Trend Analysis of SENSEX and NASDAQ : An empirical study of Correlation between SENSEX and NASDAQ

KEYWORDS

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ABSTRACT *We can consider the Indian Economy as one of the fastest growing economies in the world. Economy of any country is dependent on various internal and external factors. One of the major factors on which our Indian economy is dependent is the economy of The United States. SENSEX is considered as one of the economic barometers of India. To study the dependency of economic movement, the present study has been conducted by taking the movement of NASDAQ and SENSEX for the period of two years, 2007 and 2008. We have selected the period as US economy has suffered under Recession in the specified period. With the present analysis, we can conclude that the SENSEX movement is positively correlated with the movement of NASDAQ. The analytical tool used for the study is Karl Pearson Correlation-Coefficient.*

Objectives of the Research :
To identify the market trend and correlation in the selected indices SENSEX and NASDAQ to apply and to study whether SENSEX depends on the movement of NASDAQ.

Scope of the Research :
The research is based on indices SENSEX and NASDAQ. The research is based on the closing values of SENSEX and NAS-DAQ for the period of two years, 2007 and 2008. The period is selected as we have observed the recession in the US economy in that period. The present study focuses whether SENSEX depends on NASDAQ or not.

Research methodology :
Research type : Empirical
Type of sampling : Convenience
Data Type : Secondary
Data source : www.bseindia.com and www.nyse.com

Limitations :
The movement of indices get affected by political or economical events or fundamentals of economy, so all the deviations can't ne attributed to market sentiments.

For 100 observations
NASDAQ
Total of all returns -38.899
Average Return of NASDAQ -0.38899

SENSEX
Total of all returns -24.0488
Average Return of SENSEX -0.24048

Correlation coefficient
Total 895.8479874
Average 8.958479
Karl pearson Rank correlation co-efficient =

$$\frac{COV\,(X,Y)}{SQRT\,[Var\,(X) * Var\,(Y)]}$$

Variance of SENSEX is 2639.214
Variance of NASDAQ is 896.294
With the above formula, we have calculated the Karl Pearson Rank Correlation Co-efficient of SENSEX and NASDAQ as 0.58247

Conclusion :
From the above analysis, we can conclude that the SENSEX and NASDAQ have got positive relation. The movements of SENSEX depend upon the NASDAQ movements. As the NASDAQ suffered from Recession, SENSEX has also got influenced by that. In the beginning of 2007, the Value of SENSEX is 14014.92 and NASDAQ is 2454.62 and at the ending of 2007 the SENSEX is 20192.52 and NASDAQ is 2727.55, similarly, in the beginning of 2008 SENSEX is 20465.30 and NASDAQ is 2661.5 and at the ending of 2008 SENSEX is 9647.31 and NASDAQ is 1586.76. Hence the SENSEX is dependent on NASDAQ.

REFERENCE Dhanesh Khatri, Kumar "Security Analysis and Portfolio Management", Macmillan Publishers India Limited pp 514 – 523 | V.K. Bhalla, "Investment Management- Security Analysis and Portfolio Management", S.Chand Publishing | Punithavathy Pandian, "Security Analysis and Portfolio Management", Vikas Publishing House Pvt Ltd. | Sudhindra Bhat, "Security Analysis and Portfolio Management", Excel Publications. | Prasanna Chandra, "Investment Analysis and Portfolio Management", Tata Mc Graw-Hill Publishing Company Limited