INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

IJRCM

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., The American Economic Association's electronic bibliography, EconLit, U.S.A., EBSCO Publishing, U.S.A., Index Copernicus Publishers Panel, Poland, Open J-Gage, India [link of the same is duly available at Inflibnet of University Grants Commission (U.G.C.)]

as well as in Cabell's Directories of Publishing Opportunities, U.S.A.

Circulated all over the world & Google has verified that scholars of more than Hundred & Thirty Two countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

www.ijrcm.org.in

CONTENTS

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Insurance, Corporate Governance and emerging paradigms in allied subjects like Accounting Education; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Monetary Policy; Portfolio & Security Analysis; Public Policy Economics; Real Estate; Regional Economics; Tax Accounting; Advertising & Promotion Management; Business Education; Management Information Systems (MIS); Business Law, Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labor Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; Public Administration; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism, Hospitality & Leisure; Transportation/Physical Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Digital Logic; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Multimedia; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic and Web Design. The above mentioned tracks are only indicative, and not exhaustive.

Anybody can submit the soft copy of his/her manuscript **anytime** in M.S. Word format after preparing the same as per our submission guidelines duly available on our website under the heading guidelines for submission, at the email addresses: infoijrcm@gmail.com or info@ijrcm.org.in.

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: _____

THE EDITOR
IJRCM

Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF _____.**

(e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript entitled '_____' for possible publication in your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

NAME OF CORRESPONDING AUTHOR:
Designation:
Affiliation with full address, contact numbers & Pin Code:
Residential address with Pin Code:
Mobile Number (s):
Landline Number (s):
E-mail Address:
Alternate E-mail Address:

NOTES:

a) The whole manuscript is required to be in ***ONE MS WORD FILE*** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
b) The sender is required to mention the following in the **SUBJECT COLUMN** of the mail:
New Manuscript for Review in the area of (Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/ Engineering/Mathematics/other, please specify)
c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
d) The total size of the file containing the manuscript is required to be below **500 KB**.
e) Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
f) The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.

2. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3. **AUTHOR NAME (S) & AFFILIATIONS:** The author (s) **full name**, **designation**, **affiliation** (s), **address**, **mobile/landline numbers**, and **email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

5. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.

6. **MANUSCRIPT:** Manuscript must be in ***BRITISH ENGLISH*** prepared on a standard A4 size ***PORTRAIT SETTING PAPER***. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.

7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.

8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.

9. **MAIN TEXT:** The main text should follow the following sequence:

INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

SCOPE FOR FURTHER RESEARCH

ACKNOWLEDGMENTS

REFERENCES

APPENDIX/ANNEXURE

It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed ***5000 WORDS***.

10. **FIGURES &TABLES:** These should be simple, centered, separately numbered & self explained, and **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. It should be ensured that the tables/figures are referred to from the main text.

11. **EQUATIONS:** These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.

12. **REFERENCES:** The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per the following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (**ed.**) for one editor, and (**ed.s)** for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parentheses.
- The location of endnotes within the text should be indicated by superscript numbers.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITE

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

ROLE OF RISK AND RETURN IN INVESTMENT DECISIONS AMONG AUTOMOBILE AND BANK STOCKS AND PORTFOLIO SELECTION

S.PRAVEENA
RESEARCH SCHOLAR
DEPARTMENT OF AGRICULTURE & RURAL MANAGEMENT
TAMILNADU AGRICULTURAL UNIVERSITY
COIMBATORE

DR. K. MAHENDRAN
ASSOCIATE PROFESSOR
DEPARTMENT OF AGRICULTURE & RURAL MANAGEMENT
TAMILNADU AGRICULTURAL UNIVERSITY
COIMBATORE

ABSTRACT

This study measures the Holding Period Return (HPR), Daily and Annualized Returns, Unsystematic Risk, Skewness, kurtosis and Correlation among automobile and bank stocks in National Stock Exchange of India. S&P CNX 500 was considered as a market index. Daily closing price of automobile and bank stocks were collected from the Yahoo finance data source for a period between 31-12-2009 and 31-12-2010. During this period, the market has 252 trading days. The main objectives of this study are to empirically assess the buy and hold strategy, market timing strategy, and role of correlation in portfolio selection. The holding period return was calculated for every three months considering the stock's closing price as on 31st December 2009 as a base period. Daily average returns were calculated using the continuous compounding method. A correlation analysis was performed to understand the movement of stock related to market index. Skewness and kurtosis were performed to adding degrees of skewness and peakedness of stock returns in the hope of providing a wider perspective on investment behavior. Results of the study support the buy and hold strategy and some of the stocks outperformed the market index. A significant positive correlation was found among the stocks and market index. However, few stocks have very high correlation values, few have weak correlations and some stocks have negative correlation.

KEYWORDS

Buy & hold strategy, Holding period, Risk, Return and Stock market.

INTRODUCTION

Stock market is a barometer of the economy. It facilitates the flow of funds from those who have excess funds and those who are in need of funds. It is the lifeblood of the financial system for every nation. It is highly sensitive and quickly responds to incidents that happen in any corner of the world. Because of these reactions the stock market is highly volatile. The volatile nature of stock market makes difficult to predict the stock returns. Uncertainty of future outcomes Or Probability of an adverse outcome and forces that contribute to variations in return constitute element of risk. Investors are risk averse in nature. They want to want to maximize the returns for a given level of risk.

The uncertainty in stock returns can be quantified and categorized into two types of risk. One is an **unsystematic risk** which is firm specific and can be diversified. Next is **systematic risk** which is influenced by market factors prevails all time. Even after all these uncertainties, a large number of investors tend to invest their money in common stocks. Such investment in common stocks can provide more returns than the returns provided by corporate and government bonds.

Since return from the common stocks is uncertain, knowing the nexus between return and risk will be crucial for investors. This helps them to maximize the return and minimize the risk. The general principle is Investors have free access to fair and correct information on the returns and risk, investors are risk averse and try to minimize the risk and maximize return and they prefer higher return to lower return. No security is dominates by any other by having higher level of return and lower level of risk at the same time. Markowitz (1952) argues that combining g different set of securities investors eliminate their unsystematic risk. He also suggests considering correlation among securities while selecting the portfolio. On the other hand systematic risk is indicated by beta co efficient. It could be argued that there is relationship between the beta coefficient and stock volatility. The beta coefficient of the stock indicates its relation with the market. The possible returns increase and decrease in the price of a stock can be predicted in relation to possible increase and decrease the stock market. This study aims to investigate the return and risk nexus of the S&P CNX automobile and bank stocks. This study evaluates the investment strategies like buy and hold, and market timing. Furthermore this study measures the role of correlation in investment decisions.

REVIEW OF LITERATURE

Scott and Horvath (1980) that positive preference for skewness and negative preference for kurtosis has been postulated in explaining financial behavior of the investors. Skewness preference is one potential explanation for investors holding imperfectly diversified portfolios.

Dittmar (2002) showed that higher expected returns compensate investors bearing systematic variance and kurtosis risks, while investors forego return to benefit from increasing systematic skewness.

Harvey, Liechty, Liechty and Muller (2004) found that international asset holdings can be quite different under third-moment preferences compared to the standard mean-variance case.

Taleb (2004) found that investors commonly engage in negatively skewed stocks. A negatively skewed stock was characterized as a trade that has a large chance of making gains but a very small chance of losing big money.

Levy (2006), suggested that investors would consider the standard deviation while selecting the portfolio for the maximization of returns.

Guidolin and Timmermann (2007) investigated the international asset allocation effects of time-variations in higher order moments of stock returns such as skewness and kurtosis and suggested that the presence of regimes in the return distribution leads to a substantial increase in the investor's optimal holdings of US stocks as does the introduction of skew and kurtosis preferences.

Cvitanic, Polimenis, and Zapatero (2008) showed that ignoring standard deviation, skewness and kurtosis in portfolio allocation can imply welfare losses and overinvestment in risky assets.

Xing, Zhang, and Zhao (2008) identified that the cross-sectional differences in stock returns as a function of the risk-neutral skewness of individual stocks

Harvey, Liechty, and Muller (2010) emphasized the importance of skewness and kurtosis in portfolio allocation for the investors while selecting the stocks to get higher returns

Jerchern Lin (2011) said that investors are subject to different sources of skewness and fat tail risks through delegated investments. Volatility based tail risk hedging mechanism may not be effective for all fund styles and types

OBJECTIVES

- To compare the performance of the automobile and bank stocks with the performance of market
- To compare the holding period return with the daily average return and daily annualized return
- To measure the relation among the stocks that belongs to the same industry as well as with the market index

HYPOTHESIS

- H_o – there is no such relationship between the stocks holding period and measures of dispersion with the market return
- H_1 – there is positive relationship between the stocks holding period and measures of dispersion with the market return

PERIOD OF THE STUDY

Period of the study ranged between 31-12-2009 to 31-12-2010. During this period there were 252 trading days in national stock exchange India.

SAMPLE

For this purpose of the study, stocks listed in S&P CNX automobile and bank stocks were considered as sample and S & P CNX 500 was considered as market index. Five stocks (Amtek, Ashok Tyres, Bharat forge, Exide and TVS motors) were removed from the analysis due to insufficient data. Final analysis includes only 10 automobile stocks and 12 bank stocks. Table 1 depicts the number of stocks belonging to Automobile and Bank industry. The study data consisted of daily closing prices of the sample stocks and closing index of the value of S&P CNX 500. The data were obtained from Yahoo finance source.

TABLE 1: LIST OF AUTOMOBILE AND BANK STOCKS LISTED IN NSE

S.No	Automobile stocks	S.No	Bank Stocks
1	Amtek Auto	1	Axis Bank
2	Apollo Tyres	2	Bank of Baroda
3	Ashok Leyland	3	Bank of India
4	Bajaj Auto	4	Canara Bank
5	Bharat Forge	5	HDFC Bank
6	Bosch	6	ICICI Bank
7	Escorts auto	7	IDBI Bank
8	Exide industries	8	IndusInd Bank
9	Hero Honda Motors	9	Kotak Mahindra Bank
10	Mahindra & Mahindra	10	Punjab National Bank
11	Maruti Suzuki	11	State Bank of India
12	Motherson Sumi	12	Union Bank of India
13	Herohonda		
14	Tata motors		
15	TVS motors		

RESEARCH METHODOLOGY

MS Office Excel 2003 and SPSS16 for windows were used to calculate the Holding period Return (HRR), Daily return, Standard deviation, skewness, kurtosis and correlation coefficient among the stocks. Dividend paid during the study period, transaction cost, brokerage, taxes, and other charges were ignored.

TOOLS OF ANALYSIS

HOLDING PERIOD RETURN

HPR is the total return on an asset or portfolio over the period during which it was held. It is one of the simplest measures of investment performance. HPR is the percentage by which the value of a portfolio (or asset) has grown for a particular period. The formula for the holding period return is used for calculating the return on an investment over multiple periods.

$HPR = (P_1-P_0)/P_0 * 100$

HPR was calculated for four different holding periods. Considering closing price of respective stocks as on 31-12-2009 as a base price, HPR for each stock has been calculated for the last trading days of March, June, September, and December months of the year 2010.

DAILY RETURN

Daily returns of the stock were calculated using continuous compound growth rate of return (CCRR) method. It is assumed that stock prices are normally distributed, that is natural logarithm (ln) of stock prices is normally distributed.

$Ri = \ln (P_t/P_{t-1})$

Unlike a normal distribution, a lognormal is not symmetrical. Also a log normally distributed variables has a minimum value of zero and maximum value of infinity, where as a normally distributed variable has a minimum value of minus infinity and maximum value of infinity. Because of stock prices cannot have a less than zero, they can be represented by log normal distribution but not a normal distribution.

ANNUALIZED RETURN

Annualized return was calculated using the below equation.

AR = Sum of daily average returns (or) Daily average returns * No. of trading days

SKEWNESS

The term skewness refers to the lack of symmetry. The lack of symmetry in a distribution is always determined with reference to a normal distribution. Note that a normal distribution is always symmetrical. The skewness may be either positive or negative. When the skewness of a distribution is positive (negative), the distribution is called a positively (negatively) skewed distribution.

- If Mean > Mode, the skewness is positive.
- If Mean < Mode, the skewness is negative.
- If Mean = Mode, the skewness is zero

KURTOSIS

It is the degree of peakedness of a distribution, usually taken in relation to a normal distribution. A curve having relatively higher peak than the normal curve, is known as Leptokurtic. On the other hand, if the curve is more flat-topped than the normal curve, it is called Platykurtic. A normal curve itself is called Mesokurtic, which is neither too peaked nor too flat-topped

If one introduces skewness and kurtosis in the utility function then the impact on portfolio allocation is found to be very strong. We show that if investors care about skewness and kurtosis that their allocation may be more conservative with constraint. More work needs to be done to be able to calibrate skewness and kurtosis preference so that they correspond to real life allocations

STANDARD DEVIATION

It is a widely used measure of variability or diversity used in statistics and probability theory. It shows how much variation or "dispersion" there is from the average (mean, or expected value). It is used to calculate the stock price volatility. It measures how much values are dispersed from the average

SD = √ (ΣX- μ)^2/N-1

ANNUALIZED STANDARD DEVIATION

Annualized standard deviation was calculated using the below equation.

ASD = SD* √T T – Number of trading days

CORRELATION

It is a measure that determines the degree to which two variable's movements are associated. The correlation coefficient is calculated as:

$Correl_{xy}$ = Cov(x,y)/ $б_x$ * $б_y$

Correlation is computed into what is known as the correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (a correlation co-efficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random. Correlations are used in advanced portfolio management

RESULTS AND DISCUSSIONS

COMPARATIVE PERFORMANCE OF THE STOCKS

When the annualized return of the automobile stocks were compared with market index, 7 stocks (70%) outperformed the market and three stocks (30%) reported low returns than the market (Table.2). Tata motors were the top performer in the automobile stocks followed by Mahindra & Mahindra, Motherson sumi and Apollo tyres.

Annualized returns of two stocks (Tata motors & Mahindra & Mahindra) were 50-75%. Annualized return of 6 automobile stocks (Apollo tyres, Bosch, escorts, Hero Honda, MRF and Motherson sumi) was 25-50%. Annualized return of 3 stocks was less than 25%. Bajaj auto and Maruti Suzuki reported less market return compare with the market index and also with the other automobile stocks. It indicated that those two stocks have weak market efficiency.

TABLE 2: ANNUALIZED RETURNS AND STANDARD DEVIATION

Stock	Daily Average return %	Std Deviation %	Annualized return %	Annualized std. Dev %
S&P CNX 500	**0.11**	**1.11**	**27.61**	**17.62**
Automobile				
Apollo tyres	0.14	2.6	35.28	41.27
Bosch	0.13	1.34	32.76	21.27
Bajaj Auto	0.05	4.93	12.55	78.29
Escorts	0.11	3.1	27.72	49.21
Hero Honda	0.14	2.25	35.14	35.73
M & M	0.167	2.32	50.4	36.85
Maruti Suzuki	0.05	1.74	10.04	27.63
MRF	0.1	1.9	25.20	30.16
Motherson sumi	0.15	2.2	37.8	34.98
Tata motors	0.22	2.6	56.20	41.28

When the annualized return of the bank stocks were compared with market index, 8 stocks (67%) outperformed the market and three stocks (25%) reported low returns than the market (Table.3). T Kotak Mahindra (-60.14) reported negative return indicate that very weak market efficiency. Indusind bank was the top performer in the bank stocks followed by Bank of Baroda, Canara bank and HDFC Bank.

Annualized returns of three bank stocks (Indusind bank, BOB and Canara bank) were 50-75%. Annualized return of five bank stocks (AXIS Bank, HDFC, ICICI, IDBI and Union bank) was 25-50%. Annualized return of 3 stocks was less than 25%. Bank of India, PNB and SBI reported less market return compare with the market index and also with the other bank stocks.

TABLE 3: ANNUALIZED RETURNS AND STANDARD DEVIATION

Stock	Daily Average return %	Std Deviation %	Annualized return %	Annualized std. Dev %
S&P CNX 500	**0.11**	**1.11**	**27.61**	**17.62**
Bank stocks				
Axis bank	0.13	1.89	32.76	30.01
Bank of Baroda	0.25	1.60	63.00	25.40
Bank of India	0.10	2.20	25.10	34.92
Canara Bank	0.23	2.02	57.96	32.06
HDFC Bank	0.14	1.64	35.23	26.04
ICICI Bank	0.11	2.60	27.88	41.28
IDBI Bank	0.12	2.91	30.24	46.19
Indusind Bank	0.27	2.50	68.04	39.68
Kodak Mahendra	-0.24	4.60	-60.04	73.05
Punjab National Bank	0.10	1.89	25.10	29.69
State bank of India	0.096	2.10	25.10	33.24
Union bank of India	0.12	2.30	30.24	36.51

Highest volatility was observed in these stocks: Bajaj auto, Escorts, Apollo tyres, Kotak mahendra, ICICI Bank, IDBI bank

Lowest volatility was observed in these stocks: Bosch, Maruti Suzuki, BOB, HDFC and PNB

BUY AND HOLD STRATEGY AND MARKET TIMING STRATEGY

The buy and hold strategy suggests that the longer we hold a stock, the more likely we are to earn good returns. Efficient market hypothesis (EMH) strongly supports the buy and hold strategy. EMH argues that a stock is fairly valued all times, and it is impossible to get abnormal profits. On the other hand, proponents of market timing strategy advocates that money can be made in short term by buying on low and selling on the rights.

Stocks like Tata motors, Bosch, Motherson sumi, Axis bank, BOB, Canara bank, IDBI and Indusind holding periods form March to December it was gradually increasing. One year holding period of the stocks compared with the annualized returns, holding period of some of the stocks outperformed the annualized

returns indicated the strong market efficiency of the stocks. This silently indicated that the company is having some additional projects and they are going to expand their market.

However Maruti Suzuki and Kotak mahendra stocks that reported negative holding period in start and end holding period. In this, investors asked tax deduction after that they buy and hold the stocks.

Another interesting stock that needs to be examined is how long one needs to hold the stocks. Eleven stocks outperformed their annualized returns for one year holding period returns. Nine stocks reported highest holding period returns during nine month holding period. In table 4, depicts that some of the stocks have medium holding period indicated that semi strong market efficiency and the prices of the stocks were in the growth and it have a chance to increase. Some of the stocks have minimum holding period indicates that weak market efficiency of the stocks and the price of the stocks were decreasing in the market.

TABLE 4 (a): HOLDING PERIOD RETURNS (HPR) FOR AUTOMOBILE STOCKS

Stock	Jan – Mar	Jan – Jun	Jan - Sep	Jan – Dec
S &P CNX 500	**0.923**	**1.207**	**13.504**	**1.733**
Auto mobile stocks				
Apollo tyres	44.127	60.669	67.493	38.544
Bosch	3.515	16.617	34.517	36.144
Bajaj auto	13.079	42.527	-14.488	-11.111
Escorts	13.310	45.484	63.576	31.015
Hero Honda	13.065	23.262	14.738	21.93
M & M	30.21	38.662	7.294	52.34
Maruti	-9.201	-9.124	-7.671	-8.569
MRF	12.615	28.581	46.272	19.768
Motherson sumi	111.72	149.702	214.190	219.639
Tata motors	-3.388	2.97	42.330	69.422

TABLE 4 (b): HOLDING PERIOD RETURNS (HPR) FOR BANK STOCKS

Stock	Jan – Mar	Jan – Jun	Jan - Sep	Jan - Dec
S &P CNX 500	**0.923**	**1.207**	**13.504**	**1.733**
Bank stocks				
Axis Bank	18.54	21.041	36.122	37.748
Bank of Baroda	26.577	50.979	76.408	80.730
Bank of India	-12.005	-9.499	37.067	20.134
Canara Bank	5.535	19.495	53.340	74.132
HDFC Bank	13.418	14.08277	46.841	38.115
ICICI Bank	8.5230	-8.61043	28.917	31.373
IDBI Bank	-9.938	-7.002	22.603	32.630
IndusInd Bank	22.497	48.007	91.67	90.005
Kotak Mahindra Bank	-7.619	3.501	-38.44	-4.843
Punjab National Bank	-1.414	2.366	28.048	20.751
State bank of India	-7.935	3.021	43.917	25.547
Union bank of India	11.407	19.774	50.174	35.063

SKEWNESS AND KURTOSIS

Table 5(a) & (b), depicts the skewness and kurtosis of the stocks. Negative price of market skewness and positive price of market kurtosis risk suggest that an increase (less negative) in market. Skewness is related to deteriorating future investment opportunity set whereas an increase in market kurtosis is related to improving future investment opportunity set.

Among the automobile stocks (Bajaj auto, Maruti, Kotak Mahindra, Bank of India, PNB and SBI) have high positive skewness with high sensitivities to innovations that implied market volatility and skewness exhibit low returns on average. Stocks like Tata motor, Motherson sumi, Bosch, Indusind bank and Bank of Baroda have negative skewness implied that higher market return. Some of the stocks Tata motors, Motherson sumi, Mahindra & Mahindra) have more market kurtosis exhibit somewhat higher returns on average. Stocks (Bajaj auto and Maruti Suzuki) which are having less kurtosis indicated that minimum market return.

A negatively skewed trade is characterized by a concave function of the underlying price level, which delivers steady profits with low volatility most of the time. Investors can collect premiums by shorting put options and reinvest them into risk-free asset.

TABLE 5 (a): SKEWNESS AND KURTOSIS OF THE AUTOMOBILE STOCKS

S.No	Stocks	Skewness	Kurtosis
S&P CNX 500		**-1.648**	**7.125**
1	Apollo tyres	0.62	2.30
2	Bosch	-1.47	7.43
3	Bajaj auto	12.80	1.30
4	Escorts	-0.20	2.67
5	Hero Honda	1.702	4.22
6	M & M	-0.138	4.098
7	Maruti	2.631	1.940
8	MRF	1.06	2.96
9	Motherson sumi	-0.13	5.00
10	Tata motors	-0.609	7.139

TABLE 5 (b): SKEWNESS AND KURTOSIS OF THE BANK STOCKS

S.No	Stocks	Skewness	Kurtosis
S&P CNX 500		**-1.648**	**7.125**
1	Axis Bank	-0.129	0.975
2	Bank of Baroda	-0.35	3.08
3	Bank of India	2.73	8.72
4	Canara Bank	-0.05	3.29
5	HDFC Bank	-1.067	3.335
6	ICICI Bank	0.052	1.030
7	IDBI Bank	3.43	3.49
8	IndusInd Bank	-0.32	3.36
9	Kotak Mahindra Bank	11.06	150.13
10	Punjab National Bank	1.145	6.454
11	State bank of India	1.776	6.447
12	Union bank of India	-0.38	2.21

CORRELATION ANALYSIS

By investing in different securities investors can reduce the portfolio risk. The fundamental premise behind diversification is that portfolio risk and volatility can be lowered by investing in a number of different asset classes which have varying levels of risk. In order to achieve effective diversification portfolio holding should not be highly correlated.

From the table 6. it is evident that most of the stocks have positive correlation with the market index. It can be said that all the automobile and bank stocks are moving in tandem with the market. However few stocks have very high correlation (BOB, Indusind bank, Tata motors, Motherson sumi and Canara bank), implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction and few stocks have weak correlation (hero motors, MRF, IDBI, Union bank).

Some of the stocks (Bajaj auto, Maruti and Kotak mahendra) have negative correlation implies that the security moves in the opposite direction While selecting the stocks for a portfolio we need to take note of correlation. By combining high correlation with low correlation stocks, we can minimize the portfolio risk.

TABLE 6: CORRELATION BETWEEN S&P CNX 500 AND AUTOMOBILE AND BANK STOCKS

1	Apollo tyres	0.812	1	Axis Bank	0.837
2	Bosch	0.712	2	Bank of Baroda	0.954
3	Bajaj auto	-0.488	3	Bank of India	0.435
4	Escorts	0.654	4	Canara Bank	0.961
5	Hero Honda	0.4671	5	HDFC Bank	0.924
6	M & M	0.811	6	ICICI Bank	0.943
7	Maruti	-0.523	7	IDBI Bank	0.321
8	MRF	0.431	8	Indusind Bank	0.967
9	Motherson sumi	0.912	9	Kotak Mahindra Bank	-0.820
10	Tata motors	0.922	10	Punjab National Bank	0.903
			11	State bank of India	0.908
			12	Union bank of India	0.756

PORTFOLIO SELECTION

From the above results, based on the holding period, standard deviation, skewness and kurtosis and correlation analysis three sets of portfolio were selected. For the portfolio selection, Stocks like Tata motor, Bank of Baroda, Indusind Bank, Canara bank and Mahindra & Mahindra were selected for the portfolio. Table 7 showed the stocks which are selected for the portfolio.

TABLE 7 a: SELECTED STOCKS HOLING PERIODS FOR THE PORTFOLIO

Stocks	Industry	Jan - Mar	Jan – Jun	Jan – Sep	Jan – Dec
S&P CNX 500		0.923	1.207	13.50	1.733
Tata motors	Auto mobile	-3.388	2.978	42.33	69.422
M & M	Auto mobile	30.21	38.662	7.294	52.340
Bank of Baroda	Bank	26.57	50.979	76.408	80.730
Indusind Bank	Bank	22.497	48.007	91.675	90.005
Canara Bank	Bank	5.535	19.495	53.340	74.132

TABLE 7 b: STOCK RETURNS, SKEWNESS AND KURTOSIS AND CORRELATION FOR PORTFOLIO

Stocks	Annualized return %	Standard deviation %	Skewness	Kurtosis	Correlation
Tata motors	56.20	41.28	-0.609	7.13	0.922
M & M	50.4	36.85	-0.138	3.09	0.811
Bank of Baroda	63.00	25.40	-0.35	3.08	0.951
Indusind Bank	68.04	39.68	-0.32	3.36	0.967
Canara Bank	57.96	32.06	-0.05	3.29	0.961

Indusind bank has very high return and positive holding period among the stocks. It has very high correlation, negative skewness and excess kurtosis. Bank of Baroda and Canara bank have positive holding periods and the return is comparatively high with the market return. These stocks have high positive correlation, negative skewness and the kurtosis is indicated that expected return would be high. Positive correlation indicates that returns for the two stocks move with the market together in a completely linear manner.

Tata motors has negative holding period in the first period after that it was increased. The holding period of Mahindra & Mahindra was increased in the first and second holding periods and then it became low and finally increased. The above five stocks gave higher return compare with the other bank and automobile stocks.

CONCLUSION & RECOMMENDATIONS

It is assumed that investment in common stocks provide more returns than any other financial assets. Current study provides evidence to this argument. There is a positive relationship between the stocks holding period and the measures of dispersion with the market return. Longer holding period increase the return of the stocks, invest in negatively skewed stocks also increases the return of the stocks. Negative skewness indicates the put option and the positive skewness indicates the call option of stocks.

It suggests that investors should sell the stock when it meets their expected return. Another important finding of the study is that some of the stocks were outperformed the market index. Significant positive correlation was found among the stocks with the market index. This suggests that all stocks are moving in tandem with the market. Based on this, investors advised to design portfolio in which equilibrium is maintained high and weak correlation stocks.

REFERENCES

- Cvitani´c, Jaksa, Vassilis Polimenis, and Fernando Zapatero, (2008), "Optimal portfolio allocation with higher moments", *Annals of Finance,* Vol. 4, pp. 1-28
- Dittmar, R. (2002), "Nonlinear Pricing Kernels, Kurtosis Preference, and Evidence from the Cross-Section of Equity Returns", *Journal of Finance*, 57(1), 369-403.
- Harvey, Campbell R., Merrill Liechty, John Liechty, and Peter Muller, (2010), "Portfolio selection with higher moments", *Quantitative Finance,* Vol. 10, pp. 469-485
- Markowitz, H.M. (1952), "Portfolio selection" *Journal of finance*, Vol.7, no.1, pp. 77-91
- Massimo Guidolin and Allan Timmermann (2007), "International Asset Allocation under Regime Switching, Skew and Kurtosis Preferences" *Quantitative Finance,* Vol. 10, No. 4, pp. 469-485
- Scott, R.C., P.A. Horvath (1980,) "On the Direction of Preference for Moments of Higher Order than The Variance", *Journal of Finance*, Vol.35, pp. 915-919.
- Taleb, Nassim N., (2004), "Bleed or blowup: what does empirical psychology tell us about the preference for negative skewness?", *Journal of Behavioral Finance, Vol.* 5, pp 32-39.
- www.nseindia.com

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce and Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mails i.e. **infoijrcm@gmail.com** or **info@ijrcm.org.in** for further improvements in the interest of research.

If you have any queries please feel free to contact us on our E-mail **infoijrcm@gmail.com**.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals