

Marketing Factors And New Vehicles Sales: A Correlative Exposition

By

Etim, Glory Sunday

Department of Marketing, University of Calabar, Nigeria

Email: ubong.basil2@gmail.com

+234 - 08033910962

Samuel Etim Ndem

Department of Marketing, University of Calabar, Nigeria

Email: samndem398@gmail.com

+234 - 08062823090

William Smart Inyang

Department of Accounting, University of Calabar, Nigeria

Email: wismarti@gmail.com

+234 - 07036306918

Ada, Julius Agba

Department of Business Management, University of Calabar, Nigeria

Email: adajulius12@gmail.com

+234 - 08037544420

Abstract

This research appraised marketing factors affecting the sales of new vehicles. It was intended to determine the effect of price, brand attributes and product qualities on the sales potentials of new vehicles. The study adopted cross-sectional survey design. Primary data were obtained from car dealers through structured questionnaire. The data obtained were analyzed and interpreted using descriptive statistics while hypotheses testing were done using multiple linear regression in the Statistical Package for the Social Sciences (SPSS 23). The findings of the study revealed that price, brand attributes and product qualities have significant positive effects on the sales potentials of new vehicles. Hence, the study recommended that vehicle dealers should recognize price as an important determinant of customers' patronage of new vehicles and do whatever they can to make the purchase and maintenance cost of new vehicles as well as the cost of spare parts affordable for customers in order to encourage them to purchase new vehicles over used ones; manufacturers of vehicles should consistently integrate more valuable brand attributes such as design, reputation and value to new vehicles in order to make them more attractive to customers contemplating to buy vehicles amidst competition from used cars; and the quality of new vehicles should consistently be improved by upgrading their durability, engine efficiency, fuel optimization and spare parts availability so that potential buyers will be enticed to purchase new cars instead of used ones.

Keywords: Marketing Factors, Vehicle Marketing, Price, Brand Attributes, Product Quality, New vehicles

1.0 Introduction

The automobile industry comprises all companies and activities involved in the manufacture of motor vehicles, including vehicle components, such as engines and bodies, but excluding tires, batteries, and fuel (Binder, 2021). The industry's primary products are passenger automobiles and light trucks, including pickups, vans, sport utility vehicles, and commercial vehicles (such as delivery trucks and large transport trucks). The global automobile manufacturing industry is the highest-ranking manufacturing industry by market size in the world (IBISworld, 2021). As of 2021, the industry had an estimated market value of \$2.7 trillion, which was projected to increase by 9.7 percent in the second quarter of 2021. However, due to the prevailing Coronavirus pandemic, the global automobile industry's market value has declined by 1.48 percent, from \$2.7 trillion to \$2.66 trillion in the second quarter of 2021 (IBISworld, 2021). In an effort to boost the global automobile industry, the governments of four of the largest automobiles manufacturers in the world, China, United States of America, Japan and Germany, have taken steps to substantially increase global production, while reducing carbon emissions from cars on behalf of the green revolution agenda (Singh, 2021). In Nigeria, the automobile industry comprises the activities and companies involved in the manufacturing, assembly, sales and repairs of automobiles and associated components. However, the unique feature of Nigeria's automobile industry is that the bulk of vehicles traded are imported from other countries and assembled in Nigeria for sale to Nigerians (Emah-Emah, 2022).

According to Oyekanmi (2022: 16), "Nigeria's expenditure on importing used vehicles rose by 12.6 percent to N617.48 billion in 2021 from N548 billion in 2020 due to a reduction in import duty on used vehicles". However, in the first half of 2022, "the value of used cars imported by Nigeria declined by 72.6 percent from N617.48 billion in 2021 to N169.1 billion in 2022, according to recent data released by the National Bureau of Statistics" (Adegbesan, 2022: 19). This entails that as more Nigerians scout for new vehicles to purchase, they are met with fewer options. Though most people would normally prefer to purchase brand new vehicles due to their perceived quality, majority of Nigerian consumers prefer to buy used vehicles, otherwise known as 'Tokunbo or Belgium' due to the perceived affordability of these vehicles (Emah-Emah, 2022). Given that Nigeria lacks the manufacturing technology and know-how to produce its own cars on a large scale and Nigerians' chronic preference for exotic products, the costs of purchasing a brand new car in the country remain out of reach for majority of people. This means that the bulk of cars used by Nigerians are imported from abroad, making Nigerian heavily susceptible to intermittent global economic instabilities. Most recently, due to the destabilizations caused by COVID-19, expensive import duties, clearing and processing charges, hostile port policies and substantial declines in the US Dollar-Naira rate, the costs of purchasing cars (used and brand new) in Nigeria have skyrocketed, thereby undermining Nigerians' capacity to afford these cars (Emah-Emah, 2022). In such an unfavourable economic situation, rational car users are grappling with the key factors to consider in purchasing new vehicles in order to maximize value for their money.

The problem of this study is that there appears to be insufficient empirical evidence that reliably explains the key marketing factors that should be considered by Nigerian car users in determining which vehicles to purchase. This is because much research attention has not been focused on the subject of marketing factors and sale of vehicles in Nigeria by indigenous researchers, thereby creating a knowledge gap, which requires more research. Also, a preliminary literature scoping review by the researcher revealed that most studies on the subject were domiciled in foreign countries, while the few relevant studies in Nigeria (such as Nwatu,

2020) only centered on branding factors (brand loyalty, brand awareness and brand association) and customers' purchase of automobiles in Nigeria. This entails that in the Nigerian context, there is insufficient empirical evidence to determine the key marketing factors affecting the sales of new vehicles. Against this study backdrop, this study was designed to explore the influences of marketing factors (price, brand attributes and product quality) on the sales of new vehicles in Nigeria.

2.0 Theoretical Framework

This study was based on the framework provided by the rational choice theory, propounded by Becker (1992) and the theory of reasoned action, propounded by Fishbein and Ajzen (1967).

2.1 Rational choice theory

Becker (1992) is credited with propounding the rational choice theory; a framework for understanding and often formally modeling social and economic behavior. The theory suggests that aggregate social behavior results from the behavior of individual actors, each of whom is making their individual decisions. The theory therefore focuses on the determinants of the individual choices (methodological individualism). The basic premise of this theory is that a rational consumer makes consumption choices so as to maximize their happiness, or utility (Becker, 1992). The relevance of the rational choice theory to this study rests in its basic premise, which suggests that buyers of new vehicles are rational consumers who make consumption choices and decisions after they have considered a range of alternatives in order to maximize their happiness or utility. This entails that buyers of new vehicles are presumed not to be random and uninformed; rather, they are believed to be rational, seeking to maximize more value for their purchases made. To achieve maximum value for their purchases of new vehicles, the theory suggests that buyers will thoroughly and repeatedly evaluate available vehicle options (using assessment parameters such as brand attributes, product quality and price). Based on a thorough assessment of these alternatives, the theory holds that buyers will then choose the best alternative, which offers the most satisfaction, benefit or value for their money. At the core of the rational choice theory is the idea that consumers' purchase of products (such as vehicles) could be influenced by marketing factors (price, brand attributes and product quality), which form part of their assessment parameters. This study sought to verify through hypotheses testing whether or not these marketing factors could influence the sales of new vehicles in Nigeria.

2.2 Theory of reasoned action

The theory of reasoned action was developed by Fishbein and Ajzen (1967) and was derived from previous research that began as the theory of attitude. The basic premise of the theory is that an individual's decision to engage in a particular behaviour is based on the outcomes the individual expects will come as a result of performing the behaviour (Fishbein & Ajzen, 1967). The relevance of the theory of reasoned action to this study is that it suggests that a customer's decision to purchase new vehicles is based on the belief in the possible outcomes of that purchase (satisfaction/dissatisfaction), and what people around them would think of that decision. If they think that the product will provide positive outcomes (such as high product quality, brand attributes and low price), and people around them are in support of their purchase of the product, then the theory predicts that customers are likely to purchase it. Hence, the theory implies that for new vehicles to be preferred and purchased, customers must have positive attitudes towards them and the support as well as approval of other people around them such as family members, social class, and peer group. This further implies that a

customer's decision to purchase new vehicles (actual behaviour) is determined by their perception of the possible outcomes of that purchase (attitude) and what people and influences around them would think of that decision (subjective norms).

2.3 Price and sales of new vehicles

One of the most fundamental elements of marketing is price, which entails the monetary value of a product (Richmond & Harold, 2017). It is the worth of a product or service expressed in monetary terms. It is how much of money for which a product can be exchanged. Price is a value that will purchase a finite quantity, weight, or other measure of a good or service. It can also be seen as the consideration given in exchange for transfer of ownership of a product from seller to buyer. As a fundamental part of the marketing mix price plays a two-pronged role in the marketing of products and services (Wang, He, Yang & Gao, 2016). If it is low or affordable, price can serve as a stimulator of consumers' interest, preference and purchase of companies' products and services. However, when it is too high or out of consumers' affordability, it becomes a repellent to customers by impeding customers' patronage. In recognition of the potential imperatives of price, business organizations are resorting to the implementation of competitive pricing strategies to provide more value to customers and enhance customer patronage in the process (Daniel, 2018). The foregoing viewpoint suggests that the application of pricing strategies have the potential to enhance the sales performance of companies. This viewpoint is supported by the study of Dhanabalan, Subha, Shanthi and Sathish (2018), which revealed that price had a significant positive influence on consumers' car purchasing decision in the Indian automobile industry. Another study by Kowang, Samsudin, Yew, Hee, Fei and Long (2018) revealed that price had a significant positive effect on purchase intention towards cars by undergraduate students in Malaysia.

2.4 Brand attributes and sales of new vehicles

Brand attributes are the core values that define the overall nature of the company and represent the essence of the brand. They are the set of unique fundamentals and characteristics that identify the physical, character, and personality traits of the brand in the market and in the minds of the customers (Alrwashdeh, Ali, Helalat & Alkhodar, 2022). In today's competitive marketplace, the power of brand to reinforce the marketing of products and services cannot be disregarded, particularly in sectors where customers are brand-sensitive as in the case of technological products (Ahmad & Thyagaraj, 2015). In such sectors as the automobiles industry, customers pay close attention to car brand and its attributes in order to decide whether or not to maintain loyalty to a particular brand. This is because in such sectors, brand attributes such as image, reputation, and equity could clearly differentiate fake and substandard products from original ones, thereby guiding customers on the right products to purchase (Satvati, Rabie & Rasoli, 2016). The foregoing viewpoint implies that brand attributes could significantly influence the sales of new vehicles in Nigeria. The foregoing viewpoint is reinforced by the study of Li and Chaipoopirutana (2015), which revealed that brand attributes had a significant influence on customers' patronage of cars in China. Also, the foregoing viewpoint finds support in the study of Chidambaram and Alfred (2017), which revealed that brand attributes had a significant positive influence on customers' purchase of passenger automobiles in Mumbai City.

2.5 Product quality and sales of new vehicles

Product quality is the collection of features and characteristics of a product that contribute to its ability to meet given requirements (Ward, Ethan & Hunt, 2020). It is the ability of a product to fulfill and meet the requirements of the end user. For a product to be of good quality it should be reliable and perform all its functions smoothly (Sampson, 2019). Product

quality has been recognized by business organizations as a credible recipe for ensuring customers' satisfaction with their brands (Razak, Nirwanto & Triatmanto, 2016). Particularly with products that have to do with health and technology, customers are keenly concerned with product quality than in convenience goods they purchase regularly. This insight has driven technology companies like vehicle manufacturers to innovate new designs and functions to improve the durability, functionality and material quality of their products (Hoe & Mansori, 2018). By consistently maintaining high-quality standards for their products, vehicle manufacturers and dealers of top brands have been able to sell more products even in the midst of close industry competition. The foregoing viewpoint suggests that product quality could significantly enhance the sales of new vehicles. The foregoing viewpoint finds support in the study of Munywoki (2016), which revealed that quality of car had a significant positive influence on sales of new vehicles in the Kenyan motor vehicle industry. The viewpoint is also supported by the study of Bhatt and Bhatt (2015), which revealed that vehicle quality had a significant positive influence on consumers' brand loyalty to German cars among users in Pakistan.

2.6 Empirical review and model conceptualization

Dhanabalan, Subha, Shanthi and Sathish (2018) examined the "Factors influencing consumers' car purchasing decision in Indian automobile industry". The study obtained primary data from 547 car users in India using a structured questionnaire. The hypotheses of the study were tested statistically using Structural Equation Model. The findings of the study revealed that brand attributes, price, product quality, product design, utility, and technical consideration had significant positive influences on consumers' car purchasing decision in the Indian automobile industry. However, the limitation of the study is that it was overwhelmingly constrained to the Indian automobiles industry, without reference to the Nigerian automobiles industry. Therefore, the study does not provide adequate empirical evidence to explain the marketing factors influencing the sale of new vehicles in Nigeria. Another study by Kowang, Samsudin, Yew, Hee, Fei and Long (2018) examined the "Factors affecting car purchase intention among undergraduates in Malaysia". The study obtained primary data from 127 undergraduate students in Malaysia using a structured research questionnaire. The data obtained were analyzed using multiple regression analysis. The findings of the study revealed that price, aesthetic, features and interpersonal influences had significant positive effects on purchase intention towards cars by undergraduate students in Malaysia. This study is limited in scope to undergraduate students in the Malaysia automobile industry with no reference to the Nigerian automobile industry. As such, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria.

A similar study by Li and Chaipoopirutana (2015) examined the "Important factors that influence customers' patronage of Chang'an car brand in Xi'an city, Shaanxi, China". The study used a structured questionnaire to obtain primary data from 302 car buyers in Xi'an City, China. Descriptive statistics were used for data analysis and interpretation, while the hypotheses of the study were tested using regression analysis. The findings of the study revealed that perceived product quality, price, brand attributes and vehicle durability had significant influences on customers' patronage of cars in China. This study is limited in scope to the Chinese automobile industry, with no reference to the Nigerian automobile industry. As such, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria. Similarly, Chidambaram and Alfred (2017) examined the "Factors affecting customers' purchase of passenger automobiles in Mumbai city". The study used a semi-structured questionnaire to obtain primary data from 289 buyers of automobiles in Mumbai city. Regression analysis and Pearson's Product Moment

Correlation were used for data analysis and hypotheses testing. The findings of the study revealed that vehicle price, brand attributes, perceived quality, fuel economy, maintenance costs and design had significant positive influences on customers' purchase of passenger automobiles in Mumbai City. Like the previous study, this study is limited in scope to the Indian automobile industry, with no reference to the Nigerian automobile industry. As such, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria.

Furthermore, Munywoki (2016) examined the "Factors affecting the sale of new vehicles in the Kenyan motor vehicle industry". The study used a structured questionnaire to collect primary data from 100 customers of Simba Corporation Limited in Nairobi. The data obtained from respondents were subjected to statistical analysis using descriptive and inferential statistics with the help of the Statistical Package for Social Sciences (SPSS). The findings of the study revealed that level of income, price, quality of car, resale value of the car, payment options, and government policies had significant positive influences on sales of new vehicles in the Kenyan motor vehicle industry. However, the limitation of this study lies in its scope, which is overwhelmingly restricted to the Kenyan automobile industry, with no reference to the Nigerian automobile industry. Hence, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria. Also, Bhatt and Bhatt (2015) conducted a study that centered on determining the "Factors influencing consumers' brand loyalty to German cars: An empirical study in Ahmedabad, Pakistan". The study used a self-administered research questionnaire to obtain primary data from 316 buyers of German cars in Ahmedabad, Pakistan. The data were analyzed using descriptive statistics while the hypotheses were tested using multiple linear regression in the Statistical Package for the Social Sciences (SPSS). The findings thereof revealed that brand promotion, brand attributes, vehicle quality, vehicle price and car resale value had significant positive influences on consumers' brand loyalty to German cars among users in Pakistan. However, the limitation of this study lies in its scope, which is overwhelmingly restricted to the Pakistani automobile industry, with no reference to the Nigerian automobile industry. Hence, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria.

Another study by Olise, Okoli and Ekeke (2015) examined the "Factors influencing customers' patronage of fast food restaurants". The study obtained primary data from 291 customers of fast food in Anambra State, Nigeria using a structured questionnaire. The data were analyzed and interpreted subsequently using descriptive statistics and the multiple linear regression model. The findings of the study revealed that service quality, atmospheric quality, perceived value, environment, consumer demographics and modernity were significant factors influencing the behaviour of customers towards patronizing fast food restaurants in Nigeria. However, the limitation of this study is that it is restricted to the Nigerian fast food industry, with no reference to the Nigerian automobile industry. Hence, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria. Also, Oladare and Adebisi (2016) carried out a study on "Consumers' preference factors and consumer brand loyalty to soft drinks in Ekiti, Nigeria". The aim of the study was to determine the association between preference factors (price, product quality, distribution, promotion and brand name) and consumer brand loyalty to soft drinks in Ekiti State. Primary data were obtained from 135 consumers of soft drinks in Ado-Ekiti using structured questionnaire. The data were analyzed using Pearson's Product Moment Correlation in the Statistical Package for the Social Sciences (SPSS 17). Consequently, it was found that price, product quality, distribution, promotion and brand name had a significant association

with consumer brand loyalty to soft drinks in Ekiti State. Hence, the study reached the conclusion that consumers' preference factors had a significant positive association with consumer brand loyalty to soft drinks in Ekiti, Nigeria. However, the limitation of this study is that it is restricted to the Nigerian soft drink industry, with no reference to the Nigerian automobile industry. Hence, the empirical evidence generated in the study does not adequately explain the marketing factors affecting the sales of new vehicles in Nigeria.

From the position of previous scholars contained in existing studies reviewed, it can be seen that marketing factors were instrumental in influencing customer patronage of vehicles in several different countries. However, in the context of Nigeria, such insight is yet to be confirmed by existing researchers. On the basis of this outcome, this study hypothesizes that marketing factors (price, product quality and brand attributes) could significantly improve the sale of new vehicles in Calabar, Nigeria. This hypothesized relationship between the independent variable (marketing factors) and the dependent variable (sale of new vehicles) has been portrayed in the conceptual model in figure 1.

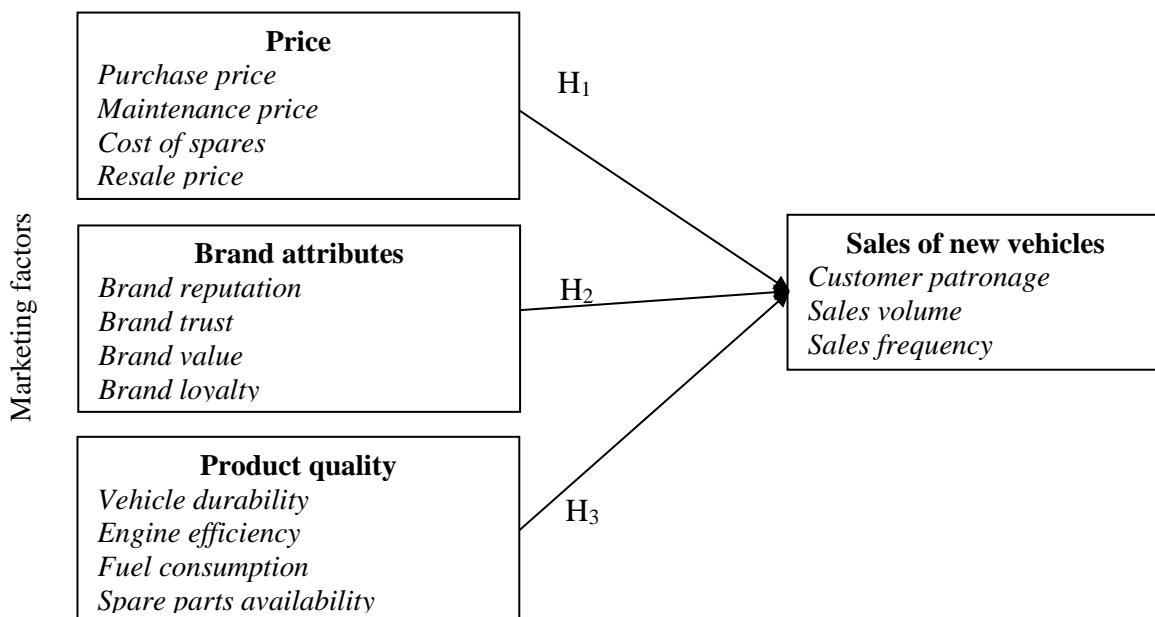


Figure 1: Conceptual model of the study

Source: Parameters of independent variables adapted from Kowang et al. (2018); Li and Chaipoopirutana (2015); Maharani et al. (2017); Chidambaram and Alfred (2017). Parameters of dependent variable adapted from Grembler and Flint (2019).

3.0 Research Methodology

In this study, we adopted cross-sectional survey research design to enable the collection of primary data on a one-time basis from car dealers within a short period of time. To obtain data for the study, we targeted a sample size of 174 car dealers determined using the Topman sample size procedure. For the sampling process, we adopted convenience and snowball sampling techniques to locate and include car dealers in the questionnaire. Using convenience sampling, the researcher randomly approached car-marketing firms in Nigeria and administered copies of the questionnaire to individuals working in the firms. Using snowball

sampling technique, the car dealers surveyed were asked to recommend other active car dealers for the researcher to include in the study. Following a series of recommendations from actual car dealers, the researcher recruited a total of 174 respondents who identified as car dealers for the survey. The study applied snowball sampling because of the difficulty in locating car dealers, given that they do not operate in a particular location in the town. The recommendation of actual car dealers was vital to enable the researcher survey respondents who were actual car dealers in order to enhance the reliability of data obtained. To obtain primary data from the selected car dealers, we used a structured questionnaire, with measures adapted from existing studies – Kowang *et al.* (2018); Li and Chaipoopirutana (2015); Maharani *et al.* (2017); Chidambaram and Alfred (2017); Grembler and Flint (2019). To confirm the validity of the research instrument, it was subjected to content validation procedures and approved as reliable by research experts. The instrument was also pre-tested using Cronbach's Alpha reliability method to ascertain its reliability. All the items on the questionnaire yielded Cronbach's alpha coefficients not less than 0.7. Hence, it was considered reliable and adopted for field administration to obtain data for the study. Subsequently, the data obtained from respondents were analyzed and interpreted using descriptive statistics, while the hypotheses of the study were tested using multiple linear regression. The regression model derived states thus:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \quad \text{----- EQ1}$$

$$\text{SALES} = a + \beta_1 \text{PRICE} + \beta_2 \text{BRATTRIB} + \beta_3 \text{PRODQUAL} + e \quad \text{----- EQ2}$$

Where:

SALES = Dependent variable (sales of new vehicles)

a = The intercept

$\beta_1, \beta_2, \beta_3$ = Coefficients of the independent variables

MARKFACT = Independent variable (marketing factors)

e = Error margin (5 percent)

Hence,

$\beta_1 X_1$ = Coefficients of price

$\beta_2 X_2$ = Coefficients of brand attributes

$\beta_3 X_3$ = Coefficients of product quality

Table 1: Questionnaire reliability coefficients

Variables	No. of items	Cronbach's alpha coefficients
Price	4	.811
Brand attributes	4	.782
Product quality	4	.776
Sales of new vehicles	3	.793
15		

Source: Authors' analysis via SPSS 2023

4.0 Analysis And Discussion

During the questionnaire survey, we retrieved 96.6 percent of the total number of questionnaires administered while 3.4 percent could not be retrieved.

Table 2: Descriptive statistics of research variables

	Item	n	Mean	Standard Deviation	Remark
Price					
1	Purchase price	168	4.873	1.767	Accepted
2	Maintenance price	168	4.123	1.876	Accepted
3	Cost of spares	168	3.734	1.163	Accepted
4	Resale price	168	3.873	1.988	Accepted
Brand attributes					
5	Brand reputation	168	3.982	1.562	Accepted
6	Brand trust	168	4.715	1.983	Accepted
7	Brand value	168	3.873	1.782	Accepted
8	Brand loyalty	168	4.999	1.998	Accepted
Product quality					
9	Vehicle durability	168	4.621	1.983	Accepted
10	Engine efficiency	168	3.762	1.876	Accepted
11	Fuel consumption	168	4.876	1.251	Accepted
12	Spare parts availability	168	4.165	1.523	Accepted
Sales of new vehicles					
13	Customer patronage	168	4.652	1.632	Accepted
14	Sales volume	168	4.961	1.777	Accepted
15	Sales frequency	168	3.962	1.872	Accepted

Source: Authors' analysis via SPSS 2023

Table 2 shows that the parameters of price were all accepted at a 5.00-point evaluation maximum, with 3.00 as minimum acceptable point. Mean values were 4.873, 4.123, 3.734 and 3.873 respectively for purchase price, maintenance price, cost of spares and resale price. The data also shows that the parameters of brand attributes were all accepted at a 5.00-point evaluation maximum, with 3.00 as minimum acceptable point. Mean values were 3.982, 4.715, 3.873, and 4.999 respectively for brand reputation, brand trust, brand value and brand loyalty. Furthermore, on the same 5.00-point evaluation maximum and minimum acceptable point of 3.00, all the parameters of product quality were accepted. Mean values were 4.621, 3.762, 4.876 and 4.165 respectively for vehicle durability, engine efficiency, fuel consumption and spare parts availability. Similarly, on the same evaluation scale, all the parameters of sales of new vehicles were accepted. Mean values for customer patronage, sales volume and sales frequency were 4.652, 4.961 and 3.962 respectively.

4.1 Hypotheses testing and discussion of findings

Hypothesis one

Ho: Price has no significant effect on the sales of new vehicles.

Hypothesis two

Ho: Brand attributes have no significant effect on the sales of new vehicles.

Hypothesis three

Ho: Product quality has no significant effect on the sales of new vehicles in Calabar.

Independent variables: Price, brand attributes and product quality

Dependent variable: Sales of new vehicles

Test statistic: Multiple linear regression

Decision criteria: Accept the alternative hypothesis if ($P < .05$) and reject the null hypothesis, if otherwise.

Table 3: Model summary of the effect of marketing factors on sales of new vehicles

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842 ^a	.656	.648	2.256

a. Predictors: (Constant), Price, brand attributes and product quality

Source: Authors' analysis via SPSS 2023

Table 4: ANOVA^a of the effect of marketing factors on sales of new vehicles

Model	Sum of Squares		Df	Mean Square	F	Sig.
	Regression	Residual				
1	581.934	304.709	3	193.978	104.402	.009 ^b
	Total	886.643	167	1.858		

a. Dependent Variable: Sales of new vehicles

b. Predictors: (Constant), Price, brand attributes and product quality

Source: Authors' analysis via SPSS 2023

Table 5: Coefficients^a of the effect of marketing factors on sales of new vehicles

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	(Constant)	7.710	1.418	9.436	.000
	Price	.225	.083	5.302	.003
	Brand attributes	.076	.085	.515	.000
	Product quality	.222	.072	.623	.002

a. Dependent Variable: Sales of new vehicles

Source: Authors' analysis via SPSS 2023

Tables 3, 4 and 5 present the multiple linear regression results of marketing factors and sales of new vehicles in Nigeria. The model summary presented on Table 3 shows that the relationship between the independent variable (marketing factors) and the dependent variable (sales of new vehicles) is 84.2 percent (as can be seen in the R column), thereby indicating that there is a very strong degree of relationship between the study variables. The R^2 (coefficient of determination) value of 0.656, signifies that up to 65.6 percent of the variation in the dependent variable (sales of new vehicles) can be explained by the independent variable (marketing factors). Hence, a unit change in marketing factors will affect the sales of new vehicles by up to 65.6 percent when other factors are held constant. The F-test (104.402, $P < 0.05$) statistic in Table 4 signifies that the overall prediction of the dependent variable by the independent variable is statistically significant; therefore, the regression model provides substantive evidence to conclude that marketing factors have a significant effect on the sales of new vehicles in Nigeria.

Table 5 (the coefficients table) provides information on the capability of each marketing factor to explain or predict the sales of new vehicles. As can be seen on Table 5 above, all the marketing factors tested (price, brand attributes and product quality) were found to significantly predict or explain the sales of new vehicles. This is because their p-values [price (p-value = 0.003), brand attributes (p-value = 0.000) and product quality (p-value = 0.002)] were less than the error margin of 0.05, with positive t-test values. Therefore, all null hypotheses developed

were rejected for the alternative hypotheses, which resulted in the conclusion that price, brand attributes and product quality have significant positive effects on the sales of new vehicles in Nigeria. Also, the standardized beta coefficient column in Table 5 shows the individual contributions of each marketing factor to the model. As can be seen on the column, the highest contributing factor to the model is product quality, with a beta coefficient of 0.623 (62.3 percent). The second-highest contributing factor to the model is brand attributes, with a beta coefficient of 0.515 (51.5 percent), while price emerged as the least contributing factor to the model, with a beta coefficient of 0.345 (34.5 percent).

4.2 Discussion And Conclusion

The test of hypothesis one revealed that price has a significant positive effect on the sales of new vehicles. This finding is backed by the study of Dhanabalan *et al.* (2018), which revealed that price had a significant positive influence on consumers' car purchasing decision in the Indian automobile industry. The finding is also corroborated by the study of Kowang *et al.* (2018), which revealed that price had a significant positive effect on purchase intention towards cars by undergraduate students in Malaysia. The implication of this finding in this study is that price is an important marketing factor with a significant capacity to influence the sales of new vehicles in the Nigerian automobiles industry. As such, potential car buyers keenly consider the price of new vehicles, in comparison with used ones, before making a purchase action. The test of hypothesis two revealed that brand attributes have a significant positive effect on the sales of new vehicles. This finding is corroborated by the study of Li and Chaipoopirutana (2015), which revealed that brand attributes had a significant influence on customers' patronage of cars in China. The finding is also backed by the study of Chidambaram and Alfred (2017), which revealed that brand attributes had a significant positive influence on customers' purchase of passenger automobiles in Mumbai City. This finding implies that in the Nigerian automobiles industry, brand attributes are indispensable marketing factors that customers consider before taking the decision to purchase new cars. This is because customers want to make the most value out of their purchase decision, so the vehicle with the best brand attributes is most likely to be a top choice for customers. Finally, the third hypothesis test has revealed that product quality has a significant positive effect on the sales of new vehicles. This finding aligns with the study of Munywoki (2016), which revealed that quality of car had a significant positive influence on sales of new vehicles in the Kenyan motor vehicle industry. The finding is also reinforced by the study of Bhatt and Bhatt (2015), which revealed that vehicle quality had a significant positive influence on consumers' brand loyalty to German cars among users in Pakistan. The implication of this finding, in the context of this study, is that product quality is an indispensable marketing factor that consumers consider before making a purchase decision concerning new vehicles in Nigeria. As such, customers are more likely to purchase the vehicle that offers the most quality and hence provides the highest value for their money. Therefore, the empirical insights generated in this study have led to the conclusion that product quality, brand attributes and price are key marketing factors affecting the sale of new vehicles in Nigeria, of course with varying degrees of influence.

5.0 Practical Implications And Future Research

In light of the findings made in this study, we recommend that vehicle dealers should recognize that price is an important determinant of customers' patronage of new vehicles and do whatever they can to make the purchase and maintenance cost of new vehicles as well as the cost of spare parts affordable for customers in order to encourage them to purchase new vehicles over used ones. We also recommend that manufacturers of vehicles should

consistently integrate more valuable brand attributes such as design, reputation and value to new vehicles in order to make them more attractive to customers considering to purchase vehicles amidst competition from used cars. Also, we recommend that the quality of new vehicles should consistently be improved by upgrading their durability, engine efficiency, fuel optimization and spare parts availability so that potential buyers will be enticed to purchase new cars instead of used ones.

We have also made suggestions for further research considering the limitations of the present study. We recognize that this research was limited in scope to Nigeria; as such, its empirical insights may be restricted to this region. We suggest that similar studies should be carried out by researchers in other developing African or non-African countries in order to provide a strong basis for the empirical generalization. Also, there is need for comprehensive studies on more marketing factors (other than price, brand attributes and product quality) in order to provide new insights into the roles of marketing factors in improving the sales of new vehicles across countries.

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