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Demonetisation Of Rupees: It's Impact Over Mcx Specific Sector (With Reference To Agricultural Commodity Market)

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Abstract

Indian economy mainly depends on agriculture sector, around 70% population of the country survive through agriculture. This paper is based on how Demonetisation, an economic event occurs and effects on the agricultural commodity market. To show this effect this paper is based on to analyse the pre and post demonetisation of rupees scenario on the agricultural commodity market, for this purpose some agricultural commodities have been taken. These commodities are – Cotton, Cardamom, Crude palm oil and Mentha oil from MCX. Duration of the study has been taken from January 2016 to October 2016 for the Pre scenario of the demonetisation and November 2016 to August 2017 has been taken as post scenario of the demonetisation situation. For this purpose secondary data has been taken on monthly basis. In this study Paired sample T test as a statistical test has been used to analyse the data. The result being observed that the demonetisation event has significant impact over the commodity cardamom and crude palm oil whereas demonetisation event does not have any significant impact over the commodity cotton and mentha oil. Lastly researcher finds out that on some agricultural commodities are affect by the demonetisation while others are not.

Keywords- Demonetisation, Mentha oil, Cardamom, Multi-commodity Exchange, Crude palm oil, Remonetisation.

Introduction

Demonetization refers to an economic policy where certain currency unit still loses its legal tender status and the other new currency comes into the circulation. In India cash savings is the main aspect of this country, Indian's follows the practise of keeping hard cash which is not encouraged by the Government. The government changes the fiscal policies which facilitates the economic growth. Respondents do not want to show their Sources of income that's why a lot of black money circulates in the economy and it is unaccounted by the government. Black money can be generated through illegal trade or unauthorized funding. To know the real situation about the actual money circulation the government changes the economic policy which leads to demonetize the money. Demonetisation affects the cash in hand and the cash with the banks as well as they lose their wealth. It is a strategy that has worked quite well for some countries. So, India also follows this strategy to boost up the economy and fight against corruption. **Demonetization can also be referred to as the process of moving people from a cash-based system to a cashless system (digital system).** In digital economy system each and every transaction related with cash is countable and written. So, there is less chances for people to evade taxes, it increases the government funds and builds the global image at the global level.

In India Rupees 1,000 and Rupess 500 notes are demonetise or these currency lost their legal tender as on 8, November, 2016. So, it is known as Demonetisation Whereas Rupees 500 notes have been updated in the new format, so, it is known as Remonetisation. Moving people towards cashless system is a favourable economic policy for many stakeholders.

The Multi Commodity Exchange of India Limited (MCX), India's first listed exchange, is a state-of-the-art, commodity derivatives exchange that facilitates online trading, and clearing and settlement of commodity derivatives transactions, thereby providing a platform for risk management. The Exchange, which started operations in November 2003, operates under the regulatory framework of Securities and Exchange Board of India (SEBI). MCX offers trading in varied commodity futures contracts across segments including bullion, industrial metals, energy and agricultural commodities. The Exchange focuses on providing commodity value chain participants with neutral, secure and transparent trade mechanisms, and formulates quality parameters and trade regulations, in conformity with the regulatory framework. The Exchange has an extensive national reach, with 670 registered members and 52,183 Authorised Persons with its presence in more than 1200 cities and towns across India as on 30, September, 2017. MCX is India's leading commodity derivatives exchange with a market share of 90.1 per cent in terms of the value of commodity futures contracts traded in H1, FY 2018. MCX has various commodity indexes; these are as follows- MCXCOMDEX, MCXMETAL, MCXAGRI and MCXENERGY.

Future Contract- A futures contract is a contract between two parties to exchange assets or services, e.g., gold, aluminium etc., at a specified time in the future at a price agreed upon at the time of the contract. Commodity's Future price is quoted for a financial transaction that will occur on a future date and is the settlement price of the futures contract. Spot price is the current market price of particular commodity in the spot market, which is also called as cash market. That's the price which is prevailing 'on the spot' where one buys and sells goods. If you wanted to buy barrel of oil or 10 grams of gold today, you would pay the spot price. The 'futures price' is the price of the same commodity at a future date.

REVIEW OF LITERATURES

1. **Dr. V. G. Sumathy and T.Savitha (2016)** – In this paper they talk about the farmer's conditions. The farmers resisted with the process of demonetisation because cash is the only medium for the payment of any event as well as for saving habits. Liquid cash is essential for day to day transactions. They are like street vendors therefore cashless transaction is not possible. Cash is the primary mode of transaction in agricultural sector. Farmers are illiterate in nature and have limited acres of land will not have bank accounts therefore demonetisation creates huge impact on the farmers. Those industries which are dependent on agricultural sector are also affected at the time of demonetisation. This situation attracts the farmers towards the illegal money lenders and black marketers to borrow the money for their transaction needs. At last, they focuses that agricultural sector is one of the major sector which is affected from the demonetisation process.

2. **Sunil (Jan, 2017) –** This paper is descriptive in nature used secondary data. In this paper writer says that demonetisation has its impact on various sectors. This paper consists the very short duration which is not good in long run. Demonetisation is very effective move which is taken by the Government, it emerge the Indian economy as one of the strongest economy in the world. It focuses on treatment of issues arises due to demonetisation process as well as how's the process of demonetisation run effectively.

3. **Rajiv Chopra (April-June 2017)-** In this paper researcher analyses the short term costs and medium term benefits of demonetization and its Impact on the growth of various sectors of an economy where significant cash transactions are involved. It is evident from observed data that the impact of demonetization on Gross Value Added growth was modest. Although the Gross Value Added contracted marginally, it is projected to be positive in coming years. In the beginning it negatively impacted the segments of manufacturing and service sector showing the downward movement in various markets such as automobiles, consumer, real estate etc.

4. **Swati Chauhan and Nikhil Kaushik (June 2017)** - In this paper they analyse the move of government which affected those sectors that are driven by cash because they are the first that are affected when so much money is suddenly removed from circulation. This research paper is trying to analyze the impact of demonetization on Indian Stock market. They are using Event Study Methodology to analyze the stock of S&P BSE 100 companies. The result is being observed from the comparison of both pre and post-event window and found that there is no significant impact of demonetization on the stock market. The study also found that this short period downfall in the stock prices can be due to some other factors.

5. **Dr. Sudesh Kumar and Ms. Sunandan Bumra (July 2017) -** In their paper they explain the act of demonetization is expected to have a marked impact on various sectors. The sectors which are based on cash transactions will witness more disturbances. Therefore an attempt has been made to analyse the impact of demonetization on various prominent sectors of Indian economy that are automobile, pharmaceutical, agriculture and consumer market sector etc. Also compare performance of the sectors for pre and post period of demonetization.

6. **K. Veerakumar (2017) -** In this paper, an attempt has been made to find impact of demonetization on the public. Samples of 100 respondents were randomly selected from Coimbatore District. It is found that four variables namely gender, age, annual income, occupation have significant association with the impact of demonetization. It also results that demonetization helps to destroy black money is the first ranking given by the respondents and it is followed by corruption, terrorism etc.

NEED OF THE STUDY

Demonetization has affected every Indian, but it has hit the agricultural sector to the core. The government should try to reach out to the farmers of rural areas also to come out from the above issues. It is more likely that the government would come up with solutions.

1) No previous researches have been done on the impact of Demonetisation over particular agricultural commodity, like- cotton, menthaoil, cardamom and crude palm oil.
2) Demonetisation have been affected the agricultural commodity market in various aspects, like- productivity effect, crop wise effect and prices of the commodities.
3) Small and medium farmers are very much affected by demonetisation because there is suddenly change in the currency of Rs. 1000 and Rs. 500 notes. These currencies lost their legal identity. Therefore, agricultural commodities contract have been affected. So, there is a need how much particular commodity has been affected.
4) There is a need to know whether there is positive change or negative change of the demonetisation over the agricultural commodities.

OBJECTIVE OF THE STUDY

❖ To analyse the pre and post demonetisation of rupees scenario on the particular agricultural commodities of MCX in India.

RESEARCH METHODOLOGY

➢ **TYPE OF RESEARCH**

This research paper is Analytical Type of Research.

➢ **SCOPE OF THE STUDY**

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There are various factors on which agricultural commodities may depend i.e. Demand and Supply of the commodity, Government policies, budgets, inflation, economic and political condition of the country, FII, Foreign exchange rate etc. So, in this paper impact of demonetisation as a government policy over Agricultural Commodities prices has been determined. For this purpose MCX agricultural commodities future price data has been taken into consideration. These agricultural commodities are as follows- Cotton, Cardamom, Crude palm oil and Mentha oil from MCX.

- **SAMPLE DATA**

The information in the study is collected from secondary sources that are from various online sources, websites, articles related to Demonetisation. In this paper **secondary data** has been used. Data has been collected from the MCX website.

- **DURATION OF THE STUDY**

Duration of the study has been taken from January 2016 to October 2016 for the Pre scenario of the demonetisation and November 2016 to August 2017 has been taken as post scenario of the demonetisation situation. For this purpose secondary data has been taken on monthly basis. The present study considers 10 months average pre data of Cotton, Cardamom, Crude palm oil and Mentha oil future prices and 10 months average post data of Cotton, Cardamom, Crude palm oil and Mentha oil future prices. Demonetisation is applicable on 8 November 2016, so Cotton, Cardamom, Crude palm oil and Mentha oil before demonetisation and after demonetisation average monthly data has been taken into consideration.

- **TOOLS AND TECHNIQUES**

This study uses the concept of **correlation and Paired sample T test** which examines the situation of pre and post scenario. Correlation coefficient is a statistical measure that determines the degree to which two variable's movements are associated. Correlation coefficient value ranges from -1to 1. Negative value of correlation indicates: if one variable increases in its values, the other variable decreases in its value and positive value indicates: if one variable increases in its values the other variable also increases in its value. Paired Sample T test is used to test the hypothesis. In this test two dependent data of one item has been calculated. **SPSS** software has been used to test the data.

- **HYPOTHESIS**

- H01: There is no significant impact of Demonetisation over pre and post future prices of Cardamom of MCX.

Ha1:.There is significant impact of Demonetisation over pre and post future prices of Cardamom of MCX.

- H02: There is no significant impact of Demonetisation over pre and post future prices of Cotton of MCX.

Ha2:.There is significant impact of Demonetisation over pre and post future prices of Cotton of MCX.

- H03: There is no significant impact of Demonetisation over pre and post future prices of Crude palm oil of MCX.
- Ha3:.There is significant impact of Demonetisation over pre and post future prices of Crude palm oil of MCX.

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- H04: There is no significant impact of Demonetisation over pre and post future prices of Mentha oil of MCX.

Ha4:.There is significant impact of Demonetisation over pre and post future prices of Mentha oil of MCX.

DATA ANALYSIS

TABLE-1- PAIRED SAMPLES STATISTICS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	cardamom pre demonetisation	2.072	10	7420.492	2346.56572
	cardamom post demonetisation	1.156	10	6921.725	2188.84189
Pair 2	cotton pre demonetisation	4.385	10	1.228	38853.87145
	cotton post demonetisation	3.958	10	1.846	58385.42285
Pair 3	crude palm oil pre demonetisation	5.269	10	95814.827	30299.30888
	crude palm oil post demonetisation	3.636	10	55469.579	17541.02136
Pair 4	mentha oil pre demonetisation	1.923	10	63842.789	20188.86267
	mentha oil post demonetisation	1.849	10	85344.103	26988.17525

INTERPRETATION-

From the above table it shows the Mean with in the series. Mean value of pair-1-cardamom pre demonetisation future prices data is 2.07 and cardamom Mean value of post demonetisation future prices data are 1.16. It shows that post demonetisation data is more affected by the extreme values. Mean value of pair-2 and pair-3 cotton and crude palm oil pre demonetisation future prices data is 4.38 and 5.26 and cotton and crude palm oil Mean value of post demonetisation future prices data are 3.95 and 3.63. It shows that post demonetisation data is more affected by the extreme values. Here, crude palm oil is highly affected by the extreme values whereas menthaoil is least affected by the extreme values because menthaoil pre mean value is 1.92 and post mean value is 1.84. Standard Deviation shows the Variance in the data.

DATA ANALYSIS

TABLE-2- PAIRED SAMPLES CORRELATIONS

		N	Correlation	Sig.
Pair 1	cardamom pre demonetisation & cardamom post demonetisation	10	.262	.465
Pair 2	cotton pre demonetisation & cotton post demonetisation	10	-.157	.666

Pair 3	crude palm oil pre demonetisation & crude palm oil post demonetisation	10	-.084	.817
Pair 4	mentha oil pre demonetisation & mentha oil post demonetisation	10	-.349	.323

INTERPRETATION-

From the above table it shows the r value which is for pair-1= .26. It explains that the Pre demonetisation cardamom future prices and post demonetisation cardamom future prices are positively and weakly correlated. Both data move in a same direction. The r value which is for pair-2= (-.15). It explains that the Pre demonetisation cotton future prices and post demonetisation cotton future prices are negatively and weakly correlated. Both data move in inverse direction. The r value which is for pair-3= (-.08). It explains that the Pre demonetisation crude palm oil future prices and post demonetisation crude palm oil future prices are negatively and weakly correlated. Both data move in inverse direction. The r value which is for pair-4= (-.34). It explains that the Pre demonetisation menthaoil future prices and post demonetisation menthaoil future prices are negatively and moderately correlated. Both data move in inverse direction.

DATA ANALYSIS

TABLE-3- PAIRED SAMPLES TEST

Paired Differences		Mean	Std. Deviation	Std. Error Mean	t	df	P= Sig. (2-tailed)
Pair 1	cardamom pre demonetisation - cardamom post demonetisation	9.159	8721.218	2757.891	3.321	9	.009
Pair 2	cotton pre demonetisation - cotton post demonetisation	4.273	2.3725	75025.810	.570	9	.583
Pair 3	crude palm oil pre demonetisation - crude palm oil post demonetisation	1.633	1.1469	36269.265	4.502	9	.001
Pair 4	mentha oil pre demonetisation - mentha oil post demonetisation	7.414	1.2312	38935.989	.190	9	.853

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INTERPRETATION-

The result presented above indicates the p value to be for **pair-1**=.009. Since it is one tailed test, the applicable **p** value would be .009/2= .0045. This is lower than α = .05. Therefore, the H0-1- null hypothesis is rejected as there is greater impact of demonetisation policy over the pre and post future prices of Cardamom of MCX. The p value to be for **pair-2**=.583. Since it is one tailed test, the applicable **p** value would be .583/2= .291. This is higher than α = .05. Therefore, the H0-2- null hypothesis is accepted as there is no impact of demonetisation policy over the pre and post future prices of cotton of MCX. The p value to be for **pair-3**=.001. Since it is one tailed test, the applicable **p** value would be .001/2= .0005. This is lower than α = .05. Therefore, the H0-3- null hypothesis is rejected as there is very high impact of demonetisation policy over the pre and post future prices of Crude palm oil of MCX. The p value to be for **pair-4**=.853. Since it is one tailed test, the applicable **p** value would be .853/2= .4265. This is higher than α = .05. Therefore, the H0-4- null hypothesis is accepted as there is no impact of demonetisation policy over the pre and post future prices of menthaoil of MCX. Therefore, demonetisation has increased the post future value of cardamom and crude palm oil in comparison of pre future value of cardamom and crude palm oil.

FINDINGS

- At last researcher finds out that there is a significant impact of Demonetisation over Cardamom and crude palm oil future prices. Because here Null Hypothesis is rejected.
- There is no significant impact of Demonetisation over cotton and menthaoil future prices. Because here Null Hypothesis is accepted.
- For pair-1 and pair-3 Null hypothesis: H0 is applicable whereas for pair-2 and pair-4 alternate hypothesis: Ha is applicable.
- Demonetisation affects the cardamom, crude palm oil, cotton and menthoil demand in the market.
- At ground level rejection of legal tender of money affects the agricultural sector at farmer's level, at crop level, at production level and at contract level under mcx.
- Demonetisation improve the digital market scenario but in India many people who are related with the agricultural sector are not well- educated, so, there is lack of knowledge about how to use digitally any app, how to do any transaction digitally, So, this is also the cause which affects the agricultural commodities.

CONCLUSIONS

At last the researcher concludes that Demonetisation is very huge step which was taken by our country Government. Currency lost their value on legal basis. Each and every person affected by this step, each and every commodity, industry and market are also affected by this step. Needs of the farmers can be fulfilled through the loan which is taken from the commission agents at the time of demonetisation to maintain the long term relations with them, and also it is a need to borrow money due to unavailability of cash of 500/1000 rupees notes at that time. During that period banking procedure requires huge documentation and takes lots of time for the receiving and giving money. After one year researcher can say that after demonetisation some part of corruption has been control. More data feeding is there through digital base system. So, it increases the cashless transaction. This policy may have some negative as well as some positive values. For further research the researcher is advised that various commodity index comparisons may be possible.

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