

Investment Opportunities from Stock Market Trends

Project Objective

The objective of this project is to analyze stock market trends to find good investment opportunities. It will use past stock data, charts, and news to study how the market moves. The project will help investors understand which stocks are likely to perform well in the future. It will also make it easier to decide when to buy or sell stocks based on market trends. By using simple tools like Excel, Power BI, Tableau and MySQL, the project aims to reduce risks and improve profits. In the end, it will help people make smarter and more confident investment decisions.

Tools Used

Excel – Used for data cleaning, calculating stock returns, analyzing PE ratio trends, and creating summary statistics. This helped prepare the raw data for deeper analysis.

MySQL – Used to run queries that extracted key insights such as top-performing stocks, trading volume, and closing price trends. It allowed for efficient filtering and organizing of large datasets.

Power BI – Created interactive dashboards featuring KPI cards, scatterplots, and heatmaps. These visuals supported executive-level decision-making by showing key performance trends at a glance.

Tableau – Designed a 4-slide investor pitch deck including market trends, risk analysis, recommended stock picks, and investment strategy. This helped present insights in a clear, story-driven format for investors.

My Contribution

- **Excel Analysis:** Cleaned and prepared 3-month stock data, calculated average returns, sector volatility, and built a month-over-month summary of average return %, total volume, and PE ratio.
- **SQL Analysis:** Wrote MySQL queries to explore stock data — retrieved TCS records, listed unique stocks, filtered by volume > 1M, calculated average close price, highest prices, total volumes, and percentage of gain/loss.
- **Power BI Dashboard:** Designed executive-level dashboard with KPI cards (Top Performer, Most Stable, Highest Volume), sector heatmap, volatility vs. return scatterplot, and interactive filters (Sector, Time, Ticker).
- **Tableau Story:** Developed a 4-slide investor pitch deck featuring market trends, risk segmentation, high-potential stocks, and a final investment strategy with clear recommendations.

Insights & Summary

For high growth potential, consider companies like Sun Pharma, Asian Paints, and HCL Technologies – these have demonstrated strong returns with an acceptable level of risk, making them attractive choices for growth-focused investors. For those seeking low-risk opportunities, ICICI Bank, Dr. Reddy's Laboratories and Avenue Supermart stand out with their low volatility, strong fundamentals, and consistent performance, making them ideal for conservative portfolios. Furthermore, the automobile and telecom sectors have shown strong performance in recent quarters, driven by robust demand recovery, product innovation, and expanding digital infrastructure, indicating promising growth potential and sectoral strength.

CompanyName	Values			
	Average of return%	Sum of VolumeTraded	Average of PE_Ratio	
Sun Pharma	0.282734649	159228061	30.53703125	
Asian Paints	0.23454859	158981660	30.3053125	
HCL Technologies	0.211600745	167355737	29.06984375	
JSW Steel	0.201774199	172821132	29.0975	
Indian Oil	0.194416782	165655647	30.06296875	
HDFC Bank	0.16426396	165486941	30.225625	
Infosys	0.158036749	176259079	29.6728125	
Bharti Airtel	0.137722863	173829309	27.8771875	
Coal India	0.122895709	180338049	29.4053125	
Avenue Supermarts	0.090181632	151343797	31.9153125	
BPCL	0.086664318	168308137	29.64640625	
Tech Mahindra	0.08179028	171143102	29.3278125	
Dr. Reddy's	0.062025789	160483798	30.073125	
Titan Company	0.045989427	149069257	29.72234375	
UltraTech Cement	0.031677641	156984627	27.2040625	
Axis Bank	0.026810203	159701156	31.1625	

Fig 1: Excel analysis of month-over-month summary of average return %, total volume, and PE ratio.

	CompanyName	percentage_change
►	Infosys	0.11
	TCS	-0.05
	Reliance	-0.05
	HDFC Bank	0.35
	ICICI Bank	-0.09
	State Bank of India	-0.11
	Wipro	-0.15
	Bharti Airtel	0.1
	ONGC	-0.12
	Hindustan Unilever	0.1
	Bajaj Finance	0.04
	Maruti Suzuki	-0.16
	Titan Company	0.02
	Avenue Supermarts	0.15
	NTPC	-0.01

Fig 2: SQL analysis of percentage of gain/loss

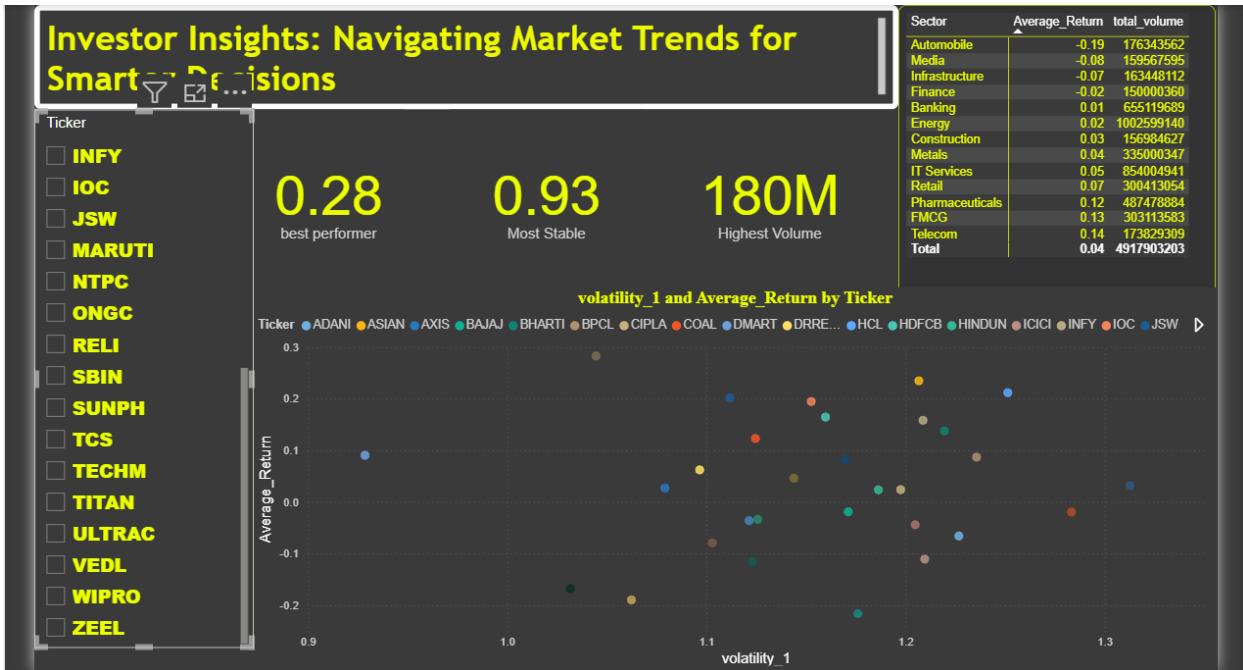


Fig3: Power BI dashboard

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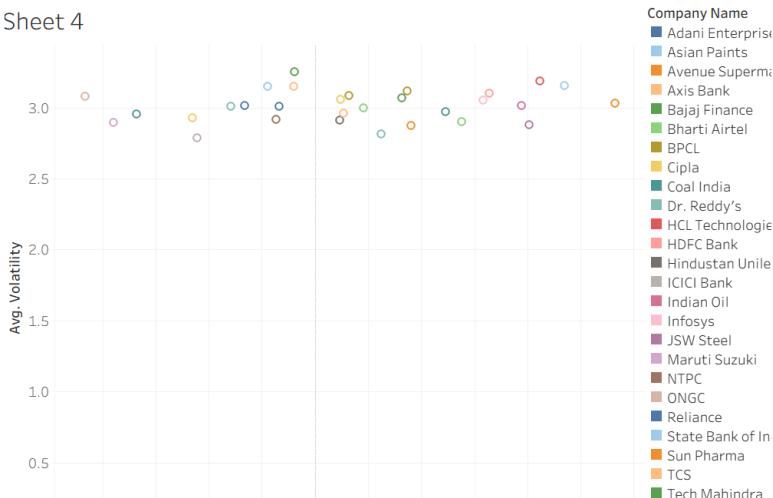


fig4: Tableau dashboard high return vs low risk

Final Recommendations

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Sheet 6

Company Na..	Re..	Vola..
Sun Pharma	18.1	194.0
Asian Paints	15.0	201.9
HCL Technologies	13.5	203.9
JSW Steel	12.9	184.3
Indian Oil	12.4	192.8
HDFC Bank	10.5	198.5
Infosys	10.1	195.4
Bharti Airtel	8.8	185.6
Coal India	7.9	190.1
Avenue Superma..	5.8	183.8
BPCL	5.5	199.5
Tech Mahindra	5.2	196.3
Dr. Reddy's	4.0	180.0
Titan Company	2.9	192.0
UltraTech Cement	2.0	197.5
Axis Bank	1.7	189.6
Cipla	1.5	195.8
Hindustan Unile..	1.5	186.2
Bajaj Finance	-1.2	208.1
TCS	-1.3	201.6

Return%
-13.86 18.10

For High Growth: Consider Sun Pharma,Asian Paints,HCL Tech – Strong returns with acceptable risk

For Low Risk: Consider ICICI Bank,Dr Reddy's,Avenue Superma – Low volatility and steady performance

Fig5: Tableau dashboard final recommendation dashboard