is reliable because of the value of construct reliability of information asymmetry, accounting information, personal values, investment satisfaction and investment decision are 0.926422,

0.715879, 0.856236, 0.729146 and 0.792279 respectively. Construct reliability of eachvariable is greater than 0.7 which means instrument is valid (Paswan, 2009).

4.1 Major Finding and Discussion

In the working of confirmatory factor analysis, convergent validity was conducted through the factor loading and the items in the instrument which has value less than or equal to 0.5 are excluded from the instrument for statistically best fitness of the model and variable data needed (Hair et al., 1995). For satisfactory results of confirmatory factor analysis, we exclude those items through the standardize residual covariance table and table-4 show that the items IA4, IA5,AI1, AI2, AI4, PV1, PV2, IS1, IS3, ID1, ID4 has high discrepancies and affect the model fitness.We measured the values of Chi-Square (CMIN), p-value, GFI, AGFI, TLI, RMSEA, and CFI are1.375, 0.023, 0.846, 0.758, 0.916, 0.08 and 0.939 respectively for the best fitness of our model and data statistically. And these values are satisfactory, no further model modification is needed (Hair et al., 1995; Roh et al., 2005; Keramati et al., 2010).

After the best fitness of the model, we constructed validity of the instrument and it is measured by the average variance extracted and value of average variance extracted of each variable items has been calculated separately and all the variables has satisfactory results because their AVE value is equal to or greater than 0.5, which means validity of the instrument has been constructed(Paswan, 2009). To measure the construct validity of the instrument, we calculated construct reliability and in the table-8, the value of construct reliability (CR) of each variable is greaterthan 0.7, which shows that the construct validity of the instrument is reliable (Paswan, 2009).

5 Conclusion

We have constructed a model for measuring the validity of the instrument of information asymmetry, accounting information, personal values, investment satisfaction and investor decision through confirmatory factor analysis by using AMOS version 20 and find out which items of the variable in the instrument has high discrepancies and excluded those items from the instrument for best fitness of the model and construct the validity through average variance extracted by using standardized value 0.5 (Paswan, 2009). Construct reliability of the instrument is find out to measure the construct validity of the instrument of information asymmetry, accounting information, personal values, investment satisfaction and investment decision and thevalue of each variable in the model has greater than 0.7 (Paswan, 2009). Thus the instrument of the model is valid for further investigation and tests for finding the direct impact of information asymmetry, accounting information, personal values on investment satisfaction and investment decision and also can be used to measure the mediation or indirect effects of informationasymmetry, accounting information, personal values on the investment satisfaction with the mediation of investment decision through the structural equation modeling.

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Research Questionnaire

Section I

Demographic:

1. Gender Male ☐ Female ☐

2. Age 18-31 ☐ 32-44 ☐ 45-57 ☐ 58-70 ☐

3. Educational Qualification

Matric ☐ Intermediate ☐

Bachelors ☐ Masters ☐

4. Experience (years): 1-5 ☐ 6-10 ☐ 11-15 ☐ more than 16 ☐

Section II

Please write the appropriate number (Tick) against each statement, according to the following scale:

(Completely Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, completely Agree = 5)

Information asymmetry	1	2	3	4	5

1. Information asymmetry does not exist in stock markets.					
2. Information asymmetry is just heard of but is not supported by any evidence.					
3. Information asymmetry indeed exists in stock market but does not have any impact on investment decision.					
4. Information asymmetry frequently happens in stock market and has little impact your investment decision.					
5. Information asymmetry has great impact on your investment decision					
Accounting Information	**1**	**2**	**3**	**4**	**5**
6. Balance Sheet					
7. Income Statement					
8. Cash Flow Statement					
9. Share Holders Information					
10. Accounting Policies					
Personal Values	**1**	**2**	**3**	**4**	**5**
Personal values influence investment decisions.					
Personal values interact with financial opportunities when individuals make investment decisions.					
I have a lot of intellectual curiosity.					
I generally try to be thoughtful and considerate.					
I never seem to be able to get organized.					
I am not willing to take risk when choosing a stock or investment.					
I often feel tense and jittery.					
Investment Satisfaction	**1**	**2**	**3**	**4**	**5**
How satisfied are you with your investment in stock market?					
How satisfied are you with overall stock market?					
How satisfied are you with the information disclosure about listed Companies?					
How satisfied are you with the yield of listed companies?					
Investment decision					
Your investment reports better results than expected.					
Your investment has a lower risk compared to the market in general.					
Your investment repays the principal at maturity.					
Your investment in stocks has a high degree of safety.					