Comparative Analysis of MCX COMDEX Index to DHAANYA Index

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Abstract : *The main objectives of this paper are to test whether there is any significant difference from the index of MCX COMDEX to DHAANYA in terms of open, high, low, close and the daily volatility (percent) along with a suitable suggestions to strengthen the index of exchanges. The data obtained from the website of MCX, NCDEX and the hand book of 2015 of SEBI and the period of study was during 2010-11 to 2014-15 and the paired sample statistics, paired sample correlation and paired sample test were applied to derive the inferences. The study found that index of MCX COMDEX was higher in terms of open, high, low and the daily volatility (percent) than the DHAANYA Index. The study also observed that very high relationship established regarding closing as well as daily volatility index between two stock exchanges. The study also observes that there was a significant difference from one form of index of one stock exchange to another form of index of another stock exchange.*

Key words : *MCX COMDEX, DHAANYA INDEX, Open, Index, High Index, Close Index and Daily Volatility.*

Introduction: Commodity markets are the world's best market and created the Rogers international commodity index, commonly pronounced as RICI useful to calculate the world wide trends in commodity prices. Forward (2002) opined that the bull market cycle in commodities would continue in to the upcoming decade and this assessment was based on a descriptive analysis of the relationships between stock and commodity prices. Recently it was more focused on agri food and fiber firms, due to human health education is turning the subject of international interest and demand for healthy foods. The some of the genetically modified and functional food products . The many of the company's focus on the defensive investments and defensive stocks(stocks with a risk level less than the overall market).

Review of Literature:

Rogers(2004) identified negative correlation between the price movements in stocks and commodities. Bannister and Forward(2002) found that the inverse relationship between commodity and stock prices.Gorton and Rouwenhorst(2006) exhibited that the facts and fantasies regarding commodity futures markets will vary in the next few years. Hector .O.Zapta,Joshua D,Detre and Tatsuya Hanabuchi(2012) examined the cyclical relationship between the stocks and commodities and the function of agribusiness indexes and commodity in portfolios. They identified that a high negative correlation identified between stock and commodity prices.

Objectives of the Study :

To test whether there is any significant difference from the index of MCX COMDEX to DHAANYA in terms of open, high, low, close and the daily volatility (percent).

To offer a suitable suggestions to ameliorate the strengthen the index of exchanges.

Research Methodology :

Source of Data : The data obtained from the website of MCX, NCDEX and the Hand Book of 2015 of SEBI. The data also acquired through the various journals and publications, hence the source of data was purely on secondary basis.

Period of Study : The period of study was confined to during 2010-11 to 2014-15.

Techniques : The paired sample statistics, paired sample correlation and paired samples test were applied to derive the inferences through the SPSS 16.0 version.

Table 1: Trends in MCX COMDEX and DHAANYA Index

	MCX COMDEX Index					DHAANYA Index				
Year	Open	High	Low	Close	DV	Open	High	Low	Close	DV
2010-11	2694	3603	2567	3504	0.71	1000	1189	987	1106	0.71
2011-12	3532	4006	3286	3926	0.92	1105	2404	1102	2357	0.82
2012-13	3924	4069	3578	3789	0.60	2906	2906	2307	2352	0.77
2013-14	3789	4799	3352	3925	0.93	2627	2627	2120	2602	0.66
2014-15	3925	4046	2775	2915	0.80	2785	2785	2379	2479	0.69

Source: MCX,NCDEX: DV= Daily Volatility(Per Cent)

Table-1 : This table shows the index of open, high, low, case of MCX COMDEX and Dhaanya Index along with the daily volatility in terms of percent.

Table-2 : This table shows the paired samples statistics index of MCX COMDEX index and Dhaanya index. This table reveals that the open index of MCX COMDEX was higher than that of the open index of Dhaanya and with a lower variation. The high index of MCX COMDEX was more than that of the index of Dhaanya index, comparatively with a lesser variation. This table also discloses that low index of MCX COMDEX exceed the low index of Dhaanya, but the low index of Dhaanya had a higher variation. The index of close of MCX COMDEX was higher and had a lesser variation than the Dhaanya index. This table also extracted that index of daily volatility of MCX COMDEX was higher than that of the Dhaanya index; but the variation between these two were minimal. Finally it can be concluded that index of MCX COMDEX was higher in all cases i.e., open, high, low, close and volatility, but the differences deviations were higher in respect of open index rather than the other indexes.

Table 2: Paired Samples Statistics of the Various Issues of MCX COMDEX and DHAANYA Index.

Pair No	Particulars	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MCX COMDEX-Index-Open	3.5728E3	5	516.74046	231.09336
	DHAANYA Index-Open	2.0846E3	5	948.08085	423.99465
Pair 2	MCX COMDEX-Index-High	4.1046E3	5	432.49775	193.41887
	DHAANYA Index-High	2.3822E3	5	692.95433	309.89860
Pair 3	MCX COMDEX-Index-Low	3.1116E3	5	422.97317	189.15935
	DHAANYA Index-Low	1.7790E3	5	678.35426	303.36925
Pair 4	MCX COMDEX-Index-Close	3.6118E3	5	425.84234	190.44248
	DHAANYA Index-Close	2.1792E3	5	608.66058	272.20129
Pair 5	MCX COMDEX-Index-Daily Volatility	.7920	5	.14061	.06288
	DHAANYA Index-Daily Volatility	.7300	5	.06442	.02881

Source: SPSS

Table 3: Paired Sample Correlation of Various Issues of Indexes of Stock Exchanges

Pair No	Name of Index	N	Correlation	Sig.
Pair 1	MCX COMDEX-Index-Open & DHAANYA Index-Open	5	.840	.075
Pair 2	MCX COMDEX-Index-High & DHAANYA Index-High	5	.604	.281
Pair 3	MCX COMDEX-Index-Low & DHAANYA Index-Low	5	.383	.525
Pair 4	MCX COMDEX-Index-Close & DHAANYA Index-Close	5	.121	.846
Pair 5	MCX COMDEX-Index-Daily Volatility & DHAANYA Index-Daily Volatility	5	-.124	.842

Source: SPSS

Table-3 : This table shows the paired samples correlations of various pairs. There was a very high relationship existed regarding the close index and daily volatility of two stock exchanges. The high relationship existed between the open index of MCX COMDEX and DHAANYA, but there was a weak

relationship established regarding the index of high of MCX to DHAANYA

Table 4: Paired Samples Test of Various Issues of Index of MCX COMDEX and DHAANYA Index-

Pair No	Name of Product	Paired Differences			95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	MCX COMDEX-Index-Open – DHAANYA Index-Open	1.48820E3	585.75524	261.95771	760.88881	2215.51119	5.681	4	.005
Pair 2	MCX COMDEX-Index-High – DHAANYA Index-High	1.72240E3	552.44122	247.05922	1036.45363	2408.34637	6.972	4	.002
Pair 3	MCX COMDEX-Index-Low – DHAANYA Index-Low	1.33260E3	647.53826	289.58791	528.57505	2136.62495	4.602	4	.010
Pair 4	MCX COMDEX-Index-Close – DHAANYA Index-Close	1.43260E3	699.25768	312.71754	564.35692	2300.84308	4.581	4	.010
Pair 5	MCX COMDEX-Index-Daily Volatility – DHAANYA Index-Daily Volatility	.06200	.16177	.07235	-.13887	.26287	.857	4	.440

Source: SPSS

Table-4 : This table shows the paired samples test of various pairs and discloses the differences of the two variables.

Hypothesis-1

Null Hypothesis ($H0_1$) : There is no significant difference from the open index of MCX COMDEX to the open index of DHAANYA.

Alternative Hypothesis (Ha_1) : There is a significant difference from the open index of MCX COMDEX to the open index of DHAANYA.

Analysis : The value of mean was 1.488 and std. deviation was 585.7, with a 95 percent confidence interval with a lower difference was the 760.88 and the upper difference was 2215.5 at value of t was 5.681 at df was 4, and P value was 0.005, hence, it can be concluded that the proposed null hypothesis was rejected and the alternative hypothesis was accepted and concluded that there was a significant difference from the open index of MCX COMDEX to the open index of DHAANYA.

Hypothesis-2

Null Hypothesis ($H0_2$) : There is no significant difference from high index of MCX COMDEX to DHAANYA.

Alternative Hypothesis (Ha$_2$) : There is a significant difference from high index of MCX COMDEX to DHAANYA.

Analysis : The value of mean was 1.722 and std. deviation was 552.4 at 95 percent confidence interval with a lower difference was the 1036.4 and the upper difference was 2408.34 at value of t was 6.97 at df was 4, and P value was 0.002, hence, it can be concluded that the assumed null hypothesis was not accepted and the alternative hypothesis was accepted and came to knew that there was a significant difference from the high index of MCX COMDEX to DHAANYA.

Hypothesis-3

Null Hypothesis (H0$_3$) : There is no significant difference from the close index of MCX COMDEX to DHAANYA.

Alternative Hypothesis (Ha$_3$) : There is a significant difference from the close index of MCX COMDEX to DHAANYA.

Analysis : The value of mean was 1.33 and std. deviation was 647.5, at 95 percent confidence interval with a lower difference was the 528.5 and the upper difference was 2136.62 at value of t was 4.602 at df was 4, and P value was 0.010, hence, it can be concluded that the assumed null hypothesis was rejected and the alternative hypothesis was accepted and confirmed that there was a significant difference from close index of MCX COMDEX to DHAANYA.

Hypothesis-4

Null Hypothesis (H0$_4$) : There is no significant difference from close index of MCX COMDEX to DHAANYA.

Alternative Hypothesis (Ha$_4$) : There is a significant difference from close index of MCX COMDEX to DHAANYA.

Analysis : The value of mean was 1.432 and std. deviation was 699 at 95 percent confidence interval with a lower difference was the 564.35 and the upper difference was 2300.84 at value of t was 4.581 at df was 4, and P value was 0.010, hence, it can be concluded that the proposed null hypothesis was not accepted and the alternative hypothesis was accepted and confirmed that there was a significant difference from the close index of MCX COMDEX to DHAANYA.

Hypothesis-5

Null Hypothesis (H0$_5$) : There is no significant difference from index of daily volatility of MCX to DHAANYA.

Alternative Hypothesis (Ha$_5$) : There is a significant difference from index of daily volatility of MCX to DHAANYA.

Analysis : The value of mean was 0.062 and std. deviation was 0.161 at 95 percent confidence interval with a lower difference was the -0.13887 and the upper difference was 0.262 at value of t was 0.857 at df was 4, and P value was 0.440, hence, it can be confirmed that proposed null hypothesis was not accepted and the alternative hypothesis was accepted and came to knew that there was a significant difference from index of daily volatility of MCX to DHAANYA.

Findings of the Study :

1. The study found that index of open, index of high, index of low, index of close and daily volatility of MCX COMDEX was higher than that of the DHAANYA Index.

2. The high relationship established between the open index of MCX COMDEX to Dhaanya Index.

3. The study also found that very high relationship established between

close index of MCX COMDEX to DHAANYA Stock exchange.

4. The study also witnessed that moderate relationship existed from the low index of MCX COMDEX to DHAANYA.

5. The study also came to knew that there was a weak relationship identified from the high index of MCX COMDEX to DHAANYA.

6. The study also found that statistically there was a significant difference from the index of the all pairs except the pair regarding the daily volatility.

Conclusion and Sugessions : Hence, it can be concluded that there was a variation from index of MCX COMDEX to the DHAANYA Index. The required index was more useful to the identification of the either progress or regress of the commodity business. Hence, it is required to include the further products in calculation of index to increase the progress of the business.

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