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## A Comparative Study on Risk & Return Analysis of Selected Stocks in India

Dr. S. GAUTAMI<sup>1</sup>, Dr. NALLA BALA KALYAN<sup>2</sup>

<sup>1,2</sup>Associate Professor Department of Management Studies Sri Venkateswara College of Engineering Karakambadi Road, Tirupati-517507

ARTICLE INFO	ABSTRACT
Published Online: 07 May 2018	Stock market is a market where a number of securities are traded such as equity shares, debentures, bonds, insurance products, mutual funds etc. mostly the existing securities are traded in this market. India has one of the oldest stock markets in Asia and this stock exchange is the Bombay Stock Exchange which was established in 1875. It was started under the banner of "The Native Stock and Share Brokers Association". The main aim of this article is to study the fluctuations in share prices of selected companies in India. The Stock exchange is a market for old securities which have been already issued and listed on a stock exchange. These Securities are purchased and sold continuously among investors without involvement of companies. The Stock exchange provides not only free transferability of shares but also makes continuous evaluation of securities traded in the market. The present study is deliberate to examine the Risk & Return Analysis of Selected Stocks in India. Risk may be defined as the chance of variations in actual return. Return is defined as the gain in the value of investment. The return on an investment portfolio helps an investor to evaluate the financial performance of the investment.
Corresponding Author: <b>Dr. NALLA BALA KALYAN</b>	
<b>KEYWORDS:</b> India, Risk & Return, Stocks, Stock Market	

### 1. INTRODUCTION

Stock Market is a place where shares of public listed companies are traded. The primary market is where companies float shares to the general public in an initial public offering (IPO) to raise capital. Once new securities have been sold in the primary market, they are traded in the secondary market—where one investor buys shares from another investor at the prevailing market price or at whatever prices both the buyer and seller agree upon. The secondary market or the stock exchanges are regulated by the regulatory authority. In India, the secondary and primary markets are governed by the Security and Exchange Board of India (SEBI). A stock exchange facilitates stock brokers to trade company stocks and other securities. A stock may be bought or sold only if it is listed on an exchange. Thus, it is the meeting place of the stock buyers and sellers. India's premier stock exchanges are the Bombay Stock Exchange and the National Stock Exchange. The Indian securities market has become one of the most dynamic and efficient securities markets in Asia today. The Indian market now conforms to international standards in terms of operating efficiency. In this context, it would be informative to understand the origin and growth of the Indian stock market. The number of stock exchanges virtually remained unchanged for nearly three decades from 1947 to 1977, except for the establishment of the Bangalore Stock

Exchange in 1957. During the 1980s, however, many stock exchanges were established. Some of them were:

1. Cochin Stock Exchange (1978)
2. Uttar Pradesh Stock Exchange (at Kanpur, 1982)
3. Pune Stock Exchange (1982)
4. Ludhiana Stock Exchange (1983)
5. Jaipur Stock Exchange (1989)
6. Bhubaneswar Stock Exchange (1989)
7. Vadodara Stock Exchange (at Baroda, 1990)

### 2. NEED FOR THE STUDY

Stock Markets have existed in India for a very long time. Yet the professionals in the field of finance talking negatively about these instruments. Very important to understand what the old system was versus the new and the old system were based on trust. They were closed group systems and hence deviation from truly competitive markets. Such closed groups are vulnerable to problem when the demand of the economy reaches beyond the capacity of the group and group has expended without open and transparent criteria for entry, the network of trust gets disrupted, with the result that the system is disrupted by frauds. On the other hand, the modern market place of Stock Markets, having well developed risk management, transparent rules for entry and stringent regulation, is faceless. The old type system had to transform into a new one is definitely clear that they have played

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a very important role in the past. That merely had to modern markets to keep up with the demand of the times.

### 3. OBJECTIVES OF THE STUDY

- To study the fluctuations in share prices of selected companies
- To study the Risk involved in the securities of selected companies
- To make comparative study of Risk and Return of Bharati Airtel, Dabur India Panyam, Asian Paint

### 4. RESEARCH METHODOLOGY

Research methodology is the process used to collect information and data for the purpose of making business

decisions. The methodology may include publication research, interviews, surveys and other research techniques, and could include both present and historical information. The process used to collect information and data for the purpose of making business decisions

**Research Design:** Based on the objectives of the study, descriptive research has adopted. Descriptive research is one which largely used to draw inferences about the possible relationships between variables. It is designed to gather descriptive information and provides information for formulating more sophisticated studies. It involves formulation of more specific hypothesis and testing them through statistical inference.

### 5. DATA ANALYSIS AND INTERPRETATION

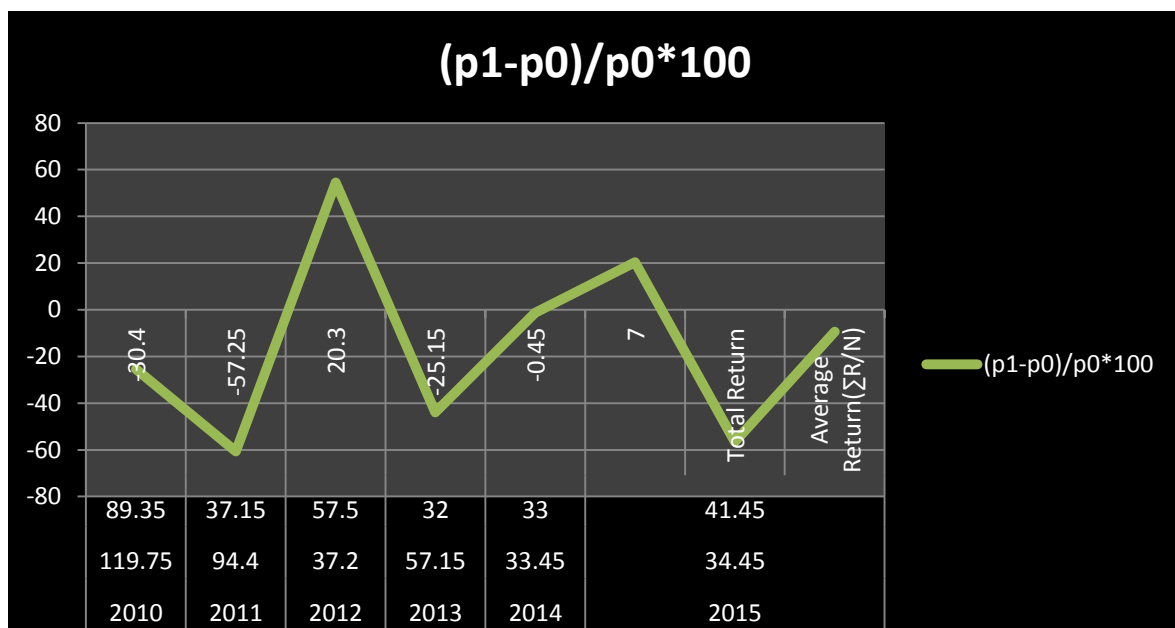
**Table 1.** Calculation of Average Return of Asian Paints in (%)

Year	Opening share Price (p0)	Closing Share Price (p1)	(p1-p0)	(p1-p0)/p0*100
2010	173.8	287.49	113.69	65.414
2011	289.8	259.5	-30.3	-10.455
2012	258	442.03	184.03	71.329
2013	442	490.75	48.75	11.029
2014	493.75	751.75	258	52.253
2015	750	821	71	9.467
			Total Return	199.037
			Average Return ( $\sum R/N$ )	33.173

**Source:** Data Collected from India bulls and Internet from the period of 2010-2015

**Graph 1.**

Calculation of Average Return of Asian Paints in (%)



**Interpretation:** In the year 2010 the returns were 65.414 and in the year 2015 the returns were 9.467. The average return of the Asian Paints is 33.173.

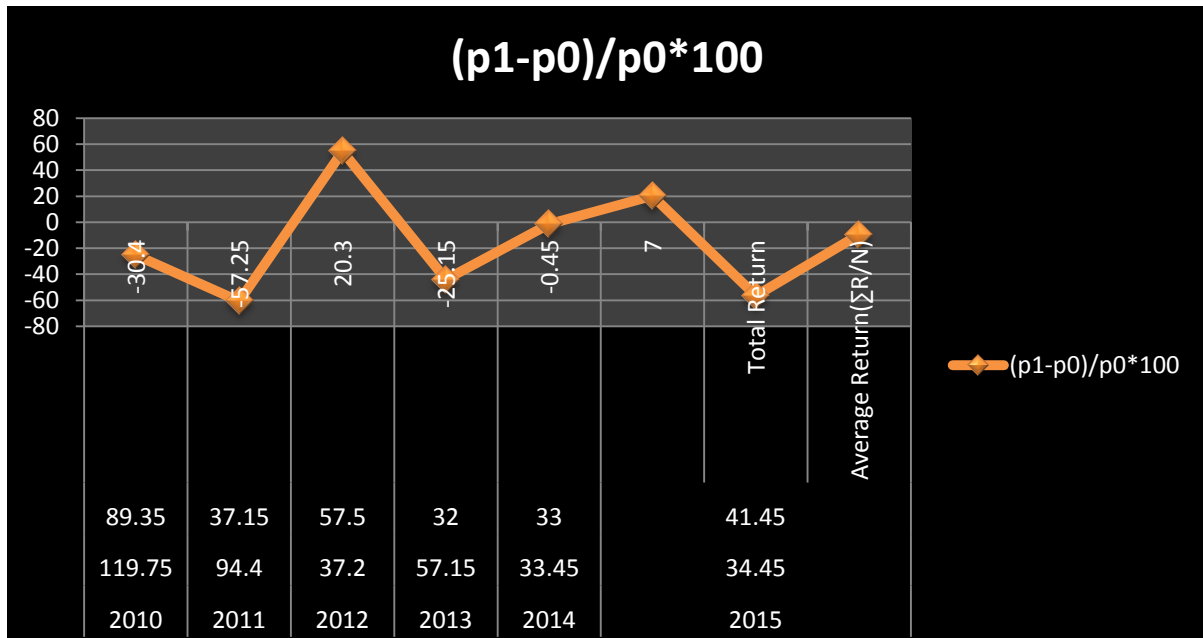
**Table 2.** Calculation of Average Return of Bharti Airtel in (%)

Year	Opening share Price(p0)	Closing share Price(p1)	(p1-p0)	(p1-p0)/p0*100
2010	330	358.4	28.4	8.606
2011	358.4	342.9	-15.5	-4.325
2012	346	316.8	-29.2	-8.439
2013	317.8	330.45	12.65	3.980
2014	332	352.85	20.85	6.280
2015	358	417.3	59.3	16.564
			Total Return	22.667
			Average Return( $\sum R/N$ )	3.778

**Source:** Data collected from India bulls and Internet from 2010-2015

**Graph 2.**

Calculation of Average Return of Bharti Airtel in (%)



**Interpretation:** In the year 2010 the returns were 8.606 and in the year 2015 the returns were 6.280. The average return of the Bharti Airtel is 3.778.

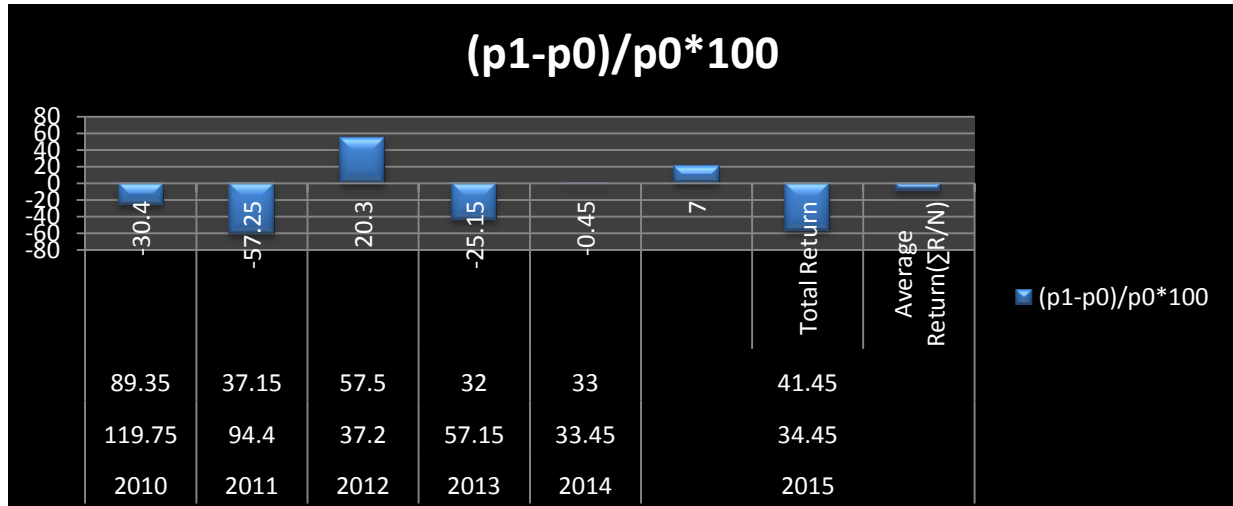
**Table 3.** Calculation of Average Return of Dabur India in (%)

Year	Opening Share Price(p0)	Closing Share Price(p1)	(p1-p0)	(p1-p0)/p0*100
2010	79.05	100.25	21.2	26.818
2011	100.4	99.75	-0.65	-0.647
2012	100.15	128.75	28.6	28.557
2013	129.4	170.2	40.8	31.530
2014	171	233.55	62.55	36.579
2015	234.75	275.75	41	17.465
			Total Return	140.303
			Average Return( $\sum R/N$ )	23.384

**Source:** Data collected from India bulls and Internet from 2010-2015

**Graph 3.**

**Calculation of Average Return of Dabur India in (%)**



**Interpretation:** In the year 2010 the returns were 26.818 and in the year 2015 the returns were 17.465. The average return of the Dabur India is 23.384.

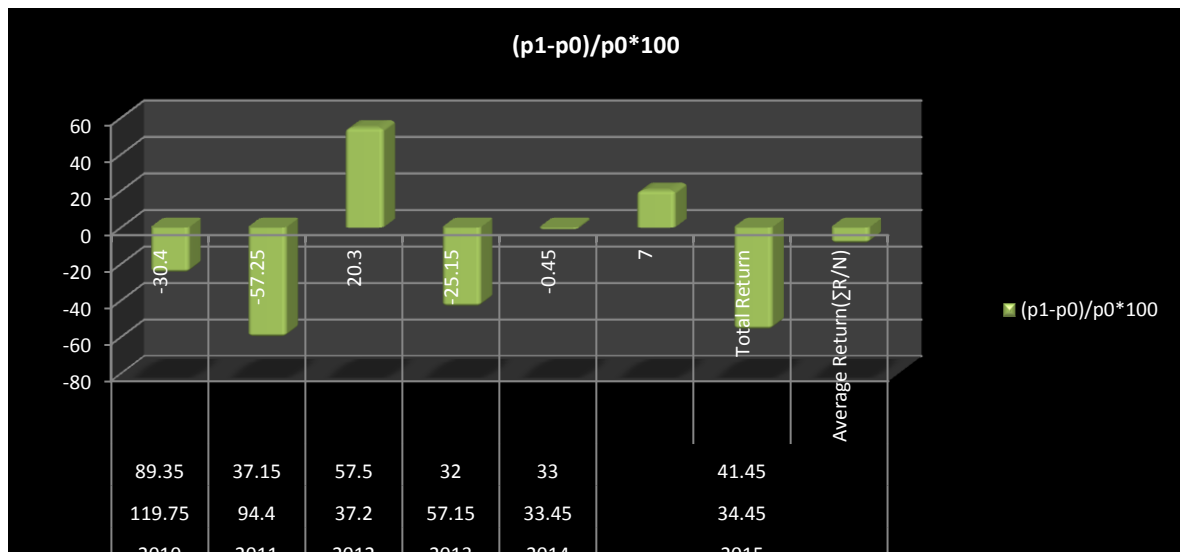
**Table 4.** Calculation of Average Return of Panyam Cements in (%)

Year	Opening Share Price(p0)	Closing Share Price(p1)	(p1-p0)	(p1-p0)/p0*100
2010	119.75	89.35	-30.4	-25.386
2011	94.4	37.15	-57.25	-60.646
2012	37.2	57.5	20.3	54.570
2013	57.15	32	-25.15	-44.007
2014	33.45	33	-0.45	-1.345
2015	34.45	41.45	7	20.319
			Total Return	-56.496
			Average Return( $\sum R/N$ )	-9.416

**Source:** Data collected from India bulls and Internet from 2010-2015

**Graph 4.**

**Calculation of Average Return of Panyam Cements in (%)**



**Interpretation:** In the year 2010 the returns were 25.386 and in the year 2015 the returns were 20.319. The average return of the Panyam cement is -9.416

### CALCULATION OF STANDARD DEVIATION

**Table 5.** Calculation of Standard deviation of Asian Paints in (%)

Year	Return( R )	Average Return (R <sup>-</sup> )	d=( R-R <sup>-</sup> )	D <sup>2</sup>
2010	65.414	33.173	32.241	1039.499
2011	-10.455	33.173	-43.628	1903.445
2012	71.329	33.173	38.156	1455.915
2013	11.029	33.173	-22.144	490.338
2014	52.253	33.173	19.080	364.053
2015	9.467	33.173	-23.706	561.990
<b>TOTAL</b>				<b>Σd<sup>2</sup>=5815.241</b>

**Source:** Data collected from India bulls and Internet from 2010-2015

**Calculation:** Average Return = 33.173

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$       **Variance** =  $1/n-1(\sum d^2)$   
 =  $1/6-1(5815.241)$  = 1163.048

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$  =  $\sqrt{1163.048}$  = 34.103

**Interpretation:** The Standard deviation of the Asian Paints is 34.103 and its variance is 1163.048

**Table 6.** Calculation of Standard deviation of Bharti Airtel in (%)

Year	Return( R )	Average Return (R <sup>-</sup> )	d=( R-R <sup>-</sup> )	D <sup>2</sup>
2010	8.606	3.778	4.828	23.310
2011	-4.325	3.778	-8.103	65.655
2012	-8.439	3.778	-12.217	149.263
2013	3.980	3.778	0.202	0.041
2014	6.280	3.778	2.502	6.261
2015	16.564	3.778	12.786	163.488
<b>TOTAL</b>				<b>Σd<sup>2</sup>= 408.017</b>

**Source:** Data collected from India bulls and Internet from 2010-2015.

**Calculation:** Average Return = 3.778

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$       **Variance** =  $1/n-1(\sum d^2)$   
 =  $1/6-1(408.017)$  = 81.603

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$  =  $\sqrt{81.603}$  = 9.033

**Interpretation:** The Standard deviation of the Bharti Airtel is 9.033 and its variance is 81.603

**Table 7.** Calculation of Standard Deviation of Dabur India in (%)

Year	Return( R )	Average Return (R <sup>-</sup> )	d=( R-R <sup>-</sup> )	D <sup>2</sup>
2010	26.818	23.384	3.434	11.796
2011	-0.647	23.384	-24.031	577.509
2012	28.557	23.384	5.173	26.762
2013	31.530	23.384	8.146	66.360
2014	36.579	23.384	13.195	174.107
2015	17.465	23.384	-5.919	35.030
<b>Total</b>				<b>Σd<sup>2</sup>=891.562</b>

**Source:** Data collected from India bulls and Internet from 2010-2015.

**Calculation:** Average Return = 23.384

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$       **Variance** =  $1/n-1(\sum d^2)$   
 =  $1/6-1(891.562)$  = 178.312

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$  =  $\sqrt{178.312}$  = 13.353

**Interpretation:** The Standard deviation of the Dabur India is 13.353 and its variance is 178.312

**Table 8.** Calculation of Standard deviation of Panyam Cements in (%)

Year	Return( R )	Average Return (R̄)	d=( R-R̄)	D <sup>2</sup>
2010	-25.386	-9.416	-15.970	255.048
2011	-60.646	-9.416	-51.230	2624.532
2012	54.570	-9.416	63.986	4094.194
2013	-44.007	-9.416	-34.591	1196.537
2014	-1.345	-9.416	8.071	65.136
2015	20.319	-9.416	29.735	884.188
<b>Total</b>				<b>Σd<sup>2</sup>=9119.636</b>

**Source:** Data collected from India bulls and Internet from 2010-2015.

**Calculation:** Average Return = -9.416

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}}$  Variance =  $1/n-1(\sum d^2)$   
 =  $1/6-1(9119.636) = 1823.927$

**Standard Deviation (Risk)** =  $\sqrt{\text{Variance}} = \sqrt{1823.927} = 42.707$

**Interpretation:** The Standard deviation of the Panyam Cement is 42.707 and its variance is 1823.927.

**Table 9.** Depicting all Calculated Values

	Asian Paints	Bharati Airtel	Dabur India	Panyam Cement
Average Returns	33.173	3.778	23.384	-9.416
Standard Deviations	34.103	9.033	13.353	42.707
Covariance	1.028	2.391	0.571	-4.536
Coefficient of Correlation	0.405	0.405	-0.141	-0.141
Beta	-1.291	0.629	-0.091	-1.139

## 6. FINDINGS

- The firm “Asian Paints” Company has an average return of 33.173, risk is 34.103 and coefficient of variation is 1.028. The highest market price is 750 in the year 2015; the lowest market price is 173.8 in the year 2010.
- The firm “Bharti Airtel” Company has an average return of 3.778; risk is 9.033 and coefficient of variation is 2.391. The highest market price is 358.4 in the year 2011; the lowest market price is 317.8 in the year 2013.
- The firm “Dabur India” Company has an average return of 23.384, risk is 13.353 and coefficient of variation is 0.571. The highest market price is 234.75 in the year 2015; the lowest market price is 79.05 in the year 2010.
- The firm “Panyam Cements” Company has an average return of -9.416, risk is 42.707 and coefficient of variation is -4.536. The highest market price is 119.75 in the year 2014, the lowest market price is 33.45 in the year 2014.

## 7. SUGGESTIONS

- The company Asian Paints has a coefficient of 1.028 and Bharti Airtel has a coefficient of 2.391 and when a comparison is made between these firms, the investor has an option to invest in Asian Paints.

- The company Bharti Airtel has a coefficient of 2.391 and Dabur India has a coefficient of 0.571 and when a comparison is made between these firms, the investor has an option to invest in Dabur India.
- The company Dabur India has a coefficient of 0.571 and Panyam Cements has a coefficient of -4.536 and when a comparison is made between these firms, the investor has an option to invest in Panyam Cements.

## 8. CONCLUSION

India Bulls Financial Services is an integrated financial services powerhouse providing Consumer Finance, Housing Finance, Commercial Loans, Life Insurance, Asset Management and Advisory services. India Bulls Financial Services Ltd is amongst 68 companies constituting MSCI - Morgan Stanley India Index. India Bulls Financial is also part of CLSA’s model portfolio of 30 Best Companies in Asia. India Bulls Financial Services in partnership with MMTC Limited, the largest commodity trading company in India, has set up India’s 4th Multi-Commodities Exchange. This article emphasizes on the market fluctuations relations to the prices of Scrip’s though it is difficult to observe a pattern for the price movements but efforts have been taken using fundamental analysis and technical analysis. Using fundamental analysis, it is observed that the financial position and performance of the firms are in correlation with present market prices. According to technical analysis, the

historical data taken is used to observe the trends followed by the Scrip's. However, we cannot say that any one method is sufficient to analyze and interpret the fluctuations but they help the investor to define the trends to some extent. Overall we can say that the project is satisfied.

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