An Appraisal of Factors Affecting Price Determinants of Agricultural Commodities in Benue State

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Abstract
This study is initiated to examine the factors affecting price determinants of agricultural commodities in Benue State. Our data is sourced from primary and secondary evidence. This was counterpoised by rapidly growing literature from secondary sources on agriculture and markets in Nigeria. The data synthesized from all these support claims and conclusions that there are stages of price determinants and factors affecting price determinants of agricultural commodities in Benue State. The review conceptualizes price and price determinants and explores the stages of price determinants of agricultural commodities in Benue State. It concludes by examining the factors affecting price determinants of agricultural commodities in Benue State. It observed that there is no single price for agricultural commodities, or a single state agricultural commodities market in Benue State. Historically, agricultural commodities markets developed as regional businesses and the pricing formulas and regimes were designed to meet local constraints and the specificity of the end-users. In recent years the market has become less regional, as several physical and financial links between the various areas have come into being. Nevertheless, prices can still vary dramatically depending on a very large number of factors.

Keywords: Price Determinants, Agricultural Commodities and Benue State
Introduction

Benue State is one of the largest states in Nigeria, with a total geographical area of 34,059 square kilometres and an estimated population of about 4,253,641.\(^1\) It lies within the lower river Benue trough in the middle belt region of Nigeria. Its geographic coordinates are longitude 7° 47' and 10° 0' East. Latitude 6° 25' and 8° 8' North; and shares common boundaries with Nasarawa State to the north, Taraba State to the east, Cross-River State to the south, Enugu State to the south-west, Kogi State to the west, and the Republic of Cameroon on the south-east.\(^2\) Benue State has a highly diversified agro-ecological condition which makes possible the production of a wide range of agricultural products. Over the past two decades, agricultural yields have remained the same or worse still declined. Benue’s agriculture to a large extent still possesses the characteristics of a peasant economy that was prominent in the pre-independence period.\(^3\)

More than 70 percent of the farming population in Benue State consists of smallholder farmers, each of whom owns or cultivates less than 5 hectares of farmland.\(^4\) Less than 50% of the State’s cultivable agricultural land is under cultivation. Even then, smallholder and traditional farmers who use rudimentary production techniques, with resultant low yields, cultivate most of this land. The smallholder farmers are constrained by many problems including poor access to modern inputs and credit, poor infrastructure, inadequate access to markets, land and environmental degradation, inadequate research and extension services, among others.\(^5\) Although moderate efforts are made by the government at all levels towards mitigating these challenges, it is not within the purview of this paper to assess these challenges and efforts made in resolving them. Instead, we shall attempt to examine the factors affecting price determinants of agricultural commodities in Benue State.

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The price of agricultural commodities has in recent years become a hot topic in Nigeria, perhaps the hottest from several academic and non-academic quarters as to the reasons for the frequent change in prices of agricultural commodities especially regular upsurge in prices of agricultural goods. Several factors emerged after the beginning of the new millennium to push up prices. The sharp rise in agricultural commodities prices is the result of the interaction of many factors, including basic aggregates of market – supply and demand; but also speculation, which have driven agricultural commodities prices to unprecedented levels. There are complex linkages between them and they are further modified and distorted by the actions of government and government policies. To explain this trend is not simple, and it is not our purview to build a theory on the subject. For one thing, almost all models developed to predict price changes have proven to be wrong.\textsuperscript{6} We can, however, try to describe the most relevant price determinants of agricultural commodities and how they work in Benue State. For the purpose of critically and exhaustively discussing the subject matter, the paper is subdivided into three parts. Part one is for clarification of concepts, while part two is for discussions on the stages of price determinants of agricultural commodities in Benue State. Part three examines the factors affecting price determinants of agricultural commodities in Benue State.

**Conceptual Clarification**

A price is a value in monetary terms that one party pays to another in a transaction in exchange for some goods or services. So the definition of price is the amount of money the buyer will pay as consideration to the seller in exchange for goods or services or its market value, expressed in terms of money.\textsuperscript{7} In other words, price is the worth that buys a finite amount, weight, or another match of goods or services. It expresses the value of the goods produced and the services rendered by factors of production such as land, labor, and capital. Thus, the determination of prices is of great significance in an economy.\textsuperscript{8}

Price determination means to determine the cost of goods sold and services rendered in the free market. In a free market, the forces of demand and supply determine the prices or it is the interaction of the broad forces of supply and demand which “determine” or cause the market...
price level. In Nigeria the government does not often interfere in the determination of the prices. However, in some cases, the government may intervene in determining and regulating the prices of goods in order to protect the interest of the public. For this purpose, it declares some products as indispensable products such as petroleum products, life-saving drugs, and electricity among others. For example, the government often fixes the maximum selling price for petroleum products at various times based on the economic reality of the time. Where, in particular cases, the government has fixed maximum retail prices; the pricing policy followed by a manufacturer must have to be in tune with governmental regulations, in that regard. Consumers have a desire to acquire a product, and producers manufacture a supply to meet this demand. The equilibrium market price of a good is the price at which quantity supplied equals quantity demanded. Graphically, the supply and demand curves intersect at the equilibrium price. Generally, consumers are willing to pay a particular price for a product depending on their income levels and intensity of desire to own the product. This relationship is expressed in economic terms by the demand curve. If the price of a good goes up, consumers will buy less of it. Conversely, consumers will purchase more of a product if the price goes down. However, economic forces are not always that simple. Other factors come into play to influence the equilibrium price as determined by the supply-demand equations of economics.

Stages of Price Determinants of Agricultural Commodities in Benue State

The prices of agricultural commodities in Benue State are often not fixed and are determined largely through the process of bargaining/haggling between the buyers and sellers. Simply put, the prices of agricultural commodities in the study area are influenced by social, physical, and economic factors, varying from rational and irrational economic decisions. It connotes that buyers and sellers compete with each other to maximize the price at which things are sold on the one hand, and to minimize the price at which things are bought on the other. Price determinants of agricultural commodities in Benue State are organized/done/process in a way that minimized

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10 Jim Woodruff, Price Determination in Economics, …

11 Jim Woodruff, Price Determination in Economics, …

profit and loss for buyers and sellers while at the same time enhancing the efficiency of the distributive system. In markets across the State, farmers participate actively with the traders individually in arriving at an agreed price for their commodities. There are four principal stages in determining the prices of agricultural commodities in Benue State. They are the basis for negotiation, initiation stage, negotiation stage, and negotiated price.\textsuperscript{13}

a. It all begins with the \textit{basis for negotiation}, which involves the processes of identifying a need(s) and doing/carrying out a window-shopping or browsing in order to choose from the variety of product(s) and settling for one or more choices. Two or more choices are usually made as an alternative should one seller decline or refuse to sell at a certain price; the buyer approaches the other(s) and initiates a new negotiation. The factor of high demand and low supply has implication on this stage in price determination process as it affects the baseline price upon which negotiation can commence.\textsuperscript{14}

b. This is followed by the \textit{initiation stage}, which involves the process of initiating the negotiation by the customer/buyer asking how the identified goods are sold or on sale. In response, the seller/trader states the peg-price(s) for the item(s) or measures of the item(s) asked for or sort after.

c. The next is the \textit{negotiation stage}, which offers the buyer/customer and the seller/trader the time and space to determine the price of goods and services largely through the process of bargaining/haggling. The negotiation stage is a platform full of bargaining/haggling or debates over the price(s) of goods and services. It is during this period that the buyer/customer and the seller/trader display and employ their skills of bargaining/haggling to minimize profit and loss. During this period, bargaining skills, knowledge of market price (economic situation), and season are core principles.

d. The final stage is \textit{negotiated price}. This is when the buyer/customer and the seller/trader settle at an agreed price for the chosen goods or service. This is dependent on the bargaining skills and the commitment of the buyer/customer and the seller/trader to the success of the bargain during the negotiation period.

\textbf{Factors Affecting Price Determinants of Agricultural Commodities in Benue State}

We may at this juncture outline the factors affecting price determinants of agricultural commodities in Benue State. Some of the factors have been mentioned in passing or obliquely in the course of our discussion above. However, it is appropriate now to accord the issue the

specific attention it deserves. The prices of agricultural commodities are often not fixed and are determined largely by haggling/bargaining between the buyers and sellers. In this case, prices could vary considerably depending on a number of factors that influence and determine the prices of agricultural commodities in Benue State. The major price determinants of agricultural commodities in Benue State include season/time, skills, concession given to relatives and friends, the quality of goods/product-life cycle stage, cost of production,15 security, location and localization of production, the quantity bought or sold and government policy.

1. Season/time: Season is a major factor that determined the prices and volume of agricultural goods and transactions in Benue State. In every calendar year, there are different seasons. The seasonal change is a regular recurrence, as there is a season for different agricultural commodities annually. Benue State is an agrarian state with inadequate processing and storage facilities, and agriculture produces the main item of trade. The volume of agricultural commodities for trade is usually high during the time of harvest and this correspondingly leads to low/decline prices while prices of agricultural commodities tend to rise when they are out of season as the volume of agricultural commodities for trade is relatively low during the planting period.16 For example, from August to February, market centres experience a peak season for buying and selling food items. But from March to June, market centres experience an off-peak season for buying and selling of food items. These annual cycles in supply and demand give rise to the seasonal price phenomena. This annual pattern of changing conditions brings about a more or less well-defined annual pattern of price responses around similar times most years. The table below shows the seasonal distribution of agricultural commodities in contemporary Benue State.

| Table: Seasonal Distribution of Agricultural Commodities in Contemporary Benue State |
|---------------------------------|---------------------------------|
| Dominant Commodity              | i. Fresh yam |
| Raining season                  | April – July |
| i. Vegetable and species (pepper, okra, tomatoes, pumpkin, etc.) |
| ii. Fruits (banana, mango, pineapple, |


<table>
<thead>
<tr>
<th>Season</th>
<th>Commodities</th>
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<tbody>
<tr>
<td>August – October</td>
<td>i. Yam</td>
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<td>ii. Fresh rice</td>
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<td>iii. Groundnut</td>
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<td>iv. Bambara nut</td>
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<td></td>
<td>v. Fruits (Citrus)</td>
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<tr>
<td>Dry season</td>
<td>i. Cereals (millet, maize guinea corn, sorghum, etc.)</td>
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<tr>
<td>November - December</td>
<td>ii. Beniseed (sesame seed)</td>
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<td>iii. Cassava</td>
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<td></td>
<td>iv. Garri</td>
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<tr>
<td></td>
<td>v. Yam</td>
</tr>
<tr>
<td>January – April</td>
<td>i. Fruits (banana, mango, pineapple, orange, etc.)</td>
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<tr>
<td></td>
<td>ii. Bush mango (Ogbono)</td>
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<tr>
<td></td>
<td>iii. Melon</td>
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<tr>
<td></td>
<td>iv. Garri</td>
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<td></td>
<td>v. Palm wine/oil</td>
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</table>

**Source:** Author’s Field Work (2020)

The table above represents the seasonal distribution of agricultural commodities in contemporary Benue State. It is a sample which entails that other items are featured in markets and traded. Durable goods/items such as wares, clay pots of various sizes, local iron implements; hoes, cutlasses, and knives were presented for sale. There were also black soap, locust beans, beans, soya beans, cassava flour (*alibo*), cassava mashed (*akpu*), stimulants like kola nut, bitter kola, alligator pepper, tobacco, local snuff and shea-butter, palm fruits, palm kernel and palm kernel oil, fresh and dry fish, stock-fish, livestock, local leather bags and pouches, leather sandals, among others.

2. **Skills:** The prices of agricultural commodities are often not fixed and were determined largely by haggling/bargaining between the buyers and sellers. Simply put, the prices of agricultural commodities in the study area are influenced by social, physical and economic factors, varying...
from rational and irrational economic decisions. In this case, depending on the skill of either party, prices could vary considerably. This implies that a buyer who is skilled in the art of haggling/bargaining can purchase at a lower price the same good which another customer with less haggling/bargaining skilled could pay for at a higher price. Similarly, a seller who is skilled in convincing customers to buy his or her goods could haggle/bargain for a higher price than the one who is less skilled. The middlemen-market intermediaries popularly known as belanda or baranda have the advantage because they are usually skilled buyers and sellers. They act as middlemen between the farmers/sellers and potential buyers and in turn they are paid commissions by buyers or in some cases both the buyers and farmers/sellers. They are usually vast in market terminology and strategy as well as understanding and speak two or more languages in addition to the Pidgin English commonly spoken in markets in the study area.

3. Concession given to relatives and friends: Concession is a privilege granted by a trader to a buyer. In other words, it is a preferential rate given by traders to buyers for friendship or relationship seeks. This implies preferential treatment and a reduction in the amount of money that has to be paid for goods and services. It should be noted that apart from price concessions given to them, traders offer their trade commodities to their relatives and friends as gifts known as kola in local parlance to express their love, generosity and kindness towards them. This shows the spirit of communal living and brotherliness which was altered by colonialism leading to a dual economic model (the traditional and the modern) in which in certain aspects and localities, the traditional dominated, while in other the modern had the upper hand and both the traditional and the modern in some aspects and localities. This implies that the people of Benue state are their brother’s keeper and watch out for each other.

4. The quality of goods/product-life cycle stage: In relation to time, the quality of goods/product-life cycle stage is another factor that determinants the price of agricultural commodities in Benue State. On markets days, the time of the day is significant; prices are usually lower in the morning and higher in the afternoon. Though for perishables the reverse is the case. However, strong demand can keep prices stable even perishable commodities throughout the day. Also, for perishables i.e. tomatoes, pepper, and vegetables, because farmers travel over long distances to the market, they usually felt compelled to sell rather than risk losing their goods which will perish if they have to wait till another market day in addition to bearing the cost of transporting

19 This is taken from a survey of some market centres in Benue State.
them back.\textsuperscript{20} The situation is made worse by minimal value addition and product differentiation, and inadequate food storage and preservation that result in significant commodity price fluctuation.

Farmers and traders in the study area often lament the massive loss of agricultural produce from poor rural transportation and storage facilities which ultimately leads to massive crop spoilage. The main losses identified are both qualitative and quantitative resulting from damages occurring mainly during transportation and unavailability of technical storage facilities at homes and markets. A visit to any of the rural markets like Wannune, Zaki-biam, Logo, Ohimini, Agatu, and even large plantation orchards in different parts of the state during harvest season, shows the piteous plight of Benue farmers. It is either they are being short-charge or maneuvered by middlemen who control the market price or watch their products waste away for lack of storage facilities to preserve them. This scenario results in small-scale production and direct consumption of large portion of harvest and wastage of agricultural produce.\textsuperscript{21}

5. **Cost of production:** Cost of production is the main component of price. It is one of the most important factors which affect and determine the prices of goods and services. No farmer/producer can sell his/her product or services at less than the cost of production. Thus, before price fixation, it is necessary to compile data relating to the cost of production and keep that in mind.\textsuperscript{22} It includes the total of fixed costs, variable costs, and semi-variable costs incurred through the production, distribution, and selling of the product. Fixed costs refer to those costs which remain fixed at all the levels of production or sales. For instance, rent of land and building, salary of permanent staff, etc. Variable costs attribute to the costs which are directly related to the levels of production or sales. For example, the costs of basic material, labour, etc. Semi-variable costs take into account those costs which change with the level of activity but not in direct proportion.\textsuperscript{23} This accounts for why farmers in Benue State participate actively with the traders to determine whether they are getting a fair price or not. This is because perceived low price impact negatively on future production and commodity availability. Farmers who feel they are receiving a fair price produce more. Their feeling of fairness comes when they participate actively in the price formation by negotiating with buyers the final price of the trade goods.\textsuperscript{24}

\textsuperscript{22} Interviews: Haruna P. F., 48, Trader, interviewed at Makurdi, June 2020; Interviews: Enyi Agasi, 60, Farmer/Trader, interviewed in Utonkon, September 2016. Also read S. Samiksha, 7 Important Factors that Determine the Fixation of Price, retrieved from https://www.yourarticlelibrary.com on 30/05/2021; Intro to Determination of Prices ...
\textsuperscript{23} Interviews: Haruna P. F., 48, Trader, interviewed at Makurdi, June 2020; Interviews: Enyi Agasi, 60, Farmer/Trader, interviewed in Utonkon, September 2016. Also read Also read S. Samiksha, 7 Important Factors that Determine the Fixation of Price ...; Intro to Determination of Prices ...
6. **Security:** Price determinants depend not only on season or demand and supply but also on other factors and the conditions prevailing in the society. If there is no security of life and properties like the current situation in Nigeria, people will not farm talk more of producing for trade that will lead to capital accumulation and mobilization and thereby, leading to scarcity of goods both local and exotic and rise in prices. Consequently, the government at all levels should always secure the life and properties of the people to boost agricultural production, trade, and economic sustainability. Political stability and a peaceful atmosphere encourage agricultural production, trade, and economic sustainability.

7. **Location and localization of production:** Another major price determinant of agricultural commodities in Benue State is the location and localization of production centres. Globally, most farms, companies, and production centres are located in distant areas from the market centres. This is as a result of the rich variation in environments and demographic, agriculture, institutional, topographic, and climatic factors that have always provided a natural patterning or mechanism thus necessitating occupational specializations and dictated economic interdependence within and outside an area. This is clearly seen in economic specialization along geographical and ethnic lines. For instance, the Zaki-Biam market (Ukum) and Ugba market (Logo) are associated with yam, Oyangede market (Ohimini), and Orijo market (Ado) are associated with cassava byproduct – garri. The Abisi market (Guma) and Oweto market (Agatu) are associated with fish, Ukwo-Otukpa market (Otukpa), and their Igala neighbours are associated with palm products – palm wine and oil. While the Igbo, Yoruba and Hausa are associated with kola nut, ginger, stock-fish, beans, tomatoes, livestock, processed agricultural products both local and exotic, among others. Thus, giving rise to price differentiate from one location to the other as prices of agricultural commodities are relatively low in their centre of origins or productions compared to other locations. The conclusion that can be drawn from this using central place theory is that prices of goods in the study area are to a large extent decided on the basis of demand and supply. People were willing to buy at the lowest price that market has to offer.

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25 Interviews: Elijah Abah, 85, Retired Civil Servant, interviewed in Utonkon, August 2018; Interviews: Maryrose Ebiziem, 45+, Trader; Alu Uwakwe, 50, Trader; Ewuiom Longinus, 36, Trader; Kalejaiye Mariam, 40, Trader; all interviewed in Makurdi, July 2020.


However, a fact not to be ignored is that most of the production centres are rural and with the high and increasing inequalities leading to growing dualism, for example, between agriculture and other sectors and between state government and local government, with large differences in productivity, would lead to supply-side constraints to growth in terms of availability of capital and inputs for production in the agricultural sector. Similarly, infrastructural disparities between urban and suburban areas, in spite of the important contribution of some rural areas especially their agriculture production and markets to the economy, continue to widen. Increasing disparities are no doubt a source of social discord and threaten the sustainability of high economic growth, as increasing income inequality would result in a demand constraint.

8. The quantity bought or sold: The main advantage of buying goods in bulk over buying in bit is that you spend less or buy at a reduced price. Those who usually buy in large quantities are mainly traders who are into the business of such trade item(s). They buy in bulk to minimize cost and maximize profit by selling to retailers and final consumers in bits and pieces. As regard, those who sell in bulk are mainly farmers and wholesalers who have goods in large quantity for sale and participate actively in determining the price of the goods on sale. They often consider their customers who buy in bulk as traders who are buying to sell and make gains, and thereby, reducing the price(s) for them.

9. Government policy: The government has a duty to protect its citizens from unfair practices and pricing. So it may impose certain laws and regulations with regards to the pricing of a product. It can even regulate the prices of goods that it considers essential goods. This implies that the actions of government and government policies have a direct and indirect influence on price determinants. The prices of goods and services are largely influence and determine by government actions and inactions. For instance, the government attitude toward the dynamics of internal development and externally oriented transformation, especially the 1970s economic boom and the 1980s economic meltdown as well as the Structural Adjustment Programme(SAP) policies/conditions of 1986 adversely impacted prices of goods and services and continued into the 21st century. It led to apprehensions and the neglect of agriculture and local industries with a large dependence on imported goods in the area and the nation at large, especially in the volatile global economic environment. For example, Nigerians preference for foreign rice, textiles, and wine to locally produced/brewed ones attests to this fact.


29 Interviews: Alu Uwakwe, 50, Trader; Ewuiom Longinus, 36, Trader, both interviewed in Makurdi, July 2020.
30 Interviews: Onah Adaiyi, 45, Trader; Moses Odeh, 60, Civil Servant both interviewed in Owukpa, October 2016; Interviews: Haruna P. F., 48, Trader, interviewed at Makurdi, June 2020.
Nigeria’s exposure to the global markets has significantly increased since the last two decades of the twentieth century. Its imports, both merchandise and services grew fast since the last two decades of the twentieth century. This experience suggests that imports will continue to play a significant role in Nigeria’s economy and dependence on it will significantly affect growth in times of global slowdown, except government become more and more proactive. \(^{31}\) The liberal economic policy of the government enabled market centres to adopt self-regulation. These loopholes on the part of the government arguably opened doors for many other patterns of market centres to evolve. This include among others black market, increased smuggling of contraband, substandard and fake goods, and hike in prices of goods, especially foreign goods as locally produced goods are seen as inferior in comparison to foreign goods. Consequently, the government should always implement policies that will boost agricultural production, trade and economic sustainability as this will contribute to the nation’s GDP (Gross Domestic Product) and enhance food security in the country.

**Conclusion**

From the foregoing, it is clear that the prices of agricultural commodities are often not fixed and are determined largely by haggling/bargaining between the buyers and sellers. In this case, prices vary considerably depending on a number of factors that influence and determine the prices of agricultural commodities in Benue State. The major price determinants of agricultural commodities in Benue State include season/time, skills, concession given to relatives and friends, quality of goods/product-life cycle stage, cost of production, security, location of production, the quantity bought or sold, and government policy. This implies that the frequent change in agricultural commodities prices are the result of the interaction of many factors, including basic aggregates of market – supply and demand; but also speculation, which have driven agricultural commodities prices to unprecedented levels. There are complex linkages between them and they are further modified and distorted by the actions of government and government policies. In order to protect the interest of the public, the government intervenes and regulates the prices of commodities. For this purpose, it declares some products as indispensable products such as petroleum products, life-saving drugs, and electricity among others. Where, in particular cases, the government has fixed maximum retail prices; the pricing policy followed by a manufacturer must have to be in tune with governmental regulations, in that regard.

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\(^{31}\) Interviews: Adah Okoh, 70, Trader/Farmer, interviewed in Adoka, August 2018; Interviews: Ogenyi Emmanuel, 74, Ex-serviceman, Makurdi, April 2016; Interviews: Alu Uwakwe, 50, Trader; Ewuiom Longinus, 36, Trader, both interviewed in Makurdi, July 2020.