

# An Analytical Study of Policy Performance of Equity & Nifty with Respect to its Risk & Return

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**Abstract:** *The money an individual procure is somewhat spent and the rest put something aside for meeting future costs. Rather than keeping the reserve funds inert one may get a kick out of the chance to utilize reserve funds so as to get return on it later on is called venture. One needs to contribute to acquire return on inert assets, create a predetermined entirety of cash for a particular objective throughout everyday life and to make an arrangement for a dubious future. One can stop their assets in speculation roads like non-attractive budgetary resources, securities, common store plans, land, value shares, currency showcase instruments, disaster protection approaches, stores, govt sparing plans, retirement items, money related subordinates and different valuable articles. The key parts of any speculation are hazard and return. The best portfolio is discovering balance between boosting the arrival and limiting the hazard. The goal is to choose interests so as to broaden dangers while not diminishing anticipated return.*

**Keywords:** Equity, Nifty, Risk, Average Return, Performance, Management

## 1. Risk and Return Analysis

Return expresses the amount which a financial specialist really earned on a speculation during a specific period. Return incorporated the intrigue, profit and capital additions; while chance speaks to the vulnerability related with a specific errand. In money related terms, hazard is the opportunity or likelihood that a specific speculation could conceivably convey the real or anticipated returns. The hazard return exchange off says that the potential return ascends with an expansion in chance. It is significant for a financial specialist to settle on a harmony between the longing for the most minimal conceivable hazard and most noteworthy conceivable return. The hazard/return exchange off could without much of a stretch be known as the "capacity to rest around evening time test".

## 2. Portfolio Management

Portfolio is a group of financial assets which a financial specialist really earned on a venture during a specific period. Return incorporated the intrigue, profit and capital increases; while chance speaks to the vulnerability related with a specific undertaking. In money related terms, hazard is the opportunity or likelihood that a specific venture could conceivably convey the real or anticipated returns. The hazard return exchange off says that the potential return ascends with an expansion in chance. It is significant for a financial specialist to settle on a harmony between the longing for the most reduced conceivable hazard and most noteworthy conceivable return. The hazard/return exchange off could without much of a stretch be known as the "capacity to rest around evening time test".

### Need for the Study

- Investing money in the resources where the hazard is less has consistently been hard to choose, that implies the financial specialist might want to see the hazard and return before contributing.
- The requirement for study is to dissect the hazard and return related with the chose loads of different industries listed in the NSE.

- To find the industry that provides maximum return and minimum risk

### Objectives of the Study

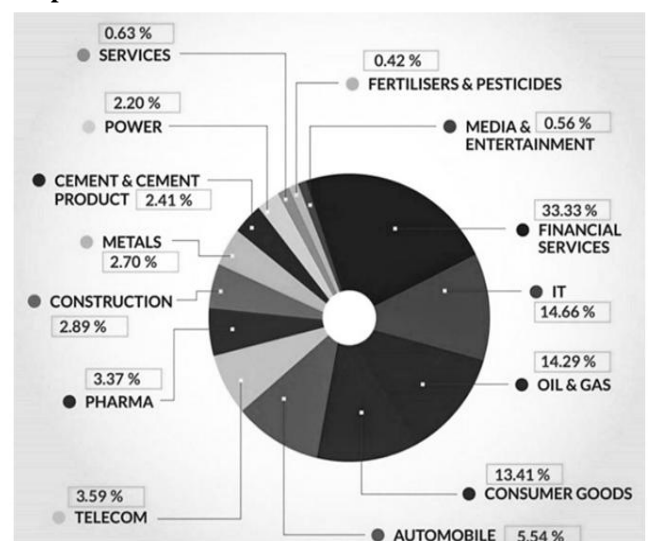
- To measure the average rate of return of selected equity stocks.
- To calculate the risk associated with equity stocks of selected industries.
- To highlight the relationship between the rate of return of selected equity stocks of various industry groups with market rate of return i.e., NSE Nifty Index. To know the statistical relationship between the rate of return of selected equity stocks and market portfolio return using multiple regression model

## 3. Research Methodology

### Sources of Data

The relevant information for the study is a secondary source & data is collected from the website [www.nseindia.com](http://www.nseindia.com)

### Sample Size



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**Tools and Techniques****Statistical Tools**

- Return, Average Return
- Standard deviation
- Variance
- Correlation coefficient
- ANOVA
- Multiple regression etc

**4. Data Analysis****Automobile Industry****Ashok Leyland Ltd**

Company is headquartered in Chennai owned by Hinduja Group. Ashok Leyland Ltd was founded on 7 September, 1948 and Dheeraj Hinduja is the Chairman. There are more than 11550 employees generating revenue of around US\$3.2 billion as of 2018. It is the second business vehicle maker in India, fourth biggest producer of transports on the planet and sixteenth biggest maker of trucks universally.

**Bajaj Auto Ltd**

Bajaj auto ltd is the Indian two-wheeler and three-wheeler producing organization. Bajaj Auto produces and sells bikes, bikes and auto carts. It is a piece of Bajaj Group established by Jamnalal Bajaj in Rajasthan on 29 November, 1945. Its base camp is in Pune. Rahul Bajaj is the Chairman and Rajiv Bajaj is the CEO. There are around 9200 employees generating revenue of US\$3.5 billion as of 2018. It is the world's 6<sup>th</sup> largest manufacturer of motorcycles and the 2<sup>nd</sup> largest in India. It is the world's largest three wheeler manufacturer.

**Exide Industries Ltd**

Exide industries are a capacity battery delivering organization in India. It produces car and modern leadcorrosive batteries, submarine batteries and home UPS. It has 7 factories located across the country. The company was founded on 31 January, 1947 and its headquarters is in Kolkata. R.G.Kapadia is the Chairman. Exide is only company which provides Submarine Batteries to Indian Navy.

**Hero Motocorp Ltd**

Hero motocorp ltd once Hero Honda is an Indian bike (<250cc) and bike maker. The organization is the biggest bike producer in India having a market share of 46%. It was founded by Dr. Brijmohan Lal Munjal on 19 January, 1984 and headquarters is located at Gurgaon. Pawan Munjal is the Chairman, MD and CEO. The company has around 5850 employees generating revenue of US\$3.8 billion as of 2013. It was ranked 108 on the Forbes list of the 200 world's most respected companies in 2006.

**Mahindra****Mahindra & Mahindra Ltd**

Mahindra & Mahindra Ltd (M&M) is an Indian worldwide vehicle fabricating partnership established in 1945 and headquartered in Mumbai. Anand Mahindra is Executive Chairman and Pawan Goenka in MD. It is one of the biggest vehicle makers by creation in India and the biggest makers of tractors on the planet. It was positioned 21 on a rundown of top organizations in India by Fortune India 500 of every 2011. It has around 39300 representatives creating income of US\$1.4 billion starting at 2017.

**Tata Motors Ltd**

Tata motors ltd formerly TELCO is an Indian worldwide car producing organization established in 1945, headquartered in Mumbai and an individual from Tata Group. Its items incorporate traveler vehicles, trucks, vans, mentors, transports, sports vehicles, development hardware and military vehicles. Natarajan Chandrasekaran is the Chairman and Guenter Butschek is the CEO. It has around 60000 employees generating revenue of US\$42 billion as of 2018.

**Maruti Suzuki India Ltd**

Maruti Suzuki India ltd formerly Maruti Udyog ltd is an car producer in India established in 1981, headquartered in New Delhi. It is a 54.2% claimed auxiliary of Japanese vehicle and cruiser producer Suzuki Motor Corporation. R.C.Bhargava is the Chairman and Kenichi Ayukawa is the MD & CEO. It has around 25000 employees generating revenue of US\$9.1 billion as of 2018.

Date	Average returns of stock prices (%)							Industry AVG
	Ashok LEY	Bajaj -Auto	EXIDEIND	Hero Motoco	M&M	Tata Motors	Maruti	
28/04/2019	10.66	-0.63	0.17	12.86	6.09	3.76	10.52	<b>6.20</b>
31/03/2019	1.01	2.09	2.45	3.00	3.78	-1.49	8.46	<b>2.76</b>
28/02/2019	-6.73	1.80	5.90	2.67	-1.92	1.99	1.57	<b>0.75</b>
31/01/2019	-0.11	-2.74	7.37	-1.08	5.81	-12.76	0.48	<b>-0.43</b>
30/12/2018	13.30	7.65	9.55	4.23	4.68	10.92	10.80	<b>8.73</b>
30/11/2018	0.75	-1.97	-0.58	-3.87	-0.03	2.77	1.02	<b>-0.27</b>
30/10/2018	-12.97	-5.13	-8.72	-5.55	-10.02	-13.66	-10.69	<b>-9.53</b>
30/09/2018	14.76	0.10	8.44	-1.80	-6.31	-0.54	7.65	<b>3.18</b>
31/08/2018	-9.08	-5.07	-1.24	-3.60	-2.15	-0.53	8.38	<b>-1.90</b>
29/07/2018	-8.08	10.28	3.46	10.56	-2.06	6.86	6.22	<b>3.89</b>
30/06/2018	-3.15	0.52	5.79	0.78	2.57	9.57	13.62	<b>4.24</b>
31/05/2018	-9.73	2.62	3.07	2.56	8.14	-0.09	0.62	<b>1.03</b>
29/04/2018	2.01	5.07	11.54	6.95	-0.65	12.56	9.67	<b>6.74</b>
31/03/2018	-1.66	3.57	5.67	-1.64	9.93	5.63	2.11	<b>3.37</b>
29/02/2018	23.90	9.30	8.99	17.83	-1.42	29.00	14.82	<b>14.63</b>

29/01/2018	-2.18	-6.01	6.32	-2.56	-0.42	-11.04	-20.98	-5.27
31/12/2017	1.93	-7.51	-17.89	-4.77	-3.07	-13.90	-11.38	-8.08
30/11/2017	-7.08	2.13	-1.45	-0.19	-6.82	-7.55	0.33	-2.95
30/10/2017	0.96	-2.79	-0.60	4.56	15.37	9.95	3.55	4.43
30/09/2017	1.57	14.23	-3.95	7.81	-6.35	28.92	-5.05	5.31
31/08/2017	2.16	0.00	1.33	-0.11	3.51	-12.22	12.44	1.02
31/07/2017	6.93	-11.59	5.03	-10.64	-10.46	-11.38	-3.79	-5.13
30/06/2017	16.40	-0.66	-1.38	6.31	6.34	-11.59	7.66	3.30
Total	35.57	15.27	49.30	44.31	14.55	25.17	68.03	36.02
Mean	1.55	0.66	2.14	1.93	0.63	1.09	2.96	1.57
Standard Deviation	9.05	5.90	6.39	6.36	6.32	12.08	8.65	5.49

### Interpretation

- The companies Ashok Leyland, Bajaj Auto, M&M, and Tata Motors are giving lower returns than industry returns whereas Exide Industries, Hero Moto Co. and Maruti are giving higher returns.
- All the companies are at high risk comparing with Industry ris

### 5. Findings

- The Banking & Finance, FMCG, IT, Pharmacy and Energy & Power industries are giving lower returns than Nifty returns whereas Automobile, Cement & Construction and Mining & Metal industries are giving higher returns.
- All the industries are having higher risk than Nifty risk.
- The data is under normal distribution.

### 6. Correlation

- Automobile sector and others-** The automobile sector samples show an inter correlation in between Banking & Finance, Cement & Construction, FMCG, Mining & Metal, Energy & Power sectors and Nifty. It is not correlated with pharmacy and IT sectors.
- Banking & Finance sector and others-** The Banking & Finance sector samples show an inter correlation in between Automobile, Cement & Construction, FMCG, Mining & Metal, Energy & Power sectors and Nifty. It is not correlated with Pharmacy and IT sectors.
- Cement & Construction sector and others-** The Cement & Construction sectorsamples show an inter correlation in between Automobile, Banking & Finance, FMCG, Mining & Metal, Energy & Power sectors and Nifty. It is not correlated with Pharmacy and IT sectors.
- FMCG sector and others-** The FMCG sector samples show an inter correlation in between Automobile, Banking & Finance, Cement & Construction, IT, Mining & Metal, Energy & Power sectors and Nifty. It is not correlated with pharmacy sector.
- IT sector and others-** The IT sector samples show an inter correlation in between FMCG and Nifty. It is not correlated with Automobile, Banking & Finance, Cement & Construction, Mining & Metal, Pharmacy, Energy & Power sectors.
- Mining & Metal sector and others-** The Mining & Metal sector samples show an inter correlation in between Automobile, Banking & Finance, Cement & Construction, FMCG, Energy & Power sectors and Nifty. It is not correlated with Pharmacy and IT sectors.

g) **Pharmacy sector and others\_** The Pharmacy sector samples are not correlated with all the other sectors and Nifty.

h) **Energy & power sector and others\_** The Energy & power sector samples show an inter correlation in between Automobile, Banking & Finance, Cement & Construction, FMCG, Mining & Metal sectors and Nifty. It is not correlated with Pharmacy and IT sectors.

i) **Nifty and others\_** The Nifty shows an inter correlation among all the sectors except pharmacy sector.

- There is significant mean difference between dependent and independent variables. The dependent variable (Nifty) is influenced **90.7%** by the independent variables (different industries taken for the study).
- From the  $\beta$  coefficients it is concluded that Automobile sector stock prices are influencing NIFTY highly. FMCG, IT and Mining & Metal sectors stock prices are influencing very moderately. The other sectors (Banking & Finance, Cement & Construction, and Pharmacy and Energy & Power sectors) have very low influence on NIFTY.
- The multiple regression equation is

$$\begin{aligned} \text{NIFTY Return} &= -0.92 + \\ &+ 0.344*\text{Auto}+0.040*\text{BankFinan}+0.033*\text{CemConst} + \\ &+ 0.145*\text{FMCG} + 0.207*\text{IT} + 0.207*\text{IT} + \\ &+ 0.100*\text{MinMeta}+0.037* \\ &\text{Pharmacy} -0.001*\text{EnerPower} \end{aligned}$$

### 7. Conclusion

The present project work has been undertaken to study the optimum investment opportunities available to investors. These avenues are different for different profiles of investors and to know portfolio of the securities. However it is very important for an investor to identify the risk associated with the returns of various securities. The larger the value of coefficient of variation, the riskier the stock is. In minimizing the correlation among assets in the portfolio is the foundation of risk reduction through effective diversification. In order to manage the risk associated with the returns one has to construct the portfolio. A portfolio is a set of securities which by adding reduces the risk in whole. In this project it is seen how the risk and return of the industries may influence the investor's portfolio. Such type of further study that helps the investors to build a good portfolio is called for. The entire project work is done to identify the best portfolio of industry combinations and the results are found satisfactory.

## 8. Suggestions

The objective of any investor is to maximize expected returns from his or her investments subject to various constraints and risk. The main aim of constructing a portfolio is to minimize the risk associated with individual securities return. It provides investors to compare and contrast different alternative investment opportunities and helps in measuring of historical returns which in turn, enables the investors to assess how well they have done. It has to be evaluated and modified from time to time. After performing thorough analysis the following is suggested: The investors can use the security-market return correlation coefficient while considering the investment options. Investors should practice the tools and techniques that are available to conduct company analysis, industry analysis and economic analysis to select a best portfolio for investment.

The investors who wish to take ---

- High risk can invest in Automobile industry,
- Moderate risk can invest in FMCG, IT and Mining & Metal industries and
- Low risk can invest in Banking & Finance, Cement & Construction, and Pharmacy and Energy & Power industries.

The additional indicators such as trend gaps or the difference between the returns of different assets or between portfolios should also be taken into consideration when assessing diversification of funds.

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