



A STUDY OF IMPACT OF TECHNICAL ANALYSIS AND PSYCHOLOGICAL FACTORS OVER THE TRADING PATTERNS ON RETAIL INVESTORS

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ABSTRACT

This study reasons behind the technical and psychology of an investors, to take the mindset of investor. The main Objectives of the study were 1) To evaluate the impact of investors mindset with the technical analysis. 2) To understand different factors affecting decision.. Based on the data collected, the study finds out that there is adverse effect of investors mindset and the analysis of the technical.

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We perceive as this opportunity as a big milestone in our career's development. We will strive to use gained skills and knowledge in the best possible way, and we will continue to work on their improvement, in

order to attain career objectives.

Sincerely,

Chapter 01: Introduction

Technical analysis:

Technical analysis provides a framework for investment management selections by applying a provide and demand methodology to promote costs. Tools of technical analysis square measure engineered into a framework that seeks to realize insight from the changes in provide and demand chain. This framework evolved over time from a strictly visual analysis to additional quantitative techniques. Like different analytical tools, technical analysis employs a disciplined, systematic approach that alter to attenuate the impact of behavioural biases and feeling from the follow of investment selection; consequently, several institutional analysts, portfolio and strategists managers fuse technical analysis with different analytical approaches, like quantitative, basic, and economic science ways.

Psychological Impact:

- Emotion-Based mercantilism
- Fear of failure
- Fear of success

The second part of emotional mercantilism is greed. within the markets, greed deals with the direct acquisition of cash and presents many pitfalls:

- Overtrading
- Reckless risk management
- Haphazard trade management

2. Performance Anxiety

- Indecisiveness:
- Hyper-aggressive trading:
- Impulsive trading:

Chapter 02: Literature Review

Griffin and Tversky [1992]: Investor cocksureness (Barber and Odean [2001b]) might account for the high level of commerce in money markets, additionally as a result of the undeniable fact that individual investors build systematic mistakes among the approach they method info. mythical monster and Tversky [1992] note that cocksureness is greatest for tough tasks, for forecasts with low certainty, and for tasks lacking immediate and clear feedback. investment in stocks could also be a tough task, with low certainty and poor feedback. cocksureness manifests itself in many alternative necessary activity biases: illusion of knowledge, understanding bias, self-attribution bias, and thus the illusion of management.

Barber and Odean (2001a):The tendency of a lot of info to increase cocksureness area unit usually enlarged by psychological feature dissonance. Investors WHO pay a considerable quantity of it slow (or money) gathering knowledge area unit aiming to be convinced that their actions area unit cheap. as a result of it'd be unreasonable to pay such plenty time gathering useless knowledge, investors area unit actuated to believe their knowledge area unit helpful, therefore partitioning psychological feature dissonance (Barber and Odean [2001a]).

Daniel and Titman (1999):Self-attribution bioassays individual stendto attribute their successes to their personal talents, and their failures to unhealthy luck or the actions of others. people additionally tend to ignore, or a minimum of lean, info that lowers their shallowness (Daniel and Titman [1999]). As a result, investors tend to forget past failures.

Odean [1998]; Barber and Odean (1999): Overconfidence causes investors to be too sure concerning their own opinions and to not sufficiently think about the opinions of others. positive investors lower their expected utility by commerce associate excessive quantity of, they hold unrealistic beliefs concerning however high their returns area unit aiming to be and therefore the approach exactly they're going to be calculable, which they pay associate excessive quantity of your time and cash on investment info (Odean [1998]; Barber and Odean [1999]).

Lundeberg, Fox, and Puncochar (1994): Psychological analysis shows that whereas each men and women exhibit cocksureness, it's typically a lot of current in men (Lundeberg, Fox, and Puncochar [1994]). Indeed, Barber and Odean [2001b] found that men trade forty fifth a lot of actively than girls. whereas each men and women scale back their returns by commerce, men scale back theirs by an extra 1 Chronicles.

Biais associated Pouget (1999): Our experimental approach depends on an uneven info commerce game impressed by Plot and break up (1988). Traders observe non-public signals, and

should place limit and market orders among the gap decision auction and thus the following open outcry continuous market. As shown in Bias and Pouget (1999), because of the preciseness of the non-public signals determined by some agents throughout this game, there is a strong winner's curse risk and, in equilibrium, there ought to be no trade, except at totally revealing costs, and consequently no commerce gains or losses. whereas the experimental knowledge suggests that a decent quantity of knowledge was discovered among the costs, we have a tendency to additionally observe important deviations from equilibrium. There area unit frequent trades wherever one in every of the players incur losses whereas the alternative earn arbitrage profits. In line with the activity theory of games approach urged by Camerer (1997), we have a tendency to study if this development is usually explained by psychological variables.

Tian, Wan, and Guo (2002): sought-after to seem at the returns to technical trade rules and thus the potency of financial markets, additionally as rising markets (Chinese stock markets) and developed markets (US stock markets). therefore, on inspect that markets have the technical commerce rules higher in expecting changes on the market costs below completely different levels of potency. They all over that for the U.S. market before 1975 there was the chance of applying technical analysis rules and thus the power to predict changes on the market costs and yields. whereas from 1975 to 1991, these rules area unit insignificant as a result of accelerating the potency of the U.S. market. Therefore, this study supports technical methods in its ability to expect changes in earnings and excess returns from stocks throughout the study amount on the Chinese exchange.

Vasileiou (2014): recognized that behavioral finance theories would possibly give some different and helpful justifications regarding variety of the reasons that contribute to the Greek stock market 's inefficient setting. DE Oliveira, Nobre, and Zárte (2013) used money and theory, combining applied math analysis, elementary analysis and technical analysis, to expect worth behavior among the Brazilian exchange by a semisynthetic Neural Network (ANN). Besides, Patel et al. (2015) compared four prediction models to forecast the trend direction among the Indian money markets: random forest, Support Vector Machine (SVM), Artificial Neural Network (ANN), and Naive-Bayes

Chapter 03: Research Methodology

Target population

The target population is that the entire cluster of people from that the sample are often drawn. The study targets Associate in Nursing capitalist WHO investment is compact by technical analysis and also the psychological issue. Therefore, our target population is those that square measure traders or Associate in Nursing capitalist.

Types of analysis

Business analysis ways is printed as a well-organized ad systematic method of knowledge assortment, compilation, analysis, interpretation, and implication relating any business draw back. the kind of the analysis that may be used depends on the character of the study. Therefore, during this study it uses Descriptive analysis wherever the Aim is to spot investors {decision making deciding higher cognitive

method} process supported technical analysis and psychological issue.

Research style

Research style is outlined as a framework of ways and techniques designated by a investigator to mix a mix of mechanism of analysis in a very realistically rational manner in order that the analysis drawback is well handled. during this study the investigator can use conclusive studies, on the contrary, aim to produce final and conclusive answers to analysis queries. The respondent were either {those WHO those that people who square measure capitalist and people who haven't nevertheless finance. The form was designed keeping in mind the analysis objectives and enclosed each open and close-ended queries.

Sample size

Sampling is that the strategy of selecting a representative cluster from the population below study. A sample of a hundred is employed and these a hundred samples incorporates those that square measure capitalist and take call supported technical and psychological science.

Data assortment

Data assortment could be a methodology of collection data from all the relevant sources to hunt answers to the analysis drawback, check the hypothesis and assess the outcomes. during this study can use primary knowledge assortment wherever questionnaires are distributed to those that haven't opted for finance supported technical or psychological issue. conjointly unstructured interview are control to completely different investors WHO have different perceptions towards finance.

Analytical tool

Analytics tool is application that's wont to retrieve knowledge from totally different systems and mix it in one info for the aim of to be analyzed. totally different take a look at are often wont to analyze the collected knowledge supported the sample size.

Software used

Different software's square measure want to analyze the information collected. during this study the researchers used SPSS as a tool to research the information collected.

Data Analysis

One of the main steps is to analyze the data and discuss the findings. In this chapter we will discuss the empirical findings from this study. The data analysis mainly concerns primary data collected in the form of questionnaires distributed among faculty members and staffs of Lovely Professional University mainly. The first part of the questionnaire was the personal information of the respondents like Name, Age, Gender and highest level of academic qualification. In the second part, the questions were based on the reasons they have not opted for stock market and the psychology of an investor to invest in the stock market.

The collected data in the study has been analyzed using Descriptive Statistics, Factor Analysis, Independent sample t-test and Chi-square.

To confirm the suitability of data for **Factor Analysis Bartlett's Test of Sphericity and KMO Measure of Sampling Adequacy** were performed. Table 3 show the result of the Bartlett's Test of Sphericity which is 0.000, it meets the criteria of value lower than 0.05 for the Factor Analysis to be considered appropriate. Moreover, it shows that the strength of the relationship among variables is strong. Furthermore, the result of the KMO Measure of Sampling Adequacy is 0.502, which exceeds the minimum value of 0.5 for good factor analysis (Malhotra, 2008).

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.502
Bartlett's Test of Sphericity	Approx. Chi-Square		282.005
	Df		190
	Sig.		.000

Table 3: KMO and Bartlett's

Thus, the results of both the test revealed that the strength of the relationship among variables is strong. Thus, Data is good fit for Factor Analysis.

Total Variance Explained				
Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total
1	2.267	11.333	11.333	1.998

2	1.837	9.817	20.521	1.775
3	1.707	8.533	29.054	1.708
4	1.668	8.340	37.393	1.583
5	1.544	7.721	45.114	1.484
6	1.302	6.511	51.625	1.402
7	1.170	5.848	57.473	1.363
8	1.109	5.547	63.020	1.291
9	.987	4.937	67.957	
10	.841	4.207	72.164	
11	.810	4.051	76.215	
12	.768	3.841	80.056	
13	.684	3.419	83.475	
14	.645	3.224	86.699	
15	.601	3.005	89.704	
16	.515	2.574	92.278	
17	.483	2.414	94.691	
18	.397	1.984	96.675	
19	.360	1.802	98.477	
20	.305	1.523	100.000	

Extraction Method: Maximum Likelihood.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 4: Total Variance Explained

From above table, it can be seen that 8 factors have been extracted. Each factor had Eigen values greater than one. Factor 1 accounted for the most variance among all factors (11.3%), followed by the variance in the second factor (which accounted for 9.8%), followed by the variance in the third factor (which accounted for 8.5%), followed by the variance in the fourth factor (which accounted for 8.3%), followed by the variance in the fifth factor (which accounted for 7.7%), followed by the variance in the sixth factor (which accounted for 6.6%), followed by the variance in the seventh factor (which accounted for 5.8%), followed by the variance in the eighth factor (which accounted for 5.5%).

Rotated Component Matrix ^a								
	Component							
	1	2	3	4	5	6	7	8
surplus	-.633	.101	-.022	-.098	.168	-.008	.035	.062
gambling	-.094	-.031	-.742	.287	-.024	.019	.011	-.074
investment	.139	-.130	.352	.729	.006	.001	.022	.067
forecast	-.159	.711	.069	-.076	-.036	.024	.124	.174
rich	.124	.254	-.002	-.043	-.005	.082	-.016	.782
equity	.007	.107	.805	.281	-.054	-.041	-.075	-.118
return	.710	.053	.240	.014	.146	-.017	.058	-.027
brokers	-.416	-.047	-.094	-.143	-.061	-.045	-.419	.407
insider	.251	.462	.158	-.193	-.206	.353	-.028	-.448
instablility	-.021	.059	.125	.154	.418	.586	.132	.098
risky	.117	-.378	.155	-.052	-.178	.576	.051	.426
trade	.132	-.058	-.083	-.032	-.708	-.115	.082	.002
exiting	.287	.165	-.274	-.240	.289	-.189	.285	.078
factor	.026	.111	-.258	.768	-.049	.016	.077	-.100
good	-.748	-.008	.143	.002	.010	.084	.051	-.192
volatile	.237	.221	-.027	.172	.037	.070	-.680	-.016
greed	-.083	-.805	-.016	-.100	.030	.042	.141	-.031
emotional	.149	.141	-.143	.299	-.059	.016	.735	-.028
affects	-.134	.057	-.203	-.033	.107	.725	-.146	-.080
news	.110	-.195	-.138	-.106	.756	.038	.003	-.035

Extraction Method: Principal Component Analysis.

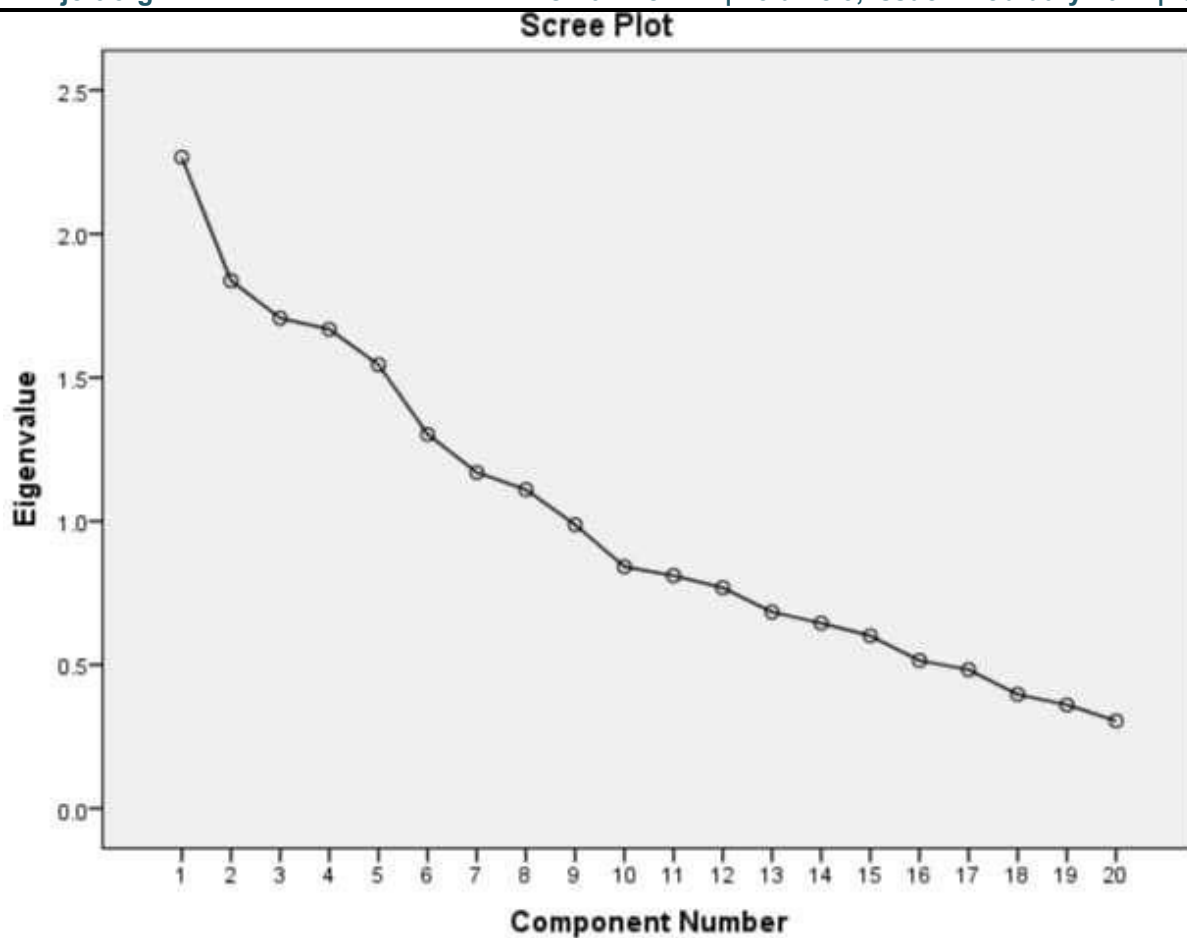
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Table 5: Rotated component matrix

In the rotation matrix the loading score indicates degree of association for a particular variable with respect of particular factor. In this table we see each variable is associated in which component. For example component 1 will consist variables information, other investment options, greed.

We can represent the factor in graphic form. We clearly see 8 factors are contributing more since they have eigen value of more than 1.



In the figure we can visualize that we have eight factors with Eigen value of more than 1. Two of these factors show strong factors since they have more quality score or Eigen value.

Results

- We have performed KMO and Bartlett's test which helps to measure sampling adequacy for each variable in the model and for the complete model. Here, we have Kmo result more than 0.5 which indicates the sampling is adequate.
- Bartlett's test for sphericity lets about correlation matrix. It checks the redundancy between variable that can be summarized.
- In total variance explained eight eigenvalues which has results more than 1.
- In the analysis we reject null hypothesis and accept the alternative hypothesis.

Conclusion

Technical analysis and psychology of an investor do not move hand in hand. Emotional instability, greed affects over technical analysis of an investors. At last we would like to say that, investor should be free minded at the time of trading or investing and that will make utmost profit

for the investor. In seminal study “Prospect Theory: An Analysis of Decision under Risk,” behavioral finance pioneers Dan Kahneman and Amos Taversky found that investors or traders are more sensitive to loss than to risk and possible return. In short, investors prefer to avoid loss over acquiring an equivalent gain. It has been shown that traders who trade excessively actually underperform the market. In a study conducted by Professors Brad Barber and Terrance Odean, investors utilizing traditional brokers (communicating via telephone) achieved better results than online traders who trade more actively and speculatively. Self-attribution bias occurs when investors attribute successful outcomes to their own actions and bad outcomes to external factors.

QUESTIONNAIRE

Technical information

Which type of analysis do you prefer to do before investing in the market.?

- a) Technical Analysis ()
- b) Fundamental Analysis ()

Which strategy would you prefer when you have position in the market.?

- a) 15 minutes candlestick pattern()
- b) 2 years candlestick pattern ()
- c) Volume and candlestick pattern ()
- d) Technical indicator ()

Which technical indicator would you prefer.?

- a) Leading indicator ()
- b) Lagging indicator ()

Which leading technical indicator would you prefer for making strategy.?

- a) Stochastic oscillator ()
- b) Willam %R()
- c) On balance volume ()
- d) RSI ()

Which lagging indicator would you prefer for making strategy.?

- a) Simple moving average ()
- b) Exponential moving average ()
- c) MACD indicator ()
- d) Bollinger band ()

How often do you take position in intraday trade.?

- a) Mostly
- b) Sometimes

c) Never

Please give your level of agreement about the factors that are impeding stock market investment

Variables	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Invest in stock market only if you have surplus funds					
Investing in stock market is like Gambling					
Stock market is good for brokers and wealthy people					
Large cap stocks are always the best					
High capital investment is essential					
Stock Market Return are Highly Volatile					
Stock market forecast are Not Reliable					
High volatility increases risk and decreases returns					
Stock market is very difficult to Predict					
Stock market Makes you Rich quickly					
It is not always good to have a diversified portfolio					
Equity is always safer than debt					
It is good to invest in a stock if everybody around is also investing in it					
Investment in stock market may or may not give high return					
There is always a danger of wiping out all of your money in stock market					
Political and economic risks effect the directional change of the market					
Making money in stock market is quite risky. It requires lot of patience and understanding					
Unidentified risks are associated with stock market					

Indian brokers are not very Trustworthy					
Stock market has a very high fraudulent rate					
Insider trading is usually done in stock market					
Greed and fear is the base of stock Market					
Complete knowledge of the stock market is necessary before Investment					

Psychology information of the trader

Is emotional impact a part of trade.?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

Has emotional instability affected your trade.?

- a) Yes ()
- b) No ()
- c) Even though having a strong indication of an indicator, have your trade been affected due emotion.?
- a) Yes ()
- b) No ()

As a trader emotional aspect affects you more when you are in profit or in loss.?

- a) Profit ()
- b) Loss ()

Have you ever traded in a news based stock.?

- a) Yes ()
- b) No ()

Is it good to trade on news based on stock ?

- a) Yes ()
- b) No ()

Do you have experience of exiting market before your target hits and your targets hits when you are out of market.?

- a) Often ()

- b) Sometimes ()
- c) Mostly ()
- d) Never ()

What factor forces you to exit market before your target hits on.?

- a) Emotional instability ()
- b) Lossing capital ()
- c) Time ()
- d) Market timing ()

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