IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 12.Ver. III (Dec. 2014), PP 11-19
www.iosrjournals.org

Equity Derivatives- Comparative and Critical Analysis from Bse to Nse

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Abstract: *This paper seeks to explain the relationship between variables of index futures, stock futures, index options and stock options etc., from BSE to the NSE. The main objective of this paper to know the relationship between variables from one variable of BSE to NSE in terms of index futures, stock futures, index options and stock options and offer suitable suggestions to increase the turnover volume of equity derivative segments. The required data obtained from the existing literature and review. The study found that there was a weak relationship between the turnover value of index futures of BSE to turnover value of index futures of NSE, and also the study came out with there was a moderate relationship existed in the following pairs. Turnover value of stock futures of BSE to turnover value of stock futures of NSE, turnover value of Index option of BSE of Call option to the turnover value of index option of NSE of call option, turnover value of index option of put option of BSE to turnover value of index option of put option of NSE, turnover value of call option of stock option of BSE to turnover value of call option of stock option of NSE, and total turnover value of equity segment of BSE & total turnover value of equity segment of NSE. The study also found that there was a very strong relationship between the turnover value of put option of stock option of NSE to the turnover value of put option of stock option of BSE, finally concluded that there was a significant difference of the above said pairs, due to their significant values were less than 0.05*

Key Words: *Turnover Value, No of Trades, BSE,NSE.*

I. Introduction

Derivative is a financial instrument, which derives its value form some other asset which is called as the underlying asset. The underlying assets i.e. shares, bonds, commodities etc, on case of pepper derivatives, pepper in futures the underlying asset is pepper. Due to change in interest rates, foreign exchange rates and in addition to that regulatory frame work, default of credit amount and spec risks of derivatives are the major risks of the derivatives market. It consists of futures forwards, options and swaps. Futures contract is a standardized forward contract agreement. The standards of futures contract are period, at the end of every day, the loss or gain raised due to futures contract is required to be settled through mark-to-margin account the futures contract is settled based on the spot rate on maturity date. The main futures of a futures contract are standardization in terms of quality, quantity, date , price and month of delivery etc, clearing house act as a intermediary or middle man between buyer and seller. The margin account is used as a collateral security in order to minimize the risk of failure by the concerned parties, tick size is price movement in futures contract, and settlement price is used to know the profit or loss on each day. The difference of futures price at which the contract was entered and cash price at expiration date considered. The futures contracts are settled on the expiry date. The loss or profit in the transaction is decided at the end of every trading day and settled immediately mark-to-market (MTM) account. Therefore the profit/loss in the transaction is the net of all daily profit and losses during the life of the contract. The futures are divided into stock futures, commodity futures and index futures. The stock futures are shares and debentures, where as commodity futures are belong to the commodities namely gold, paddy and sugar. Index futures are congregation of shares. Finally, futures are aggregation of stock futures commodity futures and index futures. The time value of a futures contract is basis i.e., futures price-spot price. Basis should be zero or expiration, gross hedge scenario is arised due to variability between futures price and spot price .Deposit a minimum amount at broker by the investor is called as margin. The margins are divided into initial margin, maintenance margin and marking-to-market (MTM). Based on "value at risk" concept minimum margins are fixed by the concerned stock exchange about 10 percent of the total value of contract. Maintenance margin is the minimum required margin which is normally lower than initial margin. Marking-to-market margin minimizes the risk of fluctuations in prices of securities, by way of transfer to maintain margin from mark-to-mark margin. The futures contracts are standardized; where as the forward contracts are not standardized. The gain or loss on the futures contract is settled on a daily basis, where as the forward contracts settlements takes place on the date agreed upon between the parties i.e. at the end of the contract. There are different types of futures markets are available like, stock future which is also called as equity future. These futures used as a risk management tools. The price of futures contract i.e. Futures price will be determined based on the expected

movement in spot market or cash market, cost of carry, in terms of interest cost, storage cost and insurance cost etc, and dividend receipts. Therefore futures price can be calculated by applying the formula of futures price= spot price+ cost of carry-returns (or) futures price= spot price add cost of carry less returns. The main objective of a index futures is a bullish market, to increase beta value of the portfolio, in buy index futures. The no of required futures contract to be bought can be ascertained by the following formula of:

$$\text{No of futures contract to be bought} = \frac{\text{portfolio value x (desired value of beta} - \text{beta of the portfolio)}}{\text{value of a futures contract}}$$

No money is required as a investment amount (ignoring transaction costs and margin) to enter in to a futures contract for buying index futures, as a result the portfolio remains intact. Where the prices have been declining, the no of index futures contract to be sold equilent to no of

$$\text{index futures contract to be sold} = \frac{\text{portfolio value x (beta of the portfolio} - \text{desired value of beta)}}{\text{value of a futures contract}}$$

portfolio value x existing beta less portfolio value x desired beta.
Index can be equated to a portfolio of securities whose (index) value represents the proportionate increase. The

$$\text{index can be calculated at opening index x } \frac{\text{closing market capitalization}}{\text{opening market capitalization}}$$

Option is the right, but not an obligation. Option holder may be perform or may not perform the option at maturity date. To acquire such a beautiful right the option holder has to pay the option premium to the other party. Where the right is belong to the purchase of security, it is called as call option, where it is relevant to sale of security, it is called as put option. The option premium consists of intrinsic value and time value. In buyer's point of view, where CMP> exercise price is considered as In –The- Money, where CMP=EP, are neutral or AT-The-Money the money and CMP<EP is out of the money. In seller's point of view In- The- Money is relevant to EP>CMP. At the money EP=MP and out of the money EP< CMP. The option holder performs the contract only when it is advantageous for him, at current market price exceeds exercise price, where other party does not have any right argue regarding the performance of the contract.. The option pricing methods are divided into two types, namely quantitative methods and quantities modes. The quantitative models consist of irenic value and time value. Whereas the quantitative models consists of Binomial model and B-S model (Black – scoter model) The option premium equally to intrinsic value and time value. The intrinsic value is equilent to difference between the options exercise price and the underlying assets current market price.

II. Review Of Literature

Dr. Shree Bhagwat, Ritesh Omre, Deepak Chand, (2012) opined that the basic purpose of these instruments is to provide commitments to prices for future dates for giving protection against adverse movements in future prices, in order to reduce the extent of financial risks. Derivatives trading in India has surpassed cash segment in terms of turnover and number of traded contracts.

Nuñez (1995) argue that the transference of the risk to the derivative markets could improve, to a substantial extent, the transactions of the spot market, because there is an inverse relationship between volatility and liquidity.

Nabar and Park (1994) opined that information that options supply about the future strategies of the investors is better than that offered by combinations of assets.

Skinner (1989) examined that the introduction of the option markets produces a smaller bid-ask spread in the underlying market and therefore a greater liquidity and he also observed about the whether the introduction of derivative markets has increased or decreased the variance and the trading volume of the underlying asset.

Stein (1987) recognized that the entry of new speculators in the market could constitute a negative factor that would increase the volatility of the spot market.

Cox (1976) emphasized that the introduction of derivatives markets causes a affirm influence on the underlying market because of the speed at which information is available in the form of the prices as well as the amount of information reflected in expected prices due to the derivative markets attract an additional set of traders to the

market and because these markets, which have lower transaction costs, transmit the new information to the spot market more quickly.

After verifying the existing literature majority of the studies confined to the only for the fundamentals of derivatives, and how they impact on stock market. No study was relevant to the comparative analysis from the BSE to NSE.

Research Problem : Is there any difference between the trading of BSE&NSE regarding the Equity Derivatives.?

2. Is there any correlation between the variables within the pairs of equity derivatives segment?.
3.

Objective of the Study: After verifying the existing literature and review and consideration of the research problem the following objectives were framed

1. To examine the structure of equity derivatives within Indian stock market.
2. To test whether there is a significant difference from the same variable of BSE to NSE.
3. To reveal the correlation between the variables with in the pairs of equity derivatives segment.
4. To offer a suitable suggestion to increase the turnover volume of equity derivative segments.

Methodology of the Study: The required information was collected from secondary sources. The data were obtained from the hand book statistics of the securities exchange board of India for the year 2013.

Techniques: The SPSS 16.0 version was useful to analyses the data, the paired samples statistics, paired samples correlations, paired sample test were applied to derive the inferences from the data.

Input Table: Equity Derivatives Segment of BSE and NSE (Turnover in Notional Value)

Year	No. of Trading Days	Index Futures		Stock Futures		Index Options			
						Call		Put	
		No. of Contracts	Turnover (` crore)	No. of Contracts	Turnover (` crore)	No. of Contracts	Turnover (` crore)	No. of Contracts	Turnover (` crore)
1	2	3	4	5	6	7	8	9	10
				BSE					
2004-05	253	4.49.630	13.600	6.725	213	48.065	1.471	27.210	827
2005-06	251	89	5	12	1	100	3	0	0
2006-07	249	16,38,779	55,491	1,42,433	3,515	2	0	0	0
2007-08	251	71,57,078	2,34,660	2,95,117	7,609	951	31	210	8
2008-09	243	4,95,830	11,757	299	9	251	6	122	3
2009-10	244	3,744	96	6	0	5,276	138	0	0
2010-11	254	5,613	154	0	0	0	0	10	0
2011-12	249	70,73,334	1,78,449	3,26,342	10,216	72,06,514	2,00,090	1,75,69,130	4,18,253
2012-13	249	47,04,602	1,22,374	1,16,933	3,418	11,63,24,195	32,30,232	14,09,09,766	37,97,249
				NSE					
2004-05	253	2,16,35,449	7,72,174	4,70,43,066	14,84,067	18,70,647	69,373	14,22,911	52,581
2005-06	251	5,85,37,886	15,13,791	8,09,05,493	27,91,721	64,13,467	1,68,632	65,21,649	1,69,837
2006-07	249	8,14,87,424	25,39,575	10,49,55,401	38,30,972	1,26,32,349	3,98,219	1,25,25,089	3,93,693
2007-08	251	15,65,98,579	38,20,667	20,35,87,952	75,48,563	2,66,67,882	6,68,816	2,86,98,156	6,93,295
2008-09	243	21,04,28,103	35,70,111	22,15,77,980	34,79,642	11,04,31,974	20,02,544	10,16,56,470	17,28,957
2009-10	244	17,83,06,889	39,34,389	14,55,91,240	51,95,247	16,76,83,928	40,49,266	17,36,95,595	39,78,699
2010-11	254	16,50,23,653	43,56,755	18,60,41,459	54,95,757	31,45,33,244	90,90,702	33,61,05,313	92,74,664
2011-12	249	14,61,88,740	35,77,998	15,83,44,617	40,74,671	42,80,34,677	1,15,54,301	43,59,83,059	1,11,65,731
2012-13	249	9,61,00,385	25,27,131	14,77,11,691	42,23,872	40,85,30,477	1,15,81,485	41,23,46,672	1,12,00,089

Source: SEBI-Hand Book Statistics: 2013

Input Table: Equity Derivative Segment of BSE (Turnover in Notional Value in Crore)

Stock Options						
	Call				Put	
Year	No of Contracts	Turnover	No of Contracts	Turnover	No of Contracts	Turnover
2004-05	72	2	17	0	531719	16112
2005-06	2	0	0	0	203	9
2006-07	5	0	1	0	1781220	59006
2007-08	9	0	6	0	7453371	242308
2008-09	0	0	0	0	496502	11775
2009-10	0	0	0	0	9026	234
2010-11	0	0	0	0	5623	154
2011-12	39848	1277	7657	192	32222825	808476
2012-13	178313	5186	209557	5060	262443366	7163519

Source: SEBI: Hand Book Statistics-2013.

Input Table: Equity Derivative Segment of NSE (Turnover in Notional Value in Crore)

Stock Options						
	Call				Put	
Year	No of Contracts	Turnover	No of Contracts	Turnover	No of Contracts	Turnover
2004-05	3946979	132066	1098133	36792	77017185	2547053
2005-06	4165996	143752	1074780	36518	157619271	4824251
2006-07	4394292	161902	889018	31909	216883573	7356270
2007-08	8002713	308443	1457918	50693	425013200	13090477
2008-09	9762968	171843	3533002	57384	657390497	11010482
2009-10	10614147	389158	3402123	116907	679293922	17663665
2010-11	24273560	777109	8234833	253235	1034212062	29248221
2011-12	24565283	671770	11929088	305261	1205045464	31349732
2012-13	42499219	1302779	24278974	697648	1131467418	31533004

Source: SEBI:Hand Book Statistics :2013

Table 1:Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Turn over value of Index Futures of BSE	6.8510E4	9	88773.02190	29591.00730
	Turn over value of Index Futures of NSE	2.9570E6	9	1.20610E6	4.02033E5

This table reveals that comparison between the turnover value of index futures of BSE to the turnover value of index futures of NSE. This table concluded that turnover value of index futures of BSE was favorable than the turnover value of index futures of NSE.

Table 2: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Turn over value of Index Futures of BSE & Turn over value of Index Futures of NSE	9	.252	.514

This table reflects the relationship between the turnover values of from BSE to NSE regarding the index futures. This table reflects that the relationship between two variables was weak, where value of correlation was 0.252.

Table 3: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Turn over value of Index Futures of BSE - Turn over value of Index Futures of NSE	-2.88844E6	1.18687E6	3.95625E5	-3.80076E6	-1.97613E6	-7.301	8	.000

This table tests whether there is a significant difference between the turnover values of index futures from BSE to NSE.

Null Hypothesis (Ho): There is no significant difference between the turnover values of index future of BSE to turnover value of index futures of NSE.

Alternative Hypothesis (Ha): There is a significant difference between the turnover value of index futures of BSE to turnover value of index futures of NSE.

Analysis: The value of t was -7.30, df=8, p=0.00, Hence, it can be concluded that the propose null hypothesis was not accepted and concluded that there was a significant difference between the turnover value of index futures of BSE to turnover value of index futures of NSE.

Table 4: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Turnover value of Stock Futures of BSE	2.7757E3	9	3824.39551	1274.79850
	Turnover value of Stock Futures of NSE	4.2361E6	9	1.72850E6	5.76165E5

This table projects that the turn value of stock futures of NSE was better than the turnover value of stock futures of BSE.

Table 5: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Turnover value of Stock Futures of BSE & Turnover value of Stock Futures of NSE	9	.406	.278

The above table projected the moderate relationship (0.406) between the turnover values of stock futures of BSE to the turnover value of stock futures of NSE.

Table 6: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Turnover value of Stock Futures of BSE - Turnover value of Stock Futures of NSE	-4.23328E6	1.72695E6	5.75648E5	-5.56073E6	-2.90583E6	-7.354	8	.000

Null Hypothesis (Ho): There is no significant difference between the turnover value of stock futures of BSE to turnover value of stock futures of NSE.

Alternative Hypothesis (Ha): There is a significant difference between the turnover value of stock futures of BSE to turnover value of stock futures of NSE.

Analysis: The value of t was -7.354, at df=8, P=0.000, hence it can be concluded that the proposed null Hypotheses was rejected and concluded that the there was a significant difference between the turnover value of stock futures of BSE to turnover of Stock futures of NSE.

This table reveals that the value of turnover of index call option of NSE was better than that of the turnover value of index option of call of BSE.

Table 8: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Turnover value of Index Option-BSE –call option & Turnover value of Index Options-NSE-call option	9	.579	.102

This table shows that the moderate relationship between the turnover value of index option of call option of BSE to turnover value of index options of call option of NSE.

Table 9: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Turnover value of Index Option-BSE –C all option- Turnover value of Index Options-NSE-Call option	-4.01682E6	4.43189E6	1.47730E6	-7.42347E6	-6.10164E5	-2.719	8	.026

This table tests whether there was a significant difference between the turnover value of index option of BSE of call option to turnover value of index option of call option of NSE.

Null Hypothesis (Ho): There is no significant difference between the turnover value of index option of BSE of call option to the turnover value of index options of NSE of call option.

Alternative Hypothesis (Ha): There is a significant difference between the turnover value of index option of BSE of call option to the turnover value of index options of NSE call option.

Analysis: The Value of t was -2.719, df=8, P=0.026, and concluded that the proposed null hypothesis was not accepted, hence it can be concluded that the there was a significant difference between the turnover value of index option of BSE of call option to the turnover value of index options of NSE call option.

Table 10: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Turnover value of Index Optio- Put Option-BSE	4.6848E5	9	1.25592E6	4.18641E5
	Turnover value of Index Option- Put Option-NSE	4.2953E6	9	4.86796E6	1.62265E6

This table reveals that the turnover value of index option of put option of BSE (mean 4.6848E5), better than the turnover value of index option of put option of NSE(4.2953E6), and hence, it can be concluded that turnover value of index option-put option of Bombay Stock Exchange than was better than NSE.

Table 11: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Turnover value of Index Optio-Put Option-BSE & Turnover value of Index Option- Put Option-NSE	9	.595	.091

This table projected the moderate relationship between the turnover value of index option of put of BSE to turnover value of index option of put option of NSE.

Table 12: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Turnover value of Index Optio- Put Option-BSE - Turnover value of Index Option- Put Option-NSE	-3.82680E6	4.24288E6	1.41429E6	-7.08817E6	-5.65431E5	-2.706	8	.027

This table tests whether there is a significant difference between the variables of two stock exchanges.

Null Hypothesis (Ho): There is no significant difference between the turnover value of index option of put option of BSE to same variable of NSE.

Alternative Hypothesis (Ha): There is a significant difference between the turnover value of index option of put option of BSE to same variable of NSE.

Analysis: The value of t was -2.706, df=8, P=0.027, where it can be concluded that the proposed null hypothesis was not accepted, and concluded that the there was a significant difference between the turnover value of index option of put option of BSE to turnover value of index option of put option of NSE.

Table 13: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Turnover Value of Call Option-Stock Options -BSE	7.1833E2	9	1727.76243	575.92081
	Turnover Value of Call Option-Stock Option-NSE	4.5098E5	9	3.97238E5	1.32413E5

This table shows that the turnover value of call option of stock of BSE favourable (better than) turnover value of call option of stock of NSE.

Table 14: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Turnover Value of Call Option-Stock Options -BSE & Turnover Value of Call Option- Stock Option-NSE	9	.856	.003

This table reflects the correlation between the variable of turnover value of call option of stock options of BSE to turnover value of call option of stock option of NSE. The table projected that there was a very strong relationship between the above variables.

Table 15: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Turnover Value of Call Option-Stock Options -BSE – Turnover Value of Call Option- Stock Option-NSE	-4.50262E5	3.95761E5	1.31920E5	-7.54471E5	-1.46053E5	-3.413	8	.009

This table tests whether there is a significant difference between the turnover value of call option of stock option of BSE to turnover value of call option of stock option of NSE.

Null Hypothesis(Ho): There is no significant difference between the turnover value of call option of stock option of BSE to turnover value of call option of stock option of NSE.

Alternative Hypothesis (Ha): There is a significant difference between the turnover value of call option of stock options of BSE to turnover value of Call option of stock option of NSE.

Analysis: The value of t was -3.413, at df=8, P=0.009, hence it can be concluded that the assumed null hypothesis was not accepted and can be concluded that there was a significant difference between the turnover value of call option of stock of BSE to turnover value of call option of stock option of NSE.

Table 16: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Turnover Value of Put Option-Stock Option-NSE	1.7626E5	9	2.20128E5	73375.89385
	Turnover Value of Put Option-Stock Option-BSE	5.8356E2	9	1679.86719	559.95573

This table reflects that the turnover value of put option of stock option of BSE (Mean 58356E2) was better than the same value of NSE (1.7626E5).

Table 17: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Turnover Value of Put Option-Stock Option-NSE & Turnover Value of Put Option-Stock Option-BSE	9	.900	.001

This table proved that there was very strong relationship (0.900) existed and positively correlated between the variables of turnover value of put option of stock option of NSE to turnover value of put option of stock option BSE.

Table 18: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Turnover Value of Put Option-Stock Option-NSE - Turnover Value of Put Option-Stock Option-BSE	1.75677E5	2.18617E5	72872.24078	7633.53364	3.43721E5	2.411	8	.042

This table tests whether there is any statistically significant difference between the above variables for this the following hypothesis was framed.

Null Hypothesis (Ho): There is no significant difference between the turnover value of put option of stock option of NSE to turnover value of put option of stock option of BSE.

Alternative Hypothesis (Ha): There is a significant difference between the turnover value of put option of stock option of NSE to turnover value of put option of stock option of BSE.

Analysis: The value of t was 2.411, at df=8, P=0.042, Hence, it can be evident that the assumed that null hypothesis was not accepted and concluded that there was a significant difference between the turnover value of put option of stock option of NSE to turnover value of put option of stock option of BSE.

Table 19 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Total Turnover Value of Equity Segment of BSE	9.2240E5	9	2.35518E6	7.85059E5
	Total Turnover Value of Equity Segment of NSE	1.6514E7	9	1.15475E7	3.84915E6

This table depicts that the total turnover value of equity segment of BSE(9.2240E5) was better than the turnover value of equity segment of NSE.

Table 20: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Total Turnover Value of Equity Segment of BSE & Total Turnover Value of Equity Segment of NSE	9	.542	.132

This table informed that there was moderate relationship (0.542) between the total turnover value of equity segment of BSE to total turnover value of equity segment of NSE.

Table 21Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Total Turnover Value of Equity Segment of BSE - Total Turnover Value of Equity Segment of NSE	-1.55913E7	1.04599E7	3.48662E6	-2.36314E7	-7.55113E6	-4.472	8	.002

Null Hypothesis (Ho): There is no significant difference between the total turnover values of equity segment of BSE to the total turnover value of equity segment of NSE.

Alternative Hypothesis(Ha): There is a significant difference between the total turnover value of equity segment of BSE to the total turnover value of equity segment of NSE.

Analysis: The value of t was -4.472, df=8, P=0.002 hence, it can be concluded that the assumed null hypothesis was not accepted, and concluded that the there was a significant difference between the total turnover value of equity segment of BSE to the total turnover value of equity segment of NSE.

III. Findings of the Study

After verifying the results by observing the paired statistics which were derived from the SPSS, the following findings were identified.

1. The study found that the turnover value of index futures of BSE was better than the turnover value of index futures of NSE, and there was a weak relationship between two variables and statically there was a significant difference between them.
2. The study also observed that turnover value of stock futures of NSE was better than turnover value of stock futures of BSE, and they had a moderate relationship and statistically there was a significant difference between them.
3. It was evident that turnover value of index options of call option of NSE was better than the turnover value of index option of call option of BSE and they had a moderate relationship, and statistically there was a significant difference between them.
4. The study also observed that the value of turnover value of index option of put option of BSE was favourable than the turnover value of index option of put option of NSE, they had a moderate relationship, and statically, there was a significant difference between them.
5. The study came out with the turnover value of call option of stock option of BSE was better than the turnover value of call option of stock option of NSE, and they consisted strong relationship between them, and statically there was a significant difference between them.
6. The study came out with the turnover value of put option of stock option of BSE was favourable than the turnover value of put option of stock option of NSE, and they consisted a very strong relationship between them, and statically there was a significant difference between the two variables.
7. The study also came out with the total turnover value of equity segment of BSE was better than the total turnover value of equity segment of NSE, and they reflected a moderate relationship between them and statically, there was a significant difference between them.

IV. Conclusion And Suggestions

Finally it can be concluded that the most of the pairs consider that the most of the pairs consisted the moderate relationship, a very few variables claimed from the strong, and very strong relationship and also claimed that there was a statistically significant difference between the all pairs. Hence, it is suggested, the necessary authority should take necessary steps to increase the volume of equity derivatives segment of BSE and NSE.

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