THE EXISTENCE OF BEHAVIOURAL FACTORS AMONG INDIVIDUAL INVESTORS FOR INVESTMENT DECISION IN STOCK MARKET: EVIDENCE FROM INDIAN STOCK MARKET

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ABSTRACT

Generally classical economics & financial theories consider people to be rational. CAPM, EHM etc. theories are also based on this assumption. But so many times , this assumption has been challenged. After looking anomalies in financial market, classical theories are put under the challenge for assumption of rationality. Behaviour finance integrates economic principles with psychological influences of human behaviour in the investment decision. The main purpose of study is to explore which behavioural factors influencing individual investors' decision at Indian stock market. This study also tries to find out the correlation between these behaviour factors and investment performance. Study also finds out correlation between behaviour factors and investment decision & investment strategies. This research covers certain factors like representativeness, overconfidence, anchoring, gambler's fallacy, hot hand fallacy, regret, cognitive bias, herding, etc. Primary data for analysis was gathered by preparing questionnaire & distributing among investors. Result obtained by covering sample of 60 respondents.

Keywords: Behaviour Finance, Investment Decision, Indian Stock Market (BSE and NSE).

I. INTRODUCTION

Finance is a study of how limited resources are allocated & how they are utilised efficiently. There are 2 key assumptions which are found in traditional theory of finance i.e people are rational, they are interpreted available information correctly & uniformly. Efficient market implies that EMH (efficient Market Hypothesis) states all relevant information are reflected in the prices completely. EMH which supports the opinion that actual prices reflect fundamental values, affirms that prices are right as they are determined by agents, who are sensible preference and understand Bayes' law, which relates to conditional probabilities. According to EMH, although not all investors are rational, markets are assumed to be rational.

After finding anomalies , researchers in psychology were discover that people often behave in irrational ways while taking decision. Psychologists have found that economic decisions are more often taken in irrational manner. After finding

some anomalies , traditional theories CAPM, EMH and other could not explain. Unfortunately, so many researches which could not confirm theories from investment data. So, Behaviour finance field has emerged in the response to problems faced by traditional theories. Schinder(2007) lists 3 main cornerstones for research in behaviour finance i.e psychology, sociology & finance. It can be difficult for rational traders to undo the dislocations caused by less rational traders. (Barberis & Thaler, 2003). Behaviour finance study has introduced the investment in the response to problems faced by traditional theories .(Kishore, 2004) argues that investment choices are not always made on the basis of rationality, and it is possible to understand market by relaxing 2 doctrines of traditional theories 1) agent fails to update their beliefs correctly 2) there is systematic deviation from normative process in making investments choices.

Daniel Kahneman & Amos Tversky, recognised as father of Behavioural Finance. In the 1960s Kahneman and Tversky were focused on different lines of research & came together in the 1970s to create what were to be the benchmarks in the field.

Tversky & Kahneman, by developing the prospect Theory, implied how risk & uncertainty are managed. The theory explains irregularity in human behaviour when assessing risk under uncertainty. It says that investors are not always risk-averse, they are generally risk averse in gain but risk takers in losses.

Tversky & Kahneman identified the influence some human heuristics on decision making process. Individual generally use heuristics or say short cut that try to reduce complexity of problem.

II. REVIEW OF LITERATURE

Following constructs are used in this study.

Construct	Meaning	Researcher
Overconfidence bias	It can be summarized as unwarranted faith in one's intuitive reasoning, judgements, & cognitive abilities.	Pompian(2006)
	It pertains to how people understand their own abilities & limits of their knowledge	Shefrin(2000)
Representativeness	Assessment of degree of correspondence between a sample & population, an instance & category, an act & an actor or, more generally between outcome & a model	Gilovich et al (1983)
	The tendency of decisions of investors to make based on experiences is known as	Shefrin (2000)

	stereotype kind behavior	
Anchoring bias	It can be explained by tendency of investors to "anchor" their thoughts to logically irrelevant reference point while making decision	Pompian(2006) kahneman and Tversky (1974)
Herding bias	Investors apply to herding behaviour because they are concerned 0f what others think of their investment decision The behaviour of an investor imitating the observed actions of others or the movements of market instead of following her own beliefs & information.	(scharfstein stein, 1990) Hirsh leifer & Teoh (2003)
Cognitive bias	Cognitive bias is the mental conflict that people experience when they are presented with evidence that their beliefs or assumptions are wrong. There are 2 identified aspects of cognitive bias 1) selective perception : where investors only register information, which affirms their beliefs thus creating an incomplete view of real picture 2) selective decision making : investors are likely to reinforce commitments previously made even though it might be visible that it is the wrong thing to do.	(Montier, 2002) Pompian (2006)
Disposition effect	An investor's tendency to sell stocks that gained value to hold on to stocks that lost value.	shefrin & Statman (1985)
Gambler's fallacy	Incorrect belief in the negative auto correlated of non-auto correlated random sequences	Laplace (1796)
Hot hand fallacy	As people exhibit gambler's fallacy , which is a tendancy to predict the opposite of last event (negatively) & they also express beliefs that certain events will be repeated (positively) that is known as hot hand fallacy. Incorrect belief that certain random sequences may in fact be non-random (human related) & therefore positively auto correlated.	Gilovich et. al (1985)

Regret bias	People who are regret averse tend to avoid distress arising out of two types of mistakes 1) error in commission – which occur as a result of misguided action where investors reflects on this decision. 2) error of omission which occur as a result of missing an opportunity which existed	Pompian (2006)

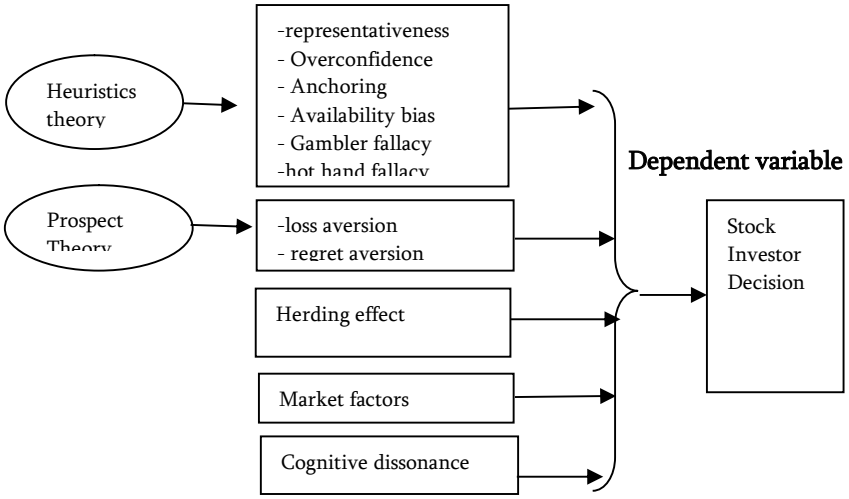
III. METHODOLOGY

A) Research Objectives:

1. To identifying possible factors influencing the investment decision of individual investors at the Indian stock Market.
2. To study impact of behaviour factors on the investment decision making at stock market.

B) Conceptual Model

Independent variables (behavioural biases)



C) Research hypothesis:

1. *What are the behavioral variables influencing individual investors' decisions at the Indian Stock Exchange and which factors do they belong to?*
2. *At which impact levels do the behavioral factors influence the individual investors' decisions at the Indian Stock Exchange?*

D) Research Design:

Study used descriptive research design. The major purpose of descriptive research design is to describe phenomena at given period of time at present. Mungenda & Mugenda (1999) described Descriptive research as a process of collecting data in order to answer questions concerning the status of subjects in study. So this design is appropriated in study because it ensured depth analysis & description of various phenomena.

When cross-sectional design is employed, data from more than one case at one single time is collected & analysed. The patent of association is then examined by using the collected quantitative or quantifiable data (Saunders et al. , 2009) . This is relevant to this study.

E) Data collection tools & procedure

Primary data are collected by preparing questionnaire consists of **36 questions out of which question 7-**12 questions were used to measure individual investment decision 13-36 questions were used to measure behavioural biases for which 5 points Likert scale had used .

Study includes only primary data which were gathered using questionnaire which was distributed both offline & online. Questionnaires were circulated to brokerage house's dealers as well as its clients. Some questionnaires were circulated to the persons directly who were dealing in stock market.

For the study, sample size is taken 60.

Behaviour factors and question numbers

Behavioural factors		**Questions**	**Variable**
Heuristic factor	Representative	Question no. 13 -14	X 13 -X1 4
	Over-confidence	Question no. 15-17	X15-X17
	Anchoring	Question no. 18-19	X18- X19
	Availability bias	Question no. 22-23	X 22-X23
	Gambler's fallacy	Question no. 34	X34
	Hot hand fallacy	Question no. 35-36	X35-X36
Cognitive dissonance	Cognitive bias	Question no. 20-21	X20-X21
Prospect theory	Loss aversion	Question no. 24-25	X 24-X25
	Regret aversion	Question no. 26-27	X26- X27
Market	• Price changes • Market information	Question no. 7-12	X7-X12

	• Past trends of stocks • Fundamentals of underlying stocks • Customer preference • Over-reaction to price changes		
Herding		Question no. 28-31	X28-X31

IV. DATA ANALYSIS & HYPOTHESIS TESTING

A) Factor Analysis

One of the most widely used techniques for data reduction is factor analysis. According to Luck and Rubin (2003), factor analysis seeks to identify a set of dimensions that is not readily observed in a large set of variables. The analysis summarizes a majority of the information in the data set in terms of relatively new few categories, known as *factors*. Two basic reasons for using factor analysis are (i) to simplify a set of data by reducing a large number of measures for a set of respondents to a smaller manageable number of factors and (ii) to identify the underlying structure of the data in which a large number of variables may really be measuring a small number of basic characteristics of the sample.

For this study, factor analysis is used to reduce the number of variables that are used to measure the influence level of respondents. Respondents were asked to rate 30 statements on their influence level ranging from level 1 (strongly agree) to level 5 (strongly disagree)

In this study, question from 7 to 36 of questionnaires, which are coded from X7 to X36 , are designed to explore the level of behavioural variables impact on the individual investment decision at the Indian stock Exchange. The exploratory factor analysis (EFA) is used for the behavioral variables (X7 to X36) to identify the factors which these variables belong to.

The requirements of factor analysis are satisfied to reduce the variables. After some rounds of removing the unsuitable variables, the analysis results that the remaining variables are grouped into six factors.

B) Bartlett's test of Sphericity

Bartlett's test of sphericity is a test statistic used to examine the hypothesis that the variables are uncorrelated in the population. In other words, the population correlation matrix is an identity matrix; each variable correlates perfectly with

itself but has no correlation with the other variables under study. Refer **Annexure(A)** :**Table : 1 KMO and Bartlett's Test**

As shown in above **Table : 1 KMO and Bartlett's Test**, the significance value of Bartlett's Test is 0.000, this leads to rejection of the idea that the correlation matrix is identity matrix.

The Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy is an index used to examine the appropriateness of factor analysis. It compares the magnitudes of observed correlation coefficients to magnitude of partial correlation coefficients. The KMO value varies from 0 to 1. High value (0.5 and 1.0) indicates factor analysis is appropriate. Small values of KMO Statistic indicate that correlations between pair of variables cannot be explained by other variables, and hence, factor analysis is not suitable. As shown Table:2, The KMO value found for this study is 0.608, which is nearer to 1. Hence, this value is acceptable and justifies the appropriateness of factor analysis.

C) Variance explained

It is required that the scale constructed and the components extracted should be able to explain maximum variance in the data. For this, an analysis of the Eigen values is required. Eigen value represents the total variance explained by each factor. Kindly refer 'Annexure(A) :Table:2 **Total Variance Explained'.** It shows the Eigen values of all the variables that can be extracted. The table also shows the cumulative variance. However, it is required that the maximum amount of variance should be explained in minimum number of components – for this reason extraction of the components is required. Ideally only those factors are extracted for which the Eigen values are greater than one, but for the present study, factors having Eigen value greater than 1.10 are considered. Thus, the factors extracted in the study are six in number and together contribute 87.02% of total variance. This is a fair percentage of variance to be explained and assumes of the appropriateness of the factor analysis.

D) Rotation Matrix

In such a complex matrix, it is difficult to interpret the factors. Therefore, through rotation, the factor matrix is transformed into a simpler one that is easier to interpret.

There are various methods for rotation.

The method of rotation used for this study is VARIMAX, which is the most commonly used rotation method. The variance explained by each component

before and after the rotation method and it is shown in Annexure(A) : **Table 3 : Rotated Component Matrix**

By this method, it was found that some variables are not clubbed under any of the factor and they are considered as independent variables. Remaining variables have the factor loading more than 0.5; therefore they are considered for loading on extracted six factors.

E) Measurement reliability test using Cronbach's alpha

In this part, Cronbach's Alpha is used to test the reliability of items included in the factors,
which are identified in the factor analysis. This test is done to make sure that the measurements are reliable for further uses. The results of Cronbach's alpha test are shown
in the ***Table 4.*** Calculation of Cronbach's alpha and its associate statistics are shown in ANNEXURE(A).

Table 4 presents that Cronbach's Alpha indexes of all factors are greater 0.6, and the corrected item-total correlation of all items are more than 0.30. Besides, Cronbach's alpha of each factor if its any item is deleted is less than the factor's Cronbach's Alpha, as well as the significant of F test for each factor, a kind of test to make sure the suitability of using Cronbach's Alpha technique for the data, is less than 0.05. These indexes show that items included in the factors: Herding, Prospect, Market, Overconfidence, Anchoring, loss aversion and regret bias. Kindly also refer **Annexure (B)** for statistical calculation of reliability test of Cronbach's Alpha for all loaded factors with their significant table.

F) Impact of variables on investment decision making

The impact levels of behavioural variables on the investment decisions are identified by calculating the values of sample mean of each variable. In this part, only variables, which meet the requirements of above factor analysis and Cronbach's alpha test, are chosen to demonstrate their scores. Because 5-point scales are used to measure the impact levels of these variables, the mean values of these variables can decide their impact levels on the investment decision making as the following rules:

- Mean values are less than 1 shows that the variables have very high impacts
- Mean values are from 1 to 2 shows that the variables have high impacts
- Mean values are from 2 to 3 shows that the variables have moderate impacts
- Mean values are from 3 to 4 shows that the variables have low impacts
- Mean values are more 4 shows that the variables have very low impacts

Factor		Variable	Mean	Std. deviation
Prospect	Loss aversion	X24: you are taking more risk after gaining from previous holding	2.20	0.798
	Loss aversion	X25: you are trying to avoid risk after losing from previous holding	2.30	0.830
	Regret	X26: you tend to hold on to securities losing value waiting for better time.	1.88	0.640
	Regret	X27: you feel more sorrow because of holding lose making stock too long than by selling gaining stock too soon.	1.93	0.607
Heuristic	Overconfidence	X15: you accept that your skill and knowledge for stock market is good & it helps to outperform in the market.	2.67	0.933
		X16: you believe that you can predict future share price better than other.	2.55	0.910
		X17: you can go ahead with your valuation of share whether it is different from well-known experts on some financial news channel or papers.	2.65	0.880
	Anchoring	X18: you mostly rely on company recent financial data when making investment decision	2.60	0.924
		X19: you value company's recent information over historical one	2.67	0.877
Market		X8: you have immediate reaction to price change of stocks	2.63	0.863

		X9: you give importance to market information before making investment	2.75	0.932
		X10: you consider past trend of stock for your investment.	2.73	0.936
Herding		X29: Your investment decision is influenced by other investors' decision for deciding stock volume.	3.18	0.930
		X31: you usually react quickly to the change of other investors' decision and follow their reactions to the stock market.	2.77	0.909

IV. FINDINGS

In the dimension of Prospect, all its 2 kinds of behavior: loss aversion, regret aversion and metal accounting have their representative variables influencing the decision making of investors' stock investment. Individual investors have loss aversion (x24, X25) at moderate degree and regret aversion (X26, X27) high degree, with the means of each variable of 2.20, 2.30,1.88, 1.93 respectively.

In the dimension of heuristic, only its 2 kinds of behavior: overconfidence, anchoring have their representative variables influencing the decision making of investors' stock investment. Individual investors have overconfidence (x15, X16, X17) and anchoring (X18, X19) moderate degree.

In the dimension of market, Changes of stock price, market information and past trends of stocks are the variables of market that influence the individuals' investment decisions. Market factor highly impacts on the investment decision making of individual investors due to the means of changes of stock price (X8), market information (X9) and past trends of stocks (X10) are respectively 2.65, 2.75, 2.73 respectively. This means the individuals tend to consider the information of stock market: general information, past trends of stock price and current stock price changes carefully before making their investment.

As in the, individual investors follow highly the other investors' trading decisions. They more tend to consider the others' behaviours of choosing types of stock as well as others' decisions of buying and selling stocks to make their own decisions.

V. CONCLUSION

The study is finished by giving all the answers for the research objectives. This means the research objectives are done and the hypotheses are tested. The following part gives the conclusions for the study by presenting the main points to answer the research questions:

What are the behavioral variables influencing individual investors' decisions at the Indian stock Exchange and which factors do they belong to?

There are five behavioral factors that impact the investment decisions of individual investors at the Indian stock Exchange: Herding, Market, Prospect, Overconfidence, and Anchoring. The herding factor includes two behavioural variables: following the decisions of the other investors (buying and selling; choice of trading stocks). The market factor consists of three variables: price changes, market information, and past trends of stocks. The prospect factor possesses two variables that have significant impacts on the investment decision making: loss aversion, regret aversion. whereas, the heuristic variables are grouped into two factors: overconfidence and anchoring as mentioned above.

At which impact levels do the behavioural factors influence the individual investors' decisions at the Indian Stock Exchange?

Most of the mentioned behavioral variables of four factors: Heuristic , Prospect, and Herding have moderate impacts on individual investors' decision making at Indian stock Exchange. Regret factor has high impact on investment decision.

VII) Further research

This study is one of the volunteers using behavioral finance in Indian stock Market with the measurements of 5-point Likert. It is necessary to have further researches to confirm the findings of this research with the larger sample size and the more diversity of respondents. The further researches are also suggested to apply behavioral finance to explore the behaviours influencing the decisions of institutional investors at the Stock Exchanges of Indian capital market. These researches can help to test the suitability of applying behavioural finance for all kinds of security markets with all components of investors.

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Annexure (A)

Table : 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.608
Bartlett's Test of Sphericity	Approx. Chi-Square	512.418
	Df	91
	Sig.	.000

Table : 2 :Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.248	23.200	23.200	3.248	23.200	23.200	2.630	18.786	18.786
2	2.738	19.559	42.759	2.738	19.559	42.759	2.628	18.774	37.560
3	2.067	14.768	57.527	2.067	14.768	57.527	1.972	14.084	51.644
4	1.755	12.537	70.064	1.755	12.537	70.064	1.736	12.400	64.044
5	1.238	8.842	78.905	1.238	8.842	78.905	1.647	11.765	75.809
6	1.136	8.115	87.020	1.136	8.115	87.020	1.570	11.211	87.020

Table 3 : Rotated Component Matrix

	Factor loading					
	1	2	3	4	5	6
x8	.925					
x9	.902					
x10	.944					
x15		.907				

x16		.925				
x17		.922				
x18			.964			
x19			.955			
x24				.908		
x25				.899		
x26						.831
x27						.855
x29					.880	
x31					.877	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						

Table : 4 labelling of factors and Cronbach's Alpha Test for loaded Factors

Factors	Variables	Cronbach's alpha	Correlated item – total correlation	Cronbach's alpha if item detected	F(Sig.)
Herding	X29	0.745	0.593	-	15.144(0.000)
	X31		0.593	-	
Regret (prospect theory)	X26	0.669	0.503	-	14.387(0.000)
	X27		0.503	-	
Loss aversion (prospect theory)	X24	0.824	0.701	-	15.144(0.000)
	X25		0.701	-	
Overconfidence	X15	0.917	0.825	0.88	12.352(0.03)
	X16		0.817	0.89	
	X17		0.854	0.88	
Anchoring	X18	0.958	0.921	-	14.034(0.009)
	X19			-	
Market	X8	0.923	0.819	0.910	13.984(0.034)
	X9		0.831	0.900	
	X10		0.886	0.854	

Annexure (B)

Reliability test of loaded behavioural biases factors

A) Herding factors :

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.745	.745	2

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.975	2.767	3.183	.417	1.151	.087	2
Item Variances	.845	.826	.864	.038	1.046	.001	2
Inter-Item Covariances	.501	.501	.501	.000	1.000	.000	2
Inter-Item Correlations	.593	.593	.593	.000	1.000	.000	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
x29	2.77	.826	.593	.352	.[a]
x31	3.18	.864	.593	.352	.[a]

a. The value is negative due to a negative average covariance among items.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig
Between People		79.425	59	1.346		

Within People	Between Items	5.208	1	5.208	15.144	.000
	Residual	20.292	59	.344		
	Total	25.500	60	.425		
Total		104.925	119	.882		
Grand Mean = 2.98						

B) **Reliability test for Regret Aversion (prospect theory)**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.669	0.669	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
x26	1.93	.368	.503	.253	.[a]
x27	1.88	.410	.503	.253	.[a]

a. The value is negative due to a negative average covariance among items.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig
Between People		64.492	59	4.585		
Within People	Between Items	.075	1	2.075	14.387	.000
	Residual	11.425	59	.194		
	Total	11.500	60	.192		
Total		75.992	119	.386		
Grand Mean = 2.31						

c) Reliability Test of Loss Aversion (prospect theory factor) :

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.824	.824	2

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
x24	2.30	.688	.701	.492	.[a]
x25	2.20	.637	.701	.492	.[a]
a. The value is negative due to a negative average covariance among items.					

		Sum of Squares	df	Mean Square	F	Sig
Between People		79.425	59	1.346		
Within People	Between Items	5.208	1	5.208	15.144	.000
	Residual	20.292	59	.344		
	Total	25.500	60	.425		
Total		104.925	119	.882		
Grand Mean = 2.98						

D) Reliability test on Overconfidence :

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.917	.917	3

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
x15	5.20	2.875	.825	.687	.886

x16	5.32	2.966	.817	.672	.892
x17	5.22	2.986	.854	.729	.863

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig
Between People		124.978	59	2.118		
Within People	Between Items	13.478	2	4.239	12.352	.030
	Residual	20.856	118	1.177		
	Total	34.333	120	.178		
Total		158.311	179	.817		
Grand Mean = 2.62						

E) Reliability Test for Anchoring Bias :

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.958	.959	2

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
x18	2.67	.768	.921	.847	.[a]
x19	2.60	.854	.921	.847	.[a]
a. The value is negative due to a negative average covariance among items.					

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig
Between People		91.867	59	1.557		

Within People	Between Items	.133	1	4.133	14.034	.009
	Residual	3.867	59	1.066		
	Total	4.000	60	.067		
Total		95.867	119	.806		
Grand Mean = 2.63						

F) Reliability test for market factor :

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.923	.924	3

Inter-Item Correlation Matrix

	x8	x9	x10
x8	1.000	.748	.821
x9	.748	1.000	.835
x10	.821	.835	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
x8	5.48	3.203	.819	.687	.910
x9	5.37	2.948	.831	.709	.900
x10	5.38	2.817	.886	.785	.854

ANOVA

		Sum of Squares	df	Mean Square	F	Sig
Between People		127.394	59	2.159		
Within People	Between Items	122.478	2	3.239	13.984	.034
	Residual	133.522	118	.165		
	Total	256.000	120	1.167		
Total		373.394	179	.823		
Grand Mean = 2.71						

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