Cognitive Dissonance Among Retail Investors Dealing in Equity Market

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Abstract

The study aimed to identify the factors affecting pre-buy/sell confusion and post-cognitive dissonance among investors in equity shares dealing and to identify dissonance reduction strategies adopted by investors to reduce their dissonance in equity shares dealing. 'Descriptive – Single Cross-Sectional' research design has been used in this study. Primary Data was collected using the Survey method (Structured Questionnaire) of respondents (Investors) of significant areas of Surat city. Generally, these data types are gathered from numerous sources such as books, past studies, and websites. 140 sample sizes were considered and extracted through the Non-Probability Sampling Method – Convenience and Snowball Sampling. Data was collected from investors participating in the equity market who are active investors and not traders.

In conclusion, three major confusion factors were identified: Product/Service Overload Confusion, Ambiguity and Overloaded/Fake Information Confusion. Moreover, four prominent factors for cognitive dissonance arise: dissonance, choice-based dissonance, dissonance reduction, and action-based dissonance. Further, the dissonance reduction strategies mostly prevailing among Surat investors are affirmative consonance, confirmatory consonance and negative word-ofmouth.

Keywords: Cognitive Dissonance, Retail Investors, Equity Market Investments.

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Introduction

Investors worldwide have their evaluation parameters to undergo investment decision-making through fundamental or technical that works on the net present value method of the future cash generation and charts and pattern analysis, respectively, in the context of old prices. However, the actual decision-making regarding investments is backed with the help of the cognitive and feeling factors. In line with this, behavioural finance has given a new model in the context of factors that may impede investment decision-making. Traditional finance has inspired speculation that the traders' rational behaviour is considered in all furnished records regarding the marketplace stocks. Behavioural finance opposes rationality and has suggested repeated mistakes within the assessment standards, which might also cause illogical behaviour.

The evolutions of behavioural finance methodology have a psychological viewpoint of decisions regarding investors and further their misrepresentation and hypothesis impact in different ways. These types of acts are generally loss aversion, mental accounting, overconfidence, herding and, of course, cognitive dissonance. However, investors have identified and experienced certain assumptions for the investment decision by choosing the right investment avenues from the market. In addition, the behaviour of investors is dynamic and supported by the theories of economics, psychology and, of course, cognition that hold up in elucidating the dissimilarities from the behaviour of investors relationally (Kumari & Sar, 2017).

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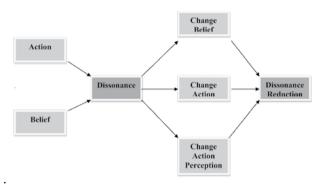
Further, many authors have added and made available the investigation into the structure of cognitive and various other emotional biases that misled the investment decision. In order to understand the behaviour of investors, psychological biases impact where individual decision-making becomes very important. The reason for this study was to assess the opposite elements that contribute to the cognitive dissonance bias. Sewell "Behavioral finance was to observe the effect of psychology on the behaviour of man or woman buyers and the following impact on capital markets." Behavioural finance is generally considered a sub-field of behavioural economics that recommends psychology-based theories to understand stock market variations, such as sudden rises or falls in the prices of stocks. The simple goal of behavioural finance is to understand and apprehend the cause of humans making positive economic choices.

In behavioural finance theories, the facts machine and the capabilities of marketplace intermediaries systematically instigate the funding choices of the retail buyers and marketplace consequences, too. It is visible that a few investors are not rational at the time of creating funding choices. Behavioural finance additionally explains numerous mental forces that affect the behaviour of individual investors and bosses' behaviour when creating exclusive funding choices. Moreover, the unexpectedly growing sector of behavioural finance takes help from psychology to understand people's behaviour, which affects a person's choice-making system, buyers in well-known bosses and specialists in particular.

Cognitive dissonance theory

Leon Festinger, the American social psychologist in 1957, emerged and invented the belief of cognitive dissonance so that one can supply a few perceptions of intellectual dissatisfaction. Festinger (1957) said that any man or woman might also encounter dissonance situations among their cognitive beliefs that emphasise the behavioural changes and careful exposure of uniquely acquired data or opinions in the form of information. However, the theory of cognitive dissonance extended the state of affairs whilst any man or woman has confronted inconsistencies in a number of the Cognitive essentials, which provides a solid reason to suggest the ache.

Figure 1.2 Cognitive Dissonance Theory Model



Literature Review

Many academicians have also studied different aspects of literature and its linkages to investment behaviour and cognitive dissonance. Moreover, the researcher has reviewed several articles, theses and books to develop a clear conceptual framework for the present study. Apart from the study's title, many more related articles and research papers are analyzed and reviewed to have a detailed knowledge of the concept and identify the research gap. The study has concentrated on the following areas as a part of the literature study: Investment Behavior in General, Cognitive Dissonance Bias and Dissonance Reduction Strategies. All these categories of past studies have been carefully studied and reviewed in detail as follows, and further research gap has been identified, which the present study tried to fill.

Investment Behaviour in General:

Lekovic (2020) worked on Cognitive Biases as an Integral Part of Behavioral Finance and concluded that sure biases along with overconfidence, affirmation bias, self-affirmation and hindsight bias frequently make people, unjustifiably, experience appropriate approximately them. Therefore, the biases mentioned earlier are the factors of selfdeception. By summarizing cognitive biases, they are comparable and intertwined. It is hard to decide the perfect boundary among the distinct cognitive biases. In other words, deciding which cognitive bias ends and which other one begins is far more challenging. The experiential proofs advised that dissonance bias was overcome inside the Indian traders (Fatima, 2019).

The dissonance diploma has improved the opportunities to get prompted through the manner of approach of confirmation and overconfidence biases to be considered since the traders' incapacities make them unwilling the investor from correcting the beliefs. They do not want to profess their mistakes, and some one-of-a-kind wait for the examined to be wrong in the manner of approach of others. However, behavioural finance is an entire manner to recognize the investor's psychology. The cognitive dissonance of mutual fund traders presents a few compelling facts concerning the strategic use of facts for mutual fund corporations (Goetzmann, 1995). Given an excessive degree of cognitive dissonance surrounding the selection of a mutual fund, it is miles probable that the important price of print marketing and marketing via way of means of the fund could be in confirming that their present-day traders made a sensible funding choice.

The result of this study confirmed that (1) The phenomenon of cognitive bias and mental bias conduct arise in almost all informants, (2) The Psychology bias may be divided via way of means of types, namely: predicted emotion bias conduct and instant emotion bias conduct, (3) experience, expertise of the capital markets and the control of true feelings decide the extent of mental balance and decrease bias conduct that might be elevating the return (Ady, 2018). Research demonstrates that the funding selection-making system is more human than analytical, attributable to behavioural biases (Virigineni, 2017). Recent research in prospect ideas and heuristic selection-making systems centred extra on investor conduct, inflicting marketplace anomalies when irrational conduct is most straightforward in safety markets and different markets, including property, bullion and commodities.

Cognitive Dissonance Bias

The idea that the Community Reinvestment Act is a prime purpose for the disaster resonates with many Believers in laissez-faire Faire; however, it is demonstrably false (Kessler, 2010). Further outcomes confirmed that 46% of the letter signers trust that the Community Reinvestment Act was considered one of 3 pinnacle reasons for the disaster compared to 12% of the "different" economists. The writer concluded that the Believers in laissez-faire showcase signs of cognitive dissonance. They discovered that apart from cognitive dissonance bias, customers experienced all other biases in a considerable pattern (Subash, 2012). However, the weighted average score calculated showed that, in Hindsight, Gamblers' Fallacy and regret aversion had been seen to be affecting the younger consumers simplest. Anchoring, Gamblers' Fallacy and Hindsight have been the three biases that have been visible to affect the more youthful investor lot within the maximum excellent manner, compared to skilled buyers, as cautioned via way of means of outcomes from Chi-squared tests. Tests had proven that every one of the buyers had been stricken by the diverse biases at the same time as making funding choices; however, it could not be hooked up that one investor organization had suffered more significant losses below the effect of those biases.

The evaluation of the look at famous respondents is most stimulated via consultant bias, observed via overconfidence, cognitive dissonance and disposition effect (Kanojia, 2018). However, there is no effect of herd conduct on the respondents.

It is beneficial to all buyers to consider those biases as threat issues related to their funding choice. It should put together a tick list of those elements earlier than taking any choice as knowledgeable buyers. There is an excellent effect of years of experience, economic literacy, cognitive dissonance, familiarity trait, gambler's fallacy and disposition trait on funding choices (Patni, 2019). They look at leaves scope for economic conduct modelling for stylishly doing away with the non-great variables. The look can contribute to evaluating different behavioural, mental and demographic dimensions with the broader marketplace approach.

The empirical outcomes from the look should offer sufficient proof that the cognitive dissonance is regarded to be running at the psyche of Indian buyers (Shahani, 2019). It changed into visible that now no longer the simplest modern go back, i.e. Return on Nifty; however, additionally beyond Return on Nifty, i.e. Return on the preceding day, Nifty impacted alternate in volatility of Nifty which changed into in keeping with the idea of dissonance. Similarly, it also discovered that beyond volatility adjustments, it no longer impacted modern volatility, which displays the applicability of cognitive dissonance in Indian markets. Investment choices regarding statistics structures are usually complex, and executives no longer continually use the information to behaviour a rational evaluation whilst the time involved in making a choice (Milan, 2015). The illustrative case used in this look enables us to reply to the proposed study question, supplying the cognitive dissonance (CD) discount mechanisms and employing the ones liable for statistics machine funding choices whilst confronted with arguments.

The act of fair outcome charges is analyzed in a standard equilibrium version in which retailers have alternatives now no longer simplest over intake but additionally (implicitly) over their beliefs (Drees & Eckwert, 2005). To alleviate cognitive dissonance, buyers endogenously pick out to disregard statistics that conflict an excessive amount with their ex-ante expectations. Depending on the new statistics released, systematic overvaluation and undervaluation of fairness charges arise, in addition to excessive and too little fairness charge volatility. The distortion within the asset pricing technique is carefully associated with the precision of the statistics. The principle, even though it asserts that people continually try and reduce the dissonance via exclusive approaches, it is only sometimes sure that they will continually get fulfilment (Sharma, 2014).

Everyone honestly attempts to achieve this; however, it is only sometimes smooth to lessen the dissonance to the favoured degree or to result in entire consonance. In the case of essential choices, there continually lies a sure quantity of dissonance regardless of all attempts made.

Dissonance Reduction Strategies:

Reduction of dissonance measured via way of means of evaluating the pre-score and post-score scores (Robert, 1967). They offered some tentative findings regarding dissonance and shopping for behaviour: (1) Consumers who purchase once they have sturdy inducement must revel in much less dissonance than those who purchase without inducement; (2) Consumers who gain good enough statistics likely have much less dissonance than people who purchase without enough statistics; (3) Product options with comparable attributes can cause more patron dissonance than numerous options; (4) Interaction results arise when diverse dissonance-arousing elements are blended in a single shopping situation Maheswaran and Chaiken (1991) have concluded that Subjects (consumers) analyze preference inconsistent information more systematically and more analytically. Also, they strive to generate more counterarguments to refuse or reject that information. Ditto and Lopez (1992) have concluded that people usually allocate more cognitive resources to prefer inconsistent rather than consistent information. Moreover, they majorly accept preference-consistent information as a part of post-purchase behaviour. Kunda and Sinclair (1999) concluded that when subjects face preference inconsistent information, their way of processing and recalling the information is biased in a way that they favour their choice.

Research Gap:

From the various past studies, the gap that has been applied and carried out within the present observes cognitive dissonance. Research gap is typically described because the distinction among studies paintings achieved in advance within the identical context and studies could be achieved on this thesis. Research gaps constantly offer and upload a few new understandings to the present. So, literature on this discipline of observation is more desirable and may be used in addition to problem-solving. Following are the research gaps diagnosed by the researcher from literature reviews.

The present study will add some conceptual understanding of cognitive dissonance theory application in the financial market. Only a limited number of empirical research studies have deeply examined investors' behaviour regarding cognitive dissonance factors in the equity market. Dissonance reduction strategies are not found in the study literature; thus, the present study will study reduction strategies to help all brokers, sub-brokers, equity market advisers and investors.

DATA & METHODOLOGY

The study aimed to identify the factors affecting prebuy/sell confusion and post-cognitive dissonance among investors in equity shares dealing and to identify dissonance reduction strategies adopted by investors to reduce their dissonance in equity shares dealing. **'Descriptive – Single**

Cross-Sectional' research design has been used in this study. Primary Data was collected using the Survey method (Structured Questionnaire) of respondents (Investors) of significant areas of Surat city. Generally, these data types are gathered from numerous sources such as books, past studies, and websites. Books taken for the study are investment behaviour, especially cognitive dissonance, financial management, research methodology and also books on SPSS like Analysis without Anguish are used to collect secondary data and information. A total of 140 sample sizes were considered and extracted through the Non-Probability Sampling Method – Convenience and Snowball Sampling and Data Collected from those investors who invest in the equity market and are active investors, not traders.

Reliability and Scales used in this research

The primary and essential Cronbach's Alpha was taken to measure scale reliability. The following result is the Reliability scale analysis with test statistics, i.e. Alpha value.

Table 1 Scale Reliability Statistics

Scale	Total No. of Statements	Cronbach's Alpha
Pre Buy/Sell Confusion	12	0.903
Post Buy/Sell Cognitive Dissonance	19	0.945
Dissonance Reduction Strategy	11	0.835

Data Analysis & Interpretations

Investors' Confusion Factors:

A total of 12 items were measured to carry out an exploratory factor analysis and further extracted prominent determinants that affect equity market investors while investing. In other words, the analysis is predominantly meeting point in striking the factors that create investor confusion before investing in the equity market.

Table 2 KMO and Bartlett's Test for Investor Confusion

Kaiser-Meyer-Olkin Measure	of Sampling Adequacy.	.895
	Approx. Chi-Square	789.114
Bartlett's Test of Sphericity	df	66
	Sig.	.000

Table 2 shows the output of Kaiser Meyer Olkin and Bartlett's Test. Bartlett's check of Sphericity assesses the null speculation that the unique correlation matrix is an identification matrix. For element evaluation, it has been determined that the wishes of a few courting among variables and if the ordinary matrix has been discovered to be identified, all correlation coefficients could be zero. A full-size of Bartlett's check of Sphericity shows the correlation matrix is not always identification matrixes, which means there are few courting among variables and desire to encompass within the element evaluation. In this study, the probability value is 0.00 and lower than 0.05; therefore, the value is statistically significant, and the given correlation matrix is not an identity matrix.

	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
5.869	48.906	48.906	3.644	30.364	30.364	
1.100	9.163	58.069	2.414	20.115	50.479	
.934	7.780	65.849	1.844	15.370	65.849	
.747	6.228	72.076				
.598	4.982	77.058				
.528	4.400	81.459				
.498	4.152	85.611				
.474	3.954	89.565				
.412	3.432	92.997				
.376	3.135	96.133				
.248	2.066	98.199				
.216	1.801	100.000				
	5.869 1.100 .934 .747 .598 .528 .498 .474 .412 .376 .248 .216	Variance 5.869 48.906 1.100 9.163 .934 7.780 .747 6.228 .598 4.982 .528 4.400 .498 4.152 .474 3.954 .412 3.432 .376 3.135 .248 2.066 .216 1.801	Variance % 5.869 48.906 48.906 1.100 9.163 58.069 .934 7.780 65.849 .747 6.228 72.076 .598 4.982 77.058 .528 4.400 81.459 .498 4.152 85.611 .474 3.954 89.565 .412 3.432 92.997 .376 3.135 96.133 .248 2.066 98.199 .216 1.801 100.000	Vanance % Vanance % 5.869 48.906 48.906 3.644 1.100 9.163 58.069 2.414 .934 7.780 65.849 1.844 .747 6.228 72.076	Variance % Variance 5.869 48.906 48.906 3.644 30.364 1.100 9.163 58.069 2.414 20.115 934 7.780 65.849 1.844 15.370 .747 6.228 72.076 .598 4.982 77.058 .528 4.400 81.459 .498 4.152 85.611 .412 3.432 92.997 .376 3.135 96.133 .248 2.066 98.199	

Table 3 Total Varian	ce Explained for	Investor Confusion
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Table 3 indicates the result of general variance defined using all extracted elements using Principal Component Analysis (PCA). The first step closer to component extraction is to decide the linear thing inside the information set by calculating the eigenvalue of the matrix. The software of standards is there to decide which component to stay and which to discard from the examiner. By default, SPSS uses Kaiser's criterion for maintaining elements with an eigenvalue more than 1 and additionally close by 1.

The above table indicates vast classes of columns composed of preliminary eigenvalues and circled sums of rectangular loadings.

The eigenvalue related to every component represents the variance defined using that precise component in the structured variable. By extraction, there are three unique elements/factors whose eigenvalue is close to 1 or more. So, our result suggests that the first factor elucidates 30.36% of the variation in a structured variable. The second component provides 20.12%, and the third explains 15.370%. Collectively, three elements explain 65.849% of the variance on structured variables. Investor confusion has been defined with the aid of using those three elements with almost 66%.

Table 4 Rotated Component Matrix for Investor Confusion

Items		omponer	at
		2	3
I always don't know which shares serves my needs best	.875		
There are so many financial products available in stock market that made me confused which one to buy	.749		
There are so many brokers and advisors available in the market that made me confused from where to buy	.656		
Sometimes I need to post-pone the buy/sell deal		.854	
I felt a kind of threat that my investment may be in heavy loss before buying the shares		.644	
It became very difficult for me to arrive at final decision		.635	
Company Information shown in advertisements/websites are so vague that it is hard to say which company performs well			.873
Risk return trade-off always makes me in dilemma that which company should buy/sell.			.643

The rotated component matrix consists of the loadings of every variable onto every issue. By default, SPSS displays all of the loadings, and in this study, its miles asked for loadings much less than 0.6 to be suppressed. This matrix is no longer considered suitable and vital for the interpretation. Further, Varimax rotation has been carried out to simplify the loadings, and the researcher may want to get a clear concept of the elements, so subsequently, the naming of the constructs extracted is discussed in detail below.

Factor 1: Product/Service Overloaded Confusion

This factor is defined by three significant items: people need clarification about share dealings, too many financial products, and too many brokers and financial advisors confuse investors regarding overall market dealings. Maximum loading is there for the first variable, i.e. investors need to know which shares serve their needs.

Thus, the naming of this particular factor is formulated as overload information and products/ services available in the market for the investors, and this overload has created confusion in the mind of investors before investing in the stock market. This factor has the highest level of explanation power on the dependent variable.

Factor 2: Ambiguity

Ambiguity is defined as inexactness or unascertained moments that may lead to postponement or delayed decision-making. Here, investors postpone their investments, the threat of heavy loss before investment and facing difficulties in making correct decisions are the items for this particular factor.

Factor 3: **Overloaded/Fake** Information Confusion

Investors' confusion is further defined by overloaded and fake information roaming in the market through various modes of communication, either company website or word of mouth. Also, they face riskreturn trade-offs due to such overloaded and fake information.

Cognitive Dissonance Factors:

Nineteen items were further considered for exploratory factor analysis, which creates dissonance among investors after investing in the equity market. In other words, this type of analysis is predominantly a meeting point in enticing the factors that can create cognitive dissonance among investors after investing in the equity market.

Kaiser-Meyer-Olkin Adeo	.922	
	Approx. Chi-Square	1719.738
Bartlett's Test of Sphericity	df	171
	Sig.	.000

Table 5 KMO and Bartlett's Test for Cognitive Dissonance

Source: SPSS Output

Table 5 shows the result of KMO (Kaiser-Meyer-Olkin) and Bartlett's Test. The KMO measures the sampling adequacy for carrying out the factor analysis. KMO can be calculated for individual and multiple variables. These values for individual variables are produced on the diagonal of the anti-image correlation matrix.

These make the anti-image correlation matrix a vital part of the output. The value should be a minimum of 0.5 and preferably higher than that. This study's KMO value is 0.861, much higher than the standard value. This is indeed good news for the researcher to carry out factor analysis that samples are adequate.

Bartlett's test of Sphericity tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis, we observe the need for some relationship between variables, and if the overall matrix were found to be identity, then all correlation coefficients would be zero. Therefore, we always want this test to be statistically significant. A significance of Bartlett's test of Sphericity indicates the correlation matrix is not an identity matrix, which means there is some relationship between variables we hope to include in the factor analysis. Bartlett's test significance value for our study is 0.000, less than 0.05. So, we interpret that the value is significant and the correlation matrix is not an identity matrix. So, the factor analysis is appropriate, and further analysis can be done.

Table 6 Total Variance Explained forCognitive Dissonance

	Init	ial Eigenv	alues	Rotation Sums of Squared Loadings		
	Total	% of Vari- ance	Cumula- tive %	Total	% of Variance	Cumu- lative %
1	9.614	50.601	50.601	3.562	18.745	18.745

2	1.433	7.542	58.143	3.283	17.281	36.026
3	1.056	5.558	63.701	3.133	16.489	52.515
4	.979	5.154	68.855	3.105	16.340	68.855
5	.780	4.104	72.958			
6	.747	3.931	76.889			
7	.564	2.969	79.858			
8	.534	2.810	82.668			
9	.506	2.661	85.328			
10	.430	2.261	87.589			
11	.407	2.140	89.729			
12	.358	1.884	91.612			
13	.293	1.542	93.154			
14	.266	1.401	94.556			
15	.246	1.297	95.853			
16	.233	1.226	97.079			
17	.216	1.137	98.215			
18	.190	1.001	99.217			
19	.149	.783	100.000			

Source: SPSS Output

Table 6 evaluates the total variance determined by all the factors with the help of PCA - Principal Component Analysis. The system has identified four significant determinants where the eigenvalue is higher than one and slightly less than one. The result shows that the first factor defines 18.75% of the variation in the dependent variable.

The second factor explains 17.28%, the third factor influences 16.49% of changes, and finally, 4th factor explains 16.34% of variance. All four factors explain 68.855% of the variance on dependent variables, i.e. almost 69%.

Table 7 Rotated Component Matrix forCognitive Dissonance

Itoms		Comp	onent	
Items	1	2	3	4
I feel that I had not gathered enough information before buying this share	.736			
I feel that I had not gathered in- formation from right source	.716			
I feel that Market/broker made me fool	.668			
I feel that I did not ask the ques- tions related to buy or sell to my advisor or broker	.630			
I feel that I got much impressed by the broker/advisor	.614			
I feel that I have not made good purchase of shares		.823		
I feel that I have not made cor- rect choice		.642		
I feel that I have not get fair re- turn on my money		.632		
I keep on justifying my mistakes committed while making in- vestment decision			.767	
I always look information which support my belief only			.746	
I ignore information contradict- ing my belief			.721	
I feel that it would have been better if I have waited for few more days to buy or sell the shares				.784
I feel that I should have invest- ed some more money on this share				.779
I feel that it would have been better if I had selected other companies' shares				.621

Source: SPSS Output

Factor 1: Informational Dissonance

Lack of information or inability to collect enough information regarding particular products and services may lead to informational dissonance. In this study, this factor comprises various items such as being unable to gather enough information, having no choice of the right source of information, showing too many rosy pictures, making fools and even not providing complete information. This particular factor has the highest level of explanatory power on the dependent variable.

Factor 2: Choice Based Dissonance

Choice-based dissonance is created when people believe that they have not made good purchases of shares, made terrible choices, and did not get enough returns. All these items made the choice-based dissonance among the investors, and these types of feelings arise after making the decision. However, to make rational decisions, choice-based dissonance needs to be controlled.

Factor 3: Dissonance Reduction Behaviour

Dissonance arises for many reasons and has been discussed, but certain behaviours of investors try to reduce the dissonance over their actions and explanations. These people try to justify their investments; they seek supportive information on their decisions and even ignore information that contradicts their beliefs. Dissonance reduction behaviour is generally a reduction strategy where people try to control their sentiments and correct their decisions for whatever reasons (items) mentioned earlier.

Factor 4: Action-Based Dissonance

Action-based dissonance postulates another path for investment decision-making. In other words, people try to regret their past actions and find alternative solutions that may benefit them. Actionbased dissonance has been defined by items like a waiting period, another company to be selected for investment, some more or less money invested, and more. However, this factor has meagre explanatory power but is also significantly influenced by the dependent variable.

Dissonance Reduction Strategy:

Further, 11 items are taken for factor analysis, which may create dissonance reduction strategies among investors after investing in the equity market. This analysis predominantly identifies the factors that can provide strategies to reduce cognitive dissonance among investors.

Table 8 KMO and Bartlett's Test for Cognitive Dissonance Reduction Strategies

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		
Bartlett's Test of Sphericity	Approx. Chi-Square	462.774
	df	55
	Sig.	.000

Table 8 indicates sampling adequacy and Bartlett's Test for cognitive dissonance factors. Here, the value in the table is 0.794, that is more than the ideal value. Further in this study, probability values are 0.000, less than 0.05 for Bartlett's test.

Table 9 Total Variance Explained for Cognitive Dissonance Reduction Strategies

	Initial Eigenvalues			Rotat	ion Sums of Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.220	38.367	38.367	2.282	20.745	20.745
2	1.253	11.392	49.759	2.107	19.154	39.899
3	.918	8.343	58.102	2.002	18.202	58.102
4	.875	7.951	66.053			
5	.838	7.614	73.667			
6	.751	6.824	80.491			
7	.616	5.602	86.093			
8	.494	4.493	90.586			
9	.424	3.857	94.444			
10	.328	2.979	97.423			
11	.284	2.577	100.000			

Table 9 indicates the three identified factors where the eigenvalue is more than 0.9 and greater than one. The first factor in the dependent variable identifies 20.75% of the variance. The second factor impacted 19.15%, and the third component influenced 18.20% of the variance. All three factors explain 58.102% of the variance on dependent variables. So, cognitive dissonance reduction strategies prevailing among investors have been explained by 58.102% through three significant strategies, which have been discussed in the next section.

Table 10 Rotated Component Matrix for Cognitive Dissonance Reduction Strategies

Items	Co	mpon	ent
items	1	2	3
I will try to think positive about my	.868		
companies Shares	.000		
I will share good things to others	.763		
about the share I bought	.705		
I would seek more information of my			
selected shares and will try to see	.617		
positive things about it			
I will find out negative things about		.690	
the shares I rejected		.050	
I may take information from the per-			
son who is having same company		.680	
share and will try to get assurance		.000	
from him /her			
I will compare return and risk of my			
selected companies' shares and my		.662	
even rejected companies			
I will modify the holdings of shares if			.793
Loss is very low			.755
I will inform others regarding nega-			
tive aspects of the shares I bought			.727
and will make them not to purchase			./2/
that share			
I will make buy or sell decision within			.696
shorter period of time			.090

Source: SPSS Output

Factor 1: Affirmative Consonance

Investors try to justify their investments in numerous ways and find strategies to improve their investment decisions. Affirmative consonance is one of the strategies with the highest explanation power. It comprises three items: positive thinking about chosen companies shares, sharing good things about the companies to others seeking more information about them, and finding positive things. Here, investors are affirmative towards the chosen alternative and find and share good things about those companies' shares. It is a kind of positive wordof-mouth communication strategy to increase the sales revenue for the company.

Factor 2: Confirmatory Consonance

Confirmatory consonance is also a positive way of thinking towards chosen alternatives, but here, investors try to find similarities and dissimilarities among various accepted and rejected alternatives. This factor consists of items such as finding out negative things about rejected companies' shares comparing risk and return of various rejected and accepted alternatives.

Factor 3: Negative Word of Mouth

Negative word-of-mouth is the alternative in which investors are more pessimistic and try to correct their investment decisions. However, negative word of mouth consists of items such as modifying the holdings of shares, making others not buy such shares and, spreading negative things about the company, making buy-sell decisions quickly.

FINDINGS AND CONCLUSION

Findings:

- The frequency distribution regarding the general profile shows that more males are in the sample survey; most of the investors hold graduate and postgraduate degrees, and most are salaried employees and students.
- Further, from frequency distribution regarding buy/sell habit, it is found that investor holds 2 to 5 years of experience in the equity market, the majority of them hold portfolio less than one lakh, the majority of them analyzed less than ten stocks and even found none analyzer.
- Moreover, it is found that most investors are using both fundamental and technical analysis methods. However, more of the fundamental and further majority of the investors are found to be situational and planned investors.
- 4. Investor confusion factors are product/service overload, ambiguity and overloaded/fake information, which explains around 66% of the variance.
- 5. Talking about dissonance that arises after investing or taking the buy-sell decision,

factors are informational dissonance, choicebased dissonance, dissonance reduction behaviour and action-oriented dissonance, which explains around 69% of the variance.

 Further dissonance reduction strategies the investors use are majorly found to be affirmative consonance, confirmatory consonance and negative word of mouth.

The study's findings can be generalized to retail investors who commit specific behavioural errors while investing in the stock market by providing clear guidelines and suggestions to overcome them. Further study focuses on the investors' demographic profile, which helps financial advisors and brokers study it and serve their needs accordingly. Further, the study aims to identify the investors' market sentiments and financial psychology. Additionally, stock brokers and financial consultants should consider all these six factors affecting the investment decisions of South Gujarat investors to position their financial products and manage the investors' queries if they cannot make money from the market.

Conclusion

The mental stress arising from wrong information, judgments, and deeds is the reason for being dissonant. There are numerous ways or factors in the market through which investors get dissonant situations where they need help choosing the correct entry and exit points. Thus, the present study examines certain factors that led to the confusion and dissonance among retail market investors in Surat City. Thus, the present study examines the factors affecting pre-buy/sell confusion and postcognitive dissonance among investors in equity shares dealing. Moreover, it identified dissonance reduction strategies adopted by investors to reduce their dissonance in equity shares dealing. Also, post cognitive dissonance factors and strategies to find the association between investors' buy/sell habits, general profile and pre-buy/sell confusion. However, the study employed a structured guestionnaire to conduct a survey of Surat investors, in which 140 respondents were allowed to participate.

Moreover, the questionnaire contained numerous sections and different types of questions like the

Likert scale and multiple choice questions. In the next step, secondary data were collected from journals, books and websites.

In conclusion, three major confusion factors identified, Product/Service Overload Confusion, Ambiguity and Overloaded/Fake Information Confusion, are confusions affecting the investment decision of Surat city investors. Moreover, four prominent factors for cognitive dissonance arise after investing in the stock market: informational dissonance, choicebased dissonance, dissonance reduction, and actionbased dissonance. Further, the dissonance reduction strategies mostly prevailing among Surat investors are affirmative consonance, confirmatory consonance and negative word-of-mouth.

References

- Aduda, J., & Oduor, O. E. (2012). The Behaviour and Financial Performance of Individual Investors in the Trading Shares of Companies Listed At the Nairobi Stock Exchange. Journal of Finance and Investment Analysis, 1 (3), 33-60.
- Ady, U. (2018). The Cognitive and Psychological Bias in Investment Decision-Making Behavior: (Evidence From Indonesian Investor's Behavior). Journal of Economics and Behavioral Studies, 10 (1), 86-100.
- Drees, B., & Eckwert, B. (2005). Asset Mispricing Due to Cognitive Dissonance. International Monetary Fund Working Paper , 5 (9), 3-31.
- Fatima, A. (2019). Cognitive dissonance and investors' decision-making: A review. International Journal of Financial, Accounting, and Management, 1 (1), 39-45.
- Ganesan, B. (2013). Recognizing and Managing Biases in Investment Decision Making. Safal Niveshak , NA (NA), 5-80.
- Goetzmann, W. N. (1995). Cognitive Dissonance and Mutual Fund Investors. Yale School of Management, 1-22.
- Gowri, S. (2019). Does Availability Bias Have Influence on FMCG Investors? An Empirical Study on Cognitive Dissonance, Rational Behaviour and Mental Accounting Bias. International Journal of Financial Research , 10 (4), 68-83.
- Gupta, Y. (2017). The Impact of Behavioral Biases on Investor's Behavior in Indian Stock Market.

International Journal of Management and Social Science Research Review , 1 (37), 175-183.

- Kanojia, S. (2018). An empirical analysis of the factors influencing individual investors in the Indian Stock market. Journal of Business and Management, 20 (3), 30-37.
- Kessler, A. (2010). Cognitive dissonance, the Global Financial Crisis and the discipline of economics. Real-world economics review, NG (54), 1-17.
- Lekovic, M. (2020). Cognitive Biases as an Integral Part of Behavioral Finance. Economic Themes , 58 (1), 75-96.
- Metin, I. (2011). The Advances in the History of Cognitive Dissonance Theory. International Journal of Humanities and Social Science, 1 (6), 131-136.
- Milan, L. F. (2015). Non-Investment in Information Systems: A Cognitive Dissonance Case Study. Conference Paper , NA (NA), 1-12.
- Patni, I. (2019). Behavioral Traits and Investment Decisions: An Empirical Study on Executives of Financial Service Sector. International Journal of Recent Technology and Engineering, 7 (6), 13-17.
- Shahani, R. (2019). Empirical investigation of application of concept of cognitive dissonance to Indian financial markets. Gurukul Business Review, 15 (NG), 24-35.
- Sharma, A. J. (2014). Understanding Cognitive Dissonance-The Behavioural Finance Principle. International Journal of Commerce, Business and Management, 3 (1), 18-27.
- Subash, R. (2012). Role of Behavioral Finance in Portfolio Investment Decisions: Evidence from India. Master Thesis Submitted to Charles University in Prague, NA (NA), 1-82.
- T., L., & Luu, T. (2014). Behavior Pattern of Individual Investors in Stock Market. International Journal of Business and Management, 9 (1), 1-16.
- Virigineni, M. (2017). Contemporary Developments in Behavioral Finance. Contemporary Developments in Behavioral Finance , 7 (1), 448-459.