A STUDY ON PRICE TRENDS OF ESSENTIAL COMMODITIES IN KERALA

A project report submitted to ***University of Calicut****,*
in partial fulfilment of the requirements for the award of
Bachelor of Statistics *degree*

PG AND RESEARCH DEPARTMENT OF STATISTICS
FAROOK COLLEGE (AUTONOMOUS)
FAROOK COLLEGE P.O, CALICUT- 673632

(2017-2020)

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B.Sc. STATISTICS

PROJECT REPORT

CERTIFICATE

This is to certify that the project entitled "A study on Price trends of essential commodities in Kerala" is Bonafide record of project work done by ……,
Reg.No…… Under our supervision and guidance during the period 2019-2020.

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STUDY ON PRICE TRENDS OF ESSENTIAL COMMODITIES IN KERALA

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF AWARD OF DEGREE OF BSC STATISTICS.

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CONTENTS

CHAPTER 1

INTRODUCTION

The study attempts a comprehensive analysis of the impact of price variation in daily essential commodities of four continuous years. The main objective of this project is to examine whether there is significant difference in seasonal price variation, price variation due to calamities and financial budget. The importance and usefulness of the information pertaining to the price movements has much significance in the context of a growing economy. We have also attempted to construct a price bulletin for December, 2019.

The data collected is the prices of 21 essential commodities on a daily basis, for four continuous years. They are Rice (matta), Rice (white), Red gram, Bengal gram, Peas, Sugar, Egg, Milk, Tea, Coconut oil, Gingerly oil, Coconut, Chilly(dry), Onion (small), Onion (big), Coriander, Turmeric, Tamarind, Tomato, Chilly (green), Banana(green). The data was collected from The Economic and Statistics Department ,Malappuram. Data of four continuous years 2016,2017,2018 and 2019 were collected.

The extend of price variation due to different factors are studied in this project. The factors include the calamities like flood, drought etc. Flood in 2018 and 2019 has brought a huge impact in the price index of essential commodities, which thereby affects its consumption.

The statistical tools such as correlation, paired-T test, are used for the analysis. An increasing trend has been noted in the retail prices of

these commodities when compared to that of the previous year. Also, a huge price variation is visible incase of vegetables like Big onion and Small onion. The change in food prices has a major effect on the purchasing power of poor as well as medium class people thereby affecting their economic access to food.

A price bulletin has also been constructed based on December, 2019. A commodity price bulletin provides a monthly overview of the evolution of free-market commodity prices and price indices. It is used for various purposes such as for the preparation of indices, to provide compensation to farmers and for tendering consumable article for Government Institutions.

AIMS AND OBJECTIVE OF THE STUDY

The purpose of our study is to find out the significant difference in seasonal price variation, price variation due to calamities and financial budget . This project attempts to give an overview on the above factors affecting the prices of 21 daily essential commodities and its impact on consumers. Also, we aim at preparing a price bulletin for the month of December , 2019 from the available data.

CHAPTER 2

METHODOLOGY

SOURCES OF STATISTICAL DATA

There are two types of sources of statistical data. They are *Primary data* and *Secondary data*.

Primary data: The data collected directly from units or individuals is called primary data. This is original in character, more accurate and requires more time.

Secondary data: The data which had been collected by some individual or agency which are used and analyzed to extract some other information.

SOFTWARES USED

MICROSOFT EXCEL

Microsoft Excel is a spreadsheet developed by Microsoft for Windows, macOS, Android and iOS. It features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications.

When we use SPSS for data analysis we prefer to use EXCEL for data entry. This is because EXCEL is more flexible in terms of creating new variables from existing ones and otherwise modifying data once it is in place. This is because of the ability of spreadsheets to make use of

arithmetic formula that operates on specific spreadsheet data. One way to get data in SPSS is to enter the data in EXCEL then save the file and load it directly into SPSS.

MICROSOFT WORD

MS WORD is a popular word-processing program used primarily for creating documents such as letters, brochures, learning activities, tests, quizzes and student's homework assignments. There are many simple but useful features available in MICROSOFT WORD which makes it easier for study and work. When we deal with the project, Microsoft Word stand along with Excel and SPSS. Most of the theory related to the topic is developed on its screen. The entire basic ideal regarding the project including its tools, objectives and much more are typed and are used for future reference.

SPSS

SPSS statistics is a software package used for logical batched and non-batched statistical analysis. SPSS (originally, statistical package for social service) was released in its variation in 1968 after being found by Norman Nye and C.Hedley Hull.SPSS is among the most widely used programs for statistical analysis in social science. It is used by market researchers, health researchers, survey companies, government and education researchers, marketing organization and others. SPSS was acquired by IBM in 2009, the current version (2015) are officially named IBM SPSS Statistics. It offers advanced techniques in an easy-to-use package to help you to find new opportunities, improve efficiency and minimize risk. In addition to statistical analysis, data management(case selection, file reshaping, creating derived data) and data documentation are features of base software's.

STATISTICAL TOOLS USED

PAIRED T- TEST

The paired t-test is also known as dependent sample test. It isused to determine if the mean between 2 sets of observation is zero.

Hypothesis

The null hypothesis assumes that the true mean difference between the paired samples is zero. The alternative hypothesis assumes that the true mean difference between the paired samples is not equal to zero.

Degrees Of Freedom:

The degrees of freedom (DF) is equal to: DF=n-1 , where n is the sample size.

Test Statistics:

The test statistic is given by,

statistic is given by,

$$t=\bar{d}/(Sd/\sqrt{(n-1)})$$

Where $d=x-y$, $\bar{d}=sum(di)/n$, $i=1,2,\ldots$

$$Sd=\sqrt{[(1/n)*sum(di-\bar{d})^2]} \text{ or } \sqrt{[(sum(di)^2/n)-(\bar{d})^2]}$$

P-value:

The p-value is the probability of observing a sample statistics as extreme as test statistic. Since the test statistic is a t-statistic, use the t distribution calculator to assess the probability associated with the test statistic. Use the degrees of freedom computed above.

CHAIN INDEX NUMBER

A chain index is an index number in which the value of any given period is related to the value of its immediately preceding period (resulting in an index for the given period expressed against the preceding period = 100); this is distinct from the fixed-base index, where the value of every period in a time series is directly related to the same value of one fixed base period.

GRAPHICAL TOOLS

BAR DIAGRAM

A bar chart or bar graph is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally.

A bar graph shows comparison among discrete categories. One axis of the chart shows the specific categories being compared, and the other axis represents a measured value. The bar should be having equal width and separated from one another so as not to imply continuity.

LINE CHART

A line chart is a graphical representation of an asset's historical price action that connects a series of data points with a continuous line. This is the most basic type of chart used in finance and typically only depicts a security's closing prices over time. Line charts can be used on any timeframe, but most often using day-to-day price changes.

A line chart is a way of visually representing an asset's price history using a single, continuous line.

A line chart is easy to understand and simple in form, depicting only changes in an asset's closing price over time.

Because of its simplicity, however, traders looking to identify patterns or trends may opt for chart types with more information, such as a candlestick.

CHAPTER 3

ANALYSIS

SEASONAL ANALYSIS

After the collection of data, it is important to analyse the data with atmost precision. The available price data is analysed to study the price variation during kerala' festive seasons like onam, eid ul fitr and christmas. We analyse if there is any significant difference between prices of certain selected commodities for the year 2016 and 2019, 2017 and 2019, 2018 and 2019. Commodities that showed major price variations during these years were chosen for the analysis.

ONAM

1. 2016-2019

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,sugar, onion small, tomato, banana green in the month of onam in 2016 and 2019

H1 : There is significant difference between prices of Bengal gram, sugar, onion small, tomato, banana green in the month of onam in 2016 and 2019

PAIRED SAMPLE TEST					
Commodities	Paired Difference		t-value	df	P-Value
	Mean	SD			
bengalgram16 - bengalgram19	43.33333	1.03280	102.774	5	P value < 0.05
sugar16 - sugar19	-.16667	1.47196	-.277	5	P value > 0.05
onionsmall16 - onionsmall19	-21.83333	3.37145	-15.863	5	P value < 0.05
tomato16 - tomato19	-2.66667	1.63299	-4.000	5	P value < 0.05
bananagreen16 - bananagreen19	18.33333	2.58199	17.393	5	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to bengal gram , onion small, tomato and banana green. So we reject null hypothesis for these commodities. Therefore there is significant difference in prices of these commodities In the month of onam in 2016 and 2019.

P value is greater than 0.05 corresponding to sugar. So we accept null hypothesis for sugar..Therefore there is no significant difference in price of sugar In the month of onam in 2016 and 2019.

2. 2017-2019

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,sugar, onion small, tomato, banana green in the month of onam in 2017 and 2019

H1 : There is significant difference between prices of Bengal gram, sugar, onion small, tomato, banana green in the month of onam in 2017 and 2019

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengalgram17 - bengalgram19	15.778	.647	103.499	17	P value < 0.05
sugar17 - sugar19	3.8056	.4582	35.235	17	P value < 0.05
onionsmall17 - onionsmall19	37.111	8.359	18.836	17	P value < 0.05
tomato17 - tomato19	17.333	11.882	6.189	17	P value < 0.05
bananagreen17 - bananagreen19	9.444	13.281	3.017	17	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to bengal gram ,sugar, onion small, tomato and banana green. So we reject null hypothesis for these commodities. Therefore there is significant difference in prices of these commodities

3. 2018-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,sugar, onion small, tomato, banana green in the month of onam in 2018 and 2019

H1 : There is significant difference between prices of Bengal gram, sugar, onion small, tomato, banana green in the month of onam in 2018 and 2019

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengalgram18 - bengalgram19	14.400	1.578	28.864	9	P value < 0.05
sugar18 - sugar19	4.1000	.5164	25.107	9	P value < 0.05
onionsmall18 - onionsmall19	31.100	7.125	13.803	9	P value < 0.05
tomato18 - tomato19	24.800	10.963	7.154	9	P value < 0.05
bananagreen18 - bananagreen19	17.200	11.478	4.739	9	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram ,sugar, onion small, tomato, banana green in 2018 and 2019,so we reject null hypothesis. Therefore significant difference between prices of these commodities in the month of onam 2018 and 2019.

EID

1.2016-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,sugar, onion small, tomato, banana green in the month of eid in 2016 and 2019

H1 : There is significant difference between prices of Bengal gram, sugar, onion small, tomato, banana green in the month of eid in 2016 and 2019

PAIRED SAMPLE TEST					
Commodities	Paired Difference		t-value	df	P-Value
	Mean	SD			
bengalgram16 - bengalgram19	34.826	11.036	15.135	22	P value < 0.05
onionsmall16 - onionsmall19	-11.913	7.323	-7.802	22	P value < 0.05
tomato16 - tomato19	-18.522	3.423	-25.952	22	P value < 0.05
banana16 - banana19	-1.261	6.982	-.866	22	P value > 0.05
cocnutoil16 - coconutoil19	-78.478	2.794	-134.707	22	P value < 0.05
coconut16 - coconut19	-14.435	2.889	-23.960	22	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram, onion small, tomato, banana, coconut oil, coconut. So we reject null hypothesis for these commodities. Therefore there is significant difference between prices of these commodities

P value is greater than 0.05 corresponding to banana . Therefore there no significant difference between price of banana in the month of eid in 2016 & 2019.

2.2017-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,sugar, onion small, tomato, banana green in the month of eid of 2017 and 2019

H1 : There is significant difference between prices of Bengal gram, sugar, onion small, tomato, banana green in the month of eid of 2017 and 2019

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengalgram17 - bengalgram19	16.286	2.305	32.374	20	P value < 0.05
onionsmall17 - onionsmall19	53.810	19.128	12.892	20	P value < 0.05
tomato17 - tomato19	-8.286	15.521	-2.446	20	P value < 0.05
banana17 - banana19	-11.381	2.012	-25.923	20	P value < 0.05
coconutoil17 - coconutoil19	-35.952	2.012	-81.891	20	P value < 0.05

coconut17 - coconut19	-.667	.966	-3.162	20	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram, onion small, tomato, banana, coconut oil, coconut. So we reject null hypothesis for these commodities. Therefore there is significant difference between prices of these commodities

3.2018-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,sugar, onion small, tomato, banana green in the month of eid of 2018 and 2019

H1 : There is significant difference between prices of Bengal gram, sugar, onion small, tomato, banana green in the month of eid of 2018 and 2019

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengalgram18 - bengalgram19	16.000	2.275	29.836	17	P value < 0.05
onionsmall18 - onionsmall19	54.167	21.421	10.728	17	P value < 0.05
tomato18 - tomato19	-9.778	14.174	-2.927	17	P value < 0.05

banana18 - banana19	-11.722	1.179	-42.200	17	P value < 0.05
coconutoil18 - coconutoil19	-36.111	2.139	-71.627	17	P value < 0.05
coconut18 - coconut19	-1.000	1.414	-3.000	17	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram, onion small, tomato, banana, coconut oil, coconut. So we reject null hypothesis for these commodities. Therefore there is significant difference between prices of these commodities in the month of eid of 2018 and 2019.

CHRISTMAS

1.2016-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,, onion small, onionbig, chilliesdry in December 2016 and 2019

H1 : There is significant difference between prices of Bengal gram, , onion small,tomato , onionbig, chilliesdry in December 2016 and 2019

PAIRED SAMPLE TEST					
commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengal16 - bengal19	56.583	.929	298.511	23	P value < 0.05
onionsmall16 - onionsmall19	-144.417	13.240	-53.436	23	P value < 0.05

tomato16 - tomato19	-13.583	3.283	-20.272	23	P value < 0.05
onionbig16 - onionbig19	-109.875	15.837	-33.989	23	P value < 0.05
chilliesdry16 - chilliesdry19	-53.208	11.459	-22.748	23	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram, , onion small, tomato , onionbig, chilliesdry. So we reject null hypothesis for these commodities. Therefore there is significant difference between prices of these commodities in December 2016 and 2019.

2.2017-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,tomato, onion small, onionbig, chilliesdry in December 2018 and 2019

H1 : There is significant difference between prices of Bengal gram, tomato, onion small, onionbig, chilliesdry in December 2018 and 2019

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengal18 - bengal19	10.952	1.936	25.926	20	P value < 0.05
onionsmall18 - onionsmall19	-82.905	15.225	-24.954	20	P value < 0.05

tomato18 - tomato19	-39.524	33.945	-5.336	20	P value < 0.05
onionbig18 - onionbig19	-7.619	5.123	-6.815	20	P value < 0.05
chilliesdry18 - chilliesdry19	-86.095	2.567	-153.685	20	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram, , onion small, tomato , onionbig, chilliesdry. So we reject null hypothesis for these commodities. Therefore there is significant difference between prices of these commodities in December 2017 and 2019.

3.2018-19

HYPOTHESIS

H0 : There is no significant difference between prices of Bengal gram ,tomato, onion small, onionbig, chilliesdry in December 2018 and 2019

H1 : There is significant difference between prices of Bengal gram, tomato, onion small, onionbig, chilliesdry in December 2018 and 2019

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
bengal18 - bengal19	11.000	1.871	24.243	16	P value < 0.05

onionsmall18 - onionsmall19	-38.824	36.892	-4.339	16	P value < 0.05
tomato18 - tomato19	-8.000	5.657	-5.831	16	P value < 0.05
onionbig18 - onionbig19	-85.941	15.678	-22.601	16	P value < 0.05
chilliesdry18 - chilliesdry19	-85.765	2.538	-139.332	16	P value < 0.05

INFERENCE

P value is less than 0.05 corresponding to Bengal gram, , onion small, tomato , onionbig, chilliesdry. So we reject null hypothesis for these commodities. Therefore there is significant difference between prices of these commodities in December 2018 and 2019.

FLOOD ANALYSIS

Kerala floods occured during august of 2018 and 2019 and were extremely devastating to the state. Our analysis include the study of price change of certain essential commodities during the month of august in these years, subject to the the same month of the year 2017.Also,an effective comparison of two consecutive years during which flood has occured is also analysed.

HYPOTHESIS

i) H01 : There is no significant difference between prices of commodities during the month of flood (2017 and 2018)
H11 : There is significant difference between prices of commodities during the month of flood(2017 and 2018)

ii) H02 : There is no significant difference between prices of commodities during the month of flood (2018 and 2019)
H12 : There is significant difference between prices of commodities during the month of flood(2018 and 2019)

iii) H03 : There is no significant difference between prices of commodities during the month of flood (2017 and 2019)
H13 : There is significant difference between prices of commodities during the month of flood(2017 and 2019)

PAIRED SAMPLE TEST					
Commodities	**PAIRED Difference**		**t-value**	**df**	**P-Value**
	Mean	**SD**			
2017-2018	4.43000	25.50966	0.976	20	P value > 0.05
2018-2019	-4.41286	25.47421	-0.794	20	P value > 0.05
2017-2019	0.01714	0.07856	1	20	P value > 0.05

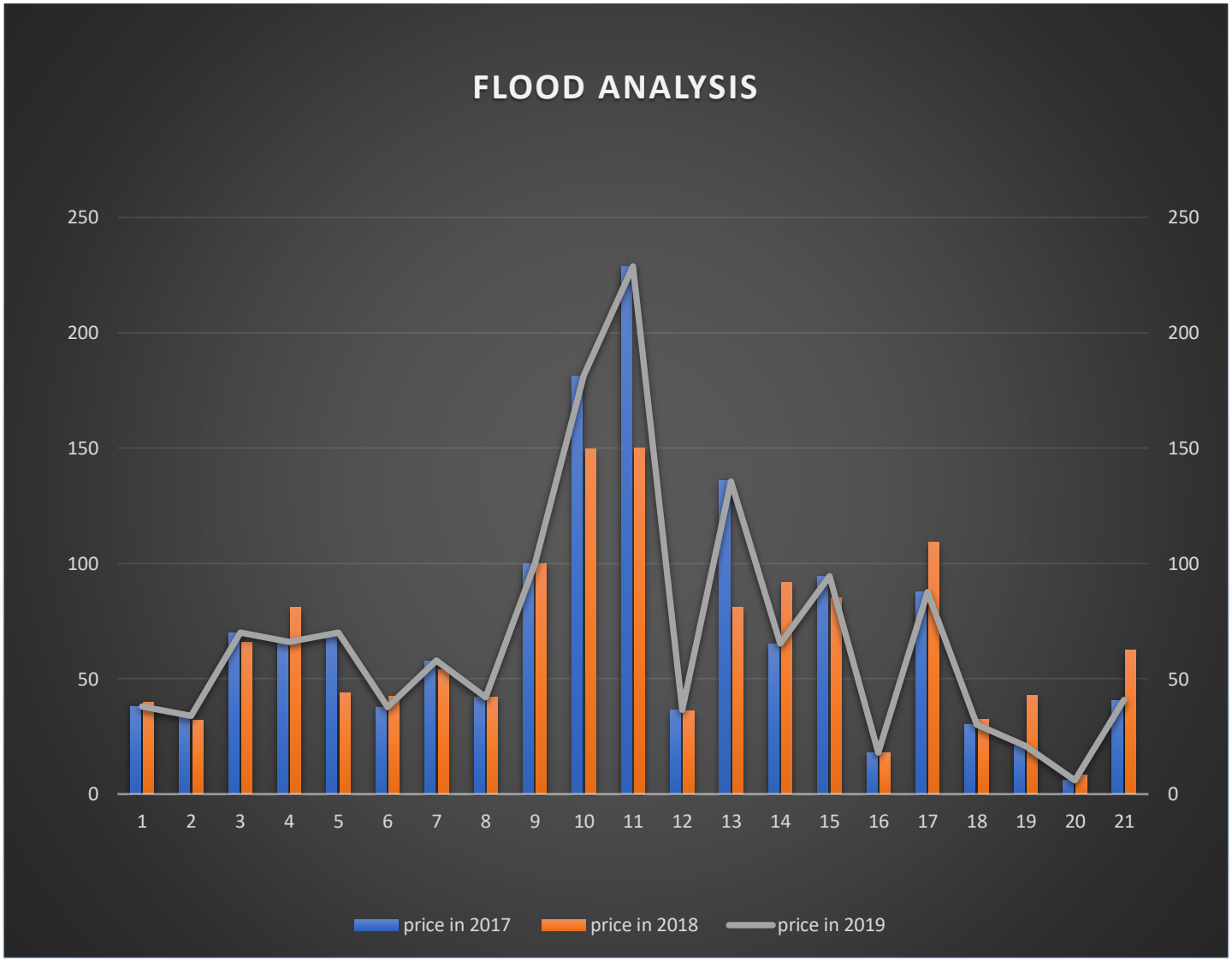
INFERENCE

P value is greater than 0.05 , So we accept H01. Therefore there is no significant difference between the price of the commodities during the month of flood (2017 and 2018)

P value is greater than 0.05 , So we accept H02. Therefore there is no significant difference between the price of the commodities during the month of flood (2018 and 2019)

P value is greater than 0.05 , So we accept H03. Therefore there is no significant difference between the price of the commodities during the month of flood (2017 and 2019.

GRAPHICAL REPRESENTATION



BUDGET ANALYSIS

IMPACT OF STATE BUDGET ON KERALA MARKET

There is a relationship between economic performance of kerala and its financial markets performance. The study analyses the impact of budget on kerala (malappuram) market price index .The average returns in pre-budget and post-budget period,during the previous and the next [3 or 5],15 and 30 days are calculated. The standard deviation and variances during the previous and next 3 or 5, 15 and 30 days of budget is calculated. And then, paired T-test using spss have been applied on average returns.

OBJECTIVE

To analyze and compare the variance of daily returns in the market price for short term [3 or 5days],medium term[15 days], and long term [30 days], in pre-budget and post-budget period.

HYPOTHESIS

H0 : There is no significant impact of budget on market price in Malappuram.

H1: There is significant impact of budget on market price.(Volatility in short term period (5 days) is more than mid term period (15 days) and long term period (30 days) during post-budget.)

PAIRED SAMPLE TEST							
Commodity	Year	Variables	Paired difference		t value	Degrees of freedom	Significance
			Mean	S.D			
Coconut oil	2016	Last 30 days and Next 30 days	4.667	1.269	20.149	29	P value < 0.05
		Last 15 days and Next 15 days	4.333	1.759	9.539	14	P value < 0.05
		Last 5 days and Next 5 days	3.000	2.739	2.449	4	P value > 0.05
Onion small	2016	Last 30 days and Next 30 days	11.867	5.776	11.253	29	P value < 0.05
		Last 15 days and Next 15 days	7.733	4.949	6.052	14	P value < 0.05
		Last 5 days and Next 5 days	1.600	0.894	4.000	4	P value < 0.05
Tomato	2016	Last 30 days and Next 30 days	12.667	11.900	5.830	29	P value < 0.05
		Last 15 days and Next 15 days	2.667	2.225	4.641	14	P value < 0.05
Coconut oil	2017	Last 30 days and	3.667	4.536	4.428	29	P value < 0.05

		Next 30 days					
Onion small	2017	Last 30 days and Next 30 days	7.733	3.311	12.794	29	P value < 0.05
		Last 15 days and Next 15 days	3.600	2.165	6.441	14	P value < 0.05
		Last 5 days and Next 5 days	-0.400	0.894	-1.00	4	P value > 0.05
Tomato	2017	Last 30 days and Next 30 days	-4.600	6.500	-3.876	29	P value < 0.05
		Last 15 days and Next 15 days	-2.267	2.815	-3.119	14	P value < 0.05
Coconut oil	2018	Last 30 days and Next 30 days	13.533	39.511	1.876	29	P value > 0.05
		Last 15 days and Next 15 days	-15.07	7.304	-7.989	14	P value < 0.05
		Last 5 days and Next 5 days	-5.600	3.286	-3.810	4	P value < 0.05
Onion small	2018	Last 30 days and Next 30 days	-9.800	8.023	-6.690	29	P value < 0.05
		Last 15 days and Next 15 days	-4.267	6.670	-2.477	14	P value < 0.05
Tomato	2018	Last 30	-8.933	6.782	-	29	P value <

		days and Next 30 days			7.215		0.05
		Last 15 days and Next 15 days	-4.267	6.670	-2.477	14	P value < 0.05
		Last 5 days and Next 5 days	-4.000	2.828	-3.162	4	P value < 0.05
Coconut oil	2019	Last 30 days and Next 30 days	1.433	6.537	1.201	29	P value > 0.05
Onion small	2019	Last 30 days and Next 30 days	29.000	38.518	4.124	29	P value < 0.05
		Last 15 days and Next 15 days	1.733	2.604	2.578	14	P value < 0.05
		Last 5 days and Next 5 days	3.200	1.789	4.000	4	P value > 0.05
Tomato	2019	Last 30 days and Next 30 days	8.233	9.511	4.741	29	P value < 0.05
		Last 15 days and Next 15 days	12.867	9.078	5.489	14	P value < 0.05
		Last 5 days and Next 5 days	3.200	1.789	4.000	4	P value > 0.05

INFERENCE

1. In 2016, commodities except coconut oil (short term) have significant impact of budget on market price.
2. In 2017, all commodities except onion small (short term) have significant impact of budget on market price.
3. In 2018, all commodities except coconut oil (long term) have significant impact of budget on market price.
4. In 2019, all commodities except coconut oil (long term) , onion small (short term) , and tomato (short term) have significant impact of budget on market price.

CHAPTER 4

PRICE BULLETIN DECEMBER 2019

REVIEW ON RETAIL PRICES OF ESSENTIAL COMMODITIES

DECEMBER 2019

INTRODUCTION

The bulletin reflects the average retail price of essential commodities for the month of December 2019. A mixed trend has been seen in the retail prices under report when compared To that of the last month as well as the corresponding month of previous year. Statement retail prices of essential commodities for the month of December of the previous year 2018, previous month November 2019 and the current month of December 2019 are attached and the percentage of variation over the previous month and the current of the previous year are attached. Group wise analysis has been made with reference to the current month, the previous month and the corresponding month of the previous year with suitable pictorial representation.

1.RICE AND PULSES

Comparison of state average Retail prices Of different varieties of Rice and pulses

During the month a mixed trend was observed in the state average retail price of Rice when compared with the prices of the previous month as well as the corresponding month of the previous year. The State average retail prices of Rice Matta increased by 1.49% and rice white decreased by0.60 %.

When compared with the prices of the corresponding month of the previous year the state average retail prices of Rice Matta decrease by 5 % and that of rice white increased by 7% while that of. Red Chamba decreased by 3.34% .

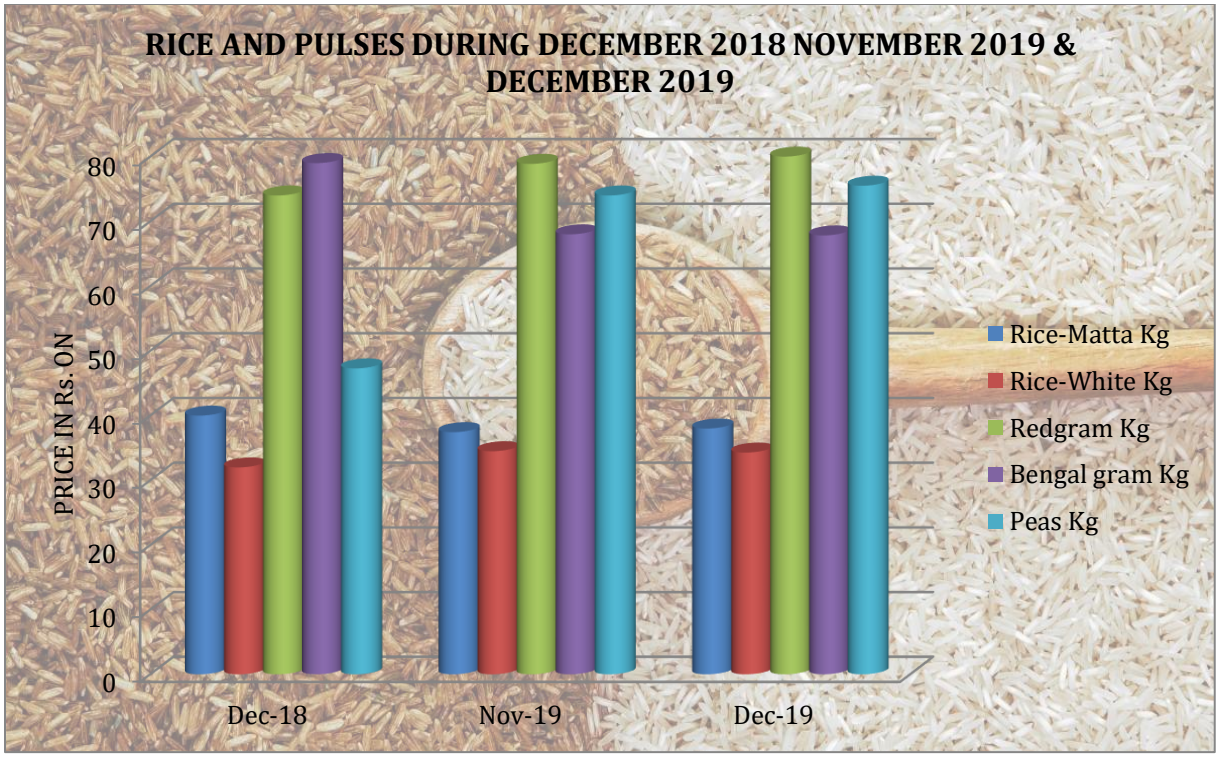
During the month a mixed trend was observed in the state average retail price of Pulses when compared with the prices of the previous month and an upward trend was observed when compared with the corresponding month of the previous year. The State average retail price of all Pulses except Bengal gram showed an upward trend up to 2% ,Bengal gram showed a downward trend to0.25% when compared with the prices of the previous month.

When compared with the price of the corresponding month of the previous year the state average retail price of all items of pulses showed an upward trend up to 59except for Bengal gram it decreased to 14%. Notable increase was seen in the price of peas(59.65%) when compared with the prices of the corresponding month of the previous year.

The following table and diagram represent the prices and percentage of variation over month and year for rice and pulses.

RICE AND PULSES

SL.NO.	NAME OF COMMODITY	UNIT	PRICE IN Rs. ON			PERCENTAGE VARIATION	
			Dec-18	Nov-19	Dec-19	OVER MONTH	OVER YEAR
1	Rice-Matta	Kg	40	37.44	38	1.495726496	-5
2	Rice-White	Kg	32	34.5	34.29	-0.608695652	7.15625
3	Red gram	Kg	74	78.88	80	1.419878296	8.1081081
4	Bengal gram	Kg	79	68	67.83	-0.25	-14.13924
5	Peas	Kg	47.29	74	75.5	2.027027027	59.653204



2.OTHER FOOD ITEMS

Comparison of state average Retail prices of other food items.

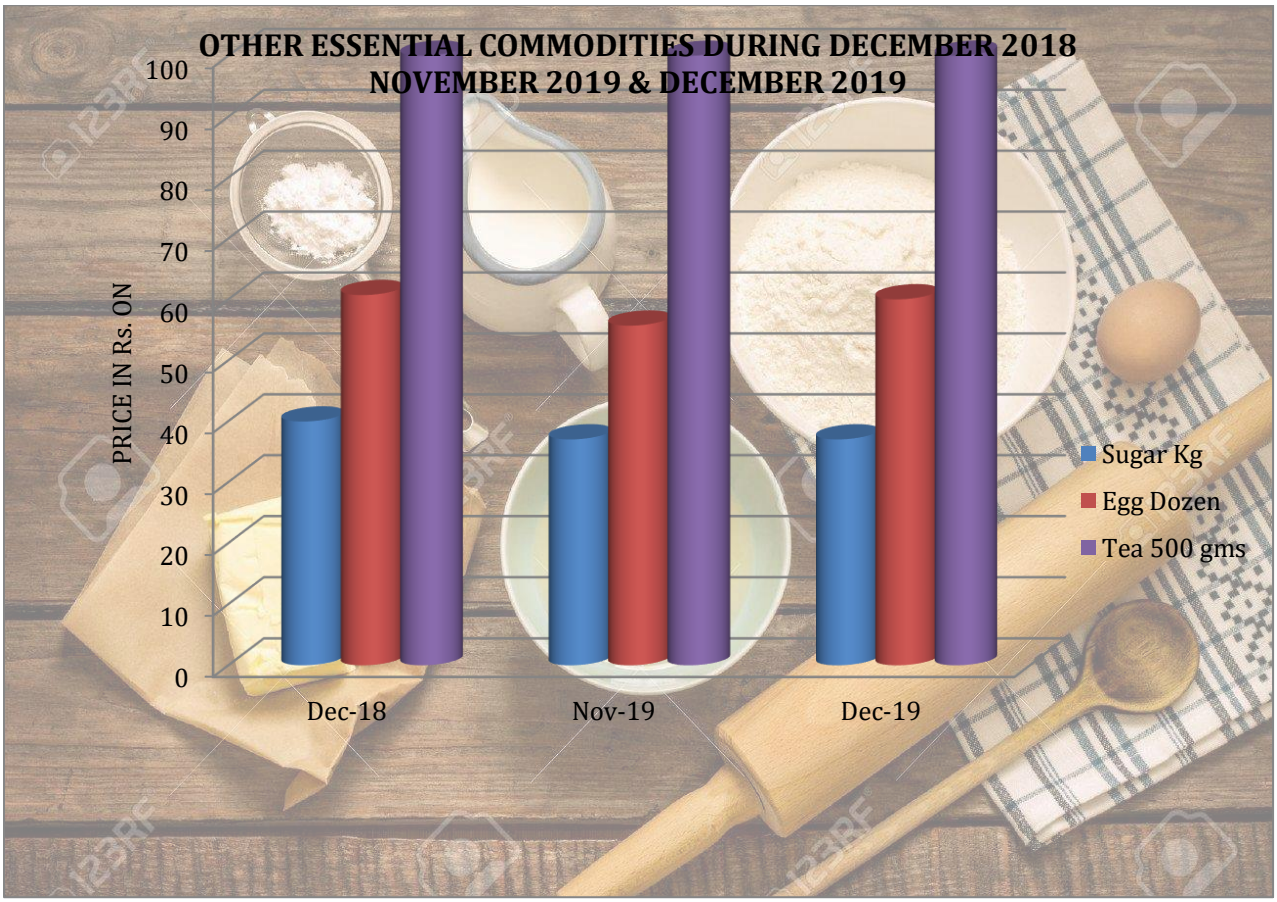
During the month a mixed trend was observed in the state average retail price of other food items when compared with the prices of the previous month and a slight decrease or same trend was observed when compared with the corresponding month of the previous year. The State average retail prices of Egg(hen) increased by 7.75% while the price of all other items like that of Sugar (O.M.) , Tea (Kannan Devan) and milk remain unchanged when compared with the prices of the previous month.

When compared with the prices of the corresponding month of the previous year the state average retail price of tea showed no change while the price of sugar and egg shows a downward trend to7.34% and 1.15% respectively .but the price of milk percentage shows an upward trend to 9.52% when compared with the prices of the corresponding month of the previous year.

The following table and diagram represent the prices and percentage of variation over month and year of other essential commodities.

OTHER ESSENTIAL COMMODITIES

SL.NO.	NAME OF COMMODITY	UNIT	PRICE IN Rs. ON			PERCENTAGE VARIATION	
			Dec-18	Nov-19	Dec-19	OVER MONTH	OVER YEAR
1	Sugar	Kg	39.94	37	37	0	-7.361042
2	Egg	Dozen	60.7	55.68	60	7.75862069	-1.153213
3	Milk	Ltr	42	46	46	0	9.5238095
4	Tea	500 gms	100	100	100	0	0



3. OIL AND OILSEEDS

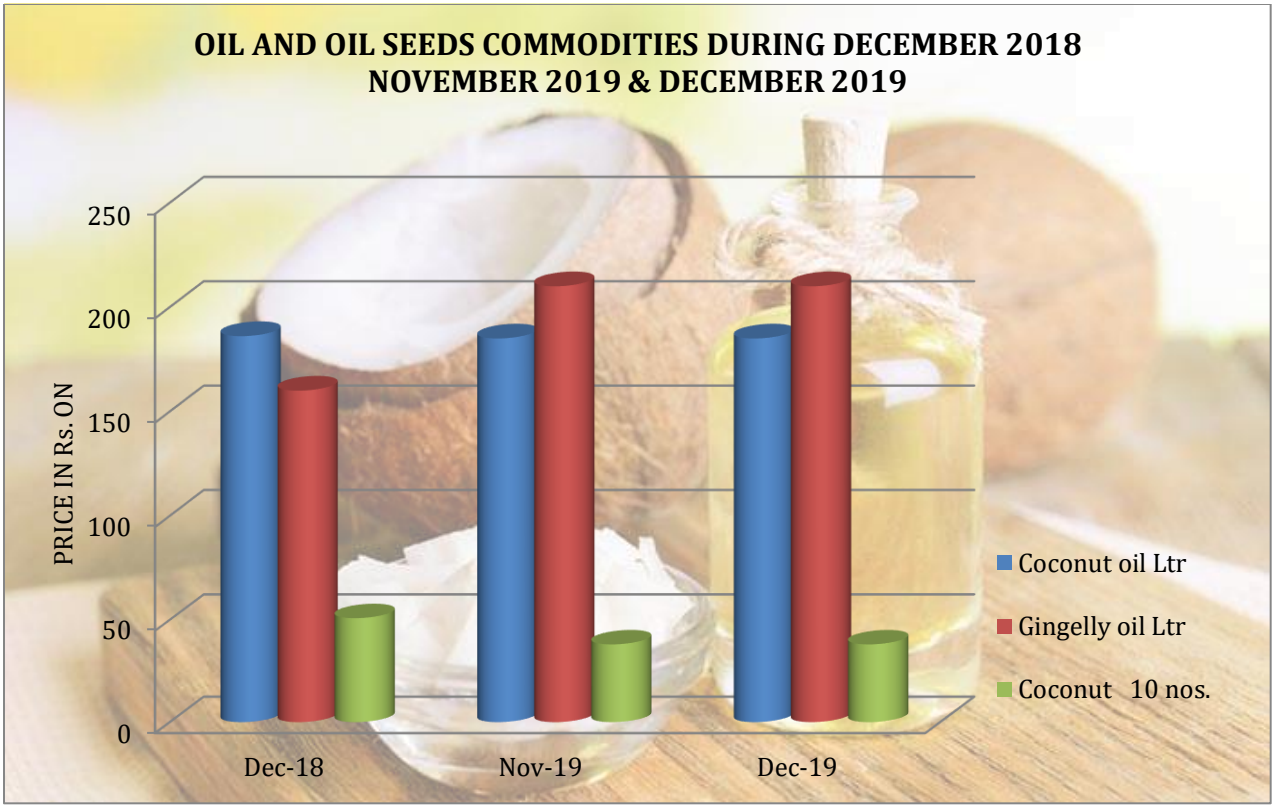
Comparison of state average Retail prices of Oil and oilseeds.

During the month a mixed trend was observed in the State average retail price of Oil and oil seeds when compared with the corresponding month of the previous year while there is no change in the previous month of the same year. The state average retail prices of all items have 0% variations when compared with the prices of the previous month.

When compared with the prices of the corresponding month of the previous year the state average retail price of all items of coconut oil and coconut husk decreased to 0.60% and 25.23% respectively while gingelly oil shows an upward trend to 31.25%.

The following table and diagram represents the prices and percentage of variation over month and year of Oil and oil seeds.

OIL AND OIL SEEDS							
SL.NO.	NAME OF COMMODITY	UNIT	PRICE IN Rs. ON			PERCENTAGE VARIATION	
			Dec-18	Nov-19	Dec-19	OVER MONTH	OVER YEAR
1	Coconut oil	Ltr	186.12	185	185	0	-0.601762304
2	Gingelly oil	Ltr	160	210	210	0	31.25
3	Coconut	10 nos.	50.82	38	38	0	-25.22628886



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4.SPICES AND CONDIMENTS

Comparison of state Average Retail prices of Spices and Condiments:

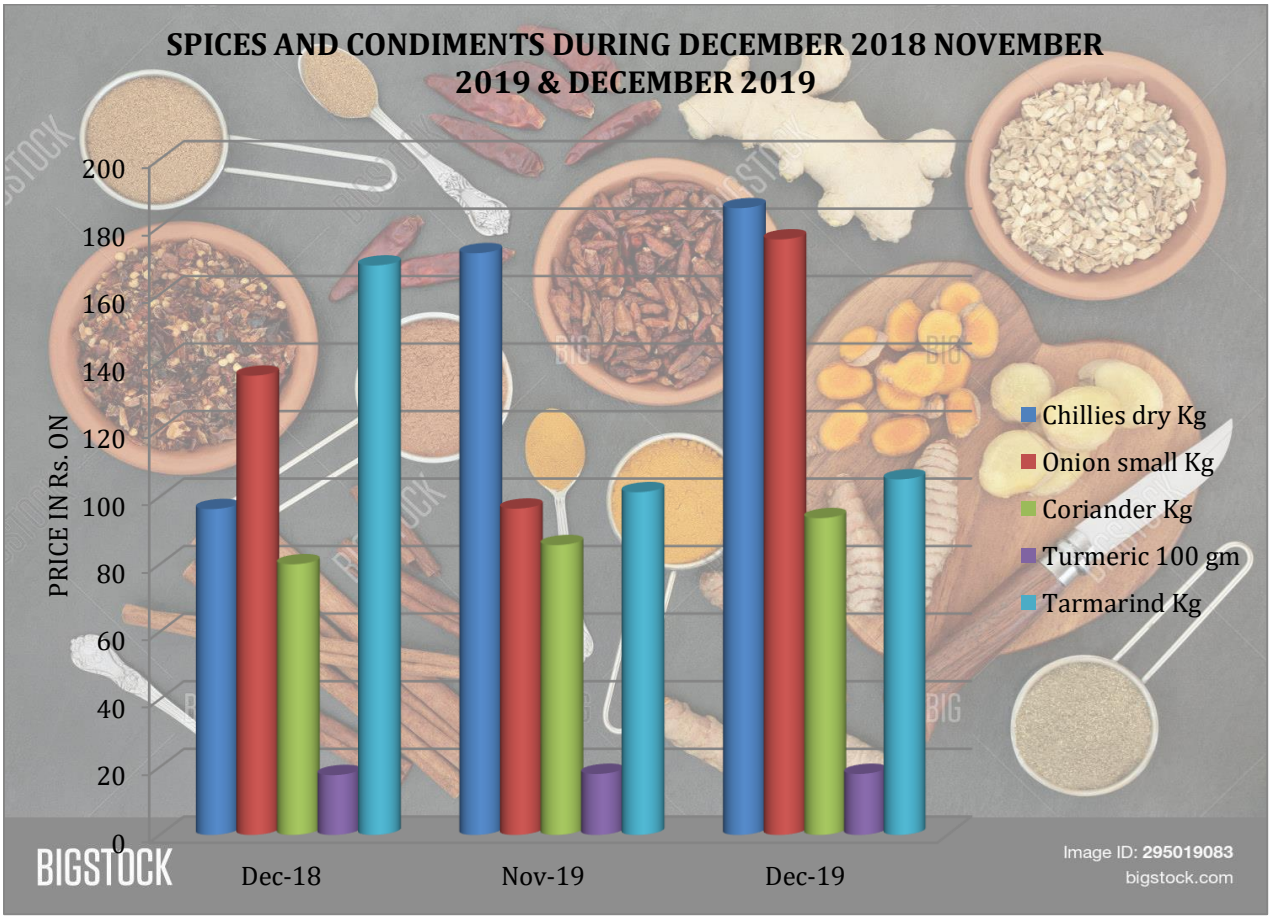
During the month a mixed trend was observed in the State average retail price of spices and condiments when compared with the price of the previous month as well as the corresponding month of the previous year. The state average retail price of all items of Spices and Condiments showed an upward trend up to 82.68% when compared with the price of the previous month. But the percentage variation of turmeric remains unchanged when compared with the price of the previous month. Notable increase was seen in the price of onion small (82.68%) when compared with the prices of the previous month.

When compared with the prices of the corresponding month of the previous year the state average retail price of all items of spices and condiments except Tamarind showed an upward trend up to 92.53%. Notable increase was seen in the price of Chilly dry (92.53%) when compared with the prices of the corresponding month of the previous year.

The following table and diagram represent the prices and percentage of variation over month and year of rice and pulses

SPICES AND CONDIMENTS

SL.NO.	NAME OF COMMODITY	UNIT	PRICE IN Rs. ON			PERCENTAGE VARIATION	
			Dec-18	Nov-19	Dec-19	OVER MONTH	OVER YEAR
1	Chilly dry	Kg	96.35	172.16	185.5	7.748605948	92.527244
2	Onion small	Kg	135.88	96.48	176.25	82.68034826	29.710038
3	Coriander	Kg	80	85.68	93.66	9.31372549	17.075
4	Turmeric	100 gm	17.65	18	18	0	1.9830028
5	Tamarind	Kg	168.52	101.36	105.16	3.749013418	-37.59791



5. VEGETABLES

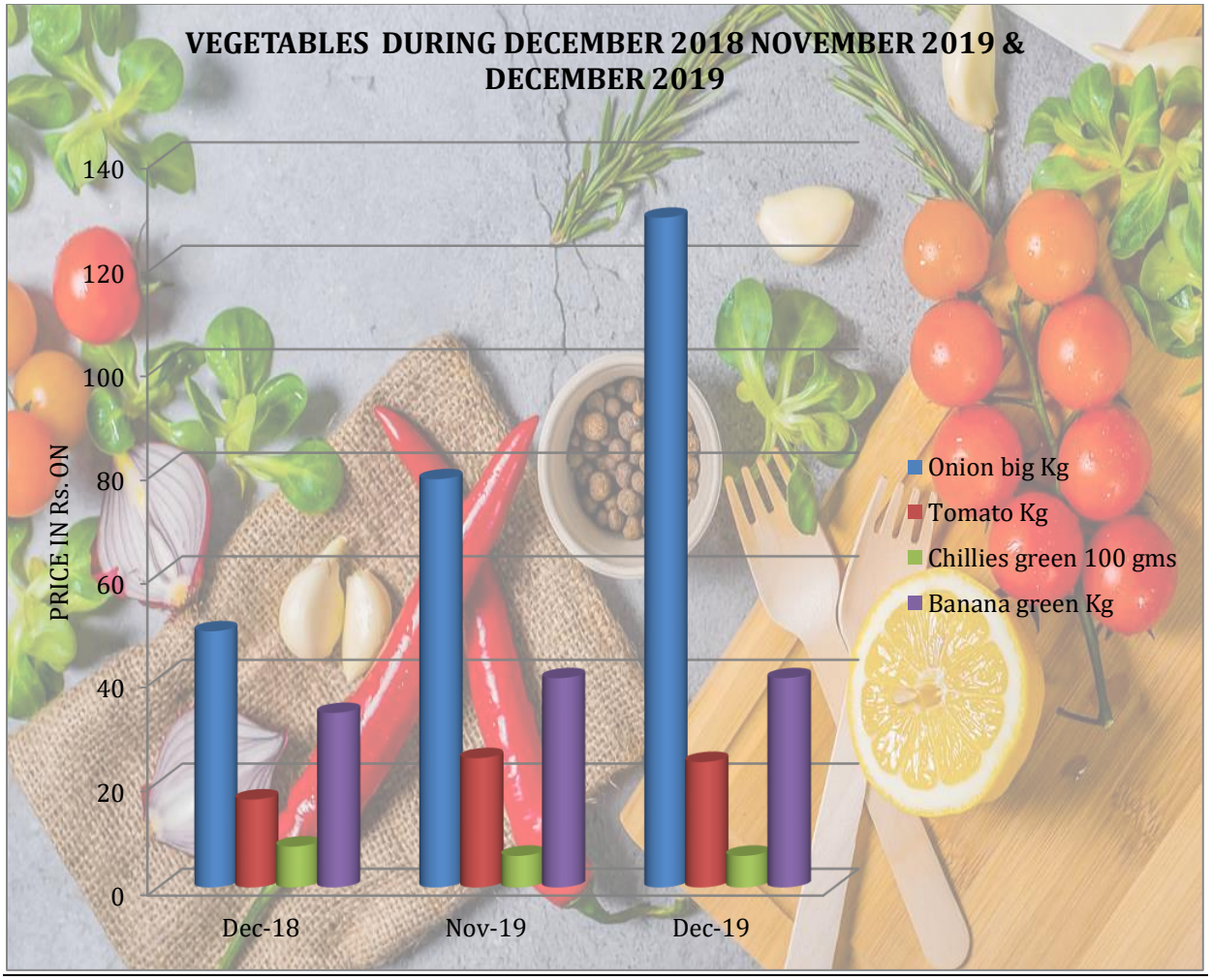
Comparison of state average Retail prices of Vegetables.

A mixed trend was observed during the month in the State average retail price of vegetables when compared with that of the previous month as well as the corresponding month of the previous year. The state average retail prices of all items of Vegetables onion big and tomato showed an upward trend up to 64.4%% when compared with the prices of the previous month while the price of chilly green and banana green remains the same as the previous month. Notable increase was seen in the price of Onion big (64.4%) when compared with the prices of the previous month.

When compared with the prices of the corresponding month of the previous year the state average retail price of all items of Vegetables except chilly green showed an upward trend up to 162.86%. Notable increase was seen in the price of Onion big (162.86%) and tomato (42.65%) when compared with the prices of the corresponding month of the previous year. But the price of chilly green shows a downward trend 22.73%.

Following table and diagram represent the prices and percentage of variation over month and year of vegetables.

VEGETABLES							
SL.NO.	NAME OF COMMODITY	UNIT	PRICE IN Rs. ON			PERCENTAGE VARIATION	
			Dec-18	Nov-19	Dec-19	OVER MONTH	OVER YEAR
1	Onion big	Kg	49.06	78.44	128.96	64.40591535	162.8618
2	Tomato	Kg	16.705	24.56	23.83	-2.972312704	42.651901
3	Chilly green	100 gms	7.765	6	6	0	-22.7302
4	Banana green	Kg	33.29	40	40	0	20.156203


VEGETABLES DURING DECEMBER 2018 NOVEMBER 2019 & DECEMBER 2019
PRICE IN Rs. ON
140
120
100
80
60
40
20
0
Dec-18
Nov-19
Dec-19
Onion big Kg
Tomato Kg
Chillies green 100 gms
Banana green Kg

CONCLUSION

In our study to understand the extend of price variations of essential commodities during different periods have helped us to reach the following conclusions. Prices of most of the essential commodities shows variation during festive seasons including Onam, Eid ul fitr and Christmans. We also infer that this price variation might be due to increased demand during these period.

Flood, eventhough, have had a destructive impact on the state, it has not produced any significant difference in the price levels of essential commodities in the last three years.

The budget analysis has led us to conclude that budget have had a significant impact on prices of most of the essential commodities.

There are also several other factors apart from what we have analysed that causes price variations which include production, availability, demand etc…

REFERENCE

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