

AN EXPERIMENTAL STUDY ON INTERACTIVE RISK WITH REFERENCE TO SELECTED COMPANIES EQUITY STOCKS FROM DIFFERENT INDUSTRIES

Dr. Khysar Mohd

Associate Professor, Head Department of Business Management Telangana University, Dichpally

Alok Raj Bhatt

Assistant Professor, Kcea College, Armoor, Nizamabad.

1.1 Introduction

A portfolio is considered to be efficient when it yields maximum returns with a perceived level of risk or minimum risk at expected level or returns. The traditional approach towards selection of securities and construction of portfolio depends up on different factors and specially the risk and return profile. But the new approach towards selection of asset in the process of construction of portfolio is not only to minimize the standard deviation in Returns but more precisely to negate the covariance among the different securities and to reduce the correlation to its max minimum in the portfolio. This can be possible if the securities selected in a portfolio are of unrelated industries, which results in independent relationship among the characteristics of securities selected from two unrelated industries. when the characteristics of both the securities are independent to each other's and their risk return profiles are moving in to opposite directions, In such a case these securities together as a portfolio will automatically results in negative covariance and the correlation gets reduced to its minimum and hence results in reduction of risk on portfolio to the possible extent.

1.2 Need for the Study

The need of this study is to understand and inculcate the concept or INTERACTIVE RISK and its impact on construction of efficient portfolio so as to present the experimented views on this topic to the prospective investors with the help of practical framework.

1.3 Objective of the Study

- * The objective of the study is to understand the nature and concept of Interactive risk.
- * The objective of the study is to construct different portfolios of which portfolio consisting securities belonging to same industry and another portfolio consisting the securities from unrelated industries and then to make the comparison about their risk profile to prove the Markowitz model.

1.3. Scope of the Study

The scope of the study is confined to the period of five years i.e., 2008 – 2013 and is restricted to the six companies belonging to the three different industries. i.e., SBI, IDBI, MARUTI SUZUKI, TECH.MAHENDRA LDT, ULTRATECH CEMENT, AMBUJA CEMENT.

1.4. Methodology of the Study

1.4.1. Tools and techniques used

I have used Mean, standard deviation, correlation & covariance as a statistical tool in the study.

1.4.2. Period of the study

The study is undertaken for the five year period, i.e., 2008-2013

1.4.3. Source of Data

The historical share prices of 6 companies for the five year period are taken from the official website of the company and from the money control.com.

1.5. Data analysis and interpretation

Statement of risk return profile on security for the 5 year period of selected companies

INDUSTRY	BANK INDUSTRY		AUTOMOBILE INDUSTRY		CEMENT INDUSTRY	
PARTICULARS	SBI STOCK	IDBI STOCK	MARUTI SUZUKI	TECH.MAHENDRA LTD	ULTRATECH CEMENT	AMBUJA CEMENT
Average returns	0.16948	0.047842	0.159782	0.078143	0.152739	0.140322
Standard deviation	4.58	2.95	3.97	3.07	2.45	4.54

Interpretation

Among all the selected companies, SBI stock is generating highest return but at the same time standard deviation on SBI stock is comparatively very high among all the other selected companies stocks, however the next best alternative can be recommended for the risk averters is Ultra tech Cement which generates nearer to SBI stock return with 50 percent less standard deviation.

Statement of Risk Return Profile on Portfolios

Banking industry

Portfolio 1: (SBI & IDBI)

Particulars	SBI + IDBI
Covariance	3.393
Coefficient of correlation	0.25
Return on portfolio	0.1087
Risk on portfolio	5.51

Automobile Industry

Portfolio 2: (Suzuki & Tech.Mahindra Ltd)

Particulars	Suzuki & Tech.Mahindra Ltd
Covariance	1.89
Coefficient of correlation	0.155
Return on portfolio	0.11897
Risk on portfolio	4.22

Cement Industry

Portfolio 3: (UNTRATECH CEMENT & AMBUJA CEMENT)

PARTICULARS	UNTRATECH CEMENT & AMBUJA CEMENT
Covariance	4.23
Coefficient of correlation	0.38
Return on portfolio	0.147
Risk on portfolio	5.49

Portfolio Consisting Cement and Automobile Industry**Portfolio 4: (SUZUKI & AMBUJA CEMENT)**

PARTICULARS	UNTRATECH CEMENT & AMBUJA
Covariance	-3.40
Coefficient of correlation	-0.189
Return on portfolio	1.50
Risk on portfolio	4.64

Interpretation

When the portfolio is constructed selecting the securities from the similar industry, such as SBI & IDBI from Banking Industry, Suzuki and tech.mahindra ltd from automobile industry and Ultra tech and Ambuja cements from cement industry, the covariance of all these portfolio is found positive. i.e., 3.393, 1.89, 4.23 which is much higher and the coefficient of correlation is 0.25, 0.155, 0.38 respectively. The positive and high covariance among the two securities on these respective portfolios signifies that these combinations involves high risk, because the covariance among the two security in a portfolio and correlation signifies both securities performance moves in a same direction which becomes a major cause of increase in a risk.

Sir Harry Markowitz Have suggested constructing a portfolio selecting the securities from the different industries of which their stock prices moves independently to each others as their environmental factors varies to each others. As the stock prices moves independently there exists no relationship between the two and hence the correlation results to its Max minimum level and covariance becomes negative, and sir has suggested to prefer the securities having negative variance.

In order to test this concept I have further constructed a portfolio, selecting the securities from two different unrelated industries. And on testing I have found the fact that the covariance is negative i.e., -3.40 and the coefficient of correlation is -0.189 which is max minimum when it is compared with the coefficient of correlation to the three portfolios belonging the securities from same industries i.e., 0.25, 0.155, 0.38. This has resulted high returns of 1.50 comparing to the other portfolios. Hence the Markowitz model is proven to be success by way of operational justification to the theory.

Bibliography

1. Security analysis and portfolio management by AVADHANI
2. Moneycontrol.com
3. Official websites of SBI, IDBI, SUZUKI, TECH.MAHINDRA LTD, ULTRATECH AND AMBUJA.