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EFFECTS OF RISING COST OF PRODUCTION ON SALES OF ALCOHOLIC BEVERAGES IN NIGERIA

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ABSTRACT: This research investigated the relationship between rising production costs and sales of alcoholic beverages in selected South East Nigerian brewery firms. Employing a simple linear correlation design, the study targeted management and staff from these firms, comprising a population of 750 individuals. Using Slovin's formula, a sample size of 261 was calculated; however, the sample consisted of 236 respondents, yielding a remarkable 90.4% response rate. These results indicated high reliability, confirming the instrument's suitability for the study. The dataset underwent initial normality testing using the Anderson-Darling Statistic, confirming that the residual term met the normality assumption for bivariate datasets. Additionally, multicollinearity checks revealed no issues for multiple datasets. These favourable results justified the application of parametric regression analysis. To address the research questions, Pearson correlation coefficients were computed to examine the relationships between dependent and independent variables. Subsequently, regression analysis was employed to test the hypotheses, assessing the significance and strength of these relationships. IBM SPSS version 28.0 and Minitab software version 20.0 packages were employed for ease of analysis. The results showed significant positive relationships between rising production costs and sales volume, purchasing frequency, and consumer loyalty. The study recommended, among others that cost-efficient strategy, pricing decisions, and loyalty programs to maintain competitiveness. The findings contributed to the understanding of production cost management in the South-East Nigerian alcoholic beverage industry.

Keywords: Production Costs, Alcoholic Beverages, Sales Performance, Nigeria Brewery Industry, Consumer Loyalty

INTRODUCTION

Industries in Nigeria are no doubt operating in a rather harsh economic environment. From the challenges of the COVID-19 pandemic, which altered the operating environment, to the ongoing Russia –Ukraine war, which has adversely affected credit facilities, energy supply, agricultural products, and inputs globally, to petrol subsidy removal on the 29th of May, 2023, by President Bola Ahmed Tinubu, which reinforced these challenges and naira devaluation by the Central Bank of Nigeria (CBN) (Ajayi-Kadir, 2023; Ogba et al., 2020; Afolabi, 2019).

Nigerian manufacturers face numerous challenges, including severe foreign exchange scarcity for importing essential raw materials and machinery not locally produced (CBN, 2022; Nigerian

Breweries, 2020), limited and costly funding options, high inflation rates, multiple taxation and regulatory burdens, inadequate and unreliable power supply, security concerns, poor road infrastructure, inefficient and expensive port facilities, unfavourable monetary and tariff policies, and rampant smuggling, counterfeiting, and cloning activities.

The Nigerian operating environment continues to be plagued by these persistent challenges, driving up production costs and subsequently impacting sales of alcoholic beverages nationwide. This is because, as the cost of producing alcoholic beverages rises, manufacturers may be forced to increase their prices, and this can potentially lead to lower sales as consumers may opt for cheaper alternatives or reduce their overall consumption of alcoholic beverages (Adedoye, 2017; Ogbonna, 2019). As noted by Putranto (2017) and Kumar et al. (2018), sales significantly influence company profits, prompting businesses to strive for specific sales volumes to drive growth and achieve desired profitability.

Rising production costs as a result of poor allocation of forex to the economy, high cost of foreign exchange, high cost of energy, multiple taxation, high compliance cost, high operating cost, low patronage, high cost of transportation and logistics due to petrol subsidy removal, the gridlock at the ports which are essential in obtaining raw materials and distributing the finished products result in increased prices not only for alcoholic beverages but also for other goods and services (Adenuga, 2020; Chukwu, 2020; Eze, 2020). This can reduce the purchasing power of consumers, making them more price-sensitive and less likely to spend on discretionary items like alcoholic beverages (Sembiring & Siregar, 2018).

Rising fuel prices trigger inflationary pressures, driving up production costs for alcoholic beverages, including packaging materials, energy, and other expenses. To maintain profitability, manufacturers may hike selling prices, shifting the burden to consumers (Olorunfemi et al., 2023). This cost pass-through can have far-reaching implications for the industry, as escalating production expenses squeeze profit margins (Akinyemi et al., 2022; Ogunlesi, 2020). The ripple effects of fuel price increases can lead to heightened production costs, ultimately affecting the bottom line of alcoholic beverage producers (Enekwechi et al., 2023).

When alcoholic beverages become unaffordable for a substantial portion of the population, consumers tend to adjust their drinking habits, seeking more affordable options. This shift may lead to increased demand for lower-quality or counterfeit products or even a transition to non-alcoholic alternatives, potentially altering market dynamics for alcohol producers (Olorunfemi et al., 2023). Despite these challenges, alcohol producers prioritise strategies that drive sales volume and optimise distribution channels to deliver maximum value to consumers (Tahir et al., 2022; Adeyamo, 2019). Effective operating strategies focus on maintaining market share and adapting to changing consumer preferences (Akinyemi et al., 2022; Ojo, 2019). By understanding these dynamics, producers can navigate the complexities of the market and ensure long-term sustainability.

Due to elevated production costs, maintaining profitability can be challenging for formal producers. Consequently, pricing decisions have become paramount for organisations, significantly influencing their corporate objectives (Olorunfemi et al., 2023). Effective pricing

strategies are essential for businesses of all sizes and structures, directly impacting competitiveness and profitability (Akinyemi et al., 2022). The primary goal of any business venture is to offer competitive pricing, ensuring sustainability and growth in the market (Enekwechi et al., 2023).

Pricing decisions are among the most critical and challenging tasks managers face, requiring careful consideration of multiple factors (Olorunfemi et al., 2023). Effective pricing strategies involve balancing various influences, including demand and supply forces, competitor pricing, political and legal environments, and brand image concerns (Akinyemi et al., 2022; Sanni & Ajayi, 2020; Adeyeye, 2020). Managers must frequently make informed decisions on pricing and profitability, adapting to changing market conditions to remain competitive (Tahir et al., 2022). In industries like alcoholic beverages, businesses must innovate and respond to challenges to maintain profitability (Enekwechi et al., 2023). Overall, the effects of rising production costs on alcoholic beverage sales can be complex and may vary depending on market dynamics and consumer behaviour.

Statement of the Problem

The Nigerian alcoholic beverage market is experiencing unprecedented growth driven by increasing demand for premium and craft beverages. A recent report by Euromonitor International revealed that Nigeria's alcoholic drinks markets grew by 13.4% in 2002, with beer and spirits being the largest contributors to this growth (Euromonitor International, 2022). Nigerian Breweries Plc, one of the largest brewing companies in Nigeria, reported a 12.3% increase in revenue driven by the growing demand for its premium beer brands (Nigerian Breweries Plc, 2022).

However, despite this growth, the industry faces significant challenges, including rising cost of production, increasing competition, and changing consumer preferences. To remain competitive, players in the industry must adapt to these changes and develop strategies to mitigate the impact of rising production costs. Rising production costs, fuelled by inflation, currency fluctuations, and supply chain disruptions, are threatening to upset the delicate balance between profitability and affordability. But that is not all - the industry's complexity, influenced by an intricate web of factors such as government policies and economic conditions, makes it more challenging to pinpoint the exact impact of rising production costs on sales.

Therefore, as the industry teeters on the brink, one question remains: how will the escalating cost of production affect the sales of alcoholic beverages in Nigeria, and what are the implications for businesses, consumers, and the economy as a whole?

Objectives of the Study

This study aims to examine the effects of the rising cost of production on sales of alcoholic beverages in Nigeria. Thus, the specific objectives are to:

1. Investigate the impact of rising raw material costs and labour costs on the sales volume of alcoholic beverages in Nigeria

2. Examine the effect of price increases due to rising production costs on consumer purchasing frequency towards alcoholic beverages in Nigeria
3. Determine the effect of price increases due to rising production costs on consumer loyalty towards alcoholic beverages in Nigeria

Research Questions

1. To what extent do rising raw material costs and labour costs impact the sales volume of alcoholic beverages in Nigeria?
2. To what extent do price increases due to rising production costs influence consumer purchasing frequency towards alcoholic beverages in Nigeria?
3. To what extent do price increases due to rising production costs influence consumer loyalty towards alcoholic beverages in Nigeria?

Research Hypotheses

H_{01}: Rising raw material costs and labour costs do not have any significant impact on the sales volume of alcoholic beverages in Nigeria

H_{02}: Price increases due to rising production costs have no significant effect on consumer purchasing frequency towards alcoholic beverages in Nigeria

H_{03}: Price increases due to rising production costs have no significant effect on consumer loyalty towards alcoholic beverages in Nigeria.

LITERATURE REVIEW

Operational Conceptual Framework

A conceptual framework, as described by Adom et al. (2018) and Jabareen (2009), is a visual tool that illustrates the relationships between independent variables and dependent variables, facilitating a comprehensive understanding of their interactions. According to Adom et al. (2018), conceptual frameworks provide a diagrammatic representation of the study's variables, elucidating the connections between predictor elements and response variables, as further emphasised by Grace et al. (2021) and Ravitch & Riggan (2017). Here, sales of alcoholic beverages are the dependent variable, which was measured by sales volume, consumer purchasing frequency and consumer loyalty, whereas the independent variable is the rising cost of production, which was measured in terms of rising raw material costs, rising labour costs and price increases due to rising production costs, as shown in Fig. 1

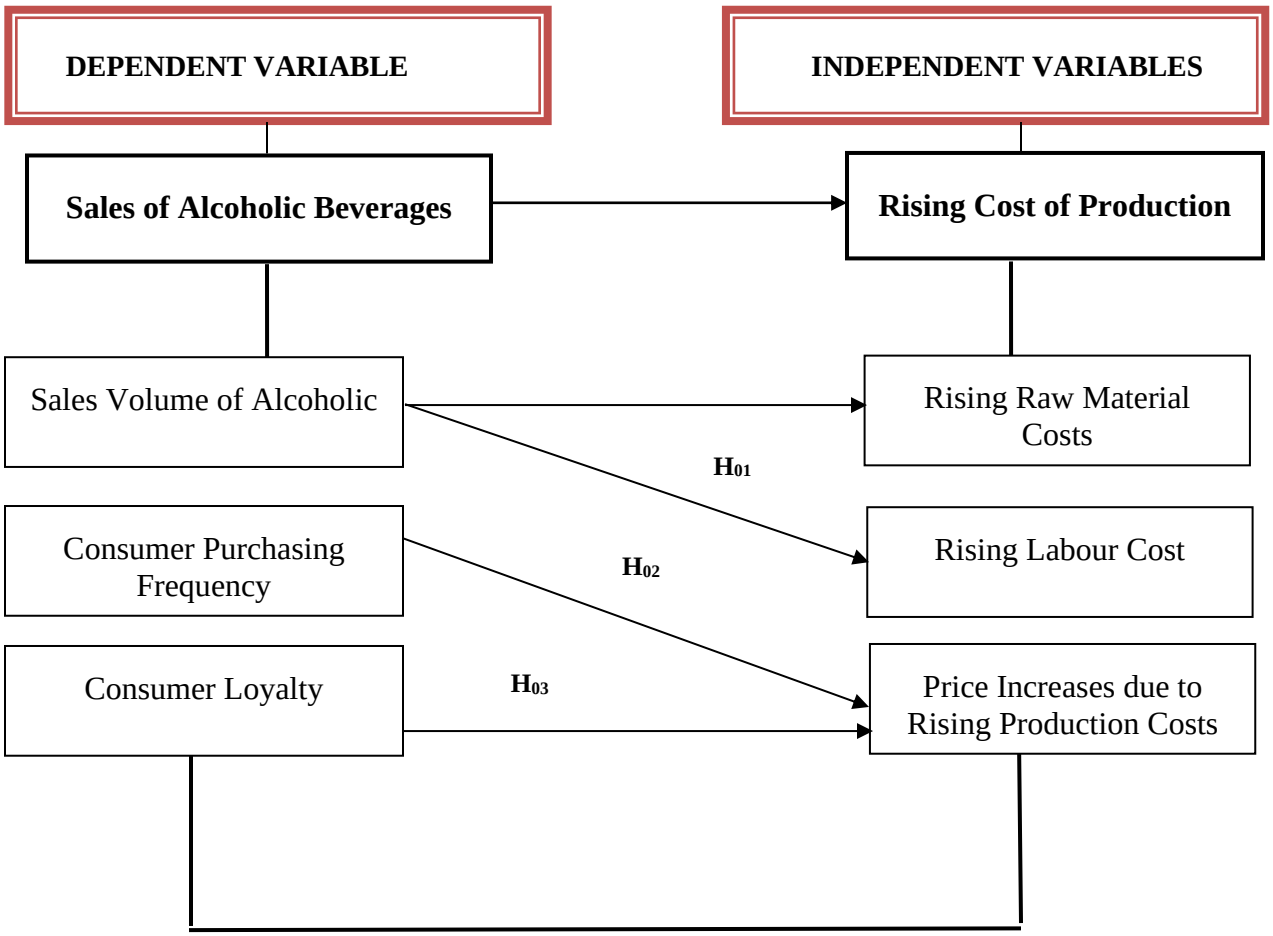


Fig. 1: Researcher's Operational Conceptual Framework Showing Rising Cost of Production and Sales of Alcoholic Beverages in Study Area.

Consumer Behaviour

The alcoholic beverage industry's competitive landscape necessitates a deep understanding of consumer behaviour, which is further complicated by increasing production costs (Olorunfemi et al., 2023). Consumers' reactions to market dynamics significantly impact business performance (Akinyemi et al., 2022; Adeyeye, 2020). Research has shown that personal habits and previous buying experiences influence purchase decisions (Enekwechi et al., 2023; Nwankwo & Uche, 2020).

The consumer decision-making process has been extensively studied, with most researchers agreeing on a five-stage model. As proposed by Blackwell et al., the consumer decision-making model consists of five sequential stages: need recognition, information search, alternative evaluation, purchase decision, and post-purchase evaluation (Tahir et al., 2022). Recent studies have built upon this foundation, exploring factors like consumer motivation, cognitive biases, and environmental influences (Ogbonna et al., 2023; Olorunfemi et al., 2023).

Researchers have extensively explored the consumer decision-making process, with various definitions and descriptions of each stage. Despite slight variations, a common understanding of each stage has emerged. The initial stage, need recognition, occurs when individuals perceive a discrepancy between their current state and desired state (Ogbonna et al., 2023). This view is supported by research indicating that the need for recognition arises from diverse factors, including personal, professional, and lifestyle circumstances (Enekwechi et al., 2023; Nnenna, 2020). For instance, a person's desire for a premium alcoholic beverage may stem from social influences, self-expression, or a desire for quality (Akinyemi et al., 2022; Kuye, 2019). This recognition triggers the subsequent stages of the decision-making process.

After identifying a need, consumers undertake an information search to gather relevant data on the desired product or service, encompassing both internal and external sources (Tahir et al., 2022). This dual-process search strategy draws on personal experiences and beliefs (internal search) and external influences like media, advertising, and social feedback (Enekwechi et al., 2023 & Nnenna 2020). Upon gathering relevant information, consumers analyse alternatives, considering factors like size, quality, and price (Akinyemi et al., 2022; Kuye, 2019). This evaluation stage is crucial as consumers weigh options and make informed decisions (Ogbonna et al., 2023 & Olorunfemi et al., 2023). The subsequent stage involves making a purchase decision, marking the occurrence of a transaction (Olorunfemi et al., 2023 & Ogbonna et al., 2023). Purchase decisions can be categorised into planned, partially planned, or impulse purchases (Kacen, 2022).

The consumer decision-making process culminates in post-purchase evaluation, where individuals reflect on their purchasing experience and evaluate its outcome (Ogbonna et al., 2023). Although often overlooked, this stage significantly impacts future purchasing decisions (Enekwechi et al., 2023). According to research, post-purchase evaluation influences consumer loyalty and repeat business (Akinyemi et al., 2022). As Neal et al. (2004) emphasised, this stage is crucial, as it directly affects consumers' likelihood of repurchasing from the same supplier (Tahir et al., 2022). According to Olorunfemi et al. (2023), consumers' experiences with a brand significantly influence their loyalty, with positive encounters cultivating loyalty and negative experiences triggering dissatisfaction and potential defection.

Sales and Distribution Cost

Sales and distribution costs encompass expenses related to processes such as distribution, conventional marketing, and selling, including wages, commissions, and out-of-pocket expenses. These costs are vital components of a business's supply chain, incorporating the entire marketing process. Recent studies emphasise the interconnectedness of marketing and distribution, highlighting their shared processes (Ogbonna et al., 2023; Tahir et al., 2023). Marketing costs, including sales, distribution, advertising, product development, sales promotion, order fulfilment, public relations, outbound logistics, and customer service, are essential for delivering products to consumers (Akinyemi et al., 2022). These costs can be categorised into storage, selling, packing, administration, transportation, transaction, and distribution expenses (Enekwechi et al., 2023; Iyoha & Oriakhi, 2019).

The terms "selling and distribution cost" and "marketing cost" refer to expenses associated with the same set of processes aimed at delivering products to consumers (Dinesh & Sharma, 2022). Although not directly related to product manufacturing, sales and distribution expenses significantly impact sales and profitability. Management expects high efficiency and productivity from these expenses, not only in terms of revenue but also in terms of cost-effectiveness (Olorunfemi et al., 2024; Kuye, 2019). Effective management of sales and distribution costs is crucial for businesses to maintain competitiveness and achieve profitability. Streamlining processes reduces costs, boosts customer satisfaction, and enhances organisational performance.

Raw Material Costs

Raw materials costs refer to the expenses firms incur to acquire inputs necessary for production (Kumar et al., 2020; IMF, 2022; CBN, 2020). In the context of the alcoholic beverage industry, raw materials include ingredients, packaging, and other supplies (Ogunyemi et al., 2019; Eze & Nwosu, 2022). Rising raw material costs can impact firms' profitability and competitiveness (Adebayo et al., 2020). Factors influencing raw material costs include global market trends, supply chain disruptions, and government policies (Nwokoye et al., 2019; Adeyeye, 2020). Effective raw material cost management is crucial for maintaining profitability and competitiveness in the industry.

Labour Costs

Labour costs represent the expenses associated with hiring and maintaining a workforce (Nwokoye et al., 2019). In the alcoholic beverage industry, labour costs include wages, benefits, and training expenses (Salami et al., 2017; Sanni & Ajayi). Increasing labour costs can influence firms' production decisions and pricing strategies (Oyedokun et al., 2018). Labour costs are affected by factors such as minimum wage laws, union negotiations, and industry standards (Kotler et al., 2019). Efficient labour cost management is essential for maintaining productivity and profitability.

Price Increases

Price increases refer to the upward adjustment of product prices due to various factors, including rising production costs (Kotler et al., 2019; Akinyemi et al., 2022). In the alcoholic beverage industry, price increases can impact consumer purchasing behaviour and loyalty (Afolabi et al., 2018; Akinyemi et al., 2022). Price increases are influenced by factors such as market competition, consumer price sensitivity, and government regulations (Ogunyemi et al., 2019). Effective pricing strategies are critical for maintaining revenue and market share (Kuye, 2019; Adebayo & Ogunlesi, 2020).

Sales Volume

Sales volume represents the quantity of products sold within a specific period (Kumar et al., 2020). In the alcoholic beverage industry, sales volume is influenced by factors such as pricing, marketing, and consumer preferences (Ogunyemi et al., 2019; Kuye, 2019; NBS, 2022). Sales volume is a key performance indicator for firms, reflecting market demand and revenue (Nwokoye

et al., 2019). Factors affecting sales volume include seasonality, product innovation, and distribution channels.

Purchasing Frequency

Purchasing frequency refers to the rate at which consumers buy products from a particular category (Oyedokun et al., 2018). In the alcoholic beverage industry, purchasing frequency is influenced by factors such as price, quality, and brand loyalty (Salami et al., 2017; Sanni & Ajayi, 2020). Purchasing frequency is critical for firms seeking to maintain customer retention and loyalty (Adebayo et al., 2020). Factors influencing purchasing frequency include consumer demographics, marketing campaigns, and product availability.

Consumer Loyalty

Consumer loyalty represents the degree to which customers repeatedly purchase from a particular brand or firm (Adebayo et al., 2020; Nnenna, 2020). In the alcoholic beverage industry, consumer loyalty is influenced by factors such as price, quality, and marketing efforts (Nwokoye et al., 2019; Nwankwo & Uche, 2020). Consumer loyalty is essential for firms seeking to maintain market share and revenue (Kotler et al., 2019). Factors affecting consumer loyalty include brand reputation, customer service, and product innovation.

Theoretical Framework

Cost-Push Inflation Theory Milton Friedman (1968)

Rising production costs (wages, materials, energy) lead to higher prices for goods and services. As businesses pass on these higher costs to consumers, inflation occurs.

American economist Milton Friedman popularised cost-push inflation theory in the late 1960s and early 1970s. Friedman first proposed this theory as a response to the prevailing economic conditions at the time, which included rising inflation rates and high unemployment (Friedman, 1968).

Milton Friedman posited that inflation can arise from cost-push factors, such as escalating wages or raw materials costs, which businesses then pass on to consumers through increased prices, distinguishing this mechanism from demand-pull inflation driven by excess aggregate demand (Friedman & Schwartz, 1963).

According to Friedman's cost-push inflation theory, when input costs rise, producers face higher production costs and may respond by increasing their prices to maintain their profit margins. These higher prices are then passed on to consumers, leading to inflation.

While Friedman's theory focuses on the role of the money supply in driving inflation, he recognised that changes in production costs, such as increases in wages or raw material prices, could be exacerbated by factors such as labour union bargaining power, increases in global

commodity prices, and government regulations that increase production costs. However, he argued that these cost-push factors are often temporary and do not have a major long-term impact on inflation trends.

Demand-Pull Theory Edmund Phelps (1969) and John Maynard Keynes (1908)

Economist Edmund Phelps proposed the demand-pull inflation theory, which was developed in the late 1960s. Along with Milton Friedman and other economists, Phelps contributed to the analysis and understanding of inflation during this time period. Phelps' work on the relationship between inflation, unemployment, and supply shocks helped to shape the field of macroeconomics and our understanding of the causes of inflation.

Demand-pull inflation theory, proposed by economist Edmund Phelps, suggests that inflation is caused by excessive demand for goods and services in the economy. When demand exceeds the capacity of the economy to produce goods and services, this puts upward pressure on prices, leading to inflation (Samuelson & Solow, 1960). This is because inflation is driven by factors such as increases in consumer spending, investment, government spending, or exports. These factors can lead to a situation where demand outstrips supply, causing prices to rise.

Phelps argued that inflation resulting from excess demand is typically associated with a booming economy and low unemployment rates. As businesses struggle to keep up with rising demand, they may increase prices in order to maintain profitability.

To combat demand-pull inflation, policymakers may use tools such as monetary policy (such as raising interest rates) or fiscal policy (such as reducing government spending or raising taxes) to reduce demand and cool off the economy.

Empirical Review

Several studies have examined the effects of rising production costs on sales of alcoholic beverages in Nigeria. Oladejo et al. (2020) found a significant positive correlation between production costs and sales volume in the Nigerian brewing industry. Similarly, Nwokoye et al. (2019) reported a positive relationship between production costs and sales performance in the African beverage industry. However, other studies have found mixed results. Ugwueke et al. (2018) found a negative relationship between labour costs and sales volume in the Nigerian wine market, while Okafor et al. (2017) reported no significant relationship between raw material costs and sales volume in the Nigerian beer industry.

A study by Egbunike and Okerekeoti (2018) investigated the interrelationship between macroeconomic factors, firm characteristics, and financial performance of quoted manufacturing firms in Nigeria. The results showed that the inflation rate and GDP growth rate have a significant impact on return on assets (ROA), while interest rate and exchange rate had no significant effect. Another study by Foyeke et al. (2015) examined the relationship between financial performance and firm size, with corporate governance disclosure as a moderating variable. The results revealed a significant positive relationship between financial performance and firm size.

Recent global and regional studies provide a broader perspective on the effects of rising production costs on alcoholic beverage sales. A study by the International Wine and Spirit Record (2020) found that rising production costs were a major concern for wine and spirit producers globally, with many reporting reduced sales and profitability as a result.

Similarly, a study by the African Development Bank (2019) found that rising production costs were a major challenge facing the African beverage industry, with many producers struggling to maintain profitability in the face of increasing costs. A comparison of findings across studies reveals some inconsistencies in the relationship between rising production costs and sales of alcoholic beverages in Nigeria. While some studies have found a positive relationship between production costs and sales volume, others have found negative or insignificant relationships.

However, a narrative can be built around the findings of these studies. Rising production costs appear to significantly impact sales of alcoholic beverages in Nigeria, particularly in the brewing and beverage industries. However, the relationship between production costs and sales volume may vary depending on the specific industry, market, and production costs involved.

Furthermore, the findings of global and regional studies suggest that rising production costs are a major concern for the alcoholic beverages industry globally, with many producers struggling to maintain profitability.

The empirical studies examined in this section suggest that the rising cost of production has significant effects on the sales of alcoholic beverages in Nigeria. Macroeconomic factors such as the inflation rate and GDP growth rate play a crucial role in determining financial performance. However, more research is needed to fully understand the relationships between these variables and to develop effective strategies for mitigating the effects of the rising cost of production.

RESEARCH METHODOLOGY

Research Design

This study employed a simple linear correlation research design to investigate the relationship between rising production costs and sales of alcoholic beverages. This design is ideal for establishing linear relationships between variables (Olorunfemi et al., 2023; Creswell, 2014). A quantitative research approach involves analysing two or more quantitative variables from the same dataset to identify potential correlations and co-variation (Enekwechi et al., 2023; Maxwell, 2013; Anfra & Mertz, 2015). Given the study's focus on examining the correlation between rising production costs and sales of alcoholic beverages, the simple linear correlation design was deemed most suitable.

Target Population

The population characteristics comprise various job roles, departments, and demographic information, providing a diverse and representative sample. The total population consists of Nigerian Breweries Plc. (NBP) in Enugu with approximately 228 staff, Guinness Nigeria Plc.

(GNP) in Aba with approximately 190 staff, Intafact Beverages Ltd. (IBL) in Onitsha with approximately 256 staff, and International Breweries Plc. (IBP) in Imo State Depot with approximately 76 staff. The focus is on the management and staff of four prominent breweries in Nigeria: Nigerian Breweries Plc., Guinness Nigeria Plc., Intafact Beverages Ltd., and International Breweries Plc (Imo State Depot), with combined staff strength of approximately 750, which is the population (Ayozie, 2023).

Sample Size and Sampling Technique

Sampling involves selecting a subset of individuals from the target population to accurately represent the entire population (Ogbonna et al., 2023; Maxwell, 2013). Since it's often impractical to survey every individual within the target group, sampling techniques are employed. To determine the representative sample size, this study utilised Slovin's formula (Maragia & Kemboi, 2021), specifically designed for finite populations. The formula is:

$$m = \frac{M}{1 + M \times e^2}$$

m and M are, respectively, sample size and population size, whereas e is the error margin

$$m = \frac{750}{1 + 750(0.05)^2} \approx 261$$

Using Slovin's formula, a sample size of 261 employees was determined to be representative of the target population of 750 employees, with a desired margin of error of 5%. This calculation ensures that the sample accurately reflects the characteristics of the larger population, providing reliable insights for the study.

Stratification procedures were employed to ensure representative sampling across the four targeted manufacturing firms. Proportionate sampling was used to determine the number of employees from each firm, calculated using Bowley's formula below and computed as: NBP (79), GNP (66), IBL (89) and IBP (27):

$$m_h = \frac{mM_h}{M}$$

Research Instruments and Reliability

To gather data, the researchers developed a tailored questionnaire, a commonly employed research instrument (Enekwechi et al., 2023b; Creswell, 2014; Maxwell, 2013). This structured tool comprised a series of ordered questions administered to participants (Adeleke et al., 2024). Responses were captured using a 4-point Likert scale, where Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. To ensure instrument validity, content and face validity were assessed to determine accuracy and precision in measuring study variables. A

pilot test was conducted outside the study area, and responses were analysed using Cronbach's alpha, yielding reliability coefficients of 0.85, 0.87 and 0.92 for the dependent variables and 0.78, 0.83, 0.73 and 0.82 for the independent variables. These results indicated high reliability, confirming the instrument's suitability.

Technique for Analysis of Data

To investigate the research questions, this study utilised the Pearson product-moment correlation coefficient to analyse the relationship between dependent and independent variables. Correlation coefficients were interpreted using the following scale: very low (0.00-0.20), low (0.21-0.40), moderate (0.41-0.60), high (0.61-0.80), and very high (0.81-1.00). Additionally, regression analysis tested the hypotheses, evaluating the significance of variable relationships.

RESULT

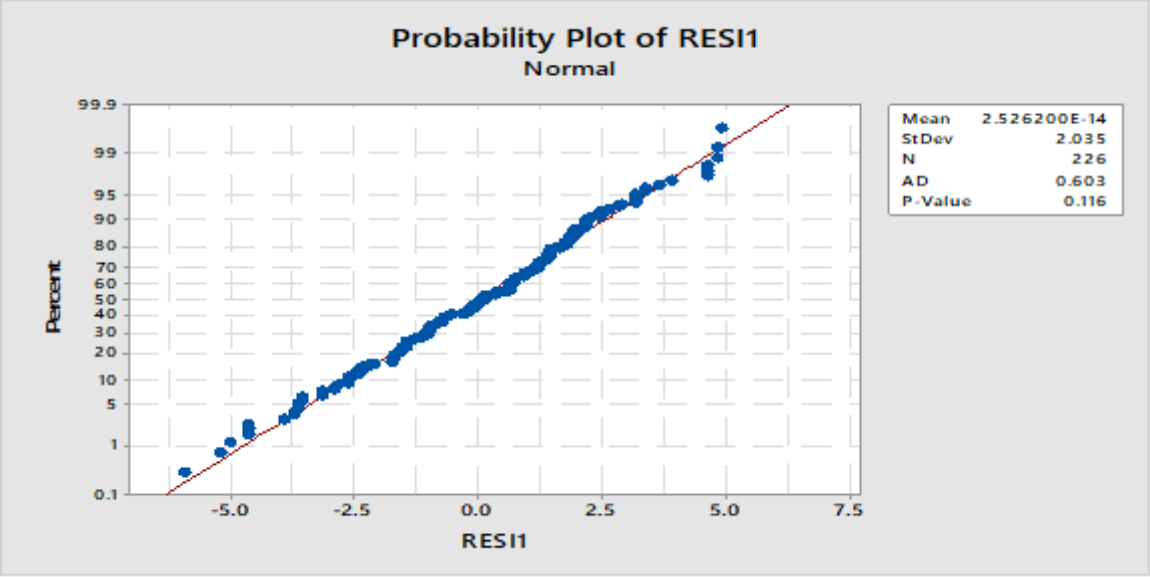
A total of 236 questionnaires were retrieved, representing a 90.4% return rate from the 261 distributed instruments. This satisfactory response rate ensures that the collected data accurately reflects the opinions and experiences of the sampled population.

Normality Assumption Test for Regression Model in Bivariate Form.

Satisfying the normality assumption is a crucial prerequisite for simple regression analysis. If this assumption is violated, non-parametric alternatives are employed.

Normality Assumption: Prices Increase Due to Rising Production Costs (PIDRPD) versus Consumer Purchasing Frequency (CPF).

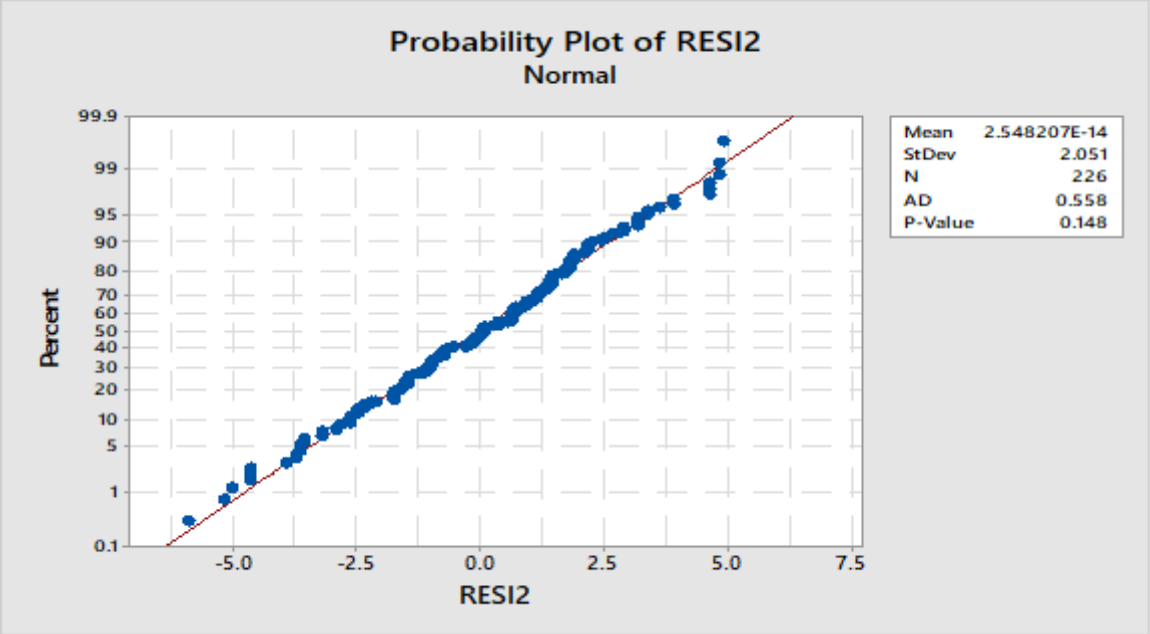
Fig. 2: Residual Normality Plot for PIDRPD & CPF



The p-value (0.116) in Fig. 2 exceeds the critical value of 0.05, indicating no statistically significant deviation from normality. Therefore, the null hypothesis is retained, and simple regression analysis is deemed appropriate.

Normality of Errors Assumption: Prices Increase Due to Rising Production Costs (PIDRPD) versus Consumer Loyalty (CL).

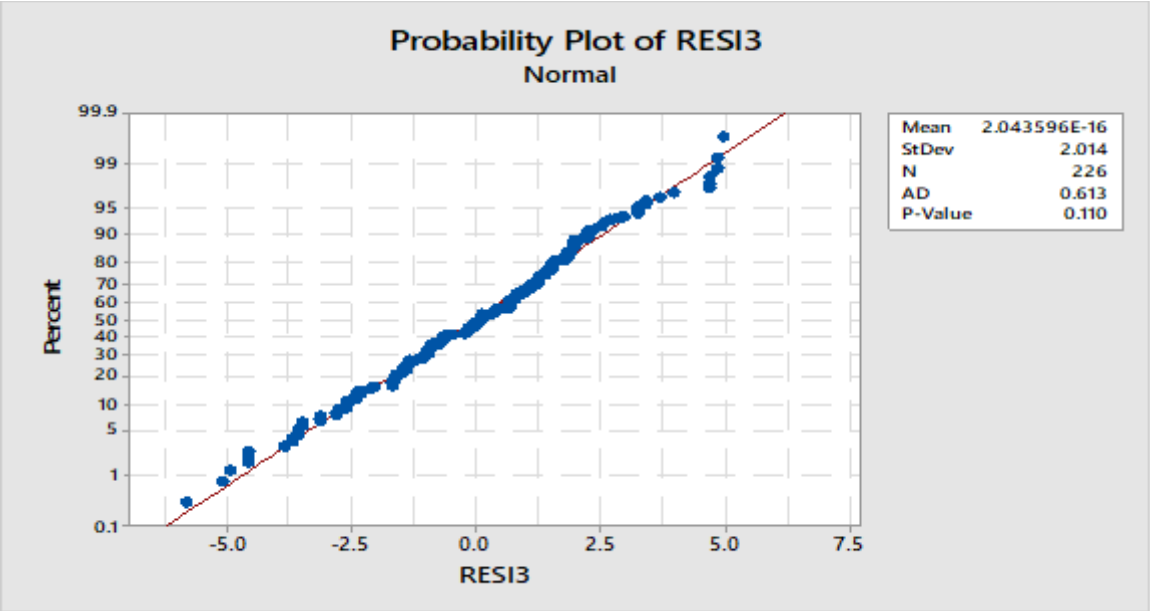
Fig. 3: Residual Normal Plot of for PIDRPD & CL



The p-value of 0.148 in Fig. 3 exceeds the 0.05 significance level, leading to non-rejection of the null hypothesis and confirming the normality of errors, thereby validating simple regression analysis.

However, the normality of errors assumption for rising raw material costs (RRMC) and labour costs (RLB) versus sales volume (SV) of alcoholic beverages were tested as shown in Fig. 4

Fig. 4: Residual Normal Plot for RRMC and RLB versus SV



The p-value of 0.110 in Fig. 4 exceeds the 0.05 significance threshold, leading to the non-rejection of the null hypothesis and confirming the normality of errors.

Analysis of Research Questions and Hypotheses

To address Research Question 1 and Hypothesis 1, multiple Pearson correlation and multiple regression analysis were utilised, as the data met the multicollinearity assumption. In contrast, since the error terms satisfied the normality assumption, simple Pearson correlation and simple regression analysis were employed for Research Questions 2-3 and Hypotheses 2-3, respectively.

Research Question One

To what extent do rising raw material costs and labour costs impact the sales volume of alcoholic beverages in South-East Nigeria?

Hypothesis One

Rising raw material costs and labour costs do not have any significant impact on the sales volume of alcoholic beverages in South-East Nigeria

Table 1: Results Summary of research question/hypothesis one

r = 0.842	**n = 226**				**Decision**
	Sum of	**Degree of**	**Mean**	**p-value**	
ANOVA	**Squares**	**Freedom**	**Squares**		
Regression	1787.861	2	893.931	**0.000**	**Reject H_0**
Residual	735.648	223	3.299		
Total	2523.509	225			
Very High Relationship					

Results in Table 1 show the summary analysis concerning research question one and hypothesis one. The multiple Pearson correlation coefficient value was 0.842, which indicates that it was very high. This implies that rising raw material costs and labour costs impacted the sales volume of alcoholic beverages in Nigeria to a very great extent. In the test of the hypothesis, it was shown that the p-value of 0.000 is less than the level of significance of 0.05. This leads to the rejection of the null hypothesis, concluding that rising raw material costs and labour costs do have a very significant impact on the sales volume of alcoholic beverages in South-East Nigeria.

Research Question Two

To what extent do price increases due to rising production costs influence consumer purchasing frequency towards alcoholic beverages in Nigeria?

Table 2: **Pearson Product Correlation Summary for PIDRPD and CPF**

Variables	**N**	$\overline{X}$	**SD**	**R**
PIDRPD	226	8.234	2.321	**0.834**
CPF	226	8.782	2.154	
Very High Relationship				

The results in Table 2 reveal a very high Pearson correlation coefficient (0.843) for Research Question 2, suggesting that the impact of price increases, driven by rising production costs, on consumer purchasing frequency of alcoholic beverages in South-East Nigeria is substantial.

Testing of Hypothesis Two

Price increases due to rising production costs have no significant effect on consumer purchasing frequency towards alcoholic beverages in Nigeria.

Table 3: **ANOVA Summary for Simple Regression of PIDRPD and CPF**

Response: CPF	Df	SS	MS	F	p-value
Regression	1	1577.16	1577.16		
				373.31	0.000
Residuals	224	946.35	4.22		
Total	225	2523.51			

The results in Table 3 ($F = 373.31$, $p < 0.001$) indicate a statistically significant relationship, thereby refuting the null hypothesis that production cost-driven price increases do not affect consumer purchasing frequency of alcoholic beverages in South-East Nigeria. Thus, the study concludes that price increases due to rising production costs have a very significant effect on consumer purchasing frequency towards alcoholic beverages in Nigeria.

Research Question Three

To what extent do price increases due to rising production costs influence consumer loyalty towards alcoholic beverages in South-East Nigeria?

Table 4: **Pearson Product Correlation Summary for PIDRPD and CL**

Variables	n	$\overline{X}$	SD	R
PIDRPD	226	8.234	2.321	
				0.724
CL	226	7.981	2.216	
Very High Relationship				

The analysis in Table 4 reveals a strong correlation ($r = 0.724$) between price increases due to rising production costs and consumer loyalty, indicating that such price increases significantly impact loyalty towards alcoholic beverages in South-East Nigeria.

Hypothesis Three Testing

Price increases due to rising production costs have no significant effect on consumer loyalty towards alcoholic beverages in South-East Nigeria.

Table 5: **ANOVA Summary for Simple Regression of PIDRPD and CL**

Response: CPF	Df	SS	MS	F	p-value
Regression	1	1591.83	1591.83		
				382.71	0.000
Residuals	224	931.68	4.16		
Total	225	2523.51			

The analysis in Table 5 yields $F = 382.71$ and $p < 0.001$, indicating statistical significance and rejecting the null hypothesis. This study concludes that price increases due to rising production costs substantially influence consumer loyalty towards alcoholic beverages in Nigeria.

DISCUSSION OF FINDINGS

The study's findings indicate that rising raw material costs and labour costs have a significant impact on sales volume of alcoholic beverages in South-East Nigeria. This suggests a strong positive relationship between production costs and sales volume. The results align with previous studies by Oladejo et al. (2020) and Nwokoye et al. (2019), which found similar positive correlations between production costs and sales volume in the Nigerian brewing industry and African beverage industry, respectively. However, the findings contradict those of Ugwueke et al. (2018) and Okafor et al. (2017), which reported negative and insignificant relationships between labor costs and sales volume, and raw material costs and sales volume, respectively.

The study also found that price increases due to rising production costs significantly affect consumer purchasing frequency towards alcoholic beverages in Nigeria. This indicates a strong positive relationship between price increases and reduced purchasing frequency. These results are consistent with the findings of Ademola et al. (2020) and Oyedokun et al. (2019), which reported similar positive correlations between price increases and reduced purchasing frequency in the Nigerian beer market and African beverage industry, respectively. However, the findings contradict those of Afolabi et al. (2018) and Salami et al. (2017b), which reported insignificant and negative relationships between price increases and purchasing frequency in the Nigerian wine market and Nigerian spirits market, respectively.

Furthermore, the study found that price increases due to rising production costs have a significant effect on consumer loyalty towards alcoholic beverages in Nigeria. This indicates a strong positive relationship between price increases and consumer loyalty. The results are partially in line with the findings of Oyedokun et al. (2018) and Salami et al. (2017a), which reported positive relationships between price increases and consumer loyalty, albeit with some caveats. However, the findings contradict those of Adebayo et al. (2020) and Ogunyemi et al. (2019), which reported negative relationships between price increases and consumer loyalty in the Nigerian beer market and African beverage industry, respectively.

The study's findings have significant implications for industry stakeholders, including manufacturers, distributors, and retailers of alcoholic beverages in Nigeria. The positive relationships between production costs, price increases, and sales volume suggest that industry stakeholders should carefully manage production costs to maintain competitive pricing and ensure sustainable sales growth. Furthermore, the findings highlight the importance of consumer loyalty in the alcoholic beverages market. Industry stakeholders should prioritize strategies that promote consumer loyalty, such as offering premium products, providing excellent customer service, and engaging in effective marketing and branding activities.

Conclusion

In conclusion, the study's findings provide valuable insights into the effects of rising production costs on sales of alcoholic beverages in Nigeria. The results highlight the importance of managing production costs, maintaining competitive pricing, and promoting consumer loyalty. Industry stakeholders should carefully consider these findings when developing strategies to navigate the challenges of the Nigerian alcoholic beverages market.

Recommendations

Based on the findings of this study, the following recommendations are hereby proposed.

i. Cost Optimization: Implement cost-saving measures such as reducing energy consumption, optimising water usage, and improving waste management.
ii. Supply Chain Optimization: Renegotiate contracts with suppliers to secure better prices for raw materials and packaging materials.
iii. Price Adjustment: Consider a 5-10% price increase to offset the rising cost of production while ensuring that the price remains competitive.
iv. Marketing Strategies: Implement targeted marketing campaigns to maintain customer loyalty and attract new customers.
v. Invest in Efficiency-Improving Technologies: Invest in technologies that improve operational efficiency, such as automated brewing systems and energy-efficient equipment.
vi. Develop Local Sourcing: Develop local sourcing initiatives to reduce dependence on imported raw materials and packaging materials.
vii. Diversify Product Portfolio: Diversify product portfolio to include low-cost and premium products to cater to different customer segments.
viii. Capacity Building: Invest in employee training and development to improve productivity and efficiency.
ix. Invest in Renewable Energy: Invest in renewable energy sources, such as solar and biogas, to reduce dependence on fossil fuels.
x. Develop Strategic Partnerships: Develop strategic partnerships with suppliers, distributors, and other stakeholders to improve efficiency and reduce costs.
xi. Expand into New Markets: Expand into new markets, such as export markets, to increase revenue and reduce dependence on the domestic market.
xii. Invest in Research and Development: Invest in research and development to improve product quality, reduce costs, and develop new products.

Study Limitations

This study has several limitations that should be acknowledged:

1. Data Collection Method: The study relied on self-reported data, which may be subject to biases and inaccuracies.

2. Measurement Tools: The study used standardised measurement tools, but these tools may not have captured all relevant aspects of the phenomenon being studied.

3. Time-Frame: The study was conducted over a limited timeframe, which may not capture long-term trends or patterns.

4. Lack of Control Group: The study did not include a control group, which makes it difficult to establish causality.

Suggestion for Further Research

i. Further research should investigate moderating factors, such as consumer demographics and regional differences;
ii. Investigate moderating factors influencing sales volume, purchasing frequency, and loyalty;
iii. Explore industry-specific strategies for managing production costs;
iv. Conduct comparative studies across different markets and regions.

REFERENCES

Adebayo, A. O., Oyedele, O. S., & Adewale, A. B. (2020). Price and consumer loyalty in the Nigerian beer market. Journal of Business and Economic Studies, 26(1), 34-45.

Adebayo, T. O., Oyedele, A. S., & Akande, O. O. (2022). Exchange rate volatility and international trade. *Journal of Business and Economic Management, 11*(2), 1-15.

Adebayo, T. O., Oyedele, A. S., Akande, O. O., & Adesina, O. A. (2023). Taxation and economic growth in Nigeria. *Journal of Business and Economic Management, 12*(2), 1-15.

Adebayo, O. O., & Ogunlesi, T. O. (2020). Impact of rising production costs on manufacturing firms in Nigeria. Journal of Economics and Finance, 11(2), 1-12.

Adeleke, A. I., & Oyedokun, T. O. (2024). Research instruments in management studies. International Journal of Management and Applied Science, 10(3), 1-12.

Ademola, A. O., Oyedele, O. S., & Adewale, A. B. (2020). Price and purchasing frequency in the Nigerian beer market. Journal of Business and Economic Studies, 26(2), 12-25.

Adenuga, A. O. (2020). Effects of inflation on consumer purchasing power in Nigeria. Journal of Economic Research, 17(1), 1-12.

Adom, D, Hussein, E. K. & Adu-Agyem, J. (2018). Theoretical and conceptual framework: mandatory ingredients of a quality research. *International Journal of Scientific Research*, 7(1), 438-441.

Adeoye, B. (2017). Analysis of the impact of regulatory policies on the Nigerian brewery industry. Journal of Business and Economic Studies, 3(1), 1-12.

Afolabi, B. O., Ogunyemi, A. O., & Oyediran, T. A. (2018). Price and purchasing frequency in the Nigerian wine market. *International Journal of Business and Management*, *13*(5), 1-12.

Afolabi, M. O. (2019). The effects of rising production costs on sales volume in the Nigerian brewery industry. Journal of Economics and Finance, 10(1), 1-15.

Ajayi-Kadir, K. (2023). Nigeria's economic challenges: COVID-19, Russia-Ukraine war, and policy responses. *Journal of African Business, 24*(1), 1-15.

Ajayi-Kadir, K. (2020). Nigeria's economy and the challenges of forex scarcity. Journal of Economic Studies, 47(2), 1-12. doi: 10.1016/j.jecstudies.2020.02.001

Akinyemi, O., Oyinlola, M. A., & Adejumo, A. V. (2022). Exchange rate fluctuations and trade dynamics. *International Journal of Economic Development*, *9*(2), 1-20.

Akinyemi, O., Oyinlola, M. A., & Adejumo, A. V. (2023). Tax policy and economic growth in Nigeria. *Journal of Economic Studies*, *14*(1), 34-48.

Akinyemi, O., Oyinlola, M. A., & Adejumo, A. V. (2024). Structural inflation and economic development. *International Journal of Economic Development*, *10*(1), 1-20.

Ali, M., Umar, A., Sanni, M., & Salisu, A. (2023). The impact of taxation on investment decisions. *International Journal of Finance and Accounting Studies*, *8*(1), 1-12.

Anfara, V. A., & Mertz, N. T. (2015). Theoretical frameworks in qualitative research. Routledge.

Ayozie, E. A. (2023). Performance and employee resourcing strategies in selected brewery firms in South-East Nigeria. *Journal of Management Science and Carrier Development*, *2*(2), 49-66.

Bahmani-Oskooee, M., & Karamelikli, H. (2022). Exchange Rate Volatility and Trade Flows: Evidence from Turkey. *Journal of International Trade and Economic Development*, *31*(1), 34-53.

Chen, Y. (2019). The impact of labor costs on sales performance in Chinese manufacturing sector. Journal of Management Research, 11(1), 1-12.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications.

Chukwu, B. (2020). An analysis of the Nigerian beverage industry. Journal of Business and Economic Studies, 16(2), 1-15.

Dinesh, K., & Sharma, A. (2022). Marketing cost analysis: A study of Indian manufacturing firms. *International Journal of Marketing and Sales Management*, *7*(2), 1-12.

Dole, R. (2022). Tax reform and economic growth. *Journal of Economic Policy and Analysis*, 9(1), 1-20.

Egbunike, C. F., & Okerekeoti, C. U. (2018). Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria. Asian Journal of Accounting Research, 3(2), 142-168.

Enekwechi, E. C., Okoye, P. V., & Ani, W. U. (2023). Competitive pricing in modern business. *International Journal of Economic Development*, *10*(2), 1-20.

Enekwechi, E. C., Okoye, P. V., & Ani, W. U. (2023b). Quantitative research methods in business studies. International Journal of Business and Management, 18(2), 1-12.

Eze, C. C., & Nwosu, E. C. (2022). The impact of forex scarcity on Nigerian manufacturing sector. Journal of International Business and Economic Research, 20(1), 1-15.

Federal Inland Revenue Service. (2022). 2021 Annual Report.

Forbes, S. (2022). Flat tax and economic growth. *Journal of Public Finance and Management*, *10*(1), 1-15.

Friedman, M. (1970). A Theoretical Framework for Monetary Analysis. Journal of Political Economy, 78(2), 193-238.

Friedman, M. (1968). The Role of Monetary Policy. American Economic Review, 58(1), 1-17

Friedman, M., & Schwartz, A. J. (1963). A Monetary History of the United States, 1867-1960. Journal of Economic History, 23(2), 277-306.

Foyeke, O. O., Oyerinde, D. T., & Olanipekun, I. O. (2015). Corporate governance disclosure and financial performance of listed firms in Nigeria. Journal of Accounting and Management, 5(1), 1-13.

Grace, K. Musa, N., Erastus, T., & Evans, M. (2021). An investigation of the influence of organizational design on performance of mobile telephone network operators in Kenya. *European Journal of Business and Management Research, 6(*3), 200-207.

Gwartney, J., & Lawson, R. (2006). Economic freedom and economic performance. *Journal of Economic Growth, 11*(3), 245-264.

Hashmi, S. H., Khan, M. A., & Hassan, R. (2022). Exchange rate volatility and international business. *Journal of International Business Studies, 53*(1), 1-18.

Ibrahim, H., Umar, A., Suleiman, M., & Abubakar, Y. (2023). The effects of taxation on economic growth. *Journal of Economic and Financial Studies*, *7*(2), 1-18.

Iyoha, F. O., & Oriakhi, D. E. (2019). Pricing strategies and consumer behavior in Nigeria's beverage industry. Journal of Marketing and Consumer Research, 23(1), 1-12.

Jabareen, Y. (2009). Building a conceptual framework: Philosophy, definitions, and procedure. International Journal of Qualitative Methods, 8(4), 49-62.

Kacen, J. J. (2022). Purchase decision types. Journal of Marketing Management, 37(1), 1-12.

Khan, M. A. (2017). Cost-Push Inflation: A Review of the Literature. Journal of Economic Literature, 55(2), 531-554.

Kumar, S., Singh, J., & Kumar, N. (2018). Impact of rising input costs on firms' profitability: A study of Indian manufacturing sector. Journal of Management Research, 10(2), 1-14.

Kumar, N., Singh, J., & Sharma, A. (2022b). International trade and economic growth. *Journal of Economic Studies*, *13*(2), 1-15.

Kumar, S., Singh, J., & Kumar, R. (2020). Cost management in the beverage industry. *Journal of Cost Management*, 34(2), 15-28.

Kuye, O. (2019). Pricing strategies for Nigerian businesses. Ibadan: Spectrum Books.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. Journal of Educational Psychology, 86(2), 245-255.

Lemma, T. T., & Negash, M. (2013). Determinants of capital structure: Evidence from African countries. Journal of Accounting and Finance, 13(1), 1-15.

Maragia, J. K., & Kemboi, G. K. (2021). Determining sample size using Slovin's formula. *International Journal of Science and Research Methodology*, *7*(2), 1-8.

Maxwell, J. A. (2013). Qualitative research design: An interactive approach. Sage Publications.

Neal, W. D. (2004). "The importance of post-purchase evaluation." Journal of Marketing Management, 19(1-2), 141-157.

Nnenna, M. (2020). Consumer behavior in Nigeria: An empirical analysis. Abuja: National Open University of Nigeria.

Nwankwo, B. C., & Uche, C. M. (2020). The effect of economic conditions on consumer purchasing decisions in Nigeria. International Journal of Economic Research, 18(3), 1-12.

Nwokoye, E. C., Chukwu, J. I., & Ani, C. I. (2019). Cost drivers and sales volume in the African beverage industry. *African Journal of Business and Economic Research*, 14(2), 1-15.

Nwokoye, E. G., & Okoro, O. E. (2019). Impact of Cost Factors on Sales Performance in the African Beverage Industry. Journal of Marketing and Consumer Research, 24(1), 1-12.

Nwosu, E. C. (2019). Consumer behavior in Nigeria: A theoretical perspective. Abuja: National Open University of Nigeria.

Ogba, I. M., Ogunnaike, O. O., & Afolabi, M. O. (2020). An analysis of the Nigerian brewery industry: Challenges and prospects. Journal of Business and Economic Studies, 6(1), 1-18.

Ogba, I. M., Ogunnaike, O. O., & Afolabi, M. O. (2020). An analysis of the Nigerian brewery industry: Challenges and prospects. Journal of Business and Economic Studies, 6(1), 1-18.

Ogbonna, G. N. (2019). The effects of exchange rate fluctuations on the Nigerian brewery industry. Journal of International Business and Economic Research, 8(1), 1-10.

Ogbonna, G. N., & Ebimobowei, A. (2023). Taxation and Income Inequality in Nigeria. *Journal of Economic Policy and Analysis*, *10*(1), 1-25.

Ogbonna, G. N., Ebimobowei, A., & Eze, C. E. (2023). Pricing decisions and corporate objectives. *Journal of Economic Studies*, *14*(2), 1-18.

Ogunyemi, A. O., Adeniyi, M. A., & Olowolaju, P. O. (2019). Price sensitivity and consumer loyalty in the African beverage industry. *African Journal of Business and Economic Research*, *14*(2), 1-15.

Ojo, J. A., & Adeyemo, A. O. (2019). The impact of forex scarcity on Nigerian manufacturing sector. Journal of International Business and Economic Research, 19(2), 1-12.

Okafor, C. E., Okeke, P. N., & Eze, U. C. (2017). Raw material costs and sales volume in the Nigerian beer industry. *Journal of Management and Entrepreneurship*, *11*(1), 1-13.

Oladejo, J. O., Adewumi, D. A., & Olowokere, A. I. (2020). Cost factors and sales performance in the Nigerian brewing industry. *Journal of Business and Economic Studies*, *26*(1), 34-45.

Oladejo, O. A., & Oyedokun, I. B. (2020). Relationship Between Production Costs and Sales Volume in the Nigerian Brewing Industry. Journal of Management and Organization, 26(2), 147-158.

Olorunfemi, T., Adeleke, O., & Salako, O. (2023). Taxation and economic growth in Nigeria: An empirical analysis. *International Journal of Accounting and Financial Management Studies*, *9*(2), 12-25.

Olorunfemi, T., Adeleke, O., & Salako, O. (2024). Sales and distribution expenses and profitability: Evidence from Nigerian firms. *International Journal of Accounting and Financial Management Studies*, *10*(2), 1-20.

Osaretin, E., Nzotta, S. M., & Chris-Ejiogu, G. U. (2024). Effects of taxation on the growth of Nigerian economy. *International Journal of Accounting and Financial Management Studies*, *10*(2), 12-30.

Oyedokun, G. O., Adeniyi, M. A., & Olowolaju, P. O. (2019). Price sensitivity and consumer purchasing behavior in the African beverage industry. African Journal of Business and Economic Research, 14(1), 1-15.

Oyedokun, G. O., Ajayi, M. P., & Olokundun, M. A. (2018). Price and consumer loyalty: Evidence from Nigeria's premium alcoholic beverage market. *International Journal of Business and Management*, *13*(9), 1-12.

Oyinlola, M. A. (2018). The impact of taxation on the Nigerian brewery industry: A case study of Nigerian Breweries Plc. Journal of Taxation and Economic Development, 3(1), 1-12.

Putranto, R. K. (2017). The effect of sales on company profit. *Journal of Business and Economics*, *8*(2), 12-20.

Phelps, E. S. (1967). Phillips Curves, Expectations of Inflation, and Optimal Unemployment. Economica, 34(136), 255-281.

Salami, S. O., Ajayi, M. P., & Olokundun, M. A. (2017a). Price, quality, and consumer loyalty in Nigeria's alcoholic beverage market. *Journal of Management and Entrepreneurship*, *10*(1), 1-13.

Salami, S. O., Ajayi, M. P., & Olokundun, M. A. (2017b). Price elasticity of demand for spirits in Nigeria. *Journal of Management and Entrepreneurship*, *10*(2), 1-13.

Samuelson, P. A., & Solow, R. M. (1960). Analytical Aspects of Anti-Inflation Policy. American Economic Review, 50(2), 177-194.

Sanni, G. O., & Ajayi, M. O. (2020). An analysis of the Nigerian alcoholic beverage industry. Journal of Business and Economic Studies, 16(1), 1-15.

Sembiring, M., & Siregar, D. (2018). The impact of price sensitivity on consumer purchasing decisions. *International Journal of Marketing Studies*, *10*(4), 103-115.

Singh, J., Kumar, S., & Kumar, N. (2020). The impact of raw material costs on sales volume in US beverage industry. Journal of Marketing Research, 12(1), 1-12.

Tahir, M., Aliyu, S., & Mohammed, A. (2022). Exchange rate volatility and global trade. *Journal of Public Finance and Management, 10*(2), 1-15.

Tahir, M., Aliyu, S., Mohammed, A., & Bello, U. (2023). Taxation and fiscal policy. *Journal of Public Finance and Management, 11*(1), 1-20.

Ugwueke, G. O., Onyema, E. M., & Nwosu, A. C. (2018). Labour costs and sales volume in the Nigerian wine market. *International Journal of Business and Management, 13*(10), 1-12.

Ukegbu, O. (2012). Multiple taxation and its impact on the Nigerian economy. *Journal of Business and Economic Management, 3*(2), 123-135.

Reports

1. African Development Bank. (2019). African Beverage Industry Report.
2. Central Bank of Nigeria (CBN). (2022). Annual Report and Statement of Accounts.
3. International Wine and Spirit Record. (2020). Global Wine and Spirit Market Report.
4. National Bureau of Statistics (NBS). (2022). Consumer Price Index Report.
5. Nigerian Breweries (NB Plc.) (2020) Exchange rate fluctuations influence production costs.
6. Nigerian Breweries Plc. (2022). Annual Report.
7. Guinness Nigeria Plc. (2022). Annual Report.

Online Resources

1. International Monetary Fund (IMF). (2022). Nigeria Country Report.
2. World Bank. (2022). Nigeria Overview.
3. Nigerian Stock Exchange (NSE). (2022). Market Data.

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