INFLUENCE OF TECHNICAL ANALYSIS ON INVESTORS EQUITY ALTERNATIVES

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Abstract

Technical analysis has emerged as a crucial decision-making tool for investors navigating the complexities of equity markets. It involves the study of historical market data, primarily price and volume, to forecast future price movements and inform trading decisions. Unlike fundamental analysis, which focuses on a company's financial health and intrinsic value, technical analysis is grounded in the belief that all relevant information is already reflected in market prices, and that price patterns tend to repeat over time due to investor psychology.
This paper examines the influence of technical analysis on investors' selection of equity alternatives, such as individual stocks, index funds, exchange-traded funds (ETFs), and derivatives. It explores how retail and institutional investors use technical indicators—like moving averages, relative strength index (RSI), Bollinger Bands, MACD, and candlestick patterns—to time entries and exits, assess market trends, and manage portfolio risks. The abstract also delves into the psychological factors and behavioral biases that drive investor preference for technical tools over or alongside fundamental analysis.
In recent years, the widespread availability of online trading platforms and real-time data analytics has made technical analysis more accessible, especially to retail investors. This democratization of data has influenced how investors evaluate equity alternatives, with many incorporating short-term technical signals into their broader investment strategies. The paper further discusses the effectiveness of technical analysis in different market conditions, such as bullish, bearish, and volatile markets, and highlights empirical studies that assess its predictive power.
By analyzing investor behavior, strategy preferences, and market outcomes, this study contributes to a deeper understanding of how technical analysis shapes equity investment decisions. The findings indicate that while technical analysis can enhance short-term performance and market timing, its reliability depends heavily on market efficiency, investor discipline, and the integration of multiple indicators. Ultimately, the influence of technical analysis is significant but varies across investor profiles, market segments, and investment horizons.

Keyword: Technical Analysis, Investor Behavior, Equity Alternatives, Price Patterns, Trading Indicators, Market Timing, RSI, MACD, Moving Averages, Behavioral Finance, Retail Investors, Market Trends, Stock Selection, Investment Strategy.

1.INTRODUCTION

Investing in equity markets has always been a complex endeavor requiring careful assessment of various factors, including economic indicators, market trends, and investor sentiment. Among the diverse strategies available to investors, technical analysis has emerged as a powerful tool to predict market movements and optimize investment decisions. Technical analysis primarily relies on historical price movements, trading volumes, and chart patterns to forecast future stock performance. Unlike fundamental analysis, which evaluates a company's intrinsic value based on financial statements and economic conditions, technical analysis assumes that market prices already reflect all available information and that price patterns tend to repeat over time.

The impact of technical analysis on investors' equity alternatives is profound, as it enables traders and investors to identify profitable entry and exit points, assess market momentum, and develop systematic trading strategies. This introduction will explore key aspects of technical analysis, its significance in investment decision-making, and the various techniques employed by investors to enhance their portfolio performance.

Technical analysis is a method of evaluating statistical trends in trading activity, typically involving price movement and volume. It is used to identify trading and investment opportunities.

Unlike fundamental analysis, which attempts to evaluate a security's value based on financial information such as sales and earnings, technical analysis focuses on price and volume to draw conclusions about future price movements.

Key Takeaways

- Technical analysis is used to evaluate price trends and patterns and thereby identify potential investments and trading opportunities.
- Technical analysts believe past trading activity and a security's price changes can be valuable indicators of the security's future price movements.
- Technical analysis may be contrasted with fundamental analysis, which focuses on a company's financials rather than historical price patterns or stock trends.
- Technical analysis was introduced by Charles Dow.

2.RESEARCH METHODOLOGY

In this research method, we mainly consider closing prices to observe the changes in price movements. It helps in analysing future trends. Here , the sample consists of 10 companies of 5 sectors, with 2 companies in each sector.

Research design :
Descriptive and analytical research design is considered.

Types of Data :
Secondary data collection method is applied for the selected companies.

Sources of Data:
Data are collected through many secondary data sources.
i.e. Website like www.ichart.com, www.investing.com, www.moneycontrol.com, www.nseindia.com, etc

Sampling Method :
Convenient Sampling Method is accepted.

Sample Period :
Data of last 6 months i.e. from 28-12-2023 TO 28-06-2024 are analysed, Interpreted and forecasted.

3.DATA ANALYSIS

In this process , two techniques and tools were significantly used. They are RSI and MACD.

3.1 RSI CALCULATION :

During the calculation of RSI , we consider closing prices of the respective days. There the difference between consecutive days is calculated to know the gain or loss prices of the share, from which mean gain and mean loss are calculated with reference to 14 shares as unit. With these values RSI is calculated.

Then , the calculated RSI is shown in the form of charts. The calculation of RSI is below,

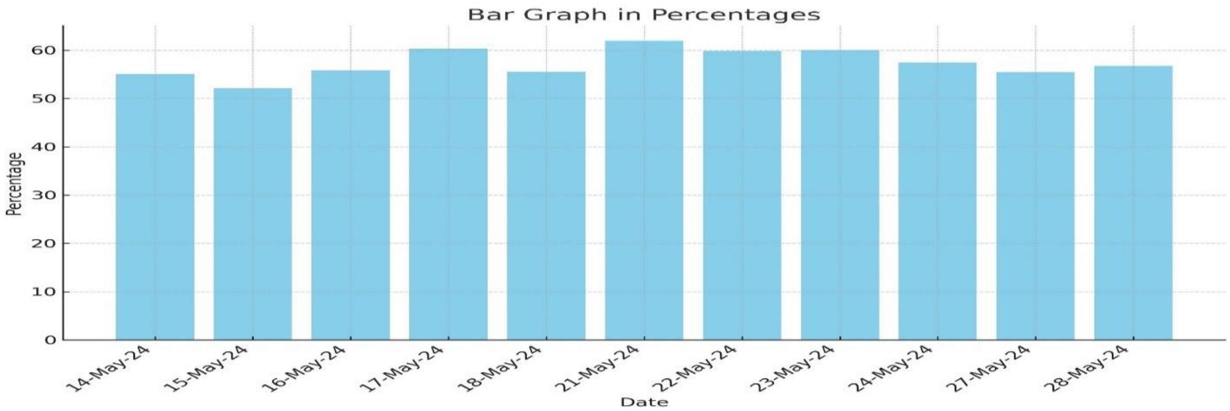
Date	close	change	gain	loss	avg gain	avg loss	div	rsi
28-Dec-23	880.8							
29-Dec-23	880.25	-0.55	0	0.55				
01-Jan-24	877.6	-2.65	0	2.65				
02-Jan-24	870.2	-7.4	0	7.4				
03-Jan-24	837.65	-32.55	0	32.55				

04-Jan-24	837.1	-0.55	0	0.55				
05-Jan-24	829.4	-7.7	0	7.7				
08-Jan-24	821.95	-7.45	0	7.45				
09-Jan-24	821.4	-0.55	0	0.55				
10-Jan-24	829.8	8.4	8.4	0				
11-Jan-24	822.05	-7.75	0	7.75				
12-Jan-24	825.8	3.75	3.75	0				
15-Jan-24	825.15	-0.65	0	0.65				
16-Jan-24	832.3	7.15	7.15	0				
17-Jan-24	812.65	-19.65	0	19.65				
18-Jan-24	803.65	-9	0	9	1.286667	6.43	0.200104	16.67387
19-Jan-24	816.65	13	13	0	2.123333	5.970714	0.355625	26.23327
20-Jan-24	808.2	-8.45	0	8.45	1.971667	6.147806	0.320711	24.28319
23-Jan-24	790.4	-17.8	0	17.8	1.830833	6.980106	0.262293	20.77909
24-Jan-24	812.2	21.8	21.8	0	3.257202	6.481527	0.502536	33.44587
25-Jan-24	815.7	3.5	3.5	0	3.274545	6.018561	0.544074	35.23628
29-Jan-24	811.7	-4	0	4	3.040649	5.874378	0.517612	34.10701
30-Jan-24	812	0.3	0.3	0	2.844888	5.454779	0.521541	34.27714
31-Jan-24	818.65	6.65	6.65	0	3.116682	5.065152	0.615319	38.09271
01-Feb-24	801.7	-16.95	0	16.95	2.894062	5.91407	0.489352	32.85671
02-Feb-24	823.55	21.85	21.85	0	4.248057	5.491636	0.77355	43.61592
05-Feb-24	814.65	-8.9	0	8.9	3.944625	5.735091	0.687805	40.75145
06-Feb-24	818.75	4.1	4.1	0	3.955723	5.325441	0.742797	42.62098
07-Feb-24	836.6	17.85	17.85	0	4.948171	4.945053	1.000631	50.01576
08-Feb-24	822.1	-14.5	0	14.5	4.594731	5.627549	0.816471	44.9482
09-Feb-24	811.75	-10.35	0	10.35	4.266536	5.964867	0.715278	41.7004
12-Feb-24	811.5	-0.25	0	0.25	3.961783	5.556662	0.712979	41.62217
13-Feb-24	812.65	1.15	1.15	0	3.760941	5.159758	0.728899	42.15972
14-Feb-24	813.25	0.6	0.6	0	3.53516	4.791204	0.737844	42.45743
15-Feb-24	812.35	-0.9	0	0.9	3.282648	4.51326	0.727334	42.10732
16-Feb-24	819.95	7.6	7.6	0	3.591031	4.190885	0.856867	46.14585
19-Feb-24	820.2	0.25	0.25	0	3.352386	3.891536	0.861456	46.2786

20-Feb-24	821.2	1	1	0	3.184358	3.613569	0.881222	46.84307
21-Feb-24	828.25	7.05	7.05	0	3.460475	3.355457	1.031298	50.77039
22-Feb-24	828.65	0.4	0.4	0	3.24187	3.115781	1.040468	50.99163
23-Feb-24	821	-7.65	0	7.65	3.010308	3.439654	0.875177	46.67171
26-Feb-24	808.75	-12.25	0	12.25	2.795286	4.068965	0.686977	40.72238
27-Feb-24	818.95	10.2	10.2	0	3.324194	3.778324	0.879806	46.80303
28-Feb-24	798.6	-20.35	0	20.35	3.086752	4.962015	0.622076	38.35061
29-Feb-24	800.1	1.5	1.5	0	2.973412	4.607586	0.64533	39.22191
01-Mar-24	836.2	36.1	36.1	0	5.339597	4.278472	1.248015	55.51631
02-Mar-24	844.95	8.75	8.75	0	5.583197	3.972867	1.405332	58.4257
04-Mar-24	824.3	-20.65	0	20.65	5.184397	5.164091	1.003932	50.09811
05-Mar-24	819.3	-5	0	5	4.814083	5.15237	0.934343	48.30287
06-Mar-24	812.9	-6.4	0	6.4	4.47022	5.241487	0.852853	46.02919
07-Mar-24	830	17.1	17.1	0	5.372347	4.867095	1.10381	52.46719
11-Mar-24	829.8	-0.2	0	0.2	4.988608	4.533731	1.100332	52.38848
12-Mar-24	817.8	-12	0	12	4.632279	5.067036	0.914199	47.75883
13-Mar-24	792.95	-24.85	0	24.85	4.301402	6.480105	0.663786	39.89611
14-Mar-24	785.45	-7.5	0	7.5	3.994159	6.552954	0.60952	37.86969
15-Mar-24	780.65	-4.8	0	4.8	3.708862	6.427743	0.577008	36.5888
18-Mar-24	804.4	23.75	23.7	0	5.140372	5.968619	0.861233	46.27218
30-Jan-24	812	0.3	0.3	0	2.844888	5.454779	0.521541	34.27714
31-Jan-24	818.65	6.65	6.65	0	3.116682	5.065152	0.615319	38.09271
01-Feb-24	801.7	-16.95	0	16.95	2.894062	5.91407	0.489352	32.85671
02-Feb-24	823.55	21.85	21.85	0	4.248057	5.491636	0.77355	43.61592
05-Feb-24	814.65	-8.9	0	8.9	3.944625	5.735091	0.687805	40.75145
06-Feb-24	818.75	4.1	4.1	0	3.955723	5.325441	0.742797	42.62098
07-Feb-24	836.6	17.85	17.85	0	4.948171	4.945053	1.000631	50.01576
08-Feb-24	822.1	-14.5	0	14.5	4.594731	5.627549	0.816471	44.9482
09-Feb-24	811.75	-10.35	0	10.35	4.266536	5.964867	0.715278	41.7004
12-Feb-24	811.5	-0.25	0	0.25	3.961783	5.556662	0.712979	41.62217
13-Feb-24	812.65	1.15	1.15	0	3.760941	5.159758	0.728899	42.15972
14-Feb-24	813.25	0.6	0.6	0	3.53516	4.791204	0.737844	42.45743

15-Feb-24	812.35	-0.9	0	0.9	3.282648	4.51326	0.727334	42.10732
16-Feb-24	819.95	7.6	7.6	0	3.591031	4.190885	0.856867	46.14585
19-Feb-24	820.2	0.25	0.25	0	3.352386	3.891536	0.861456	46.2786
20-Feb-24	821.2	1	1	0	3.184358	3.613569	0.881222	46.84307
21-Feb-24	828.25	7.05	7.05	0	3.460475	3.355457	1.031298	50.77039
22-Feb-24	828.65	0.4	0.4	0	3.24187	3.115781	1.040468	50.99163
23-Feb-24	821	-7.65	0	7.65	3.010308	3.439654	0.875177	46.67171
26-Feb-24	808.75	-12.25	0	12.25	2.795286	4.068965	0.686977	40.72238
27-Feb-24	818.95	10.2	10.2	0	3.324194	3.778324	0.879806	46.80303
28-Feb-24	798.6	-20.35	0	20.35	3.086752	4.962015	0.622076	38.35061
29-Feb-24	800.1	1.5	1.5	0	2.973412	4.607586	0.64533	39.22191
01-Mar-24	836.2	36.1	36.1	0	5.339597	4.278472	1.248015	55.51631
02-Mar-24	844.95	8.75	8.75	0	5.583197	3.972867	1.405332	58.4257
04-Mar-24	824.3	-20.65	0	20.65	5.184397	5.164091	1.003932	50.09811
05-Mar-24	819.3	-5	0	5	4.814083	5.15237	0.934343	48.30287
06-Mar-24	812.9	-6.4	0	6.4	4.47022	5.241487	0.852853	46.02919
07-Mar-24	830	17.1	17.1	0	5.372347	4.867095	1.10381	52.46719
11-Mar-24	829.8	-0.2	0	0.2	4.988608	4.533731	1.100332	52.38848
12-Mar-24	817.8	-12	0	12	4.632279	5.067036	0.914199	47.75883
13-Mar-24	792.95	-24.85	0	24.85	4.301402	6.480105	0.663786	39.89611
14-Mar-24	785.45	-7.5	0	7.5	3.994159	6.552954	0.60952	37.86969
15-Mar-24	780.65	-4.8	0	4.8	3.708862	6.427743	0.577008	36.5888
18-Mar-24	804.4	23.75	23.7	0	5.140372	5.968619	0.861233	46.27218
14-May-24	881.5	20.9	20.9	0	7.881233	6.436357	1.224487	55.04581
15-May-24	870.95	-10.55	0	10.55	7.318288	6.730189	1.087382	52.09311
16-May-24	886.4	15.45	15.4	0	7.899125	6.249461	1.263969	55.82978
17-May-24	907.45	21.05	21.0	0	8.838473	5.803071	1.523068	60.36572
18-May-24	890.8	-16.65	0	16.65	8.207153	6.577851	1.247695	55.50998
21-May-24	923.45	32.65	32.6	0	9.953071	6.108005	1.629513	61.97014
22-May-24	915.8	-7.65	0	7.65	9.242137	6.218147	1.486317	59.77987
23-May-24	917	1.2	1.2	0	8.667699	5.773994	1.501162	60.01858
24-May-24	908.65	-8.35	0	8.35	8.048578	5.957994	1.350887	57.46287

27-May-24	901.95	-6.7	0	6.7	7.473679	6.010995	1.243335	55.42351
28-May-24	907.35	5.4	5.4	0	7.325559	5.581638	1.312439	56.75562



3.2 MACD CALCULATION:

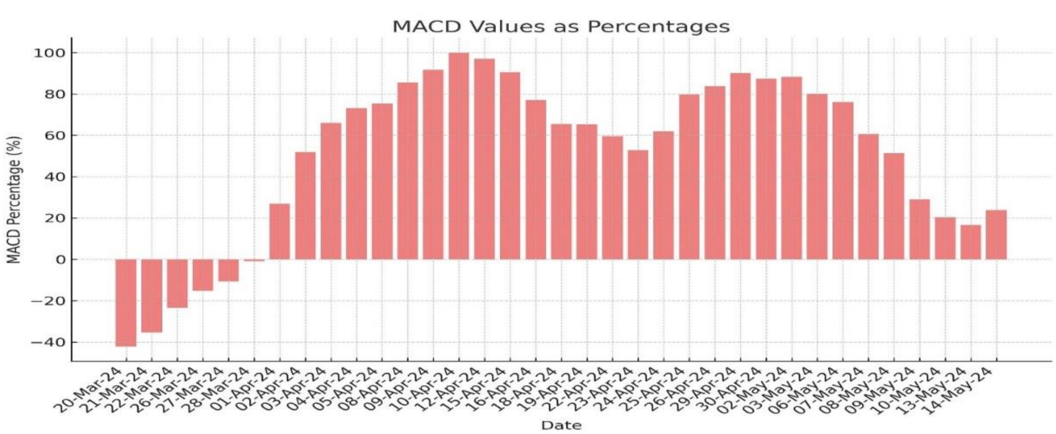
In the MACD calculation process , the main consideration is of closing prices of the share.
In first step, we will calculate the SMA of 12 day , then for succeeding days, we calculate exponential moving averages for all the remaining days.

Next, we will calculate 26 day EMA in the same method as 12 day EMA. Further, we calculate MACD line by the difference of 12 day EMA and 26 day EMA. At last , by calculating 9 day EMA of MACD line , we get Signal line. Comparing the signal and MACD lines which are represented in the form of chart we can decide either to buy or sell the shares at specific price.
The calculation of MACD is as below

Date	close	12 day EMA	26 day EMA	MACD	Signal
28-Dec-23	880.8				
29-Dec-23	880.25				
01-Jan-24	877.6				
02-Jan-24	870.2				
03-Jan-24	837.65				
04-Jan-24	837.1				
05-Jan-24	829.4				
08-Jan-24	821.95				
09-Jan-24	821.4				
10-Jan-24	829.8				
11-Jan-24	822.05				
12-Jan-24	825.8	844.5			
15-Jan-24	825.15	841.53945			
16-Jan-24	832.3	840.1258142			

17-Jan-24	812.65	835.9220146			
18-Jan-24	803.65	830.9843964			
19-Jan-24	816.65	828.7912337			
20-Jan-24	808.2	825.640775			
23-Jan-24	790.4	820.2489364			
24-Jan-24	812.2	819.0174491			
25-Jan-24	815.7	818.5098794			
29-Jan-24	811.7	817.4679679			
30-Jan-24	812	816.6313688			
20-Mar-24	794.65	804.5202921	811.4092245	-6.888932408	-4.602944849
21-Mar-24	812.35	805.7182374	811.4788419	-5.760604487	-4.834476777
22-Mar-24	824.8	808.6377471	812.4646076	-3.826860511	-4.632953524
26-Mar-24	821.9	810.6668718	813.1628266	-2.495954854	-4.20555379
27-Mar-24	818.05	811.7964904	813.5244775	-1.727987066	-3.710040445
28-Mar-24	830.2	814.6122274	814.7584661	-0.146238765	-2.997280109
01-Apr-24	871.95	823.3849066	818.9906396	4.394266941	-1.518970699
02-Apr-24	879.25	831.9322659	823.4498323	8.482433567	0.481310154
03-Apr-24	869	837.6036292	826.8205447	10.78308448	2.541665019
04-Apr-24	862.5	841.4127739	829.4608244	11.95194952	4.42372192
05-Apr-24	857.1	843.8129195	831.5061234	12.30679612	6.000336759
08-Apr-24	876.45	848.8063928	834.8319703	13.97442256	7.595153919
09-Apr-24	874.6	852.7528147	837.7748045	14.97801026	9.071725187
10-Apr-24	883.95	857.5259841	841.1917689	16.33421514	10.52422318
12-Apr-24	866.45	858.8913585	843.060878	15.83048047	11.58547464
15-Apr-24	860.45	859.1298307	844.3476731	14.7821576	12.22481123
16-Apr-24	845.25	857.0062166	844.4144453	12.59177131	12.29820324
18-Apr-24	844.8	855.1386654	844.4429763	10.69568913	11.97770042
19-Apr-24	864.8	856.6168496	845.9493961	10.66745356	11.71565105
22-Apr-24	854.8	856.3388716	846.6043408	9.734530877	11.31942701
23-Apr-24	851.35	855.5755743	846.9555195	8.620054733	10.77955256
24-Apr-24	882.7	859.7256114	849.6006111	10.12500032	10.64864211
25-Apr-24	905.8	866.7749929	853.7593659	13.01562699	11.12203909

26-Apr-24	887.25	869.907669	856.2376728	13.66999616	11.6316305
29-Apr-24	895.75	873.8615456	859.161585	14.69996059	12.24529652
30-Apr-24	882.2	875.1373291	860.8664277	14.27090141	12.6504175
02-May-24	890.35	877.4648678	863.0482121	14.4166557	13.00366514
03-May-24	874.2	876.965343	863.8734444	13.09189863	13.02131184
06-May-24	880.65	877.5290955	865.1149095	12.41418603	12.89988668
07-May-24	857.35	874.4416939	864.5403062	9.901387719	12.30018688
08-May-24	864.65	872.9435647	864.5484235	8.395141209	11.51917775
09-May-24	834.55	867.0693493	862.3285402	4.740809145	10.16350403
10-May-24	853.6	865.0085389	861.6826282	3.325910671	8.795985357
13-May-24	860.6	864.3340324	861.6025137	2.731518709	7.583092027
14-May-24	881.5	866.9604255	863.0749277	3.885497762	6.843573174
15-May-24	870.95	867.5708304	863.6576831	3.913147315	6.257488002
16-May-24	886.4	870.4516933	865.3406145	5.111078814	6.028206165
17-May-24	907.45	876.1124342	868.456709	7.655725209	6.353709974
18-May-24	890.8	878.3596318	870.1101126	8.249519238	6.732871827
21-May-24	923.45	885.2584581	874.0572642	11.2011939	7.626536242
22-May-24	915.8	889.931314	877.1462267	12.78508736	8.658246465
23-May-24	917	894.072823	880.0954059	13.97741709	9.722080589
24-May-24	908.65	896.3031311	882.2084459	14.0946852	10.59660151
27-May-24	901.95	897.167102	883.6693209	13.49778114	11.17683744
28-May-24	907.35	898.7250854	885.4216911	13.30339428	11.60214881



4.CONCLUSION

1 There is a significant impact on the decisions of stock investors and traders when they consider the outcomes of the technical analysis and its tools.
2 By considering the information obtained , one can take wise decisions with better returns instead of investing the amount without proper analysis of the market trends
3 It helps the companies recognise their market worth , influence and credibility in their particular industry. It also motivates them plan towards the direction of growth and strategic implementation.
4 The graphical representation of the stocks helps in easy comparison of various stocks of investment . Thus , the trader can select the share of his requirement according to his risk bearing ability, duration of stock holding and return expectation.
5 The investor has to come to terms that all the results from technical indicators are not 100% sure. Sometimes , due to market volatility or unseen circumstances there may be changes from the desired expectations.
6 So, it only helps in predicting the future trends of the particular stock but not exact results.
7 The study is made only considering few technical indicators , so some factors may be neglected but all the major factors that affect the stock price are considered .

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