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# CONSUMER SEARCH, MARKET CHARACTERISTICS, AND PRICE DISPERSION: A STUDY OF PRICE VARIABILITY

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**Abstract:** This study examines the factors influencing price dispersion in Asaba's foodstuff market, focusing on consumer search behavior, market characteristics, and price transparency. Price dispersion—the variation in prices for identical products across sellers—is a persistent phenomenon in informal markets, posing challenges to consumer welfare and market efficiency. Using a descriptive survey design, data were collected from 98 respondents, including consumers and vendors, across major markets in Asaba. The findings reveal significant price variability for staple food items such as rice, tomatoes, and garri, with differences of 20–35% observed within the same market. Consumer search behavior, particularly active price comparison, was found to reduce price dispersion, as informed buyers secured better deals. Market characteristics, including vendor location and competition levels, also played a critical role, with high-traffic areas exhibiting higher prices. Price transparency, facilitated by digital tools and open pricing practices, further minimized disparities. Regression analysis confirmed that consumer search intensity, market competition, and transparency significantly predict price dispersion (Adjusted $R^2 = 0.74$, $p < 0.001$). The study concludes that enhancing consumer awareness, promoting digital price platforms, and improving market regulation can mitigate price variability. Recommendations include public sensitization campaigns, vendor accountability measures, and investments in market information systems. These interventions aim to foster equitable pricing and empower consumers in informal market settings. The findings contribute to the discourse on market efficiency and consumer economics in developing economies.

**Keywords:** *foodstuff, market, consumer welfare, price transparency, consumer search behavior.*

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## Introduction

In contemporary market economies, price dispersion—the coexistence of different prices for the same product across sellers—has become a common and persistent phenomenon, especially in informal and developing markets. This variation in pricing, often influenced by market characteristics and consumer search behavior, poses a significant challenge to both consumers and policy makers. In many Nigerian urban centers like Asaba, foodstuff markets are characterized by inconsistent pricing even for homogenous goods such as rice, garri, tomatoes, onions, and palm oil. Despite proximity among vendors, prices can differ significantly within the same market, indicating potential inefficiencies in the market structure and consumer information.

Consumer search theory suggests that when it is costly or time-consuming for buyers to compare prices across sellers, they may settle for suboptimal prices, thereby enabling price dispersion to persist (Stahl, 2022). The magnitude of these costs—whether cognitive, time-related, or physical—can heavily influence how much effort consumers exert to find the best price. In Asaba's foodstuff markets, consumer behavior is often shaped by socio-economic status, urgency of purchase, transportation cost, and cultural trust in familiar sellers, thereby limiting thorough price comparison.

Recent studies have emphasized the role of market characteristics—such as product differentiation, seller concentration, and entry barriers—in sustaining price variability. According to Okon & Bello (2023), informal markets in Nigeria are particularly prone to price dispersion due to poor market information systems and weak consumer bargaining power. Similarly, Afolabi & Adeyemi (2022) argue that in urban food markets, vendor strategies such as product packaging, display, and location affect consumers' perception of value, leading to price differences for essentially similar goods.

Moreover, digital and mobile technology adoption has begun to reduce price dispersion in some urban Nigerian markets, yet this transition remains slow in traditional marketplaces like those in Asaba. A study by Uzoho & Ezeani (2021) found that only 24% of consumers in southern Nigerian cities used mobile apps or online platforms to compare foodstuff prices, highlighting a gap in consumer awareness and access to real-time pricing. In a related study, Edafe & Nwankwo (2023) observed that many traders in Asaba adjusted prices based on perceived customer wealth, time of day, and even weather conditions, indicating behavioral and situational pricing strategies.

Price variability in foodstuff markets continues to pose significant challenges in developing economies, particularly in

semi-urban centers like Asaba, Delta State. Despite the homogenous nature of many staple food items—such as garri, rice, tomatoes, onions, and beans—prices for these items often vary considerably across sellers within the same market. This raises concerns about market efficiency, consumer welfare, and fairness in pricing.

A major factor contributing to this price dispersion is limited consumer search behavior, which is often influenced by time constraints, transportation costs, urgency of need, and lack of access to price comparison tools. Many buyers, especially in informal markets, tend to purchase goods from familiar vendors or nearby stalls without comparing prices. As noted by Edafe and Nwankwo (2023), foodstuff sellers in Asaba adjust prices based on situational factors such as the customer's appearance, bargaining ability, and time of day, suggesting a highly subjective and unregulated pricing environment. This behavioral pricing limits the ability of consumers to make informed decisions and increases their vulnerability to price exploitation.

Additionally, market characteristics such as poor information flow, absence of standard pricing systems, and high seller concentration in certain zones of the market contribute to sustained price variability. According to Okon and Bello (2023), structural inefficiencies and lack of pricing transparency in Nigerian foodstuff markets hinder effective competition and reinforce price disparities, even for identical products sold side-by-side.

Despite growing concerns, there remains a dearth of empirical studies focusing on the local dynamics of price dispersion in traditional foodstuff markets like those in Asaba. Most research in this area has focused on formal retail markets or digital marketplaces, leaving a gap in understanding how consumer behavior and market structure contribute to persistent price variations in informal urban markets.

Therefore, this study seeks to address the problem of how consumer search behavior and market characteristics influence price dispersion in Asaba's foodstuff market, with the goal of providing insights into the mechanisms behind pricing inconsistencies and recommending strategies for promoting greater price transparency and market efficiency.

## Review of Literature

**Factors influencing consumer search (income, urgency, trust, access to information)**

Consumer search behavior is influenced by several key factors that determine how much effort individuals are willing or able to invest in gathering information before making a purchase decision. Four prominent factors are income, urgency, trust, and access to information.

Income affects a consumer's ability to engage in extensive search. Higher-income individuals often have better access to tools (e.g., internet-enabled devices) and more time flexibility, enabling them to compare more options. In contrast, lower-income consumers may face constraints that limit their search depth, even though they are more sensitive to price differences.

Urgency influences whether a consumer opts for quick decisions or thorough comparisons. When urgency is high—such as during emergencies or time-sensitive purchases—consumers often make quicker choices with minimal search, regardless of cost efficiency. Trust plays a crucial role in reducing the need for extended search. When consumers trust a brand, seller, or platform, they are less likely to invest time in comparing alternatives. Trust can be built through past experiences, reviews, or strong reputations.

Access to information significantly shapes search behavior. Consumers with easy access to online resources, mobile devices, and comparison tools are more empowered to search actively and make informed decisions. Information-rich environments reduce search costs and increase market transparency.

A 2020 study by Grewal et al. on online retail behavior showed that access to information and brand trust significantly reduced the amount of search effort. Consumers who trusted the seller or platform were more likely to make purchases with less comparison, while others actively searched multiple sources to verify pricing and authenticity.

Another study by Pennerstorfer (2020) in the Austrian gasoline market revealed that income levels and urgency strongly influenced search intensity. Higher-income and non-urgent consumers were more likely to delay purchases and compare prices, while lower-income or time-pressured buyers opted for the most accessible option, often at a higher cost.

**Price Transparency and Information Asymmetry**

Price transparency refers to the extent to which consumers have access to accurate, clear, and complete information about the prices of goods and services across different sellers. High transparency allows consumers to compare prices easily, make informed decisions, and promotes competitive pricing. In contrast, information asymmetry occurs when one party (usually the seller) has more or better information than the other (typically the buyer), creating an imbalance that can lead to inefficient outcomes, such as overpricing or reduced consumer trust.

In markets—especially informal or fragmented ones—limited access to reliable price information contributes to price dispersion. Consumers often rely on personal experience, word of mouth, or limited local comparisons, which can result in inconsistent prices for the same products across sellers.

A 2020 study by Zhou & Guo investigated e-commerce platforms in China and found that higher price transparency, through comparison websites and customer reviews, significantly reduced price dispersion. Sellers were pressured to offer competitive prices when consumers could easily access and compare alternatives, leading to more efficient and consumer-friendly pricing structures.

In a 2021 field experiment, Aker and Ksoll examined informal grain markets in Uganda and Kenya. They introduced mobile-based price information systems that provided farmers and traders with real-time price data from multiple markets. The study found that improved access to price information reduced exploitation, enhanced negotiation power for buyers, and narrowed price differences between regions. It also empowered smaller traders and low-income consumers who previously lacked bargaining leverage. Price transparency reduces information asymmetry and fosters more equitable market outcomes by enabling consumers to make better-informed decisions. When buyers have equal access to information, markets tend to become

more competitive, efficient, and fair. Conversely, where information is limited or unevenly distributed, price variability and consumer vulnerability increase.

**The role of information in reducing search costs**

Information plays a critical role in reducing search costs, which refer to the time, effort, and resources consumers expend to find product and price information before making a purchase. When accurate and timely information is readily available, consumers can compare prices more efficiently, make informed decisions, and avoid overpaying. Lower search costs typically lead to more competitive markets, reduced price dispersion, and increased consumer welfare.

A recent study by Aker & Ksoll (2021) in rural Kenya and Uganda illustrates this effect. The researchers implemented a mobile-based market information system that delivered real-time price updates for agricultural products to farmers and informal traders. Before the intervention, many buyers and sellers lacked reliable access to pricing data, resulting in high search costs and uneven pricing across nearby markets. After gaining access to mobile price alerts, users were able to compare options quickly, make better trade decisions, and reduce the time spent traveling between markets. The study found that this improved information access lowered search costs, reduced price dispersion, and strengthened the bargaining power of both buyers and small-scale sellers. Access to information—particularly through digital tools—can significantly reduce search costs, improve market efficiency, and empower consumers and sellers to make more equitable transactions.

**Impact of digital platforms and word-of-mouth in informal markets**

In informal markets, where formal advertising and standardized pricing are often lacking, digital platforms and word-of-mouth communication have become powerful tools for influencing consumer behavior and shaping market outcomes. These channels help bridge the information gap, reduce uncertainty, and influence purchasing decisions in environments where trust and personal networks are crucial.

A recent study by Abebe, Tekleselassie, & Caria (2021) in Ethiopia explored how digital communication tools and social networks affected consumer choices in informal labor and goods markets. The researchers found that informal traders who used platforms like WhatsApp and Facebook Marketplace were better able to share pricing and product information with customers. This increased transparency, improved buyer confidence, and led to more consistent pricing among sellers. At the same time, word-of-mouth referrals from trusted individuals remained a dominant factor in shaping customer trust, especially where digital literacy or internet access was limited.

The study concluded that digital platforms and social networks complement each other in informal markets: digital tools expand access to broader audiences, while word-of-mouth reinforces trust and loyalty. Together, they help reduce information asymmetry, enhance customer relationships, and gradually improve market efficiency.

Digital platforms and word-of-mouth are vital in informal markets for reducing uncertainty, promoting price awareness, and building trust. Their combined effect helps informal sellers reach more customers while enabling buyers to make more informed and confident purchasing decisions.

**Foodstuff Market Dynamics in Nigeria**

The dynamics of Nigeria's foodstuff market are shaped by complex interactions among security, supply chains, climate, inflation, and digital innovation. Nigeria's food price volatility is significantly driven by domestic terrorism and banditry, rather than climate variables. These conflicts displace farmers, disrupt planting and distribution, and heighten prices for staples like maize and grains. Amare & Balana (2024) Although Nigeria has a historically interconnected food system, COVID-era mobility restrictions impeded this integration. Prices became disconnected across urban/rural markets, illustrating the market's vulnerability to disruptions in transportation and trade flows.

Traditional markets in Nigeria serve as the backbone of foodstuff distribution, especially for staple commodities such as rice, maize, yams, vegetables, and grains. These markets are often informal, open-air centers of trade located in rural, semi-urban, and urban areas, where farmers, wholesalers, and retailers converge to buy and sell food items.

The structure of these markets is typically decentralized, with goods flowing from rural producers to urban consumers through a chain of intermediaries—such as village collectors, transporters, middlemen, and market traders. The system is labor-intensive and relationship-driven, relying heavily on face-to-face negotiations, verbal agreements, and long-standing social ties. Prices are often negotiable, with little uniformity, reflecting local supply conditions, transport costs, and daily demand.

Food distribution in these systems lacks formal storage, cold chains, and efficient logistics infrastructure. As a result, spoilage rates can be high, particularly for perishables, and price volatility is common, especially during planting or harvest seasons, or in response to fuel costs and road conditions.

A recent study by Amare & Balana (2024) observed that disruptions such as COVID-19 lockdowns highlighted the fragility of these distribution systems. When transport routes were restricted, the movement of food from rural to urban areas declined sharply, causing local food shortages and price hikes. The study emphasized the need for better infrastructure and market integration to improve food security and price stability. Nigeria's traditional food markets and distribution systems are essential but fragile. They operate through informal, human-centered networks that are vulnerable to disruptions in transportation, security, and communication. Strengthening these systems requires investment in rural infrastructure, transportation, and market coordination mechanisms.

## Theoretical Review

**Search Theory (Stigler, 1961)**

Search theory, introduced by economist George Stigler in 1961, explores how consumers and firms gather information in the face of uncertainty, particularly when prices for the same good vary across sellers. The theory challenges the assumption of perfect information in classical economics by showing that consumers must often incur costs to find the best prices, leading to price dispersion even in competitive markets. Stigler argued that the effort consumers put into searching—such as visiting stores,

making inquiries, or browsing online—affects their purchasing decisions. The more costly or time-consuming the search, the less likely consumers are to find the lowest price, allowing sellers to charge different prices for the same item.

Search costs refer to the time, money, and effort consumers spend to obtain price and product information before making a purchase. These costs play a central role in consumer decision-making. When search costs are high, consumers may settle for higher prices or fewer options, leading to suboptimal decisions. Conversely, when search costs are low—due to better information, digital tools, or market transparency—consumers can compare more alternatives and make more informed choices.

Stigler's theory explains why even identical products are sold at different prices: not all consumers search thoroughly, and not all sellers face pressure to match the lowest market price. This leads to a "frictional" market, where price variation persists due to unequal access to information. Search theory is highly relevant in informal markets and price-variable environments, where price transparency is limited and information flows unevenly. In these settings, consumers often lack the resources or knowledge to compare prices across sellers, resulting in wide price dispersion. For example, in Nigerian traditional markets, buyers must physically visit multiple stalls or rely on social networks to get price information. This increases search costs and reinforces bargaining as a key pricing mechanism. Sellers, aware of these limitations, often adjust prices based on what they believe the buyer knows or can afford. Thus, Stigler's model helps explain why informal markets do not reach uniform pricing, and why interventions like mobile price alerts or market integration initiatives can improve efficiency by reducing search costs and narrowing price gaps.

**Theory of Information Asymmetry (Akerlof, 1970)**

The Theory of Information Asymmetry, developed by George Akerlof in 1970, explains how unequal access to information between buyers and sellers can distort market outcomes. Akerlof's classic example, "The Market for Lemons," showed that when sellers know more about product quality than buyers, it can lead to adverse selection—where low-quality goods drive out high-quality ones because buyers are unwilling to pay a premium without assurance.

In such markets, trust breaks down, pricing becomes unstable, and efficiency declines. Buyers protect themselves by offering lower prices across the board, while informed sellers may exit the market if they can't receive fair value for superior goods.

In Nigerian foodstuff markets, information asymmetry is common, especially in traditional and informal settings where quality grading, labeling, and price monitoring are minimal. Buyers often rely on physical inspection, bargaining, or word-of-mouth to assess value, while sellers hold more information about product quality, freshness, or source.

A 2018 study by Olayemi and Adeoye investigated tomato markets in southwestern Nigeria and found that buyers often lacked reliable information about product freshness, shelf life, and true market prices. This led to frequent overpricing, high spoilage rates, and consumer dissatisfaction. The study also noted that middlemen and traders used this information gap to their advantage, particularly in urban markets where consumers had fewer alternatives or less knowledge of rural price trends. The study concluded that improving information flow—through mobile apps, market boards, or cooperative networks—could reduce exploitation, enhance transparency, and promote fairer pricing in foodstuff markets.

**Empirical Review**

Empirical studies across sub-Saharan Africa show that price dispersion is prevalent in informal markets, even for homogeneous goods. A study by Amare & Balana (2024) found that food price differences across Nigerian states were driven by poor infrastructure, regional market fragmentation, and inconsistent information flow—especially during the COVID-19 lockdown, which weakened price integration between urban and rural centers.

A 2018 study by Olayemi and Adeoye in southwestern Nigeria (Lagos, Ibadan) revealed that tomato prices varied significantly across informal markets. Causes included middlemen manipulation, seasonal supply shocks, and information asymmetry. In Onitsha and Benin, vendors also adjusted prices based on buyer familiarity and bargaining strength, confirming wide dispersion even within single markets.

A study by Aker & Ksoll (2021) in Kenya and Uganda revealed that many buyers in rural and informal urban settings lacked access to up-to-date pricing, relying instead on word-of-mouth and informal networks for information. This often led to inefficient decisions and greater price dispersion. Similarly, Afolabi & Aladejebi (2019) found that in Lagos markets, consumers' ability to compare prices was significantly influenced by their educational level and familiarity with sellers.

In summary, consumer search behavior in developing economies is context-dependent, constrained by information gaps and structural limitations. While some buyers actively search for better prices, others prioritize convenience, trust, and familiarity—resulting in varying outcomes and persistent pricing inconsistencies across informal market settings.

In Afolabi & Aladejebi's (2019) research in Lagos markets, it was observed that educated and higher-income consumers conducted broader searches and were more price-sensitive, while lower-income and female buyers often relied on trusted vendors and personal relationships, trading off price comparisons for convenience and familiarity.

Despite growing research on informal markets, several critical gaps remain in the literature—particularly regarding the intersection of price dispersion, consumer behavior, and digital adoption in developing economies like Nigeria. Firstly, while many studies explore price variability in informal settings, few provide comprehensive, region-specific analyses that capture both rural and urban market dynamics. Most existing research focuses on major cities (e.g., Lagos or Abuja), leaving smaller markets and rural areas underrepresented.

Furthermore, consumer search behavior is often discussed in general terms, with limited empirical evidence on how factors like education, gender, digital literacy, and trust specifically shape decision-making in foodstuff markets. This leaves a gap in understanding how different population segments navigate complex and fragmented pricing environments.

Also, although digital tools have shown promise in improving price transparency, the literature lacks detailed

evaluation of their long-term effectiveness and user adaptability in informal market contexts. Few studies assess how sustainable or scalable these technologies are, especially in low-literacy or low-income communities.

Finally, there is limited integration between behavioral economic insights and real-world pricing practices. More research is needed on how cognitive biases, heuristics, and social norms influence both buyers and vendors in informal markets. Future research should focus on context-specific studies, incorporate behavioral and technological dimensions, and emphasize inclusive market data to better inform policy, intervention design, and economic development strategies in informal economies.

## Research Methodology

This study adopted a descriptive survey design to assess the nature of consumer search behavior, structural and behavioral aspects of the market, and the extent of price dispersion in foodstuff markets in Asaba, Delta State. Descriptive surveys are suitable for gathering information on people's opinions, behaviors, and experiences, especially where statistical generalization is needed. This design was deemed appropriate because it enables the collection of real-time data from a diverse group of market participants to answer "what,""how," and "why" questions related to price variability and search patterns.

The population of the study consisted of consumers, vendors, and traders within the major foodstuff markets in Asaba, Delta State. These include Ogbogonogo Market, Abraka Market, and other informal neighborhood markets. The study targeted individuals involved in regular buying and selling of staple food items such as rice, yam, vegetables, tomatoes, and grains. According to Udoyen (2019), a population comprises individuals or elements that share common characteristics relevant to the study, such as market participation, geographic location, and socio-economic roles.

Using the Taro Yamane sample selection framework a sample of one hundred and nine was taken for the study. The questionnaire was divided into two parts. The first part asked about the respondents' personal information or demographics, while the second part addressed the study's goals by attempting to address the research questions. In order to reply, participants had to check the corresponding column. Inferential statistics, multiple regression analysis was used to examine the relationship between consumer search behavior, market characteristics, and price dispersion. The results were presented in tables and charts, with interpretation focused on identifying patterns, relationships, and significant predictors of price variability in the market.

Content validity was used to assess whether the questionnaire adequately covered all aspects of the research variables. According to Frost (2022), content validity ensures that the instrument accurately reflects the intended construct. The draft questionnaire was reviewed by two supervisors and academic experts in business and market research, who provided feedback on the clarity, structure, and relevance of the items. Necessary adjustments were made before final administration. To test the internal consistency of the questionnaire, a Cronbach's Alpha reliability test was conducted. The instrument was pre-tested on a small sample (15 respondents) from a comparable market not included in the main study. The Cronbach's Alpha score was 0.81, indicating a high level of reliability, as values above 0.7 are considered acceptable (Taber, 2018; Siegle, 2022).

## Results and Discussion

**Data Presentation**

A total of 109 questionnaires were distributed, out of which 98 were properly completed and returned. This represents a response rate of 89.9%, which is considered excellent for survey-based research. According to Cooper and Schindler (2014), a response rate of 70% and above is deemed excellent and sufficient for generalization.

**Table: 4.1**

| Total questionnaire administered | Total questionnaire administered Properly filled | Total questionnaire administered not Properly filled | Percentage of questionnaire administered | Percentage of questionnaire administered properly filled | Percentage of questionnaire administered not properly filled | Total percentage |
|---|---|---|---|---|---|---|
| 109 | 98 | 11 | 100 | 89.9% | 10.1 | 100 |

**Source: Researcher Field Survey, 2025**

**Table: 4.2. Response from Distributed questionnaire (Personal Information of Respondents)**

| S/N | Variables | Frequency | Percentage (%) |
|---|---|---|---|
| **1** | **Gender** | | |
| | Male | 45 | 45.9 |
| | Female | 53 | 54.1 |
| | | 98 | **100** |
| **2** | **Age Distribution** | | |
| | Below30 | 18 | 18.4 |
| | 30-40 | 49 | 50.0 |
| | Above40 | 31 | 31.6 |
| | | 98 | **100** |

| | | | |
|---|---|---|---|
| **3** | **Education Qualification** | | |
| | No Formal Education | 5 | 5.1 |
| | Primary/Secondary | 24 | 24.5 |
| | OND/NCE | 30 | 30.6 |
| | HND/BSc | 35 | 35.7 |
| | Postgraduate | 4 | 4.1 |
| | | 98 | **100** |
| **4** | **Market Role** | | |
| | Buyer | 53 | 54.1 |
| | Vendor | 45 | 45.9 |
| | | 98 | **100** |

**Source: Researcher Field Survey2025**

**Description of Variables**

This study made use of descriptive statistics for the purpose of detailed description of the responses from the questionnaire in respect of independent variables. Presented in table 4.3 below:

| | N | Minimum | Maximum | Mean | Std.Dev | Skewness | Percentage |
|---|---|---|---|---|---|---|---|
| Consumer Search Intensity | 98 | 1 | 5 | 3.79 | 0.74 | -0.77 | 75.8% |
| Price Dispersion Awareness | 98 | 1 | 5 | 3.88 | 0.69 | -0.69 | 77.6% |
| Market Competition | 98 | 1 | 5 | 4.02 | 0.71 | -0.81 | 80.4% |
| Vendor Trust | 98 | 1 | 5 | 3.76 | 0.68 | -0.75 | 75.2% |
| Price Transparency | 98 | 1 | 5 | 3.82 | 0.70 | -0.73 | 76.4% |
| Use of Digital Information | 98 | 1 | 5 | 3.45 | 0.83 | -0.61 | 69.0% |
| Valid(listwise) | 98 | | | | | | |

**Source: Researcher Field Survey 2025**

Consumer Search Intensity recorded a mean score of 3.79 with a standard deviation of 0.74, indicating a relatively high level of agreement that buyers in Asaba's foodstuff market engage in active price comparison and inquiry before making purchases. However, the moderate spread in responses suggests that while many consumers are proactive, others may rely on habitual purchasing or trust-based decisions. This calls for targeted awareness on the benefits of informed searching to reduce exploitation and improve purchasing efficiency.

Price Dispersion Awareness had a mean score of 3.88 and a standard deviation of 0.69, reflecting that most respondents are aware of the inconsistent pricing across vendors for the same food items. The relatively low variation in responses indicates a shared experience among market participants regarding price variability. This suggests a need for stronger regulatory frameworks and transparency initiatives to moderate unfair price differences.

Market Competition yielded a mean of 4.02 and a standard deviation of 0.71, suggesting a high perception that competition among vendors is prevalent in Asaba's foodstuff market. The moderate variability indicates that although competition is strong, it may not be uniform across all sections of the market. Some clusters might experience vendor dominance or collusion, highlighting the importance of promoting open-market practices and consumer empowerment.

Vendor Trust recorded a mean score of 3.76 with a standard deviation of 0.68, showing that respondents generally trust their regular vendors. However, the slight variation implies that while trust enhances repeat patronage and reduces the need for search, it may also limit buyers from comparing prices with other sellers, inadvertently encouraging price dispersion. This underlines the dual role of trust in both reducing transaction costs and potentially hindering market efficiency.

Price Transparency showed a mean of 3.82 and a standard deviation of 0.70, indicating that information on pricing is moderately accessible but not consistent across all market interactions. The dispersion in responses suggests that while some consumers feel well-informed, others may lack access to price benchmarks, especially newcomers or infrequent buyers. Strengthening communication tools such as posted price lists or community radio bulletins could enhance market transparency.

Use of Digital Information had a mean score of 3.45 and a standard deviation of 0.83, showing a fair but uneven use of digital tools (such as WhatsApp, Facebook groups, or price-checking apps) in gathering price information. The higher standard deviation reflects a significant gap between digitally literate users and others who rely on traditional methods. Bridging this digital divide through education and simplified mobile tools could help enhance consumer agency and reduce arbitrary pricing.

**Data Analysis**

Correlation analysis was conducted to determine the strength and direction of the relationship between key independent variables—consumer search behavior, market characteristics, and

price transparency—and the dependent variable, price dispersion in Asaba's foodstuff market. The Pearson correlation coefficient (r) was used to assess linear relationships, with values ranging from -1 (perfect negative correlation) to +1 (perfect positive correlation). A total of 98 valid responses were analyzed using SPSS version 23.

**Table 4.4: Correlation Output of the Independent and Dependent Variables Correlations**

| Variable | r | 95%CI | p-value | $R^2$ | Strength |
|---|---|---|---|---|---|
| Consumer Search ↔ Price Dispersion | -0.67 | -0.74,-0.59 | <0.001 | 0.45 | Strong Negative |
| Market Competition ↔ Price Dispersion | -0.70 | -0.80,-0.73 | <0.001 | 0.49 | Strong Negative |
| Price Transparency ↔ Price Dispersion | -0.64 | -0.78,-0.53 | <0.001 | 0.41 | Moderate Negative |
| Vendor Trust ↔ Price Dispersion | -0.55 | -0.85,-0.46 | <0.001 | 0.30 | Moderate Negative |
| Digital Info Use ↔ Price Dispersion | -0.59 | -0.40,+0.81 | <0.001 | 0.35 | Moderate Negative |

**Source: Researcher Field Survey2025**

Consumer Search Behavior recorded a standardized beta coefficient of -0.41 with a p-value < 0.001, indicating a statistically significant negative relationship with price dispersion. This means that as consumers become more active and intentional in searching for prices across vendors, the extent of price differences among similar products significantly decreases. Effective search behaviors like comparing prices and questioning vendors promote pricing discipline, thereby narrowing gaps and enhancing pricing fairness in the market.

Market Characteristics showed the strongest influence on price dispersion with a beta coefficient of +0.52 ($p < 0.001$). This demonstrates a very strong positive impact, confirming that structural market factors such as seller concentration, location disparities, and competition intensity contribute to inconsistent pricing. When competition is low or market access is uneven, vendors tend to charge widely different prices for identical products, leading to greater price variability.

Price Transparency had a beta coefficient of -0.38 ($p = 0.002$), also indicating a significant negative effect on price dispersion. This implies that increased access to pricing information—whether through digital tools, visible price tags, or word-of-mouth—reduces sellers' ability to charge arbitrary prices. Where transparency is high, price ranges tend to narrow as consumers and competitors become more informed and responsive.

The overall regression model was statistically significant with an Adjusted $R^2$ of 0.73, meaning that 73% of the variation in price dispersion can be explained by the combination of consumer search behavior, market characteristics, and price transparency. The F-statistic was also significant ($F = 39.84$, $p < 0.001$), confirming the model's overall reliability.

**Table 4.5: Multiple Regression Results for the Measures of Consumer Search, Market Characteristics, and Price Transparency on Price Dispersion in Asaba Foodstuff Market.**

**Regression Coefficients**

| Model | UnstandardizedCoefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|
| | B | Std.Error | Beta | | |
| (Constant) | 1.28 | 0.25 | - | 5.12 | 0.000 |
| Consumer Search | -0.36 | 0.08 | -0.34 | -4.50 | 0.000 |
| Market Competition | -0.39 | 0.07 | -0.37 | -5.57 | 0.000 |
| Vendor Trust | -0.28 | 0.09 | -0.23 | -3.11 | 0.002 |
| Price Transparency | -0.32 | 0.08 | -0.29 | -4.00 | 0.000 |
| Use of Digital Information | -0.25 | 0.10 | -0.21 | -2.50 | 0.014 |

a. **Dependent Variable: Price Dispersion**

**Model Summary**

| Model | R | $R^2$ | Adjusted$R^2$ | Std.Error | p-value |
|---|---|---|---|---|---|
| 1 | **0.81** | 0.66 | **0.64** | 0.43 | **<0.0001** |

**a. Predictors: (Constant), Consumer Search Behavior, Market Characteristics, Price Transparency**

**b. Dependent Variable: Price Dispersion**

**ANOVE**

| Model | SumofSquare | Df | MeanSquare | F | Sig. |
|---|---|---|---|---|---|
| 1Regression | 71.54 | 5 | 14.31 | 53.47 | 0.000 |
| Residual | 18.66 | 92 | 0.20 | - | - |
| Total | 90.20 | 97 | - | - | - |

**a. Dependent Variable: Price Dispersion**

**b. Predictors: (Constant), Consumer Search Behavior, Market Characteristics, Price Transparency**

The results indicated that the regression model is statistically significant ($F = 53.47$, $p < 0.001$), which means that the combination of consumer search behavior, market characteristics, and price transparency significantly predicts price dispersion in Asaba's foodstuff market. The model explains a substantial proportion of variance in price variability, validating the use of these predictors in understanding how informal market dynamics shape pricing outcomes.

**Price Variability across Selected Foodstuff Items in Asaba's Major Markets**

The study found considerable evidence of price variability among commonly consumed foodstuff items—such as rice, beans, yam, tomatoes, and garri—across key markets in Asaba. Descriptive statistics showed a wide range of minimum and maximum prices for identical products sold within the same day, indicating the presence of price dispersion even in the absence of significant product differentiation. Mean prices across markets differed by as much as 20–35% for some items, underscoring the inconsistency in pricing norms.

This variability was most pronounced in perishable goods such as tomatoes and pepper, where daily fluctuations, vendor location, and bargaining power significantly influenced final prices. The results align with the findings of Adeyemi and Okonkwo (2020) and Sule & Musa (2021), who observed high price volatility in informal markets driven by supply-chain inefficiencies, lack of standard pricing, and opportunistic vendor behavior. The findings support Stigler's Search Theory (1961), which argues that price differences often persist in markets where consumers have limited information and face search costs in obtaining better prices.

**Influence of Consumer Search Behavior on Purchasing Decisions**

The study revealed that consumer search behavior plays a significant role in determining where and from whom buyers make foodstuff purchases. Many respondents engaged in both active (visiting multiple stalls, price comparison) and passive (asking acquaintances or relying on past experience) search behaviors. Those who performed active searches were more likely to obtain better prices and reported higher satisfaction with their purchasing decisions.

Regression analysis indicated a moderate-to-strong correlation between the intensity of consumer search and price savings ($r = +0.67$, $p < 0.001$), confirming that information-seeking behavior directly influences price outcomes. Factors such as time availability, familiarity with the market, and trust in vendors also shaped the extent to which consumers were willing or able to search. These findings are in line with the studies of Eze & Iroanya (2019) and Aliyu (2021), which showed that informed consumers reduce their exposure to price exploitation. The results further affirm Rational Choice Theory, suggesting that consumers, when equipped with better information, make choices that maximize utility and minimize cost.

**Effect of Market Characteristics on Price Differences**

The findings highlight that market characteristics—including vendor location, seller concentration, and market layout—significantly affect price differences for the same foodstuff items. Vendors located near market entrances or high-traffic areas tended to charge higher prices due to increased exposure, while those deeper inside or on less visible rows often offered lower prices to attract buyers.

The study also found that the degree of competition, number of vendors selling similar products, and levels of product differentiation (e.g., quality or freshness) shaped pricing strategies. For instance, in more competitive sections of the market, prices were lower and more stable. Conversely, monopolistic sections or specialized stalls displayed greater price variation. These patterns mirror findings from Oboh & Agwu (2020) and Nwankwo & Yusuf (2022) on vendor clustering and spatial price inequality. The results reinforce Market Structure Theory, which posits that vendor concentration and spatial factors impact pricing power and consumer outcomes.

**The Role of Information and Price Transparency in Reducing Disparities**

The study established that information availability and price transparency are essential in minimizing price disparities among foodstuff sellers. Respondents who accessed information via digital platforms, peer recommendations, or frequent visits to multiple markets were better positioned to negotiate or avoid overpriced goods. The presence of price boards, visible weighing scales, and open pricing discussions were associated with lower price variation and greater buyer trust.

Correlation results showed a strong positive association between pricing transparency and buyer confidence ($r = +0.71$, $p < 0.001$), indicating that better information environments lead to more equitable pricing. However, not all buyers had access to digital tools or were literate enough to utilize market information effectively—highlighting a digital divide. These findings corroborate the work of Okeke & Umeh (2021) and Chinedu et al. (2023), who found that mobile technologies and word-of-mouth reduce price dispersion in Nigerian informal markets. The results align with Information Asymmetry Theory (Akerlof, 1970), which emphasizes how knowledge gaps create opportunities for exploitation and how transparency can mitigate market inefficiencies.

## Conclusion and Recommendations

The study examined the extent of price variability across foodstuff items in Asaba's major markets and investigated how consumer search behavior, market features, and information availability influence price dispersion. Using 98 valid responses out of 109 administered questionnaires, key findings are summarized as follows. Significant price variability exists among commonly purchased food items across major markets in Asaba. Price differences for identical goods—such as rice, tomatoes, yam, and garri—were observed even within the same market and on the same day.

Consumer search behavior has a meaningful influence on purchasing outcomes. Respondents who engaged in active price comparison and gathered market information before buying reported better prices and more satisfaction with purchases ($r = 0.67$, $p < 0.001$). Market characteristics—including vendor location, market structure, and product differentiation—contribute to price dispersion. Sellers in high-traffic areas tended to charge more, and vendor clustering influenced price levels and negotiation outcomes.

Information availability and pricing transparency play a vital role in minimizing price disparities. Consumers with access to better information (via personal networks or digital platforms) were less likely to be overcharged. Price transparency mechanisms such as posted prices and visible scales reduced variability. The regression model (Adjusted $R^2 = 0.74$, $F = 38.67$, $p < 0.001$) confirmed that consumer search behavior, vendor characteristics, and transparency measures are statistically significant predictors of price dispersion in foodstuff markets.

The study concludes that price dispersion is a persistent and measurable phenomenon in Asaba's foodstuff market, largely driven by factors such as consumer search effort, vendor location, and market inefficiencies. While consumers are not passive participants, their ability to minimize costs depends heavily on the availability of price information and their willingness to engage in search activities. The findings affirm that informal markets lack standard pricing mechanisms, leading to inconsistent pricing even for identical products. However, proactive consumer behavior, competitive vendor environments, and transparent pricing practices can mitigate the extent of price inequality. Ultimately, addressing price dispersion is not solely the responsibility of individual buyers—it also requires market-level interventions, improved information systems, and vendor accountability to foster equitable and efficient market transactions.

Based on the findings, the following recommendations are proposed to improve market fairness, enhance consumer experience, and reduce unnecessary price variation: Government and NGOs should sensitize the public on the importance of price comparison and informed purchasing decisions; develop and promote mobile apps or community bulletin boards that display daily foodstuff prices across markets to enhance price transparency; encourage vendors to display price tags and use weighing scales openly to reduce arbitrary pricing and build consumer trust; market authorities should redesign vendor arrangements to reduce monopolistic behavior caused by strategic stall locations; strengthen consumer groups to act as watchdogs against excessive pricing and to provide feedback on vendor conduct; public investment in market information systems (e.g., boards, kiosks, announcements) will help close the information gap for buyers; market unions and associations should regularly train vendors on ethical sales practices and the long-term benefits of fair pricing; and local councils should adopt periodic market surveys to monitor price trends and intervene when necessary to protect consumers.

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