

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT & MANAGEMENT

I
J
R
C
M



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., EBSCO Publishing, U.S.A., Index Copernicus Publishers Panel, Poland,

Open J-Gate, India [link of the same is duly available at Infibnet 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 & Twenty One 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

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	THE INTERMEDIATE COMMUNITY: A BEHAVIORAL/BARGAINING APPROACH FOR CONFLICT RESOLUTION AT THE LOCAL LEVEL/BAYESIAN ANALYSIS <i>DR. LEONIDAS A. PAKONSTANTINIDIS</i>	1
2.	IMPACT OF NEW REFORM ON PRODUCTIVITY OF ETHIOPIAN COTTON TEXTILE INDUSTRY <i>DR. BREHANU BORJI AYALEW</i>	7
3.	SIGNIFICANCE OF TOTAL QUALITY MANAGEMENT IN ORGANIZATIONAL PERFORMANCE: AN EMPIRICAL ANALYSIS FROM SMES SECTOR <i>FAROOQ ANWAR, IRFAN SALEEM & AYESHA ZAHID</i>	13
4.	INDEPENDENCE AND IMPARTIALITY OF AUDITORS FROM THE VIEWPOINTS OF INDEPENDENT AUDITORS AND INVESTMENT COMPANIES <i>MOHAMADREZA ABDOLI</i>	17
5.	COMPARATIVE ANALYSIS OF SELECTED HOUSING FINANCE COMPANIES IN INDIA <i>DR. D. GURUSWAMY</i>	20
6.	MUNICIPAL SERVICE QUALITY IN SOUTHERN THAILAND: AN EMPIRICAL INVESTIGATION OF CUSTOMER PERCEPTIONS <i>SAFIEK MOKHLIS</i>	30
7.	THE IMPERATIVES OF LEADERSHIP QUESTION IN MEDIA MANAGEMENT <i>BELLO SEMIU & KASALI TAOFEK</i>	36
8.	PERCEIVED PURCHASE RISK IN THE TECHNOLOGICAL GOODS PURCHASE CONTEXT: AN INSTRUMENT DEVELOPMENT AND VALIDATION <i>IMAM SALEHUDIN</i>	41
9.	STUDY ON TRADITIONAL VERSUS CONTINUOUS ACCREDITATION PROCESS & EXPLORING LEADERSHIP DISPARITY <i>HARINI METHUKU & HATIM R HUSSEIN</i>	49
10.	VOLATILITY OF AGGREGATE MARKET INDICES <i>NALINA K B & B SHIVARAJ</i>	56
11.	STUDENT FEED BACK: A TOOL TO ENHANCE QUALITY IN ENGINEERING EDUCATION <i>VEERANNA.D.K & DR. ANAND.K.JOSHI</i>	63
12.	JOB SCHEDULING OF NURSE STAFFING: A DYNAMIC PROGRAMMING APPROACH <i>KAVITHA KOPPULA & DR. LEWLYN L. RAJ RODRIGUES</i>	66
13.	INFLUENCE OF PERSONAL FACTORS ON ORGANISATIONAL CLIMATE IN IT COMPANIES <i>R. DARWIN JOSEPH & DR. N. PANCHANATHAN</i>	70
14.	ANALYSIS OF CUSTOMER SATISFACTION OF THE HOTEL INDUSTRY IN INDIA USING KANO MODEL & QFD <i>PARUL GUPTA & R. K. SRIVASTAVA</i>	74
15.	BEHAVIOUR OF STOCK MARKET VOLATILITY IN DEVELOPING COUNTRIES <i>DR. S. S. CHAHAL & SUMAN</i>	82
16.	FINANCIAL DERIVATIVES IN INDIA: DEVELOPMENT PATTERN AND TRADING IMPACT ON THE VOLATILITY OF NSE <i>E.V.P.A.S.PALLAVI & DR. P. S. RAVINDRA</i>	89
17.	CHANGING FACE OF CAR MARKET: A REVIEW OF MARKET GROWTH AND CHANGING SALES TRENDS IN INDIAN PASSENGER CAR MARKET <i>DEEPTHI SANKAR & DR. ZAKKARIYA K.A.</i>	94
18.	PERFORMANCE APPRAISAL: ALIGNING PERSONAL ASPIRATIONS TO ORGANIZATIONAL GOALS (A SPECIAL REFERENCE TO DAIRY SECTOR IN RAJASTHAN) <i>DR. SHWETA TIWARI (MISHRA)</i>	99
19.	INDIA'S BANKING SECTOR REFORMS FROM THE PERSPECTIVE OF BANKING SYSTEM <i>RAJESH GARG & ASHOK KUMAR</i>	103
20.	INFORMATION TECHNOLOGY AND COMMUNICATION IN BUSINESS <i>C. ARUL VENKADESH</i>	108
21.	IMPACT OF ORGANIZED RETAIL ON UNORGANIZED SECTOR: A STUDY IN JAMMU REGION <i>URVASHI GUPTA</i>	112
22.	ISLAMIC BANKING IN INDIA: RELIGIOUS AND SOCIO-ECONOMIC PERSPECTIVES AFFECTING MUSLIM INVESTORS OF AHMEDABAD DISTRICT IN GUJARAT <i>URVI AMIN</i>	116
23.	ICT DEVELOPMENT IN INDIA: A CASE STUDY OF INFOSYS LTD. <i>MUNISH KUMAR TIWARI</i>	122
24.	DATA WAREHOUSING AND TESTING <i>VENKATESH RAMASAMY & ABINAYA MURUGANANDHAN</i>	130
25.	POLITICAL IMPACT OF MICRO FINANCE ON RURAL POOR IN ANDHRA PRADESH <i>DR. NANU LUNAVATH</i>	135
	REQUEST FOR FEEDBACK	151

CHIEF PATRON

PROF. K. K. AGGARWAL

Chancellor, Lingaya's University, Delhi
Founder Vice-Chancellor, Guru Gobind Singh Indraprastha University, Delhi
Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

PATRON

SH. RAM BHAJAN AGGARWAL

Ex. State Minister for Home & Tourism, Government of Haryana
Vice-President, Dadri Education Society, Charkhi Dadri
President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

CO-ORDINATOR

AMITA

Faculty, Government M. S., Mohali

ADVISORS

DR. PRIYA RANJAN TRIVEDI

Chancellor, The Global Open University, Nagaland

PROF. M. S. SENAM RAJU

Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi

PROF. M. N. SHARMA

Chairman, M.B.A., Haryana College of Technology & Management, Kaithal

PROF. S. L. MAHANDRU

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR

PROF. R. K. SHARMA

Professor, Bharti Vidyapeeth University Institute of Management & Research, New Delhi

CO-EDITOR

DR. BHAVET

Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

EDITORIAL ADVISORY BOARD

DR. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

PROF. SANJIV MITTAL

University School of Management Studies, Guru Gobind Singh I. P. University, Delhi

PROF. ANIL K. SAINI

Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi

DR. SAMBHAVNA

Faculty, I.I.T.M., Delhi

DR. MOHENDER KUMAR GUPTA

Associate Professor, P. J. L. N. Government College, Faridabad

DR. SHIVAKUMAR DEENE

Asst. Professor, Government F. G. College Chitguppa, Bidar, Karnataka

MOHITA

Faculty, Yamuna Institute of Engineering & Technology, Village Gadholi, P. O. Gadholi, Yamunanagar

ASSOCIATE EDITORS**PROF. NAWAB ALI KHAN**

Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

PROF. ABHAY BANSAL

Head, Department of Information Technology, Amity School of Engineering & Technology, Amity University, Noida

PROF. A. SURYANARAYANA

Department of Business Management, Osmania University, Hyderabad

DR. ASHOK KUMAR

Head, Department of Electronics, D. A. V. College (Lahore), Ambala City

DR. SAMBHAV GARG

Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

DR. V. SELVAM

Divisional Leader – Commerce SSL, VIT University, Vellore

DR. PARDEEP AHLAWAT

Reader, Institute of Management Studies & Research, Maharshi Dayanand University, Rohtak

S. TABASSUM SULTANA

Asst. Professor, Department of Business Management, Matrusri Institute of P.G. Studies, Hyderabad

SURJEET SINGH

Asst. Professor, Department of Computer Science, G. M. N. (P.G.) College, Ambala Cantt.

TECHNICAL ADVISOR**AMITA**

Faculty, Government H. S., Mohali

MOHITA

Faculty, Yamuna Institute of Engineering & Technology, Village Gadholi, P. O. Gadholi, Yamunanagar

FINANCIAL ADVISORS**DICKIN GOYAL**

Advocate & Tax Adviser, Panchkula

NEENA

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

LEGAL ADVISORS**JITENDER S. CHAHAL**

Advocate, Punjab & Haryana High Court, Chandigarh U.T.

CHANDER BHUSHAN SHARMA

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

SUPERINTENDENT**SURENDER KUMAR POONIA**

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; Business 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>

VOLATILITY OF AGGREGATE MARKET INDICES

NALINA K B
ASST. PROFESSOR

JSS CENTER FOR MANAGEMENT STUDIES
MYSORE

B SHIVARAJ
DEAN

FACULTY OF COMMERCE
DEPARTMENT OF BUSINESS ADMINISTRATION
UNIVERSITY OF MYSORE
MYSORE

ABSTRACT

The purpose of the paper is to establish and validate the long term relationship of stock prices in Indian context. This gives a strong subjective background to test the existence of relationship between market index and other sector indices. The paper primarily deals with an empirical method by combining different statistical techniques to check the presence of co-integration between the stock index (Sensex) and other sector indices. Co-integration is a well accepted indicator of a long term relationship between more than one time series variables. Concepts of time series modeling and regression are also visited to the extent required for the study. A step by step process was followed, though a basic one, to bring out the conclusion regarding the existence of co-integration between the given time series variables. The study takes into consideration past ten years data which reflected in the stock index. A causal relationship could not be established without the existence of co-integration between the selected indices. The paper also tries to combine the techniques with sophisticated statistical software by using E-views for all the statistical processes used. At the end, the paper also explains various other factors which may affect the outcome of the quantitative techniques used. It also puts emphasis on the strong subjectivity of the inferences drawn from the results.

KEYWORDS

Stock Market, Volatility of Market.

INTRODUCTION

During the last decade the world financial market experienced a rapid growth of emerging stock markets. Studies related to these markets show that equities from emerging stock markets have different characteristics than equities from developed stock markets. Four distinguishing features of emerging market returns are higher sample average return, low correlations with developed market returns, more predictable returns and higher volatility. Because of the current international status and growth rate of emerging markets, many researchers focus on the volatility of these markets. For example, Choudhry (1996) studies volatility, risk premium and the persistence of volatility in six emerging markets; Argentina, Greece, India, Mexico, Thailand and Zimbabwe, before and after the 1987 stock market crash. Santis and Imrohorglu (1997) study the dynamics of expected stock returns and volatility in emerging financial markets. They find clustering, predictability and persistence in conditional volatility in these markets. Bekaert and Harvey (1997) analyze the reasons that volatility is different across emerging markets, particularly with respect to the timing of capital market reforms. They find that capital market liberalizations often increase the correlation between local market returns and the world market but do not drive up local market volatility. More recently Agarwal, Inclan and Leal (1999) examine global and local events that cause large shifts in the volatility of emerging stock markets. Different statistical models such as the rolling standard deviations, parametric ARCH or stochastic-volatility models have been used in these studies. In this chapter, traditional method of volatility estimation by computing the monthly standard deviations based on daily return observation to analyze the time-varying volatility of aggregate market indices of Indian Stock Exchange is applied. The objective is to determine whether Indian Stock Exchange is characterized by high volatility. It is to examine when large changes in the volatility of Indian Stock Exchange returns occur and what events (political, social, and economic) took place around the period of increased volatility.

DATA AND VOLATILITY MEASUREMENT

The behavior of stock volatility is analyzed using eleven daily aggregate indices:

BSE 500;
 BSE 200;
 BSE 100;
 SENSEX;
 Consumer Durable Sector Index (CD);
 Consumer Goods Sector Index (CG);
 Auto Sector Index;
 FMCG Sector;
 Healthcare Sector Index;
 IT sector Stocks, Metal Sector; and
 Oil and Gas Sector Index.

SENSEX is composed of 30 companies and it is the main index of the Indian Stock Exchange others indices are the sector indices of Indian Stock Exchange. The data is obtained from the Capitaline database and Bombay stock Exchange. The data for period January 3, 2000 to December 30, 2009 is used. Throughout this paper, stock market returns are defined as continuously compounded returns at time t calculated as the natural log difference in the closing market index between two dates.

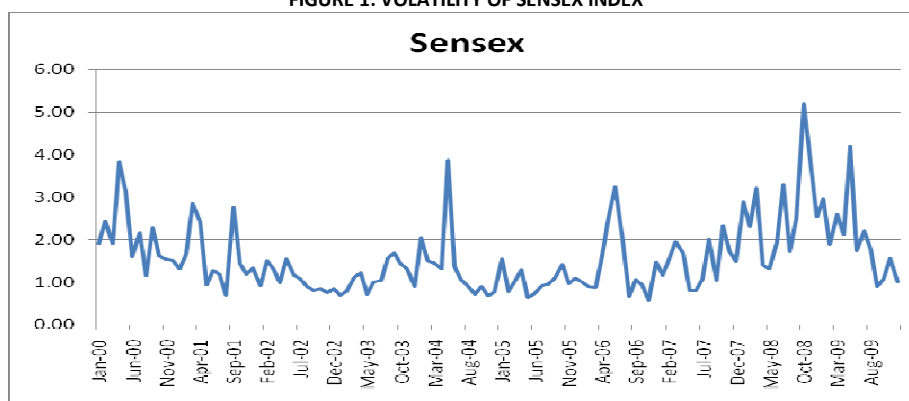
French, Schwert and Stambaugh (1987) and Schwert (1989) method is used to calculate monthly standard deviation of stock return as a measure of volatility. To estimate the monthly standard deviation of stock returns using the daily returns to Eleven market indices. The estimator of the variance of the monthly return is the sum of the squared daily returns after subtracting the average daily return in the month:

$$\sigma_t^2 = \frac{1}{N_{t-1}} \sum_{i=1}^{N_{t-1}} r_{it}^2$$

Formula,

Where there are N_t daily returns r_{it} in month t . Using non-overlapping samples of daily data to estimate the monthly variance creates estimation error that is uncorrelated through time.

FIGURE 1: VOLATILITY OF SENSEX INDEX



(Monthly: January 2001 – December 2009)

DISCUSSION ON CYCLICAL BEHAVIOUR OF AGGREGATE MARKET INDICES

This section discusses the result of the data analysis keeping in view the objective of the study. The main focus is to investigate the level of long – run relationship and the integration that exists between market index and sector based indices. The statistical and econometric methods applied to investigate are follows:

- Descriptive Statistics of daily returns.
- Correlation Test
- Unit root test
- Johansen Co-integration Analysis (Bilateral and Multilateral) and Dickey fuller test
- Granger Causality Test

TABLE - 1: DESCRIPTIVE STATISTICS OF DAILY RETURNS OF MARKET INDEX AND SECTOR INDICES

Indices	AUTO	BSE 100	BSE 200	BSE 500	CD	CG	FMCG	HC	IT	METAL	OIL	SENSEX
Mean	0.08	0.06	0.07	0.07	0.06	0.12	0.05	0.04	0.06	0.12	0.10	0.06
Median	0.14	0.19	0.19	0.21	0.11	0.16	0.05	0.10	0.05	0.18	0.12	0.14
Maximum	11.21	16.75	16.31	15.74	13.29	21.90	8.76	8.06	15.61	16.10	19.11	17.34
Minimum	-10.43	-11.25	-11.87	-11.70	-11.01	-14.58	-10.55	-8.31	-19.99	-13.30	-14.97	-11.14
Std. Dev.	1.70	1.84	1.81	1.79	2.14	2.06	1.58	1.46	2.64	2.46	2.10	1.79
Skewness	-0.27	-0.15	-0.25	-0.32	-0.14	0.22	-0.04	-0.36	-0.08	-0.21	-0.10	0.02
Kurtosis	6.04	8.65	8.84	8.68	6.71	11.07	6.47	7.19	8.46	6.61	10.15	9.40
Jarque-Bera	989.79	3323.51	3572.74	3394.52	1441.83	6793.95	1249.91	1879.91	2978.58	1375.08	5314.48	4253.98
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum	204.48	160.86	164.37	167.05	147.97	299.52	117.84	106.99	142.03	299.04	250.15	157.63
Sum Sq. Dev.	7247.72	8442.24	8167.17	7953.84	11393.21	10541.64	6212.07	5298.07	16621.07	15063.66	10958.74	7947.84
Observations	2495.00	2494.00	2494.00	2494.00	2494.00	2494.00	2494.00	2494.00	2392.00	2495.00	2495.00	2494.00

DESCRIPTIVE STATISTICS

Table 3 Provides descriptive statistics of daily returns on index respectively four market indices and eight sector indices are included in the study from January 1, 2000 to December 31, 2009. Daily returns are calculated as log of price relative. It is evident from the table that there is significant positive mean return for all the indices. The highest mean return for all the indices. The highest mean return is found in consumer goods sector and metal with 0.12 percent. Mean returns of market is 0.06 percent and returns in health care sector with 0.04 percent. The volatility of a measured by standard deviation less volatility is found in health care sector 1.58 followed by FMCG with 1.58. Highest volatility is found in IT sector 2.64 followed by metal with 2.46 all market indices have almost same level of volatility between 1.79-1.84.

Sensex return is skewed to the right while the rest are skewed to the left and all other indices are skewed right indicating that distribution is spread to the low-value end i.e. excess tail is on left-hand side. Kurtosis³ measures the peakedness of the return, the coefficient of kurtosis are high for all selected indices inferring it is more close bunched around the mode since coefficient of kurtosis is greater than 3 it is more peaked than the normal curve. Jarque-Bera is a test statistic for testing whether the series is normally distributed. The test statistic measures the difference of the skewness and kurtosis of the series with those from the normal distribution. Jarque - Bera statistics is high in all the indices, which means that the null-hypothesis of normal distribution of return in selected indices rejected.

FIGURE 2: INDEX PRICE SERIES OF SELECTED INDICES FROM 2000 - 2009

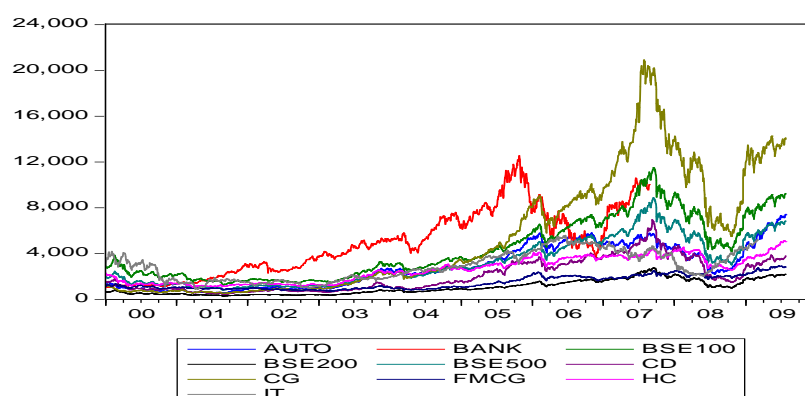


Figure shows the long-run stock price variations in each of selected indices. The market crashed in 2001 and started picking up from 2004. Between 2006 - 07 market was at all time high reaching 23,000 marks. In 2008 again market crashed owing the downturn in world market. A complement to standard descriptive statistics is displayed along with the histogram. All of the statistics are calculated using the observations in the current sample Histogram is used to study the distribution of indices. It includes mean, median, standard deviation, maximum, minimum value, skewness and kurtosis.

FIGURE3: DISTRIBUTION OF SENSEX FROM JANUARY 2000 TO DECEMBER 2009/FIGURE 4: STOCK PRICE MOVEMENT, TREND AND CYCLE OF SENSEX

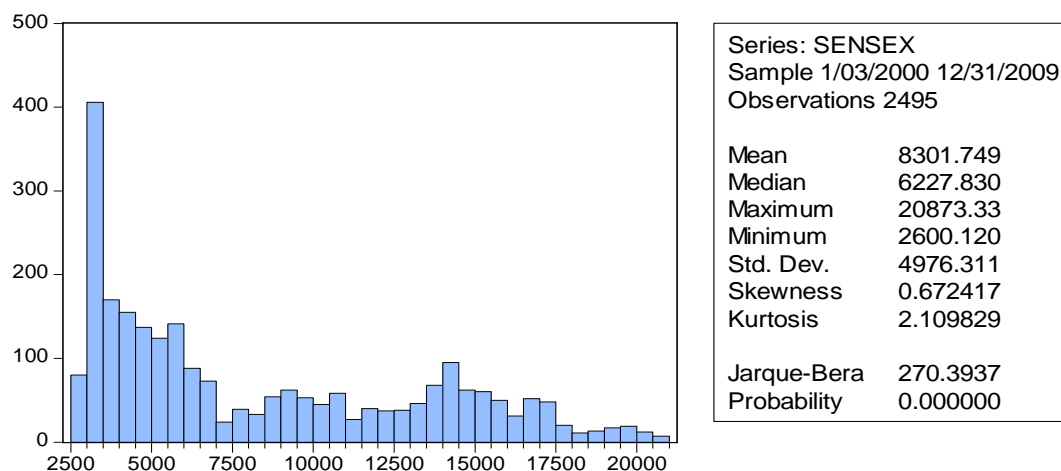


TABLE - 2: CORRELATION MATRIX FOR INDICES BASED ON RETURN

	AUTO	BSE100	BSE200	BSE500	CD	CG	FMCG	HC	IT	METAL	OIL
BSE100	0.25										
BSE200	0.27	1.00									
BSE500	0.28	0.99	1.00								
CD	0.28	0.71	0.73	0.74							
CG	0.29	0.82	0.83	0.83	0.68						
FMCG	0.20	0.67	0.67	0.66	0.50	0.54					
HC	0.29	0.73	0.75	0.75	0.63	0.66	0.58				
IT	-0.02	0.002	0.004	0.004	-0.003	0.02	0.01	-0.02			
METAL	0.71	0.23	0.25	0.26	0.26	0.27	0.17	0.25	-0.02		
OIL	0.67	0.25	0.28	0.29	0.25	0.28	0.17	0.24	-0.02	0.72	
SENSEX	0.24	0.97	0.97	0.96	0.67	0.81	0.71	0.72	-0.003	0.20	0.22

Correlation test, preliminary indication of relationship, is correlation between market indices and sector indices. Table gives the correlation coefficient (two-tailed) for 12 bilateral pairs of selected indices. It is observed that there is high positive correlation between BSE 100, BSE 200 BSE 500 and consumer durables $r = 0.83$. There is perfect positive correlation between all the market indices. $r = 1$. The return of IT sector does not have relationship with the returns of other sector return as $r = 0$. The return on IT sector is not even selected to the return on market indices. The return of Consumer Durable, Consumer Goods, FMCG, and Health Care has high positive relationship with market. Whereas metal, oil, auto show less positive association. Correlation of Index movement of market and other sector are highly positive correlated with r -value ranging from 0.67 to 1.

UNIT ROOT TEST

HYPOTHESIS 1

H_0 : Unit root exists, the time series is non-stationary and the series is $I(1)$.

H_1 : Unit root does not exist, the time series is stationary and the series is $I(0)$.

TABLE 3: AUGMENTED DICKEY-FULLER TEST (ADF) FINDING FOR LEVEL FOR VARIOUS

	AUTO	CD	CG	FMCG	HC	IT	METAL	OIL	SENSEX	BSE100	BSE200	BSE500
ADF t-value	0.68	-0.84	-0.39	0.09	0.27	-0.73	-0.23	-0.45	-0.25	-0.26	-0.26	-0.27
Critical Value of t (1%)	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43
Critical Value of t (5%)	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86
Lag Length	1	2	1	0	1	0	1	1	1	1	1	1
H_0	Accepted											
Data Character	Non - Stationary											

TABLE 4: AUGMENTED DICKEY-FULLER TEST (ADF) FINDING FOR FIRST DIFFERENCE

	AUTO	CD	CG	FMCG	HC	IT	METAL	OIL	SENSEX	BSE100	BSE200	BSE500
ADF t-value	-43.39	-31.19	-42.86	-48.11	-45.17	-36.05	-44.11	-45.65	-46.05	-44.92	-44.46	-43.91
Critical Value of t (1%)	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43	-3.43
Critical Value of t (5%)	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86	-2.86
Lag Length	0	1	0	0	0	1	0	0	0	0	0	0
H_0	Rejected											
Data Character	Integrated of order one $I(1)$											

Table results of the unit root test bases on ADF t - statistical are presented in the table. The critical values of the tests are obtained from the table values. Tables by Mackinnon (1996) one - side value are used. Lag length is chosen automatically based on SIC, MAXLAG. Table - 4 shows that the null hypotheses of unit root is not be rejected at 5 percent and 1 percent confidence levels in all of selected market and sector indices. As illustrated in the table, ADF t- values for all indices are higher than the critical values, implying that the series are non-stationary. The null hypothesis of the unit root at first difference is rejected for all indices as

shows in table 5.8. Statistics of the ADF lie to the left of the critical values implying that the series are stationary at first difference level. The result for all the indices are consistent there is a possibility that co-integration among the series exist.

BI-LATERAL CO-INTEGRATION

Johannes co integration test is performed for each of 58 bilateral pairs identifies with in the group of selected indices for each pair, co integration rack of a and l are examined by comparing the trace statistic to corresponding critical values at 5% and 1% if the trace value is higher than critical values, then co integration exist at that level and vice versa the null hypothesis in the test holds that $r = 0$ (No co- integration exists) while the alternative holds. That $r = 1$ (co-integration exists) failure to reject the null hypothesis implies that variables are not co-integrated, where as positive rejection implies that there is at least on co-integrated equation. The result of the Johansen co-integration test for each of the 58 bilateral pair of the selected indices is summarized in Table - 5.

HYPOTHESIS -2

H₀: No bi-variate co integration exists.

H₁: Bi-variate co –integration exists.

TABLE 5: RESULT OF BILATERAL CO-INTEGRATION AMONG SELECTED STOCK INDICES

Indices	Hypothesized number of co-integrated equation	Trace Statistic	5% Critical Value	5% Critical Value
Auto - BSE – 100	None	9.0313	15.49	19.94
Auto - BSE 200	None	9.2056	15.49	19.94
Auto -BSE 500	None	9.7881	15.49	19.94
Auto – Sensex	None	8.5891	15.49	19.94
Auto – CD	None	14.244	15.49	19.94
Auto – CG	None	6.8863	15.49	19.94
Auto – FMCG	None	4.6846	15.49	19.94
Auto – HC	None	14.75	15.49	19.94
Auto – IT	None	11.641	15.49	19.94
Auto – Metal	None	9.8128	15.49	19.94
Auto – Oil	None	4.3995	15.49	19.94
BSE 100 - BSE 500	None	5.2735	15.49	19.94
BSE 100 - BSE 200	None	5.4597	15.49	19.94
BSE 100 – Sensex	None	13.391	15.49	19.94
BSE 100 – CD	None	5.978	15.49	19.94
BSE 100 – CG	None	10.584	15.49	19.94
BSE 100 – FMCG	None	5.7428	15.49	19.94
BSE 100 – HC	None	5.1621	15.49	19.94
BSE 100 – IT	None	15.194	15.49	19.94
BSE 100 – Metal	None	5.9018	15.49	19.94
BSE 100 – Oil	None	5.4798	15.49	19.94
BSE 200 - BSE 500	None	4.6116	15.49	19.94
BSE 200 – Sensex	None	7.3326	15.49	19.94
BSE 200 – CD	None	5.9767	15.49	19.94
BSE 200 – CG	None	9.6421	15.49	19.94
BSE 200 – FMCG	None	5.2345	15.49	19.94
BSE 200 – HC	None	5.5364	15.49	19.94
BSE 200 – IT	None	14.205	15.49	19.94
BSE 200 – Metal	None	6.6874	15.49	19.94
BSE 200 – Oil	None	5.1352	15.49	19.94
Sensex – CD	None	7.1019	15.49	19.94
Sensex – CG	None	9.9021	15.49	19.94
Sensex – FMCG	None	5.7298	15.49	19.94
Sensex – HC	None	4.9416	15.49	19.94
Sensex – IT	None *	15.715	15.49	19.94
Sensex – Metal	None	5.907	15.49	19.94
Sensex – Oil	None	5.6342	15.49	19.94
CD – CG	None	8.3818	15.49	19.94
CD – FMCG	None	4.219	15.49	19.94
CD – HC	None	4.4186	15.49	19.94
CD – IT	None	14.707	15.49	19.94
CD – Metal	None	2.8532	15.49	19.94
CD – Oil	None	4.7511	15.49	19.94
CG – FMCG	None	6.6586	15.49	19.94
CG – HC	None	4.9201	15.49	19.94
CG- IT	None	10.157	15.49	19.94
CG – Metal	None	7.7091	15.49	19.94
CG – Oil	None	11.725	15.49	19.94
FMCG – HC	None	4.8452	15.49	19.94
FMCG- IT	None	8.1655	15.49	19.94
FMCG – Metal	None	5.6534	15.49	19.94
FMCG – Oil	None	6.38	15.49	19.94
HC – IT	None	6.8341	15.49	19.94
HC – Metal	None	8.2677	15.49	19.94
HC – Oil	None	4.9889	15.49	19.94
IT – Metal	None	10.159	15.49	19.94
IT – Oil	None	8.3785	15.49	19.94
Metal – Oil	None	5.3926	15.49	19.94

Trace test indicates 1 co-integrating eqn (s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

The result of Johansen co-integration test indicates that integration among selected stock indices is minimal. Out of 58 bilateral pairs of 11 stock indices, one pair is found to be co-integrated i.e., the market index Sensex and Information Technology stock. The selected market indices and sector indices are not co-integrated because; the trace statistics are less than the Critical value at both 5% and 1%. Only in case of integration between Sensex and IT sector exist as the trace statistics so null hypothesis is accepted. Table 5 shows that no co-integration exist between all other pairs

MULTILATERAL CO INTEGRATION

The Johansen co-integration test is performed for twelve set of selected market indices to investigate integration of these indices as group analysis using the Multiple Equation, is based on VAR model, the VAR model of order 2, is chosen according to AIC contain 12x1 vector that contain Logarithms of share price index of 12 indices. The multivariate approach examines co integrating vector in the stochastic matrix possible number of matrix. A sequence of hypotheses test using maximum likelihood method, establishing the greatest possible number of vector within the system.

The analysis of Johansen multivariate approach is to test null hypothesis of r co integrated vectors against the alternative that $r+1$ co integrated vectors are present where r is the number of hypothesized co integration equations. The Null hypotheses assume that for each row of numbers: zero at most one, at most two so on till at most eleven. The alternative hypotheses states one, two, three, four to eleven co – integration equation respectively for each row. As long as trace statistics exceeds critical values at 5% or 1%, the alternative accepted. The results of test are present in Table 4.10.

HYPOTHESIS -3

H_0 : $r=0$ NO multilateral co-integration exists.

H_1 : $r=1$ Multilateral co-integration exists.

TABLE 6 : RESULT OF MULTILATERAL CO-INTEGRATION AMONG SELECTED STOCK INDICES

Trend assumption: Linear deterministic trend			
Hypothesized	Trace	5%	1%
No. of CE(s)	Statistic	Critical Value	Critical Value
None *	417.6811	334.9837	351.2421
At most 1 *	321.4965	285.1425	300.2879
At most 2 *	245.2836	239.2354	253.2348
At most 3	189.9102	197.3709	210.0548
At most 4	142.7832	159.5297	171.0905
At most 5	101.6739	125.6154	135.9732
At most 6	72.35678	95.75366	104.9615
At most 7	47.40551	69.81889	77.81884
At most 8	27.10295	47.85613	54.68150
At most 9	14.50918	29.79707	35.45817
At most 10	6.379869	15.49471	19.93711
At most 11	0.472348	3.841466	6.634897

Trace test indicates 3 co-integrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level and 0.01 level

**MacKinnon-Haug-Michelis (1999) p-values

As illustrated in the table, the trace statistics indicate three co integration vector at 5% and 1% significance level among the indices selected. Since trace statistics 417.68 exceeds the 5% and 1% critical values, it is possible to reject the null hypothesis of no co integration vector, indicating that there are three co-integration equations. For the fourth null hypothesis, the trace statistics of 189.91 is less than the 5% and 1% critical values, which implies that the hypothesis cannot be rejected, indicating that there is at most one co integrating vector. Findings of multilateral co-integration indicate that the level of integration with respect to the group of twelve selected indices is low because only three co-integrated vector is found. The result of the Johansen multivariate test on the group of twelve selected indices has supported the proposition of integration across all twelve indices on bilateral basis because only one pair is found to be integrated.

GRANGER CAUALITY TEST

The finding of co-integration testing do not indicate the direction of relationship among selected market indices, Granger causality test is performed to examine the casual relationship among these indices. If two variables are co-integrated, Granger causality must exist at least in one direction. The Granger causality approach seeks to determine how much of a current variable Y can be explained by past values of Y and lagged values of another variable X . There are four possible patterns of the test. There can be unconditional causality from X to Y . There can be unconditional causality occurs from Y to X , There can be bidirectional causality. NO causality exists between X and Y .

HYPOTHESIS -3

H_0 : No Causality exists between Sensex and Sector Indices.

H_1 : Causality exists between Sensex and Sector Indices.

The Granger causality test is applied to log values for the twelve selected indices Table 7 presents the output of the test, which includes calculated F- statistics and the probability for each pair of the market index and sector indices. If the probability of non – causality is less than 0.25, the hypothesis of non – causality is rejected implying that the casual relationship exists. Findings of Granger causality test show clearly that the causality in terms of co – dependencies on each other's lagged indices runs from Sensex i.e. market index and other selected sector indices. As illustrated in Table 7, the probability of accepting the null hypothesis that Sensex returns does not cause Auto sector return is 0%, which means the auto return is affected by Sensex return by 100 percent. Likewise the Consumer Durable sector return is also affected by market return by 99 percent. Consumer Goods sector return is affected by 95 percent by Sensex return, FMCG returns are affected by 80 percent, Health-Care returns are affected by 88 percent. IT sector returns are affected by 93 percent and Metal sector and Oil sector returns are affected by market return by 100 percent. The causality test indicates that market returns are independent variable. The result suggests a Granger causality running from only Market to other sector indices.

TABLE 7 : RESULT OF GRANGER CAUSALITY AMONG SENSEX AND SECTORAL INDICE

Null Hypothesis:	Obs	F-Statistic	Prob.
SENSEXRETURN does not Granger Cause AUTORETURN	2492	725.61	0.00
AUTORETURN does not Granger Cause SENSEXRETURN		0.0733	0.9293
SENSEXRETURN does not Granger Cause CDRETURN	2492	6.25156	0.002
CDRETURN does not Granger Cause SENSEXRETURN		2.39797	0.0911
SENSEXRETURN does not Granger Cause CGRETURN	2492	3.10794	0.0449
CGRETURN does not Granger Cause SENSEXRETURN		3.6097	0.0272
SENSEXRETURN does not Granger Cause FMCGRETURN	2492	1.63498	0.1952
FMCGRETURN does not Granger Cause SENSEXRETURN		8.83762	0.0001
SENSEXRETURN does not Granger Cause HCRETURN	2492	2.14256	0.1176
HCRETURN does not Granger Cause SENSEXRETURN		3.74642	0.0237
SENSEXRETURN does not Granger Cause ITRETURN	2390	2.61673	0.0733
ITRETURN does not Granger Cause SENSEXRETURN		0.97827	0.3761
SENSEXRETURN does not Granger Cause METALRETURN	2492	833.871	0.00
METALRETURN does not Granger Cause SENSEXRETURN		1.39489	0.2481
SENSEXRETURN does not Granger Cause OILRETURN	2492	855.885	0.00
OILRETURN does not Granger Cause SENSEXRETURN		1.28192	0.2777

CONCLUSION AND SUGGESTIONS

Aggregate volatility is analyzed using market and sectoral indices: Sensex, BSE 100, BSE 200, and BSE 500 Indices. Financial sector index, consumer durable sector index, consumer goods sector index and other indices. Using the daily returns, the monthly standard deviations of stock returns are estimated as a measure of volatility. The plots of the volatility measures show an upward trend in volatility in all indices. This result confirms that the investor has the correct impression about the increased stock market volatility in Indian Stock Exchange. The plots also reveal that the sectoral indices also shows upward trend. All volatility plots have significant jumps during the times of important political and economic events of India.

The increased volatility during 2000 - 2001 was due to dot com bust. Beginning of year 2000, the market was bolstered by a positive investment environment supported by the IMF-backed disinflation program, with 5.6% GDP increase year-to- year, high confidence due to financial sector reforms, new license policy, FEMA, and a decline in interest rates and inflation. Positive news included a new law snoving international arbitration between the government and foreign investors, and new measures to prevent insider trading. Despite these reforms, investor confidence declined and share prices plunged because of political turmoil.

After a period of robust global growth and favorable economic conditions in 2006, global financial markets entered a turbulent phase because of the subprime crisis which started in mid-2007. Non-performing housing loans, declining global equity prices and the rising cost of default protection on corporate bonds forced some major banks in the US incurred losses. Alongside, the tightening of banking credit standards in major industrial economies has reinforced worries of an impending credit crunch. The impact has been compounded by the volatility in international food and oil prices. These effects have impacted global economic growth in the current year as well as next.

The increased FII flows till 2007-08 reversed its trend in 2008-09. The judgment about excess volatility of capital flows will depend not merely on the quantity of the flow, but to some extent on the quality in terms of components of the capital flow i.e., whether capital flows are of enduring nature or temporary. Strategic management of the capital account would warrant preparedness for all situations.

REFERENCES

1. Andersen, Torben G., Tim Bollerslev, Francis X. Diebold, and Paul Labys, 1999, the distribution of stock return volatility working paper, northwestern university, Duke University, and University of Pennsylvania.
2. Bekaert, Geert, and Campbell.R. Harvey, 1997, Emerging equity market volatility, journal of financial economics 43, 29-77.
3. Bernard, Andrew B. and Douglas G Steigerwald, 1993, cleansing recessions ; evidence form stock prices, working paper, MIT and university of California at Santa Barbara.
4. Black, Fischer, 1976 studies of stock price volatility changes, proceedings of the 1976 meetings of the business and economic statistics section. 177-191, American Statistical association.
5. Bloomfield, Ted, Richard Leftwich, and John B. Long Jr. 1977, portfolio strategies and Perbodie Zvi, Alex Kane, and Alan, J. Marcus 1999, Investments fourth edition (Irwin Mc Graw Hill New York)
6. Bollerslev, Tim, Ray Chou, and Kenneth Kroner 1992, ARCH modeling in finance: A review of the theory and empirical evidence, journal of Econometrics 52, 5-59).
7. Brainard, S. Lale, and David M. Culter 1993 Sectoral shifts and cyclical unemployment reconsidered, quarterly journal of economics 108, 219-243.
8. Braun, Phillip .A, Daniel B. Nelson, And Alain M. Sunier 1995, good news bad news volatility and beta journal of finance 50, 1575-1603.
9. Caballero, Ricardo J. and Mohammed Hammour, 1994, the cleansing effect of recessions, American economic reviews 84, 1350-1368.
10. Campbell, John, Y., 1991 A. Variance Decomposition for stock returns, economics journal 101, 157-179.
11. Campbell, John,y. Sangjoon Kim, and Martain Lettau, 1994, dispersion and volatility in stock returns : An empirical investigation. Working paper, Prinection University.
12. Campbell, John y and Martain, Lettau, 1990 dispersion and volatility in stock returns; an empirical investigation NBER working paper 7144.
13. Campbell, John y. Anderw W. Lo, and A. Craig Mackinaly 1997, the econometrics of financial markets (Princeton university press, Princeton, NJ)
14. Campbell, John. Y and Pierre Perron 1991, pitfalls and opportunities what macroeconomics should know about unit roots, NBER (macroeconomics annual 6, 141-201.
15. Cho, young - Hye, and Robert F. Engle 1999 time-varying betas and asymmetric effects of news: Empirical analysis of blue chip stocks, NBER working paper 7330.
16. Christie, Andrew 1982, the stochastic behavior of common stock variances; values, leverage, and interest rate effect journal of financial economics 10, 407-432.
17. Cohen, Randolph. B. Brian J. Hall, and Luis, Viceira, 2000, executive stock options encourage risk-taking? Working paper, Harvard business school.
18. Morck, Randal Bernard Young, and Wayne Yu, 2000 the information content of stock markets: why do emerging markets have synchronous stock price movements? Journal of financial economics 58, 215-260.
19. Neslon, Daniel, 1992 filtering and forecasting with misspecified ARCH models I ; getting the right variance with the wrong model, journal of econometrical 52, 61-90
20. Neway Whitney and Kenneth D. West 1994, automatic lag selection in covariance matrix estimation Review of economic studies 61 631-654.
21. Officer, Robert R., 1973 the variability of the market factor of the New York stock exchange, journal of business 46, 434-453.
22. Poterba, James, and Lawrence summers 1986, the persistence of volatility and stock market fluctuation American Economic Review 76, 1142-1151.
23. Roll, Richard, 1992, industrial structure and the comparative behavior of international stock market indices, journal of finance 47, 3-42
24. Ross, Stephen, 1976, options and efficiency, quarterly journal of Economics 90, 75-89.

25. Schwert, G. William, 1989, why does stock market volatility change over time? *Journal of finance* 44, 1115-1153.
26. Schwert, G. William and Paul. J. Seguin, 1990 heteroskedasticity in stock returns, *Journal of Finance* 45, 1129-1155.
27. Shiller, Robert. J. 1981. Do stock prices move to be justified by subsequent changes in dividends?, *American economic Review* 71, 421-436.
28. Shleifer, Andrei, and Robert, W. Vishny, 1997, the limits of arbitrage, *Journal of finance* 52, 35-55.
29. Skinner, Douglas, J., 1989, options markets and stock return volatility, *Journal of financial economics* 23, 61-78
30. Stein, Jeremy c. 1987, informational externalities and welfare-reducing speculation, *Journal of political economy* 95, 1123-1145.
31. Stein, Jeremy c., 1997 internal capital markets and the competition for corporate resources, *Journal of finance* 52, 111-133.
32. Vogelsang, Timothy, 1998, trend function hypothesis testing in the presence of serial correlation *Econometrica* 66, 123-148.
33. Vuolteenaho, Tuomo, 1999, what drives firm-level stock returns? Working paper, graduate school of business, university of Chicago.
34. West, Kenneth. D. 1988, Dividend innovations and stock price volatility, *Econometrica* 56, 37-61.
35. Whitelaw, Robert F., 1994, Time variations and co-variations in the expectation and volatility of stock market returns, *Journal of finance* 49, 515-541.



REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce, IT 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

