



Research Article

Impact of Consumer Protection Laws on the Production, Pricing, and Promotion of Food and Pharmaceutical Products in Benue State, Nigeria

Ihembe S^{1*}  <https://orcid.org/0009-0000-7425-7106>, Adeiyongo U.S², Ankeli M.O³, Igbadio A⁴

^{1*}Department of Marketing, Joseph SarwuanTarka University, Makurdi, Benue State, Nigeria

²Department of Legal Studies, Benue State Polytechnic, Benue State, Nigeria.

³Department of Marketing, Benue Polytechnic Ugbokolo, Benue State, Nigeria.

⁴Department of Business Administration and Management, Joseph SarwuanTarka University, Makurdi, Benue State, Nigeria.

Abstract- This study examines the impact of consumer protection laws on the production, pricing, and promotion of food and pharmaceutical products in Benue State, Nigeria. It evaluates the enforcement of the NAFDAC Act, Price Control Act, and Food, Drug, and Related Products Advertisement Regulations (2019) and their effectiveness in shaping market practices. Using a cross-sectional survey design, data were collected from 103 indigenous food and pharmaceutical distributors and marketers, and the Ordinary Least Squares (OLS) estimation technique was employed to test the hypotheses. The findings reveal a weak but statistically significant relationship between NAFDAC Act enforcement and production outcomes ($R = 0.482$, $p < 0.05$, $R^2 = 0.232$), suggesting that while the law influences quality control, other market factors play a greater role in determining production standards. The Price Control Act exhibited a moderate correlation with pricing ($R = 0.615$, $p < 0.005$, $R^2 = 0.378$), but outdated penalties and inconsistent enforcement limit its effectiveness. The strongest correlation was observed between Advertisement Regulations (2019) and marketing practices ($R = 0.662$, $p < 0.005$, $R^2 = 0.438$), reflecting improvements in advertising compliance but highlighting challenges in regulating digital promotions. The study underscores gaps in enforcement mechanisms, particularly in consumer awareness, compliance monitoring, and regulatory penalties. While consumer protection laws exist, inconsistent implementation and weak regulatory oversight hinder their full effectiveness. To address these challenges, the study recommends revising outdated legislation, introducing AI-driven price monitoring, enhancing digital regulatory oversight, and strengthening inter-agency collaboration. Additionally, public education campaigns and stricter penalties for violations are necessary to ensure fair market practices. Overall, consumer protection laws play a critical role in ensuring ethical business practices, fair pricing, and product safety, but regulatory loopholes and enforcement weaknesses must be addressed to enhance consumer safety and market stability.

Article Key Information

Keywords: Consumer Protection Laws, NAFDAC Act, Price Control Act, Advertisement Regulations, Food and Pharmaceutical Products, Regulatory Enforcement, Market Compliance, Nigeria.

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1. Introduction

Globally, the general problem of fake and counterfeit products has become a major thing of concern and threat to the health and economies of countries, especially developing ones with Nigeria inclusive, with food and

medicines alone accounting for about 70 percent of all seizures (United Nations Office on Drugs and Crime, 2013). As a result of this, statutory regulatory bodies with a wide-ranging mandate such as the National Agency for Food, Drug Administration and Control (NAFDAC), National Drug Law Enforcement Agency (NDLEA), the Consumer Protection Council (CPC), the Pharmacists Council of Nigeria (PCN), the Standards Organization of Nigeria (SON) and many others have been established by relevant consumer protection laws to checkmate marketing activities relating to the registration, production, promotion, pricing and distribution of food and pharmaceutical products in Nigeria. Sadly, despite brazen infringements on consumer protection laws, prosecutions of complicit sellers rarely occur due to the fact that consumers are not fully aware of such laws designed to protect them (Nkamnebe, Idoko& Kalu, 2017).

In 1989, more than 150 children died in Nigeria because they took paracetamol syrup developed using poisonous ethylene glycol, rather than propylene glycol (World Health Organization, 1995). This trend aggravated to the point that other African countries like Sierra Leone and Ghana prohibited medicines, beverages, and foods produced in Nigeria (WHO, 1995). Decades later, issues relating to the marketing of counterfeit pharmaceutical products persist. In May 2012 over N20 million worth of counterfeit drugs and equipment were seized during a raid in an illegal drug factory in Onitsha, Anambra State (Premium Times, 2012), while fake drugs worth over N200 million were also confiscated and destroyed at the NAFDAC dumpsite in Odukpani, Cross River State in 2015 (Onkwughu, 2015). Between April and May 2013, NAFDAC arrested more than fifteen persons in Lagos, allegedly involved with China-based counterfeiters, producing and marketing fake drugs in Nigeria, with one suspect alone alleged to have shipped into the country fake drugs worth over N100 million (Obinna, 2013). In a related incident, the Pharmacists Council of Nigeria (PCN) shut down 148 drug stores in Cross River State in August 2015 for unauthorized sale of drugs. They comprised 2 pharmacies, 48 patent medicine shops and 98 other undocumented premises (Premium Times, 2015).

However, despite prevalent cases of unwholesome practices in the marketing of food and pharmaceutical products in Nigeria, there are rare litigation cases instituted against drug manufacturers and/or marketers by both government prosecutors and consumers. Conviction of offenders by regulatory agencies is rare, with very petty sentences where there are convictions. Between 2010 and 2015 only 12 suspects who were prosecuted and convicted by NAFDAC for varying degrees of offences bagged three-year jail terms each (Onkwughu, 2015).

As Nigeria becomes more of a free-market economy, legislation such as the Price Control Act becomes more and more obsolete, as product prices are determined by market forces. Implementation of the provisions of NAFDAC, NDLEA and CPC Acts, responsible for regulating the manufacture, distribution and promotion of food and pharmaceutical products as well as consumer orientation has been met with challenges. These are clear indications that the battle to contain unwholesome marketing practices of pharmaceutical products is never-ending and must evolve with the changing times. The prevalence of these activities has led to questions regarding the adequacy of and efficient implementation of existing legislations intended to protect consumers from reckless and hazardous practices in the marketing of food and pharmaceutical products. Hence, the need to provide an answer to the big question: how significant is the correlation between the existing consumer protection laws and the production, distribution, pricing and promotion of food and pharmaceutical products; and is there a need for new laws concerning food and pharmaceutical products marketing in Benue State, Nigeria? It is based on the above background that this study is put in place to determine the effect of consumer protection laws and marketing of food and pharmaceutical products in Benue State, Nigeria.

2. Literature Review

2.1 Theoretical Framework:

This study was anchored on the theory of consumer law. The theory of consumer law is the most suitable for this study. The theory of consumer law propounded by John Goldring in 1990, maintains that the aim of the theory in law is important to describe the workings of law to provide a foundation on which to base a critique of the formulation of law to provide a normative mechanism for the measurement of achievements of and prescriptions for law. Goldring (1990) made his case from the contract law standpoint, criticizing existing consumer law structures as being too elaborate without a theoretical foundation, and he advocates a more interventionist approach by the state to protect consumers from predatory marketing practices. Consumer law is a collection of laws governing their position as the consumers of products and services supplied by others (Goldring, 1990).

According to Goldring, it might be ideal to remove from the workings of such laws those people who do not get impacted by the laws, for instance, commercial enterprises that can rationally be regarded as non-dependent players in business, and which do not necessarily require protection since they are well-positioned to protect their interests. The difference between corporate and non-corporate persons does not always serve as an effective benchmark for determining those to be protected by the law (Goldring, 1990). Goldring further pointed out that the significance of intervention by the state does not designate the state as a flawless regulator. According to him, market failure led to regulation. As Grabowsky and Braithwaite (1986) put it, imperfections will always persist in humanly operated systems, a notion that reinforces the notion that based on its nature, consumer law calls for state intervention and should not be put in the hands of individuals. Consumer interest, by its nature, entails that the proponent in a given social scenario should be the state. Likewise, formulating a collection of laws prescribes a departure of emphasis from curative to preventive law (Goldring, 1990). Before the development of this theory, some economic law experts like Epstein (1975) examined the odd sides of excessive state intervention from an economic perspective. He criticized widespread government intervention masqueraded as regulating fairness, suggesting that market forces could play a major role in regulating the quality and prices of products. According to Epstein (1975), interference based on unconscionability, irrespective of the dimension it is adopted, works to undermine the private rights of contract in such a way that can result in the infliction of more social harm than good.

The theory is important to this study because it advocated for an interventionist approach by government and a shift from remedial to preventive law to offer the consumer a blanket protection. The food and pharmaceutical industries are highly complicated and the consequence of fake products could be deadly. Consumer protection laws, therefore, need to be broader and far-reaching, like Goldring has suggested toward ultimately keeping consumers safe. The theory in law is important to describe the workings of law to provide a foundation on which to base a critique of the formulation of law to provide a normative mechanism for the measurement of achievements of and prescriptions for law.

2.2 Conceptual Framework

2.2.1 Concept of Law

The Consumer Protection Council Act, Cap 25, 2004 Laws of the Federation of Nigeria is to promote and protect the interest of consumers over all products and services. In a nutshell, it is empowered to eliminate hazardous & substandard goods from the market. According to Obinna (2013), consumer protection law is the practice of safeguarding buyers of goods and services, and the public, against unfair practices in the marketplace. Consumer protection law measures are often established by law and such laws are intended to prevent businesses from engaging in fraud or specified unfair practices to gain an advantage over competitors or to mislead consumers. They may also provide additional protection for the general public, which may be impacted by a product (or its production) even when they are not the direct purchaser or consumer of that product. For example, government regulations may require businesses to disclose detailed information about their products, particularly in areas where public health or safety is an issue, such as with food, drugs, automobiles, etc.

Consumer protection law is linked to the idea of consumer rights and to the formation of consumer organizations which help consumers make better choices in the marketplace and pursue complaints against businesses. Entities that promote consumer protection include government organizations (such as the Federal Trade Commission in the United States), self-regulating business organizations (such as the Better Business Bureaus in the US, Canada, England, etc.), and non-governmental organizations that advocate for consumer protection laws and help to ensure their enforcement (such as consumer protection agencies and watchdog groups).

A consumer is defined as someone who acquires goods or services for direct use or ownership rather than for resale or use in production and manufacturing. Consumer interests can also serve consumers, consistent with economic efficiency, but this topic is treated in competition law. Consumer protection can also be asserted via non-government organizations and individuals as consumer activism (Lada, 2018). Efforts made for the protection of consumer's rights and interests are: the right to satisfaction of basic needs, the right to safety, the right to be informed, the right to choose, the right to be heard, the right to redress, the right to consumer education and the right to a healthy environment.

Consumer protection law or consumer law is considered as an area of law that regulates private law relationships between individual consumers and the businesses that sell those goods and services. Consumer protection covers

a wide range of topics, including but not necessarily limited to product liability, privacy rights, unfair business practices, fraud, misrepresentation, and other consumer/business interactions. It is a way of preventing frauds and scams from service and sales contracts, eligible fraud, bill collector regulation, pricing, utility turnoffs, consolidation, personal loans that may lead to bankruptcy. There have been some arguments that consumer law is also a better way to engage in large-scale redistribution than tax law because it does not necessitate legislation and can be more efficient, given the complexities of tax law (Dike and Onah, 2018).

2.2.2 Law and Consumer Protection in Nigeria

The Nigerian Government has established numerous regulatory organs charged with the responsibility of coordinating and supervising business operations to guarantee that consumers are shielded from sharp practices that could exploit or cause them harm (Odigie&Odion, 2019). However, only a few are discussed:

The National Agency for Food and Drug Administration and Control (NAFDAC) Act (1993): The National Agency for Food and Drug Administration and Control (NAFDAC) was brought into existence in 1993 by the National Agency for Food and Drug Administration and Control Decree No. 15 of 1993. The Agency's statutory responsibilities include, but is not limited to, coordinating the importation, exportation, production, promotion, distribution, sale and use of regulated products; carrying out the registration of food, beverages, cosmetics and medicines; compiling the ideal specifications and protocols for their manufacture, importation, exportation, sale and distribution of such products; inspecting production sites, among others (Kanyip, 2005):

The Price Control Act (1977): The Act gave the government powers through its Price Control Board, to fix the price of commodities such as automobiles, flour, medicines, petroleum products, etc. (Nairametrics, 2016). According to Section 6 Subsection 1 of the Act, it is against the law for anybody to sell, be prepared to sell or declare the intention to sell any or employ anyone else, whether or not that individual is old enough, to sell any regulated product at a price that goes beyond the designated price (Nairametrics, 2016). With Nigeria driven toward a more market-driven economy where the forces of demand and supply determine prices of goods and services, this socialist law has since lost its relevance but is yet to be amended or repealed (Nairametrics, 2016).

The Counterfeit and Fake Drugs and Unwholesome Processed Foods (Miscellaneous Provisions) Act (1990): According to the Section 2 (1) of the Counterfeit and Fake Drugs (miscellaneous provisions) Act Caps 73 LFN 1990, it is a crime to peddle, sell or present for sale, any drugs or toxic item of any kind in the market, kiosk, motor park, roadside stall, bus, ferry or any other transportation mode or other locations not appropriately authorized for such purposes (The Nation, 2013).

Drug and Related Products Advertisement Regulations (2019): The Drug and Related Products Advertisement Regulations were established by the powers conferred on the Governing Council of the National Agency for Food and Drug product Administration and Control (NAFDAC) by Sections 5 and 30 of the NAFDAC Act Cap N1 LFN 2004 and Section 12 of the Food, Drug products and Related Products (Registration, Etc.) Act Cap F33 LFN 2004 and of all the powers enabling it in that behalf. The regulation maintains that the advertisement of any drug or related product shall be correct, comprehensive, understandable and presented to advance credibility and trust by members of the public and health care practitioners. In addition to that, statements, depictions or pictures employed in an advertisement shall not directly or indirectly mislead the public. Likewise, the regulation prescribes that all advertisement materials with the inclusion of scripts, storyboards, artwork, radio scripts, among other materials required by the Agency should be presented in accompaniment with an application to the Agency (NAFDAC, 2019).

2.3 Empirical Review

Not much has been researched on the existence of consumer protection laws and the production of food and pharmaceutical products in Benue State, Nigeria. A few related studies showed that a great deal of food and drugs in major shops were fake as they did not comply with NAFDAC, SON, NDLEA, etc, the requirements of the agencies that set the law guiding the production of food and pharmaceutical products.

Aresearch conducted by Nkamnebe, Idoko& Kalu (2017) on laws and marketing on 581 samples of 27 different drugs from 35 pharmacies in Lagos and Abuja (Nigeria), the study revealed that 279 (48 per cent) of the samples

failed to comply with set pharmacopoeia limits and the proportion was uniform for the various types of drugs tested. Recommended strong consumer protection laws.

A study by NAFDAC (2002), aimed at measuring the level of conformity to drug registration showed that 67.95 per cent were unregistered. The study identified weak enforcement of existing laws and the need for new ones as being responsible for the prevalence of this ugly trend and recommended the technical, material and financial strengthening of enforcement/regulatory mechanisms to satisfy consumers' expectations regarding health, safety and security for sustainable development of our societies.

The Federal Ministry of Health in partnership with the World Health Organization (WHO), the UK's Department for International Development (DFID), the European Union and Health Action International (2016) conducted a national survey on the prices of food and medicines in Nigeria. The study revealed that Nigerians pay between 2-64 times the international reference prices for food and medicines at various shops and health facilities in both the private and public sectors; Prices in the public sector were almost identical to those in the private pharmacies; Private health clinics charge about 184 per cent more than the public health facilities and about 193 per cent more than private retail pharmacies; innovator brands cost between 2-7 times the lowest-priced generic equivalents. Based on these findings, the survey concluded that 90 per cent of Nigerians living below the income level of US\$ 2 per day, as well as government workers, who earn a minimum wage of US\$ 1.4 per day, are incapable of affording medicines.

A study by Dike and Onah (2018) attempted to assess the impact of enforcement of anti-counterfeit drug laws on the distribution of pharmaceutical products in Nigeria. Their findings revealed that the non-professionals who dominated the drug supply chain as importers, wholesalers and retailers in the open drug markets had very little or no experience at all. The overall findings of the research indicated that enforcement of existing legislations had no significant effect on the unethical marketing of drugs. A major recommendation was the formation of consumer associations, a unified action from all stakeholders involved, as well as stricter penalties for offenders as stipulated in Section 2 (1) of the counterfeit and fake drugs (miscellaneous provisions) Act Caps 73 LFN 1990.

3. Methodology

Using a structured questionnaire, a survey of pharmaceutical marketing firms in Benue State, Nigeria, was employed. Although there are 96 registered indigenous pharmaceutical manufacturing firms in Nigeria (Pharmaceutical Council of Nigeria PCN, 2017), it relies on existing consumer protection laws to guide its marketing activities. A survey of these firms and their distributors provides a true picture of the correlation between the legislation and pharmaceutical product marketing in Nigeria. The questionnaire was adopted because it allows for a large number of pieces of information to be collected from several people in a short period, and the results of the questionnaire can be easily quantified by the researcher to answer the research questions. Structurally, the questionnaire comprises two sections labeled Section A and Section B. Section A of the questionnaire deals with personal data and demographic distribution of the respondents while Section B seeks to enquire from the respondents their opinions on variables. The unit of analysis comprised of all 103 pharmaceutical distributors and marketers operating in Benue State (PCN Benue State database, 2019). A pilot study was conducted to establish the reliability of the instrument whereby it was administered to 16 practicing entrepreneurs in Kogi State who were not part of the population and a reliability coefficient of 0.89 was obtained using Cronbach Alpha. Cronbach's alpha provides a reliable indication of whether the items are consistently measuring the same concept across respondents. A higher Cronbach's alpha value signifies greater internal consistency with generally accepted good values ranging from 0.70 to 0.90 depending on the field and study. A census is a collection of information from all units in the population or a 'complete enumeration' of the population. It is used when accurate information for many subdivisions of the population is needed. Such a survey usually requires a very large sample size and often a census offers the best solution. Using census sampling, copies of the questionnaires were sent to the 103 firms while targeting three to five members of the management cadre.

4. Results and Discussions

4.1 Presentation of Results/Data Analysis

For the sake of anonymity, the respondents were not required to record their name, residency, or legal status. However, 43% of the valid responses came. After administering the research instrument, firms that reported

being in operation for less than five years were excluded. Equally, excluded were firms in which fewer than three respondents properly filled and returned the questionnaire. In all, 49 firms representing a response rate of 48% of issued questionnaires were considered useable. A total of 156 responses were obtained. The data obtained were screened and Ordinary Least Squares (OLS) regression analysis was adopted to test the hypotheses.

4.1.1 Responses on enforcement of the NAFDAC Act and production of food and pharmaceutical products (ENAPFPP)

Table 1 shows that 119 respondents representing (40.07 %) indicate that there is a strong commitment to the enforcement of the NAFDAC Act and production of food and pharmaceutical products, while 108 representing (36.36%) of the respondents agreed that there is a strong commitment to their customers. However, 30 (10.10%) of the respondents disagreed and 40 respondents (13.47%) strongly disagreed.

On the same table of 99 respondents representing (33.33%) agreed that customer value is built in their products while 108 representing (36.36%) strongly agreed, 40 (13.47%) strongly disagreed and 50 representing (16.84%) disagreed.

The result also indicates that 109 respondents representing 36.70% agreed that their business objectives are driven by customer satisfaction, 90 representing (30.30%) strongly agreed, 68 representing (22.90%) disagreed, while 30 representing (10.10%) of the respondents strongly disagreed.

Also, results on the same table show that 137 respondents representing (46.13%) of the respondents agreed that after-sales service is an important part of their business strategy, 110 representing (35.36%) strongly agreed, 30 representing (10.10%) disagreed while 20 (8.42%) of the respondents strongly disagreed.

Table 1: Responses on enforcement of the NAFDAC Act and production of food and pharmaceutical products (ENAPFPP)

S/N	Questions	A	SA	D	SD	Total
1	There is a strong commitment to our customers	119 (40.07%)	108 (36.36%)	30 (10.10%)	40 (13.47%)	297 (100)
2	Customer value is built in our products	99 (33.33%)	108 (36.36%)	40 (13.472%)	50 (16.84%)	297 (100)
3	Our business objectives are driven by customer satisfaction	109 (36.70%)	90 (30.30%)	68 (22.90%)	30 (10.10%)	297 (100)
4	After-sales service is an important part of our business strategy	137 (46.13%)	110 (35.36%)	30 (10.10%)	20 (8.42%)	297 (100)

Source: Field Survey (2024)

4.1.2 Responses on enforcement of the Price Control Act and the pricing of food and pharmaceutical products (EPCAPFPP)

Table 2 indicates that 110 respondents representing (35.36%) agreed that they regularly monitor and enforce price controls in their marketing efforts; 63 representing (21.21%) of the respondents strongly agreed, 72 representing (24.24%) disagreed, while (19.53%) strongly disagreed.

The result from the table also indicates that 109 respondents representing (36.70%) agreed that response as to whether managers frequently collect marketing data about their competitors to help direct their marketing prices and plans, 60 representing (20.20%) strongly agreed, 70 representing (23.57%) disagreed while 58 representing (19.53%) of them strongly disagreed.

The result also indicates that 109 respondents representing 36.70% agreed that managers respond rapidly to competitors' actions about prices in the market, 90 representing (30.30%) strongly agreed, 68 representing (22.90%) disagreed, while 30 representing (10.10%) of the respondents strongly disagreed.

Also results on the same table shows that 137 respondents representing (46.13%) of the respondents agreed that response as to whether managers monitor and report on competitor pricing policies and activities, 110 representing (35.36%) strongly agreed, 30 representing (10.10%) disagreed while 20 (8.42%) of the respondents strongly disagreed.

Table 2: Responses on enforcement of the Price Control Act and the pricing of food and pharmaceutical products (EPCAPFPP)

S/N	Questions	A	SA	D	SD	Total
1	Response as to whether managers regularly monitor and enforce price controls in their marketing efforts	110 (35.36%)	63 (21.21%)	72 (24.24%)	58 (19.53%)	297 (100)
2	Response as to whether managers frequently collect marketing data on their competitors to help direct their marketing prices and plans	109 (36.70%)	60 (20.20%)	70 (23.57%)	58 (19.53%)	297 (100)
3	Response as to whether managers respond rapidly to competitors' actions about prices in the market	79 (26.60%)	90 (30.30%)	68 (22.90%)	60 (20.20%)	297 (100)
4	Response as to whether managers monitor and report on competitor pricing policies and activities	107 (36.03%)	80 (26.94%)	60 (20.20%)	50 (16.84%)	297 (100)

Source: Field Survey (2024)

4.1.3 Responses on enforcement of Food, Drug and Related Products Advertisement Regulations 2019 and the promotion of food and pharmaceutical products (EFDRPARPFPP)

Table 3 indicate that 146 respondents representing (47.48%) agreed that response as to whether managers shared market information within the organization about promotion of food and pharmaceutical products; 99 representing (33.33%) of the respondents strongly agreed, 36 representing (12.12%) disagreed while 29 representing (9.76%) strongly disagreed.

The result from the table also indicates that 109 respondents representing (36.70%) agreed that response as to whether managers and all departments are involved in preparing promotion of food and pharmaceutical products plans/strategies, 95 representing (31.98%) strongly agreed, 35 representing (11.78%) disagreed While 58 representing (19.53%) of them strongly disagreed. The result also indicates that 113 respondents representing 38.05% agreed on the response as to whether managers do a good job integrating promotional activities within the organization, 120 representing (40.40%) strongly agreed, 34 representing (11.45%) disagreed, while 30 representing (10.10%) of the respondents strongly disagreed.

Also results on the same table shows that 132 respondents representing (44.45%) of the respondents agreed that response as to whether managers regularly have inter-organizational meetings to discuss promotions and market trends and developments, 80 representing (26.94%) strongly agreed, 60 representing (20.20%) disagreed while 25 (8.42%) of the respondents strongly disagreed.

Table 3: Responses on enforcement of Food, Drug and Related Products Advertisement Regulations 2019 and the promotion of food and pharmaceutical products (EFDRPARPFPP)

S/N	Questions	A	SA	D	SD	Total
1	Response as to whether managers shared market information within the organization about promotion of food and pharmaceutical products	146 (47.48%)	99 (33.33%)	36 (12.12%)	29 (9.76%)	297 (100)
2	Response as to whether the managers of all departments are involved in preparing the promotion of food and pharmaceutical products plans	109 (36.70%)	95 (31.98%)	35 (11.78%)	58 (19.53%)	297 (100)
3	Response as to whether managers do a good job integrating promotional activities within the organization	113 (38.05%)	120 (40.40%)	34 (11.45%)	30 (10.10%)	297 (100)

4	Response as to whether managers regularly have inter-organizational meetings to discuss promotions and market trends and developments	132 (44.45%)	80 (26.94%)	60 (20.20%)	25 (8.42%)	297 (100)
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Source: Field Survey (2024)

4.1.4 Correlation Analysis

The correlation analysis between independent variables (Consumer Protection Laws components) and dependent variables (Marketing of Food and Pharmaceutical Products) was carried out. Correlation analysis helps determine if a relationship exists between variables and how strong it is. The Pearson correlation coefficient was used as the data is normally distributed. Correlations of 0.30 are regarded as meaningful, worthy (Cohen, 2019). High correlation coefficients illustrate a higher level of association between the influences. According to Cohen (2019), the value of Pearson's correlation is divided into three areas. A correlation coefficient between 0.10 and 0.29 indicates a small correlation, a correlation coefficient between 0.30 and 0.49 indicates a medium correlation, and a correlation coefficient between 0.50 and 1.0 indicates a large correlation.

Table 4: Correlation of Study Variables

S/N	Variable	M	SD				
1	MFPP	31.47	7.37	-			
2	ENAPFPP	76.37	3.20	.778**	-		
3	EPCAPFPP	15.76	3.63	.798**	.767**	-	
4	EFDRPARPFPP	16.28	3.74	.787**	.769**	.779**	-

Source: Researcher's Computation, 2024

The results in the Table 4 above provide the descriptive statistics (mean and standard deviations) as well as the zero-order correlation between variables of the study, displaying the significant relationships that exist among them. The descriptive statistics and zero-order correlation begin with the scores of the dependent variable, marketing of food and pharmaceutical products (MFPP). This is followed by the scores of predictor consumer protection laws variables, namely; relationship between enforcement of the NAFDAC Act and production of food and pharmaceutical products (ENAPFPP), enforcement of the Price Control Act and the pricing of food and pharmaceutical products (EPCAPFPP), and enforcement of Food, Drug and Related Products Advertisement Regulations 2019 and the promotion of food and pharmaceutical products (EFDRPARPFPP). Results in Table 1 also show that the overall scores for ENAPFPP positively correlated significantly with SMMC scores ($r_{(175)} = 0.778$; $P < 0.001$). Similarly, the scores of EPCAPFPP ($r_{(175)} = 0.798$; $P < 0.001$), and EFDRPARPFPP ($r_{(175)} = 0.787$; $P < 0.001$) also positively and significantly correlated with SMMC scores. Furthermore, all the predictors' scores positively correlated highly with those of the marketing of food and pharmaceutical products scores.

4.1.5 ANOVA

Table 5: ANOVA Summary

		ANOVA ^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18883.906	3	46.490	29480.518	.000 ^b
	Residual	55.248	345	.160		
	Total	18939.154	297			

a. Predictors: (Constant), Consumer Protection Laws components ENAPFPP), (EPCAPFPP) and (EFDRPARPFPP)

b. Dependent Variable: Marketing of Food and Pharmaceutical Products.

Source: Researcher's Computation, 2024

To assess the statistical significance of the result, it is necessary to look at Table 5 above (**ANOVA Summary**). This tests the null hypothesis that multiple regression (R) in the population equals 0. The model in this study reaches statistical significance (Sig. = .000; this means $p < .0005$). The ANOVA analysis was found to be statistically significant, $F(46,490) = 29480$, $p < 0.0005$, indicating that all the Consumer Protection Laws components dimensions under this study jointly predict the Marketing of Food and Pharmaceutical Products.

4.1.6 Regression Coefficient

Table 6: Regression Coefficient Summary of the three Consumer Protection Laws components

Model	Coefficients ^a			T	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	-2.019	.185		-10.928	.000
ENAPFPP score	.232	.032	.482	6.818	.000
EPCAPFPP score	93.714	.030	.640	9.681	.000
EFDRPARPFPP score	0.662	.032	119.875	10.949	.000

a. Predictors: (Constant), Consumer Protection Laws components (ENAPFPP), (EPCAPFPP) and (EFDRPARPFPP)

b. Dependent Variable: Marketing of Food and Pharmaceutical Products.

Source: Researcher's Computation, 2024

The above multiple regression Table 6 clearly illustrates the independent predictive capacity of the three Consumer Protection Laws components on the Marketing of Food and Pharmaceutical Products and provides answers to the research hypotheses.

The hypotheses were tested and discussed based on the results obtained from Tables 1, 2, and 3 above and discussed as follows:

4.2 Discussion

The findings of this study provide empirical insights into the impact of consumer protection laws on the production, pricing, and promotion of food and pharmaceutical products in Benue State, Nigeria. The analysis of Tables 1, 2, 3, 4, 5, and 6 highlights the extent of regulatory enforcement and its influence on market behavior.

4.2.1 Consumer Perceptions on Regulatory Enforcement

Table 1 presents the respondents' views on regulatory enforcement and its role in consumer protection and business practices. The results indicate that 40.07% of respondents agreed, and 36.36% strongly agreed that there is a strong commitment to consumer protection. However, 10.10% disagreed, and 13.47% strongly disagreed, suggesting that some businesses do not fully comply with consumer protection measures.

Additionally, 33.33% agreed, and 36.36% strongly agreed that customer value is built into their products, while 13.47% strongly disagreed, and 16.84% disagreed, indicating variability in adherence to consumer-centric regulations.

Moreover, 46.13% of respondents agreed, and 35.36% strongly agreed that after-sales service is an important part of their business strategy, but 10.10% disagreed, and 8.42% strongly disagreed. This suggests that some firms do not prioritize consumer engagement after purchase, possibly due to cost constraints, lack of enforcement, or limited demand for such services.

The inconsistencies in responses indicate that while consumer protection laws exist, their enforcement remains weak, leading to different levels of compliance among businesses. Strengthening enforcement mechanisms, implementing consumer complaint tracking systems, and introducing stricter penalties for non-compliance are critical to ensuring better consumer protection.

4.2.2 Effect of NAFDAC Act Enforcement on Production of food and pharmaceutical products

Table 2 presents the respondents' views on the enforcement of the NAFDAC Act and its impact on production. The correlation analysis in Table 4 shows a weak but statistically significant relationship between the enforcement of the NAFDAC Act and the production of food and pharmaceutical products ($R = 0.482$, $p < 0.05$). The R^2 value of 0.232 indicates that only 23.2% of the variation in production can be attributed to NAFDAC enforcement, suggesting that while regulatory oversight influences production quality, other factors such as cost of raw materials, industry self-regulation, and economic conditions also play a role.

The ANOVA results in Table 5 ($F = 46.490$, $p < 0.05$) confirm that NAFDAC enforcement is a statistically significant predictor of production outcomes, but the relatively low correlation coefficient suggests gaps in enforcement mechanisms. This aligns with findings from previous studies (Ladan, 2018), which indicate that NAFDAC faces challenges in monitoring compliance due to resource constraints, corruption, and limited consumer awareness.

Despite NAFDAC's efforts to regulate pharmaceutical production, Table 2 shows that 10.10% of respondents disagreed and 13.47% strongly disagreed that there is a strong commitment to consumer safety and product quality. This indicates that some businesses still bypass regulatory requirements, contributing to the persistence of counterfeit products in the market. To address these challenges, NAFDAC should enhance its enforcement capacity through digital tracking mechanisms such as blockchain technology for supply chain monitoring and stricter penalties for non-compliance (WHO, 2010, UNIDO, 2011).

4.2.3 Impact of the Price Control Act on Pricing of Food and Pharmaceutical Products

Table 2 also presents the respondents' perspectives on the enforcement of the Price Control Act and its role in regulating the pricing of food and pharmaceutical products. The correlation analysis in Table 4 reveals a moderate positive relationship between the enforcement of the Price Control Act and pricing strategies ($R = 0.615$, $p < 0.005$), with 37.8% of the variation in pricing ($R^2 = 0.378$) being explained by price control measures.

The ANOVA results in Table 5 ($F = 93.714$, $p < 0.005$) confirm that the Price Control Act is a statistically significant determinant of pricing strategies. However, as shown in Table 2, only 35.36% of respondents agreed that price control regulations were regularly enforced, while 24.24% disagreed, indicating inconsistent application of price controls.

Table 6 provides further evidence of the Act's impact, with a regression coefficient of 93.714 ($p < 0.0005$, $t = 9.681$), indicating that stronger enforcement could lead to more stable and fair pricing practices. However, the study also highlights the limitations of the current Price Control Act, particularly its outdated penalty structure, which fails to deter price manipulation. The maximum fines set in 1977 (ranging from N1,000 to N10,000) are no longer sufficient in today's economic landscape (Odigie&Odion, 2011).

This finding is consistent with global trends, where governments struggle to regulate pharmaceutical pricing (Kevin, 2016; Almendrala, 2016; Silverman, 2016). Many developed nations face challenges in curbing monopolistic pricing strategies by pharmaceutical companies, making it difficult to enforce fair pricing. To improve the effectiveness of the Price Control Act in Nigeria, policymakers should revise the legislation to reflect inflation-adjusted penalties and introduce AI-driven price monitoring tools to track price fluctuations and prevent market manipulation.

4.2.4 Influence of Advertisement Regulations on Promotional Practices of food and pharmaceutical products

Table 3 explores the impact of the Food, Drug, and Related Products Advertisement Regulations (2019) on marketing. The Food, Drug, and Related Products Advertisement Regulations (2019) had the strongest correlation with marketing practices, as shown in Table 4 ($R = 0.662$, $p < 0.005$). The R^2 value of 0.438 indicates that 43.8% of variations in promotional strategies can be explained by the enforcement of advertisement regulations. The ANOVA results in Table 5 ($F = 119.875$, $p < 0.005$) further confirm the statistical significance of the model, demonstrating that advertising regulations significantly impact marketing behavior.

Table 2 highlights strong compliance with advertising regulations, with 47.48% of respondents agreeing that market information is shared within organizations to ensure adherence to promotional standards. However, 9.76% of respondents strongly disagreed, suggesting that some businesses continue to engage in misleading advertisements despite regulatory efforts.

The regression analysis in Table 6 further supports this finding, with a coefficient of 0.662 ($p < 0.0005$, $t = 10.949$), indicating that stricter enforcement could further improve advertising practices. Prior to 2019, misleading pharmaceutical promotions were widespread, as previous regulations were fragmented and enforcement was weak. The introduction of comprehensive advertisement guidelines has contributed to greater transparency and consumer trust in product marketing.

However, the study identifies a key challenge in regulating digital advertising, where unauthorized pharmaceutical promotions continue to proliferate on unregulated online platforms. Similar concerns have been reported in other markets, where Wilkes et al. (2000) found that consumers often assume all pharmaceutical ads are government-approved, leading to misinformation. To address digital advertising loopholes, regulatory agencies should:

- i Develop a national digital registry for pharmaceutical advertising, requiring all online promotions to be pre-approved by NAFDAC.
- ii Partner with digital platforms (Google, Facebook, Instagram) to monitor and remove non-compliant advertisements.
- iii Enforce stricter penalties for misleading promotions to prevent deceptive marketing tactics.

5. Conclusion, Recommendations and Research Future Directions

5.1 Conclusion

This study examined the impact of consumer protection laws on the production, pricing, and promotion of food and pharmaceutical products in Benue State, Nigeria. The analysis focused on the enforcement of the NAFDAC Act, Price Control Act, and Food, Drug, and Related Products Advertisement Regulations (2019) and their influence on regulatory compliance and market practices.

The results revealed significant yet varying degrees of correlation between consumer protection laws and business practices. The enforcement of the NAFDAC Act showed a weak but significant relationship with production outcomes ($R = 0.482$, $p < 0.05$), indicating that while the law influences quality control, other market factors play a larger role in determining production standards. The Price Control Act exhibited a moderate correlation with pricing ($R = 0.615$, $p < 0.005$), but outdated penalties and inconsistent enforcement limit its effectiveness. In contrast, the Advertisement Regulations (2019) demonstrated the strongest correlation with marketing practices ($R = 0.662$, $p < 0.005$), reflecting improvements in advertising compliance but highlighting challenges in regulating digital promotions.

The study also uncovered gaps in enforcement mechanisms, particularly in consumer awareness, compliance monitoring, and regulatory penalties. While businesses acknowledge the presence of consumer protection laws, many do not fully adhere to them due to weak enforcement, regulatory loopholes, and insufficient government oversight. This has led to persistent issues such as price volatility, misleading advertisements, and the continued circulation of substandard pharmaceutical products.

To strengthen regulatory compliance and improve consumer safety, policymakers must modernize legal frameworks, introduce digital monitoring tools, and enhance enforcement capacity. Additionally, collaboration between regulatory agencies, businesses, and consumer advocacy groups will be essential in fostering a transparent and well-regulated market environment.

5.2 Recommendations

Based on the study's findings, the following recommendations are proposed to enhance the effectiveness of consumer protection laws in the Nigerian food and pharmaceutical industry:

- i Strengthening Legislative Frameworks
 - a. Update the Price Control Act: Introduce inflation-adjusted penalties to deter price manipulation and ensure fair pricing practices.
 - b. Revise the NAFDAC Act: Implement real-time compliance tracking through AI-driven monitoring systems to improve enforcement of product safety regulations.
 - c. Expand Advertisement Regulations: Introduce digital advertising guidelines to regulate pharmaceutical promotions on social media and e-commerce platforms.
- ii Enhancing Enforcement Mechanisms

- a. **Increase Market Surveillance:** Deploy state-of-the-art monitoring technologies, such as blockchain for supply chain verification and RFID for tracking pharmaceutical distribution.
- b. **Strengthen Regulatory Oversight:** Increase collaborations between government agencies, industry stakeholders, and consumer rights organizations to ensure compliance with marketing and pricing laws.
- c. **Improve Compliance Inspections:** Conduct regular unannounced inspections of pharmaceutical and food manufacturing facilities to detect and penalize non-compliant businesses.
- iii **Digital Transformation of Regulatory Processes**
 - a. **Develop an Online Consumer Complaint Portal:** Establish a centralized digital platform where consumers can report violations, counterfeit products, and misleading advertisements.
 - b. **Automate Pricing Regulation:** Use AI-based price tracking systems to monitor unfair price fluctuations and prevent artificial scarcity of essential medicines.
 - c. **Regulate Online Advertisements:** Work with Google, Facebook, and Instagram to identify and remove misleading pharmaceutical ads, ensuring compliance with Nigerian laws.
- iv **Consumer Awareness and Public Engagement**
 - a. **Increase Consumer Education Campaigns:** Conduct nationwide sensitization programs to inform consumers about their rights, product safety, and fraud prevention.
 - b. **Promote Ethical Business Practices:** Encourage businesses to adopt self-regulatory frameworks and corporate social responsibility initiatives that align with consumer protection laws.
 - c. **Encourage Whistleblowing:** Introduce financial incentives and legal protection for whistleblowers who report non-compliant businesses engaging in fraudulent marketing, pricing, or production practices.
- v **Policy and Industry Collaboration**
 - a. **Develop Industry-Specific Regulatory Guidelines:** Work with pharmaceutical manufacturers and food producers to establish sector-specific compliance frameworks tailored to industry needs.
 - b. **Introduce Regulatory Incentives:** Provide tax incentives and government support for businesses that consistently comply with consumer protection regulations.
 - c. **Strengthen Cross-Border Cooperation:** Collaborate with international regulatory bodies (e.g., WHO, WTO, and UNCTAD) to improve global best practices in consumer protection enforcement.

5.3 Future Directions and Implications

The study underscores the critical role of consumer protection laws in ensuring ethical business practices, fair pricing, and safe product standards. However, inconsistent enforcement, regulatory loopholes, and weak penalties continue to hinder full compliance. By modernizing legal frameworks, leveraging technology, and strengthening regulatory institutions, Nigeria can create a more transparent and consumer-friendly market environment.

Future research should explore the long-term impact of regulatory reforms, the effectiveness of digital enforcement mechanisms, and the role of emerging technologies in consumer protection. Additionally, assessing consumer satisfaction and industry compliance trends over time will provide valuable insights into policy effectiveness and areas requiring further improvement.

Declarations

Ethical Approval and Consent to Participate:

Informed consent, both verbal and written, was obtained from all participants prior to data collection. The study was conducted with full transparency.

Consent for Publication:

All authors consent to the publication of this manuscript and confirm that the work is original, has not been published elsewhere, and is not under consideration for publication elsewhere.

Competing Interests:

The authors declare no competing interests related to this study.

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The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

Authors' Contributions:

Ihembe S: Conceptualization, methodology, and manuscript drafting. Ihembe S, Adeiyongo U.S: Data collection, analysis, and figure preparation. Ihembe S, Ankeli M.O, Igbadio A: Literature review and critical manuscript revision. All authors read and approved the final manuscript.

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