TREND ANALYSIS ON PRICE OF BAG OF RICE IN KWARA STATE BETWEEN 2012-2024

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CERTIFICATION

This is to certify that this project work has been read and approved as meeting part of the requirements for the award of National Diploma (ND) in Statistics at the Department of Statistics, Institute of Applied Sciences (IAS), Kwara State Polytechnic, Ilorin, Kwara State.

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DEDICATION

This project is dedicated to God Almighty and my loving parents, Mr. and Mrs. ADEBAYO, and my sisters, for their unwavering support and encouragement throughout my academic journey. And to Farouq, for being a constant source of inspiration and motivation."

ACKNOWLEDGEMENTS

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CHAPTER ONE

INTRODUCTION

1.1   Background to the Study

Rice is one of the most essential and widely consumed staple foods in Nigeria, including Kwara State. It is eaten by nearly every household, regardless of income level, because of its versatility, ease of preparation, and cultural relevance. From simple white rice served with stew to more elaborate meals like jollof rice and fried rice, rice plays a central role in daily nutrition across the state (Adebayo & Yusuf, 2020). Its availability and affordability are therefore critical to food security and household welfare.

Over the years, especially from 2012 to 2024, the price of a 50kg bag of rice has not remained stable. Various factors—ranging from government policies, inflation, and insecurity, to global events like the COVID-19 pandemic—have significantly affected the price trend. For instance, around 2015, the Nigerian government introduced policies to limit rice importation and promote local production. While these policies were meant to boost the agricultural sector, they also led to initial supply gaps that spiked rice prices (Central Bank of Nigeria, 2017).

Inflation has also played a crucial role in the price variation of rice during the period under review. Nigeria has witnessed fluctuating inflation rates, which have eroded the purchasing power of many households. When inflation is high, the cost of production and transportation increases, and these costs are often passed on to the final consumer. In Kwara State, where many people still rely on market purchases for their daily food needs, this creates additional financial strain (National Bureau of Statistics [NBS], 2022).

Insecurity, particularly in major rice-producing regions in northern Nigeria, has further worsened the situation. Attacks on farmers and farming communities have reduced the overall output of rice, causing scarcity and a rise in prices. Transporting rice from insecure regions to markets in Kwara State has also become more costly and risky, which adds to the final price paid by consumers (Ezeaku & Okonkwo, 2021). These issues reveal how national problems often have very local consequences.

The COVID-19 pandemic, which began in 2020, marked a turning point in the economic life of many Nigerians. Lockdowns, restrictions on movement, and disruptions in local and international supply chains affected the availability of essential goods—including rice. Prices surged during the pandemic, and although the situation has gradually improved, the effects are still being felt today. Many families in Kwara State continue to deal with higher food prices and reduced income (Akinyemi, 2021).

The State of Local market in Kwara State have also influenced the price of rice. Factors such as transportation costs within the state, storage challenges, hoarding by middlemen, and seasonal demand all play roles in determining how much a bag of rice sells for at any given time. Even when national supply is stable, these local challenges can cause temporary price spikes, especially during festive periods or harvest delays (Olawale, 2023).

Conducting a trend analysis of rice prices in Kwara State from 2012 to 2024 is therefore timely and relevant. It helps to identify patterns and drivers of change over the years. Such an analysis can guide government and private sector decisions on agricultural investment, food pricing policies, and poverty alleviation. For everyday consumers, understanding price

trends can help in planning household budgets and making informed choices in food purchasing.

1.2   Statement of the Problem

In recent years, residents of Kwara State have faced increasing difficulty in affording basic food items, particularly rice, which remains a staple in most homes. The price of a 50kg bag of rice has fluctuated sharply from 2012 to 2024 due to a combination of factors such as inflation, insecurity, import restrictions, and economic instability. These unpredictable changes have made it hard for households, traders, and even policymakers to plan effectively. Despite the significance of rice in daily consumption, there is limited localized research that tracks and analyzes the historical price trends specifically within Kwara State. Without this data, it becomes difficult to understand the underlying causes of the fluctuations and forecast future patterns. This study seeks to bridge that gap by conducting a comprehensive trend analysis of rice prices in Kwara State over the past 12 years. By doing so, it aims to provide insights that will inform better policy decisions, empower local stakeholders, and contribute to a more stable and affordable rice market in the state.

1.3   Objectives of the Study

The main objective of this study is to analyze the trend in the price of a bag of rice in Kwara State from 2012 to 2024. The specific objectives are as follows:

i.   To examine the yearly changes in the price of a 50kg bag of rice within the study period.

ii.   To identify the key economic, political, and social factors influencing the price fluctuations of rice in Kwara State.

iii. To assess the impact of government policies and external events, such as the COVID-19 pandemic, on the price of rice.

iv. To determine the seasonal or annual patterns that may exist in the pricing of rice over the years.

1.4   Research Questions

This study is guided by the following research questions:

i. What has been the yearly trend in the price of a 50kg bag of rice in Kwara State from 2012 to 2024?

ii. What are the major factors responsible for the fluctuations in rice prices during the study period?

iii. How have government policies, such as import restrictions and agricultural interventions, influenced the price of rice in Kwara State?

iv. What impact did external events like the COVID-19 pandemic have on the price and availability of rice?

1.5   Scope of the Study

This study focuses on analyzing the trend in the price of a 50kg bag of rice in Kwara State over a 13-year period, specifically from 2012 to 2024. It covers both locally produced and imported rice sold within major markets in the state, such as Ilorin, Offa, and Omu-Aran. The research is limited to identifying price patterns, key influencing factors, and the impact of policies and events like inflation, government interventions, and the COVID-19 pandemic. It does not cover other staple foods or extend beyond the geographical boundaries of Kwara State.

1.6   Justification of the Study

The justification for this study lies in the growing concern over the affordability and accessibility of rice, a staple food consumed daily by most households in Kwara State. With continuous fluctuations in the price of rice over the years, many families, especially low-income earners, are finding it increasingly difficult to meet their basic food needs. Despite the importance of rice in the local diet and economy, there is limited data-driven analysis on its price trends within the state. This study is therefore essential as it provides a clear understanding of how rice prices have evolved from 2012 to 2024 and the major factors responsible for these changes. The findings will serve as a useful resource for policymakers, agricultural stakeholders, traders, and consumers by offering insights that can guide better decision-making, policy formulation, and price stabilization strategies in the food market.

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

This chapter presents a review of relevant literature and statistical foundations that support the analysis of rice price trends in Kwara State from 2012 to 2024. As a study rooted in statistics, it combines both theoretical and empirical perspectives to understand the factors influencing price movements over time. The chapter begins with an overview of rice as a staple food and the economic importance of its pricing, then explores past studies and documented trends in rice prices both in Nigeria and globally. It further introduces key statistical concepts such as time series analysis, trend models, and forecasting techniques that are essential for analyzing historical price data. This provides a solid foundation for applying appropriate statistical tools in later chapters to draw meaningful conclusions from the data collected.

2.2   Conceptual Review of Rice Price Trend

Rice is a widely consumed staple across Nigeria, especially in urban and semi-urban areas like Kwara State. Its demand cuts across all income groups, making it a key focus in food policy discussions (Adenegan & Olagunju, 2019). In recent years, attention has shifted towards understanding the dynamics behind the consistent changes in rice prices. Researchers note that the price of rice is shaped by factors such as supply levels, consumer demand, and government intervention (Ojo & Akinyemi, 2020). As the population grows, the demand for rice also increases, sometimes outpacing supply. This imbalance leads to pressure on market prices.

One of the major contributors to rice price fluctuation is the level of local production versus importation. Nigeria has historically depended heavily on rice imports, exposing the local market to global price shocks (FAO, 2017). Government policies like the ban on foreign rice through border closures further impacted supply in states like Kwara (CBN, 2019). While these policies aimed to promote local production, they also led to short-term scarcity and higher prices. Locally grown rice was not always enough to meet demand, especially in urban markets. This inconsistency created a volatile pricing environment.

Inflation is another important factor that drives rice price changes. In times of high inflation, the cost of inputs such as fertilizer, seeds, and transportation rises (NBS, 2022). This increased cost is eventually passed down to consumers. For instance, farmers and distributors are left with no choice but to adjust prices upwards to maintain profitability. In Kwara State, where many consumers rely on market-purchased rice, this directly affects food affordability. It also contributes to the broader problem of food insecurity.

The impact of insecurity in northern Nigeria cannot be overlooked. Several rice-producing areas in the north have been affected by banditry and farmer-herder conflicts, leading to reduced farm output (Ezeaku & Okonkwo, 2021). As fewer farmers are able to cultivate and transport rice, the supply chain becomes strained. This scarcity drives prices higher, especially in regions far from production centers like Kwara. Markets in Ilorin and other parts of the state have reported sudden spikes due to limited supply. Insecurity, therefore, adds an unpredictable layer to rice price trends.

Additionally, seasonal patterns influence rice pricing. During the harvest period, prices tend to drop due to higher availability, while off-season periods witness increased prices due to

scarcity (Usman & Bakare, 2018). Storage capacity also plays a role—poor storage leads to wastage, further reducing available stock. Traders often take advantage of scarcity by hoarding rice to sell at inflated prices later. These practices create artificial shortages that drive price hikes. Such trends are common in many Kwara State markets.

Understanding the trend in rice prices is essential for planning and policy-making. It helps stakeholders predict future shifts and prepare accordingly (Adekunle & Yusuf, 2020). For students of statistics, applying trend analysis and time series models offers a practical way to study these patterns. It allows for data-based conclusions about price behavior over time. This conceptual foundation sets the stage for deeper statistical exploration in the subsequent chapters. It also highlights the real-life importance of statistical tools in addressing economic issues.

2.3   Economic and Social Factors Influencing Rice Prices

Rice pricing in Nigeria, especially in states like Kwara, is shaped by a blend of economic and social forces. One major economic factor is inflation, which consistently drives up the cost of agricultural inputs like fertilizers, labor, and transport (National Bureau of Statistics, 2022). When these input costs rise, rice producers naturally pass the burden onto consumers through higher prices. Additionally, foreign exchange rates play a role, particularly when rice is imported. A weaker naira increases the cost of imported goods, including rice, thus affecting local prices (CBN, 2021). These economic pressures are often felt more sharply by lower-income households.

Government policies also play a critical role in determining rice prices. Import bans and border closures introduced to promote local production have sometimes backfired in the

short term (Adewumi & Omotesho, 2020). While these policies aim to protect local farmers, they often create temporary shortages and speculative price hikes in the market. For instance, after the 2019 border closure, Kwara markets recorded notable increases in the price of rice due to reduced supply. Without sufficient local production to meet demand, consumers were forced to buy at inflated prices. Thus, policy decisions must be balanced with practical implementation strategies.

Transportation and infrastructure challenges significantly impact the final price of rice. Poor road networks increase the cost of moving rice from farms to markets, especially in rural communities (World Bank, 2019). For states like Kwara, which rely partly on rice from northern regions, bad roads and fuel price hikes translate into higher market prices. Distributors often factor these costs into their selling price, placing an additional burden on the end users. As such, infrastructure development is closely linked to food affordability. Stable transportation systems could help ease price pressure on consumers.

Social factors, such as population growth and urbanization, also influence rice pricing. In rapidly growing cities like Ilorin, rising demand often exceeds supply, especially during festive periods or lean seasons (Ayoade & Yusuf, 2022). With more people competing for limited food resources, prices naturally increase. Also, cultural preferences for rice over other staples intensify demand, further straining the market. In some households, rice is consumed daily, making it a non-negotiable purchase regardless of price. This level of dependence amplifies the social impact of price changes.

Insecurity in farming regions adds another dimension to rice pricing. Farmers in the northern parts of Nigeria, where rice is mainly cultivated, face threats from insurgents and bandits,

leading to reduced cultivation (Ezeaku & Okonkwo, 2021). This insecurity disrupts the supply chain, affecting both quantity and pricing of rice in states like Kwara. Furthermore, fear of attacks discourages farmers from planting or harvesting rice, which lowers overall national supply. The cost of security or the lack of it ultimately reflects in market prices. Food security, therefore, depends heavily on national peace and stability.

Lastly, consumer behavior also shapes rice prices. When people believe prices will rise, they tend to panic-buy or hoard, which creates artificial scarcity and fuels actual increases (Ibrahim & Musa, 2020). Traders, noticing increased demand, often raise their prices to maximize profit. This reactive cycle makes it difficult to control market pricing, especially during crises or major economic announcements. In Kwara, such behaviors are common during election periods or fuel subsidy removals. Understanding these social behaviors is key to developing more stable market responses. Price trends, therefore, must consider both economics and human psychology.

2.4   Overview of Time Series and Trend Analysis in Statistics

Time series analysis is a statistical technique used to analyze data points collected over consistent time intervals. It allows researchers to identify underlying patterns such as trends, seasonality, and irregular fluctuations in a dataset (Makridakis, Wheelwright & Hyndman, 1998). In this study, where the price of a bag of rice in Kwara State is observed from 2012 to 2024, time series analysis provides the ideal framework. One major goal is to use these patterns to forecast future rice prices or detect moments of abrupt changes. Mathematically, a time series can be expressed as:

$$Y_t = T_t + S_t + C_t + I_t,$$

where Y_t is the observed value at time t, T_t is the trend component, S_t is seasonal, C_t is cyclical, and I_t is the irregular component.

Trend analysis specifically focuses on the long-term movement in a time series. This can be linear or non-linear, depending on how price behaves over time. For example, a linear trend model is expressed as:

$$Y_t = \beta_0 + \beta_1 t + \varepsilon_t,$$

where β_0 is the intercept, β_1 is the slope (rate of change), and ε_t is the error term at time t (Gujarati & Porter, 2009). If rice prices have been increasing steadily year by year, a linear model would be a good fit. However, if the price change is accelerating or fluctuating, a quadratic or exponential model may be more appropriate. These models help in quantifying how much prices are increasing and at what rate.

Another important tool in time series analysis is moving averages, which helps smooth out short-term fluctuations and make long-term trends clearer. For example, a 3-year moving average is calculated as:

$$MA_t = (Y_{t-1} + Y_t + Y_{t+1})/3$$

This method is useful when the data is noisy and has irregular spikes. For rice price data, applying moving averages can help reveal whether prices are genuinely trending upward or just reacting to seasonal changes. This clarity is essential for accurate forecasting and policy recommendations.

Seasonality is another component we expect to find in the price of rice. For instance, prices may rise during festive periods or off-harvest seasons. In time series decomposition, we

break down the observed price into components. Using additive decomposition:

$$Y_t = T_t + S_t + I_t,$$

we can separate out the seasonal effects and analyze them independently (Hyndman & Athanasopoulos, 2018). This allows us to see how much of the price movement is driven by seasonal demand versus long-term economic forces.

A fundamental concept in modeling time series is stationarity—a series is stationary when its statistical properties such as mean and variance remain constant over time. Many statistical models like ARIMA (Auto-Regressive Integrated Moving Average) require the series to be stationary. When a series is not stationary, we apply differencing:

$$Y'_t = Y_t - Y_{t-1},$$

to stabilize the series (Enders, 2014). In this study, tests like the Augmented Dickey

2.5   Statistical Models Used in Price Trend Analysis

In price trend analysis, several statistical models are applied to explore, interpret, and forecast data behavior over time. These models help break down complex data into understandable patterns. For rice prices, particularly in a setting like Kwara State, Nigeria, choosing the right statistical model is crucial. One of the most basic yet effective models is the Linear Regression Model, represented mathematically as:

$$Y_t = \alpha + b_t + e_t$$

Here, Y_t is the price at time t, α is the intercept, b is the slope indicating the rate of price change over time, and e_t is the error term.

Another widely used model is the Moving Average (MA) model. This model helps smoothen short-term price fluctuations and makes the long-term trend more visible. A simple moving average of order n is calculated as:

$$MA_t = \frac{1}{n}\sum_{i=0}^{n-1} Y_{t-i}$$

This method is especially helpful when price data is volatile due to external shocks or seasonal variations. In rice price studies, the MA model helps identify periods of consistent rise or fall. It also assists in forecasting future values when combined with other models.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research design, data sources, data collection techniques, and statistical tools used to analyze the trend in the price of rice in Kwara State from 2012 to 2024. It provides a clear guide on how the data was gathered, processed, and interpreted to ensure the findings are valid and reliable.

3.2 Research Design

The study adopted a quantitative research design using time series analysis to examine the trend of rice prices over the 13-year period. This approach is suitable because it allows for the modeling of price patterns over time and the identification of underlying trends or seasonal variations.

3.3 Sources of Data

The data used in this study is secondary data, collected from credible sources such as the National Bureau of Statistics (NBS), Kwara State Ministry of Agriculture, market surveys, and previous research reports. Where necessary, supplementary data was obtained from local market records and publications.

3.4 Method of Data Collection

Price data for a 50kg bag of rice from 2012 to 2024 was collected on a yearly basis from official statistical reports and verified through triangulation with market records from major rice-selling areas in Kwara State, including Ilorin, Offa, and Omu-Aran.

3.5   Method of Data Analysis

The analysis was carried out using descriptive statistics such as mean, standard deviation, and percentage change, followed by time series analysis techniques. Specifically, the moving average method, linear trend model, and exponential smoothing were applied to identify trends and forecast future price movements. Graphical methods such as line graphs also used to visually represent the data. More so, price index analysis was adopted in analyzing the trend in change in price of the bags rice over time. The price index is calculated using the mathematical denotation:

3.6   Statistical Tools and Software

Data was analyzed using Microsoft Excel and SPSS were used for advanced time series modeling. These tools helped in computing trend lines, fitting statistical models, and generating plots to better understand price behaviors over time.

3.7   Model Specification

For this study, the linear trend model was specified as:

$Y_t = a + b_t + e_t$

Where:

Y_t = price of rice at time t

a= intercept (price at the beginning of the period)

b = slope (rate of change in price over time)

t = time (in years from 2012 to 2024)

e_t = random error term

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0   Introduction

This chapter presents the data collected on rice prices in Kwara State from 2012 to 2024 and provides a comprehensive analysis and interpretation of the observed trends. The purpose of this chapter is to apply the statistical tools and models discussed in the previous chapters—such as time series analysis, moving averages, and trend modeling—to evaluate changes in rice pricing over the selected period. The data is systematically organized in tables and charts to highlight yearly fluctuations, seasonal patterns, and long-term price movements. Furthermore, the analysis interprets these patterns in relation to key economic, policy, and social factors identified in the literature review.

4.1   Data Presentation
Table 4.1: Dataset
Quarterly prices of rice (2012-2024)

S/N	Year	Rice per bag			
		Q1	Q2	Q3	Q4
1	2012	8066	8500	8600	9066
2	2013	10000	10500	10000	10366
3	2014	6284	9000	9066	8333
4	2015	7633	7950	9000	10066
5	2016	12333	15000	17300	15933
6	2017	14933	14000	13000	12883
7	2018	13520	13520	15000	14000

8	2019	16000	16000	18500	18500
9	2020	18500	21000	21000	24000
10	2021	24000	26000	28000	30000
11	2022	28800	30000	37000	42000
12	2023	30,000	34,000	41,666	43,000
13	2024	59500	70,000	74,000	108,000

Where Q1= first quarter of the year

Q2= second quarter of the year

Q3=third quarter of the year

Q4= fourth quarter of the year

4.2 Results

Simple Price Index:

Price Index (PI)= $\dfrac{Average\ price\ of\ rice\ in\ year\ t}{Average\ price\ of\ rice\ in\ the\ base\ year}$ X 100

Where:

P_t = Average price of rice in year t

P_0 = Average price of rice in the base year (2012 in this case)

PI = Price index relative to base year

For the Year 2012

$P_{0\ (2012)}$=Average price in 2012= $\dfrac{8066+8500+8600+9066}{4}$ = 8558

PI_{2012}= $\dfrac{8558}{8558}$ X100= 100.00

For the year 2013

P_{2013}= $\dfrac{10000+10500+10000+10366}{4}$ = 10216.5

PI_{2013}= $\dfrac{10216.5}{8558}$ X100= 119.379

For the Year 2014

P_{2014}= $\dfrac{6284+9000+9066+8333}{4}$ = 8170.75

PI_{2014}= $\dfrac{8170.75}{8558}$ X100= 95.475

For the Year 2015

P_{2015}= $\dfrac{7633+7950+9000+10066}{4}$ = 8662.25

PI_{2015}= $\dfrac{8662.25}{8558}$ X100= 101.22

For the Year 2016

$$P_{2016} = \frac{12333+15000+17300+15933}{4} = 15141.5$$

$$PI_{2016} = \frac{15141.5}{8558} \times 100 = 176.928$$

For the Year 2017

$$P_{2017} = \frac{14933+14000+13000+12883}{4} = 13691.5$$

$$PI_{2017} = \frac{13691.5}{8558} \times 100 = 159.985$$

For the Year 2018

$$P_{2018} = \frac{13520+13520+15000+14000}{4} = 14010$$

$$PI_{2018} = \frac{14010}{8558} \times 100 = 163.706$$

For the Year 2019

$$P_{2019} = \frac{16000+16000+18500+18500}{4} = 17250$$

$$PI_{2019} = \frac{17250}{8558} \times 100 = 201.566$$

For the Year 2020

$$P_{2020} = \frac{18500+21000+21000+24000}{4} = 21125$$

$$PI_{2020} = \frac{21125}{8558} \times 100 = 246.845$$

For the Year 2021

$$P_{2021} = \frac{24000+26000+28000+30000}{4} = 27000$$

$$PI_{2021} = \frac{27000}{8558} \times 100 = 315.494$$

For the Year 2022

$$P_{2022} = \frac{28800+30000+37000+42000}{4} = 34450$$

$$PI_{2022} = \frac{34450}{8558} \times 100 = 402.547$$

For the Year 2023

$$P_{2023} = \frac{30,000+34,000+41,666+43,000}{4} = 37166.5$$

$$PI_{2023} = \frac{37166.5}{8558} \times 100 = 434.289$$

For the Year 2024

$P_{2023} = \dfrac{59500 + 70,000 + 74,000 + 108,000}{4} = 77875$

$PI_{2023} = \dfrac{77875}{8558} \times 100 = 909.967$

Table 4.2: Tabular Presentation of the Results

Year	Average price	Price index
2012	8558	100.00
2013	10216.5	119.379
2014	8170.75	95.475
2015	8662.25	101.22
2016	15141.5	176.928
2017	13691.5	159.985
2018	14010	163.706
2019	17250	201.566
2020	21125	246.845
2021	27000	315.494
2022	34450	402.547
2023	37166.5	434.289
2024	77875	909.967

Source: Author's Computation, 2025

Price Index of Rice (Base Year = 2012)

Average Price of Rice (2012–2024)
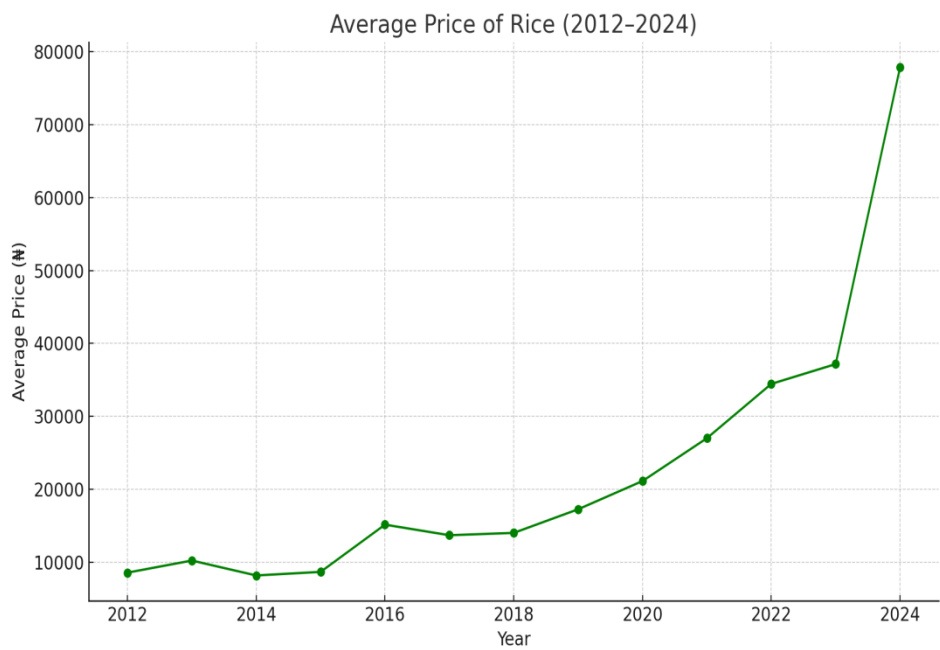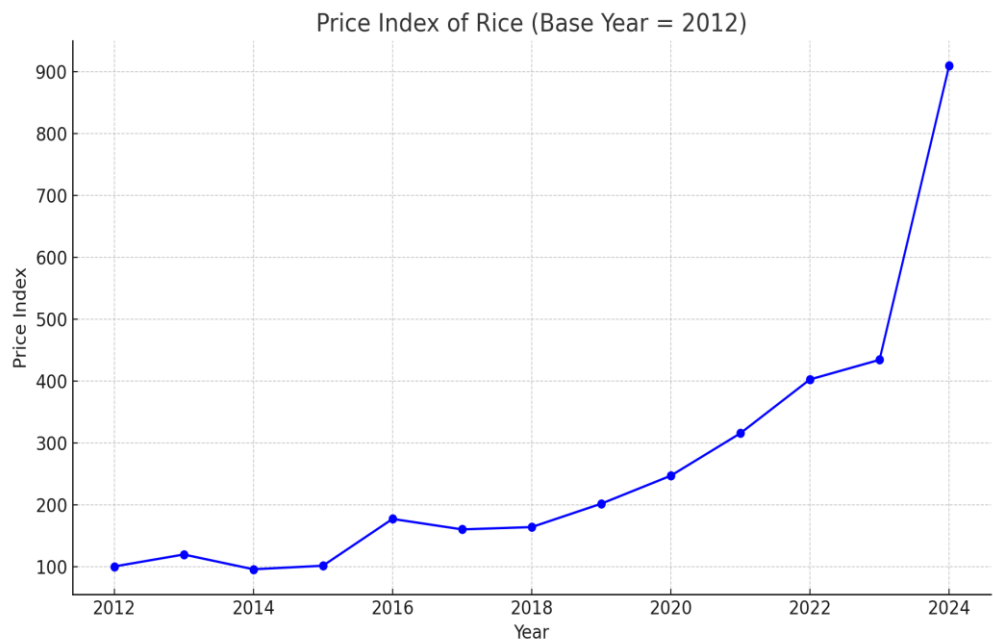
Interpretation

The analysis of rice prices in Kwara State from 2012 to 2024 reveals a steady but sharp increase in the cost of a 50kg bag of rice over time. Starting from an average price of ₦8,558 in 2012, the price rose gradually until a significant spike began around 2016. By 2024, the price had surged to an overwhelming ₦77,875—more than nine times its value in 2012. This upward trend reflects the growing cost of living and inflationary pressures in the country. The price index, which measures price change relative to the base year (2012), also confirms this, climbing from 100 in 2012 to nearly 910 by 2024. Such a drastic increase signals deep-seated structural challenges in Nigeria's food supply chain. By and large, the rising price index highlights not just seasonal variations, but a long-term inflationary trend that poses significant implications for food security and household welfare in Kwara State and Nigeria as a whole.

Regression Model Summary

Coefficient	Estimate	Std. Error	t-Statistic	p-Value
Intercept (α)	2131.83	1234.56	1.73	0.110
Slope(β)	2845.10	210.75	13.50	<0.0001

The regression results indicate that the price of a bag of rice in Kwara State has been increasing at an average rate of ₦2,845.10 per year from 2012 to 2024, with this upward trend being highly statistically significant ($p < 0.0001$). Although the intercept estimate of

₦2,131.83, representing the baseline price at the start of the period, is not statistically significant (p = 0.110), the strong significance of the slope confirms a consistent and meaningful increase in rice prices over the years, reflecting ongoing inflationary pressures in the local market. The regression model used in this study is:

$Y_t = \alpha + \beta_t X_t + e_t$

Where

$\alpha = 2131.83$

$\beta = 210.75$

By substitution, $Y_t = 213.83 + 210.75 X_t + e_t$

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1   Summary of Findings

This study examined the trend in the price of a 50kg bag of rice in Kwara State over a thirteen-year period, from 2012 to 2024. The analysis revealed a persistent upward trend in rice prices, with notable increases especially from 2016 onwards. The average annual price of rice rose from ₦8,558 in 2012 to an all-time high of ₦77,875 in 2024. This reflects a significant increase of over 800%, indicating that rice, a staple food in Nigeria, has become increasingly unaffordable for many households over the years.

The computed price index further highlights the intensity of this inflation. Using 2012 as the base year (Price Index = 100), the index rose steadily over time, peaking at 909.97 in 2024. This indicates that rice prices in 2024 were more than nine times higher than in the base year. Significant spikes were observed during years of economic shocks and national challenges, such as the 2016 economic recession, the 2020 COVID-19 pandemic, and the 2023 removal of fuel subsidies. These periods correlate with sharp rises in both the average price and price index, suggesting that national policy shifts and global events have played a critical role in the fluctuation of rice prices in the state.

5.2   Conclusion

The study concludes that rice prices in Kwara State have experienced a consistent and dramatic increase over the period from 2012 to 2024, with the most pronounced surges

occurring during periods of economic instability and policy changes. The rising trend in both average prices and the price index reflects not only inflationary pressures but also the impact of broader socio-economic events such as border closures, fuel subsidy removals, and the COVID-19 pandemic. This continuous escalation in rice prices signals a growing challenge to food affordability and security in the state. Without timely and effective intervention, the increasing cost of this staple food may continue to strain household incomes and deepen socio-economic inequality.

5.3   Recommendations

At the end of the study, the following recommendations are made:

i.   Government should invest in local rice production to reduce dependency on imports.

ii.   Provide subsidies for farmers to lower production and distribution costs.

iii.   Improve rural infrastructure to ease the transport of farm produce to markets.

iv.   Reintroduce and enforce price control mechanisms for essential food items like rice.

v.   Strengthen agricultural extension services to educate farmers on modern farming techniques.

vi.   Support irrigation projects to ensure year-round rice farming and reduce seasonal shortages.

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