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A STUDY ON VOLATILITY OF SHARES WITH REFERENCE TO SELECTIVE PAINT SECTOR COMPANIES

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ABSTRACT:

Stock exchange is one of the foremost versatile sectors within the economic system, and stock market plays an important role in economic development. The ups and downs of the financial markets are always in the news. After all, there's plenty to report. Wide price fluctuations are a daily occurrence on India's stock markets as investors react to economic, business, and political events. Commonly, the upper the volatility greater the danger associated with the security. Volatility estimation is significant for several reasons associated with different people within the market. Of late, the markets have been showing extremely erratic movements, which are in no way tandem with the information that is fed to the markets. The present study is undertaken with an attempt to determine the share price movements and its volatility of the selected five companies of financial service sector.

KEYWORDS: *Shares, Stock market, Portfolio, Volatility etc.*

Introduction

Volatility is a term in the stock market which has its concern for everyone who is interested to invest in the stock market. In India, stock market is affected by globalized factors as well as the domestic factors also. These factors make the market volatile and which in turn has its influence on the returns of the stock price. Returns of stock significantly affected by the fluctuations of the market. In the current time of progression, privatization and globalization, the worldwide speculations and expansion of portfolio universally is a significant issue, particularly in the timeframe when securities exchanges are exceptionally unpredictable. Regularly, individuals put resources into the securities exchange to gain returns. A speculator plans his portfolio where he remembers various stocks or gathering of stock for organization oral premise to accomplish his motivation of most extreme comes back with least hazard. International diversification can be an option as rationale behind this is that stock returns within a county can be highly correlated because of similar environment but internationally conditions can be different.

Capital market is one of the most important segments of the Indian financial system. It is the market available to the companies for the meeting the requirements of long term funds or assets that is share and debenture. In other words it concerned with the raising money capital for the purpose of making long term investments. These securities are regularly transacted that is sold and purchased at particular price which supposed to reflect all the information relating to the issuing companies. Different securities and instruments are traded, purchased and sold in this market. These instruments may be of ownership in nature like equities and preference shares or of debt nature like debenture and bonds.

Need of the Study:

Stock Market volatility is unavoidable. It is the nature of the stock markets to fluctuate and turn red and green within short span of time. Volatility is an essential part of the stock market because it checks the nerve of the market. As a coin has two sides, the same way market has two aspects the positive and the negative. It can be seen that volatility has its long term impact in the market so an investor is required to take all possible measures to design his portfolio. Stock returns bear a good relationship with volatility as with increase in financial volatility stock prices fluctuates. An average investor gets very less returns as compared to the average market returns.

Objectives of the Study:

1. To evaluate the return and volatility relationship of Selected Companies of Paint Sector.
2. To investigate and compare the stock returns and volatility behavior
3. To understand, analyze and select the best portfolio
4. To help the investors to choose wisely between alternatives

The sample data will be analyzed with the help of two statistical tools such as standard deviation and correlation. This analysis also examines the significant relationship between the variables to the extent of their interrelationship.

- SD=(√ variance)
- Co Variance(covab) =1/n-1(∑dx.dy)
- Variance = 1/n-1(∑d2)
- Correlation of coefficient = cov ab/ σa*σb

Weighted average of the return of Portfolipo

$$E(R_p) = [W_a X\ E(R_a)] + [W_a X\ E(R_a)]$$

The portfolio standard deviation (σ_p)

$$\sigma_p = \sqrt{w_a^2\ \sigma^2 + w_a^2\ \sigma^2 + 2w_a w_b r_{ab}\ \sigma_a\ \sigma_b}$$

Limitations of the study:

1. Based on secondary data for one year only.
2. Result may varies with other statistical tools and formulae.
3. Data was calculated on weekly basis and result may changes with daily or monthly wise.
4. This project is corresponding to only paint industry and considering to five companies only.

5. Whaitage is considered as 0.5for each security in calculating portfolio return.

Data Analysis and Interpretation:

Table – 1 Return

Company Name	Return (%)
Akzo Nobel	10.99
Asian Paints	12.54
Berger Paints	-26.48
Indigo Paints	-37.54
Nerolac Paints	-26.53

Interpretation:

According to the above table, Akzo Nobel posted highest return followed by Asian Paints whereas Indigo Paints posted least return.

Table – 2 Risk

Company Name	Risk
Akzo Nobel	2.93
Asian Paints	4.35
Berger Paints	3.71
Indigo Paints	4.54
Nerolac Paints	5.10

Interpretation:

Based on the above table, Akzo Nobel was lowest risk followed by Berger Paints. But Nerolac Paints had highest risk. Hence risk avoiders can prefer Akzo Nobel and Berger Paints. Similarly, risk takers can prefer Nerolac Paints.

Table – 3 Correlation Coefficient

Portfolio	Correlation Coefficient
Akzo Nobel & Asian Paints	0.32
Akzo Nobel & Berger Paints	-0.25
Akzo Nobel & Indigo Paints	-0.39
Akzo Nobel & Nerolac Paints	0.16
Asian Paints & Berger Paints	0.53
Asian Paints & Indigo Paints	0.36
Asian Paints & Nerolac Paints	0.71
Berger Paints & Indigo Paints	0.81
Berger Paints & Nerolac Paints	0.76
Indigo Paints & Nerolac Paints	0.74

Interpretation:

From the table, portfolio Akzo Nobel & Indigo Paints and Akzo Nobel & Berger Paints had negative coefficient values, whereas Berger Paints & Indigo Paints and Berger Paints & Nerolac Paints had higher values. So, risk avoiders can prefer Akzo Nobel & Indigo Paints and Akzo Nobel & Berger Paints portfolios and risk takers can invest In Berger Paints & Indigo Paints and Berger Paints & Nerolac Paints portfolio.

Table – 4 Portfolio Return

Portfolio	Return (%)
Akzo Nobel & Asian Paints	11.77
Akzo Nobel & Berger Paints	-7.74
Akzo Nobel & Indigo Paints	-13.27
Akzo Nobel & Nerolac Paints	-7.77
Asian Paints & Berger Paints	-6.97
Asian Paints & Indigo Paints	-12.50
Asian Paints & Nerolac Paints	-7.00
Berger Paints & Indigo Paints	-32.01
Berger Paints & Nerolac Paints	-26.51
Indigo Paints & Nerolac Paints	-32.04

Interpretation:

Portfolio return table indicates that, only Akzo Nobel & Asian Paints portfolio gave positive return and all other portfolios have negative returns. Among all portfolios, Berger Paints & Indigo Paints and Indigo Paints & Nerolac Paints portfolios posted lower returns.

Table – 5 Portfolio Risk

Portfolio	Risk
Akzo Nobel & Asian Paints	2.70
Akzo Nobel & Berger Paints	1.89
Akzo Nobel & Indigo Paints	1.95
Akzo Nobel & Nerolac Paints	2.75
Asian Paints & Berger Paints	3.23
Asian Paints & Indigo Paints	3.31
Asian Paints & Nerolac Paints	3.88
Berger Paints & Indigo Paints	3.57
Berger Paints & Nerolac Paints	3.70
Indigo Paints & Nerolac Paints	3.97

Interpretation:

According to the above table, portfolio risk was lower with Akzo Nobel & Berger Paints and Akzo Nobel & Indigo Paints while higher with Indigo Paints & Nerolac Paints followed by Asian Paints & Nerolac Paints. Hence risk avoiders prefer lower risk portfolios and risk takers can prefer higher risk.

Findings:

- According to the stock return table, Akzo Nobel posted highest return and Indigo Paints least return.
- Risk table indicates that, lower risk associated with Akzo Nobel followed by Berger Paints. Whereas higher risk with Nerolac Paints and Indigo Paints.
- Based on Coefficient of correlation table, it was observed that Berger Paints & Indigo Paints and Berger Paints & Nerolac Paints portfolios had higher degree positive

correlation. It means that both scripts in the portfolio move in the same direction either in upward or downward.

- Correlation coefficient was least in case of Akzo Nobel & Indigo Paints portfolio indicates lower risk as degree of correlation was lest among all portfolios.
- According to the portfolio return table, Akzo Nobel & Asian Paints portfolio was best among all combinations followed by Akzo Nobel & Berger Paints and portfolio Indigo Paints & Nerolac Paints stood in the end with least return.
- One can found from the portfolio risk table that, risk associated with portfolio was lower with Akzo Nobel & Asian Paints followed by Akzo Nobel & Berger Paints.
- Portfolio risk was higher with Indigo Paints & Nerolac Paints and Asian Paints & Nerolac Paints portfolios

Suggestions:

- From the return table, investors can prefer Akzo Nobel and cautious with Indigo Paints
- Risk avoiders, long term and old age investors might prefer Akzo Nobel and Berger Paints due to lower risk factor.
- Risk takers, day traders and young investors might prefer Nerolac Paints and Indigo Paints as higher volatility associated with them.
- Risk taking investors can invest in Berger Paints & Indigo Paints portfolio for good returns in short term as coefficient correlation was very high. However there is a possibility of huge loss also in case of down fall of share prices. While risk averse investors and long term investors are cautious in investing in these two companies.
- Akzo Nobel & Indigo Paints portfolio is best choice among all combination for risk averse investors as coefficient of correlation was lower degree of negative value among all studied. It minimizes losses and of course profits also low in case of growing market.
- From the portfolio return table, investors can prefer Akzo Nobel & Asian Paints portfolio followed by Asian Paints & Nerolac Paints and careful with Berger Paints & Indigo Paints portfolio.
- Based on the portfolio risk table, Akzo Nobel & Berger Paints followed by Akzo Nobel & Indigo Paints are best portfolios for investors and careful with Indigo Paints & Nerolac Paints portfolio.

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